includes Special Section on Hospice and Enhanced Communication as

MEDICAL SPECIALITY BOARD REVIEW

Palliative Medicine and Hospice Care for Physician Associates

SPECIALTY REVIEW

Edited by

Nadya Dimitrov

and Rebekah Halpern

OXFORD

Palliative Medicine and Hospice Care for Physician Associates Specialty Review

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Clinicians who have incorporated palliative care into their practice say, “It is truly the way good medicine should be practiced.” Kathy Kemle, MS, PA-C, DFAAPA, was not only a pioneer but a champion in the field of palliative medicine and hospice care for older adults. “Even if every PA in practice in the U.S. were to specialize in palliative care, it would still be insufficient to meet the growing need.” Kathy was an advocate, innovator, scholar, and educator in a field that deeply recognizes the need for clinicians to take on the more complex and enhanced skills required to manage the serious illness patient population no matter where they and their care partners are located. She practiced in all of them and created outpatient palliative care clinics, home-based intensive therapy for adults, and fellowship training programs where interprofessional teams could train and practice.

It is to physician assistants like Kathy Kemle that this book is dedicated. In the spirit of Kathy’s continuous quest to educate and advocate for others, the goal of this book is to prepare healthcare practitioners involved with the management of serious illness with the skills and evidence-based knowledge from the beginning to the end of their patients’ journeys.

Contents

Foreword

We have created a textbook for physician associates (PAs) who care for seriously ill patients and who continue to enhance their training in palliative medicine and hospice care. Along with the textbook *Palliative and Serious Illness Patient Management for Physician Assistants* (2021) it will serve as both a comprehensive review and a guide for practice. We also see this work as an evolving marketplace of experiences, and we have set up a method by which this can happen.

An email address has been created for the book that is intended to invite readers to submit ideas, case experiences, and vignettes. They can become part of the digital version of the book. As such, it will continue to organically enhance the content for all; here is the email address: paspecialtyreviewtext@gmail.com.

Our goal is to help inform the best of us to practice in a specialty that requires the best in us. So, with this textbook comes the invitation to become part of a vibrant clinical community at a time when the very practice of medicine is being challenged and thwarted by economic and legal forces that threaten our patients' and their caregivers' well-being. Serious illness patient management is serious business, and we hope this textbook will make that work informed, gratifying, and rewarding.

Included in a special section entitled "Practice Essentials," the last two chapters include content on communication skills that are critical to interprofessional and intrapersonal situations specific to this field, thereby enhancing the already robust skill set of the PA in palliative medicine and hospice care (Back et al. 2009). The final chapter incorporates material that will enhance PA readiness in hospice with practical and essential elements of the federal statutes. Our textbook incorporates an important caveat: PAs practice in the entire spectrum of palliative medicine, including end-of-life care.

A written specialty examination is only as good as the blueprint from which it was created, and essential tools related to hospice care have not yet been added to the Certificate of Added Qualification. The editors of this text have taken on the dual responsibilities to prepare all PAs—not just those who are passionate about the specialty—and to inform others who may also be practicing "primary" palliative care (Quill and Abernethy 2013). Just as with their physician colleagues, PAs will migrate to this field from other specialties, hopefully with greater knowledge and a higher comfort level.

If you jump into the cold water to get acclimated, you are well served to know what to expect ahead of time. There is less energy spent in staying afloat and far more in making a place for yourself and others. There are supreme examples in the field of PAs who have plunged in and inevitably found there is help from their colleagues on the team who welcome their collaboration. Centers of excellence are developing as we publish this text—so that together the patient and caregiver populations' needs can be addressed with greater expediency and success.

As recently as this year (2024) there is recognized a greater need "to empower clinicians to regard situations of high uncertainty as an opportunity to deepen the therapeutic alliance with the patient, and simultaneously to grow and learn as practitioners" (Patel et al. 2024, p. 829). The fundamental holistic approach in PA training to patient care, shared decision-making, and the ability to navigate uncertainty continue to demonstrate their competence and capability to practice in this specialty.

—Nadya Dimitrov and Rebekah Halpern, 2024

References

Back A, Arnold R, Tulsky J. Mastering communication with seriously ill patients: balancing honesty with empathy and hope. Cambridge University Press; 2009:22–38.

Patel B, Gheihman G, Katz JT, Begin AS, Solomon SR. Navigating uncertainty in clinical practice: a structured approach. J Gen Intern Med. 2024;39(5):829–836. doi:10.1007/s11606-023-08596-4.

Quill TE, Abernethy AP. Generalist plus specialist palliative care—creating a more sustainable model. N Engl J Med. 2013;368(13):1173–1175. doi:10.1056/NEJMp1215620.

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Section 1

Essential Aspects of Serious Illness Patient Care

1

Interdisciplinary Teamwork, Quality, and Professionalism

MEGAN HIRSCHEL, MARTHA L. TWADDLE, JACK KIMBALL, RUTH TUCKER, RICH LAMKIN, RICHARD J. ACKERMANN, AND CHARLES F. VON GUNTEN

Staff Support and Safety

1. Your colleague is signing out the inpatient palliative care team list to you at the start of the week. They make self-criticizing comments during their sign-out that they could have done more or used different phrasing to better help one of the patients and their family to understand the disease trajectory. Your colleague refers to themself jokingly as a failure.

What can you say to your colleague to encourage self-compassion and resiliency?

A. Encourage them to take pity on themself after a long workweek.
B. They need to learn from this experience, or they may become complacent.
C. They are not a failure and need to find a therapist.
D. They can share more about their experience and elicit communication strategies with the palliative care team during interdisciplinary team rounds.

Correct Answer: D

A. Self-compassion is not pity and is an essential skill in palliative medicine.
B. This can be a learning experience for your colleague, yet this phrasing does not model compassion and thus sounds like shaming versus encouragement.
C. It can be helpful to address your colleague's comment about being a failure, and finding a therapist could be of benefit; this statement risks sounding dismissive and condescending.
D. Allow and encourage your colleague to explore their experience with the chaplain to support their journey and strengthen the team.

Annotation

Beachy J, et al. Caring for the palliative care clinician: fostering resilience. In Dimitrov N, Kemle K, eds. *Palliative and Serious Illness Patient Management for Physician Assistants*, 104–122. New York: Oxford University Press, 2021. Published online Aug. 1, 2021. doi:10.1093/med/9780190059996.003.0009. Accessed May 29, 2024.

2. You are approached by a colleague to see if you would consider collaborating on a care initiative. They have noticed in their work that many patients have religious preferences that lead to tension and even anxiety in the delivery of care. They share that one of their patients, a devout Muslim woman, strongly prefers to be examined only by women and is very anxious when assigned a male hospitalist or nursing assistant. Your colleague is impressed that palliative care routinely documents religious and spiritual aspects of care, and they feel strongly that this should be true for every patient. They ask if you can help them shape an initiative to make this happen.

Your colleague is demonstrating attention to what area of care?

A. Diversity, equity, and inclusion.
B. Plan–do–study–act.
C. Patient safety.
D. Religious humility.

Correct Answer: C

Patient safety is a critical aspect of quality. Quality healthcare is defined by the Institute of Medicine as care that is safe, effective, patient-centered, timely, efficient, and equitable. Thus, safety is the foundation upon which all other aspects of quality care are built. Patient safety has been broadly defined as the

prevention of harm to patients and is often distilled to just physical harm such as medication errors, wrong-site surgeries, etc. But harm is much broader and can be the violation of core values of a patient, which will equally disrupt the care experience.

A is not correct—although diversity, equity, and inclusion (DEI) would promote a culture of safety. DEI is a set of policies or practices that promote the full participation and fair treatment of all people, including populations that historically have been underrepresented or subject to discrimination.

B is not correct—although your colleague is in the early phases of this approach to quality improvement. Plan–do–study–act is an organized approach to improving processes and leading to enhanced care. Although your colleague is demonstrating religious humility, this is not a specific or formally described area of care; therefore, D is not correct.

Annotation

Mitchell PH. Defining patient safety and quality care. In: Hughes RG, ed. *Patient Safety and Quality: An Evidence-Based Handbook for Nurses*. Rockville, MD: Agency for Healthcare Research and Quality; 2008:Chapter 1. https://www.ncbi.nlm.nih.gov/books/NBK2681/. Accessed Aug. 19, 2024.

Weaver SJ, Lubomksi LH, Wilson RF, Pfoh ER, Martinez KA, Dy SM. Promoting a culture of safety as a patient safety strategy: a systematic review. Ann Intern Med. 2013;158(5 Pt 2):369–374. doi: 10.7326/0003-4819-158-5-201303051-00002.

3. The palliative care team has been asked to see a 5-year-old boy in the pediatric intensive care unit (PICU) with hypoxic ischemic encephalopathy secondary to a drowning episode 3 years ago. The child is ventilation-dependent, and this is the fifth admission for recurrent pneumonia this year. The family has been very clear about their goals of care but do not feel supported by the medical team. A junior colleague has been acting as an intermediary between the medical team and the family. You are approached by the colleague who asks for advice about how to prevent burnout. Since you know that burnout proceeds gradually and tends to affect younger colleagues, you are keen to offer evidence-based assistance to this new physician associate (PA).

Which advice has the best evidence to support preventing or minimizing burnout?

A. Take two vacations lasting 1 week during the year.
B. Listen to relaxing music at the end of the day.
C. Find a hobby outside of work that can fill your time.
D. Engage in mindfulness-based activities.
E. Let off steam to colleagues and loved ones.

Correct Answer: D

Burnout manifests as emotional exhaustion, cynicism, and decreased engagement, often resulting from prolonged exposure to demanding and difficult work. The prevalence in palliative care is estimated at almost one-fifth of its healthcare professionals. Mindfulness is the practice of being fully engaged in the present moment and is cultivated through activities such as meditation, deep breathing, and focused attention on sensations. Although the prevention of career burnout likely requires a variety of strategies and techniques, mindfulness-based activities have the strongest evidence to support their use (choice D is correct).

The other choices (A, B, C, and E) are incorrect because they are perhaps helpful, but there is less direct evidence supporting their individual roles in reducing burnout. Taking regular vacations is important, but experts usually recommend 2-week stints to realize better effect. Listening to music is one relaxation tip and could be incorporated as one aspect in an overall prevention strategy. Engaging in hobbies outside of work should be geared toward engagement and not to filling time. Lastly, venting can be beneficial in small doses but can be detrimental if practiced too much.

Annotation

Cherny NI, et al. Burnout, compassion fatigue, and moral distress in palliative care. In Cherny NI, et al., eds. *Oxford Textbook of Palliative Medicine*, 6th ed., Oxford University Press; 2021:166–180. Published Aug. 1, 2021. https://doi.org/10.1093/med/9780198821328.003.0017. Accessed June 5, 2024.

Dijxhoorn AFQ, Brom L, Van Der Linden YM, Leget C, Raijmakers NJ. Prevalence of burnout in healthcare professionals providing palliative care and the effect of interventions to reduce symptoms: a systematic literature review. Palliat Med. 2021;35(1):6–26. doi: 10.1177/0269216320956825.

Oldenburger E, De Roo ML. Burnout of healthcare professionals in supportive and palliative care: a summary of recent literature. Curr Opin Support Palliat Care. 2023;17(1):77–83. doi: 10.1097/SPC.0000000000000638.

4. A PA is working in a large, busy outpatient palliative care clinic with a significant geriatric patient population. A majority of the patients seen in the office depend upon caregivers for many of their needs and often have difficulty getting to the office for appointments. The health system administrators have asked you to develop a home palliative care program but have expressed concerns over the physical safety of patients being treated outside of the office. After discussion with other members of the team, the PA recognizes the critical importance of safety and risk management in the palliative care program.

Which of the following statements best reflects the uniqueness of patient safety considerations within palliative care?

A. The primary focus of clinicians should be on preventing medication errors.
B. Patient safety in palliative care extends beyond physical safety to emotional, social, and functional dimensions.
C. Safety concerns should be exclusively addressed within institutional settings such as hospitals.
D. Collaboration with family caregivers is never required.
E. The autonomy of patients and caregivers is rarely necessary.

Correct Answer: B

This statement is the most accurate. Palliative care safety considers emotional well-being, social support, and functional abilities. Home care, where many palliative patients reside, introduces unique safety challenges.

A. Preventing medication errors: While medication safety is crucial, palliative care safety encompasses broader dimensions beyond drugs.
C. Exclusively addressed within institutions: Palliative care occurs predominantly in non-institutional settings (e.g., homes). Safety extends beyond hospitals.
D. Collaboration with family caregivers: Family caregivers play a pivotal role in palliative care safety. Their involvement is essential.
E. Autonomy of clients and caregivers: Palliative care respects autonomy. Clients and caregivers make choices, even if they involve some risk.

Annotation

Bittencourt NCCM, Duarte SDCM, Marcon SS, Chagas MC, Telles AC, Sá EMCDS, Silva MMD. Patient safety in palliative care at the end of life from the perspective of complex thinking. Healthcare (Basel). 2023;11(14):2030. doi: 10.3390/healthcare11142030.

Lang A, Toon L, Cohen SR, et al. Client, caregiver, and provider perspectives of safety in palliative home care: a mixed method design. Saf Health. 2015;1:3. https://doi.org/10.1186/2056-5917-1-3.

5. A 68-year-old man with hypercarbic chronic obstructive lung disease has been home with hospice for 6 weeks, with good quality of life and control of symptoms. He intermittently uses a bilevel positive airway pressure (BIPAP) machine and small titrated doses of opioids and benzodiazepines to manage dyspnea. Over about 12 hours, he becomes increasingly dyspneic and anxious. The home hospice PA makes a visit in the evening and gives him a couple of extra doses of these medicines, but there is no improvement, so he is transferred to an inpatient hospice facility. The hospice medical director transmits orders, including continuing the BIPAP and titrated intravenous (IV) doses of opioids and lorazepam. His family does not accompany him to the inpatient hospice, and there it is discovered that the BIPAP machine is missing a part and is not functional. His respiratory rate is 40, with labored respirations and a pulse oxygenation of 65%, probably due to hypoventilation. The nurse calls his wife and suggests that she bring the part in the morning, but she does not report the non-functional equipment to the physician. She starts an IV and provides titrated doses of morphine and lorazepam through the night but without the BiPAP. This provides good relief for his symptoms. Early the next morning, a daughter comes to visit and is distraught to find her father without the BIPAP. A spare BIPAP machine is located and placed on the patient. He died peacefully 2 days later.

Which one of the following actions should the hospice medical director take?

A. Meet immediately with the family, express condolences, admit the error, and commit to remedying it.
B. Arrange for a meeting in a couple days with the family, but be careful not to admit error as that will increase liability for the hospice.
C. Ask the nurse to handle meeting the family, and refer the incident to the system's risk manager.
D. Reassure the family that everything went fine, that he received good medication to help his dyspnea through the night, and that going without the BIPAP did not make a difference.

Correct Answer: A

Medical error is unfortunately common and can occur in the hospice setting. Timely disclosure of error is part of the standard of care, and no matter who was responsible for the actual error, the attending physician has final responsibility for patient care. A clinician should try to meet with the family immediately. Review the facts of the case beforehand, and let the institution's risk manager know what is happening. With the family, be clear, concise, and honest, avoiding medical jargon. Give the family time for questions or for silence. Commit to investigating what happened and fixing any deficiency, and then document your discussion with the family. It is often wise for someone to follow up with the family. This approach is best summarized by choice A.

Choice B is incorrect because the clinician should meet immediately with the family, and if an obvious error has occurred, liability is not increased by timely disclosure and admission of error. Choice C is inappropriate because this job belongs to the clinician and should not be delegated to another team member. Choice D is incorrect because it is dishonest; an error occurred, and it is at least possible that his symptoms would have been better managed if the orders had been followed.

Annotation

Bradley C, Brasel K. Fast Facts and Concepts #194. Disclosing Medical Error. December 2007. https://www.mypcnow.org/fast-fact/disclosing-medical-error/. Accessed Aug. 22, 2024.

Bradley C, Brasel, K. Fast Facts and Concepts #195. Responding to a Colleague's Error. Published Nov. 30, 2023. https://www.mypcnow.org/fast-fact/responding-to-a-colleagues-error/. Accessed Aug. 22, 2024.

Interdisciplinary Team Management

Roles and Functions of Team Members

6. You are a senior palliative care PA at a large tertiary teaching hospital overseeing orientation and training of a newly hired but well-experienced PA who previously worked in a small, rural home hospice setting. The new PA comes to you for advice because they notice that on several occasions the primary team that has requested a palliative care consultation does not follow through with recommendations made in the consultation note. The new PA has been writing thorough notes and bulleting all recommendations and is surprised.

Which of the following areas of practice competency should be coached?

A. Comfort with death and dying.
B. Clear roles and defined tasks.
C. Team commitment and philosophy.
D. Interpersonal relationships and communication.
E. Autonomy.

Correct Answer: D

The PA is a hospice provider who has previous experience working around death and dying; they appear to be fulfilling their roles and tasks appropriately and are asking for advice and feedback, which demonstrates that they are committed to optimizing their effectiveness as a team-based provider. The PA also appears to have a good sense of autonomy and is comfortable with their decision-making. Although they are leaving appropriate documentation of their recommendations in a consult note, they are not proactively clarifying how best to communicate with the primary team and asking about how best to share information and recommendations. Each hospital has a consultative culture—in some, consultants leave recommendations in writing. In others, the expectation is to call and share specific recommendations. Other teams may write orders and assume responsibility for managing the symptoms. It is essential to reach out directly to the primary team to understand how best to communicate and, when requested, discuss the recommendations. The new PA is making assumptions without directly clarifying. Coaching should focus on interpersonal relationships, communication skills, and consultation etiquette with their colleagues; these are essential to effective teamwork. Advise the PA to prioritize more active engagement with the providers to whom they are making recommendations.

Annotation

Jünger S, Pestinger M, Elsner F, Krumm N, Radbruch L. Criteria for successful multiprofessional cooperation in palliative care teams. Palliat Med. 2007;21(4):347–354. doi: 10.1177/0269216307078505.

Roche SD, Johansson AC, Giannakoulis J, Cocchi MN, Howell MD, Landon B, Stevens JP. Patient and clinician perceptions of factors relevant to ideal specialty consultations. JAMA Netw Open. 2022;5(4):e228867. doi: 10.1001/jamanetworkopen.2022.8867.

Effective Teamwork

7. You are asked to evaluate a 27-year-old woman with a newly diagnosed breast cancer for pain management. Upon arrival, the patient is eating lunch and watching TV. When the patient hears you are from the palliative care team, she starts crying and saying that her pain is unmanageable, rating it "14/10." The patient cannot localize the pain but tells you it is "everywhere."

The most appropriate next step in evaluation of her pain is:

- **A.** Double the pain medications as the patient is in a pain crisis.
- **B.** Wait to adjust the pain management regimen to discuss the findings of social work and spiritual care in your team meeting.
- **C.** Ask for a physical therapy assessment and observe the patient during the session.
- **D.** Ask for psychiatry to see the patient.

Correct Answer: B

An essential aspect of palliative care is the interdisciplinary team. When a PA sees a patient alone, this is essentially practicing palliative medicine. When integrating the multidimensional assessments of the team, the practice of palliative care is realized. This practice is foundational to the whole-person assessment necessary to address and palliate suffering. Dr. Cicely Saunders, a nurse, social worker, and physician by training, described the concept of total pain—physical, psychological, spiritual, and existential dimensions of pain and suffering—in her early work. The *Clinical Practice Guidelines of Palliative Care*, fourth edition, state the importance of the interdisciplinary approach. Within this model, clinicians can screen for distress outside their area of expertise, and the full assessment is completed by the appropriate team member. The interdisciplinary discussion among the team members is the hallmark of palliative care and facilitates the creation of a comprehensive, whole-person plan of care.

For this patient, the observation of the PA suggests that there is more to pain than just the physical. The correct approach is to await the assessments of other team members and aggregate those findings to then adjust the pain management regimen. Immediately increasing the pain medication will risk overmedicating if the pain experience is informed by psychological, spiritual, or existential distress. Assessing functional status with an observed physical therapy assessment is not wrong and may be helpful but is incomplete, as is having a psychiatrist assess.

Annotation

Ong CK, Forbes D. Embracing Cicely Saunders's concept of total pain. BMJ. 2005;331(7516):576. doi: 10.1136/bmj.331.7516.576-d.

Vaiphei SD. The importance of holistic assessment in palliative end-of-life care and quality health outcomes. J Clin Med Kazakhstan. 2019;3(53):6–10. https://doi.org/10.23950/1812-2892-JCMK-00700.

Coordination and Co-management

8. It is a busy day inpatient with multiple consults. A hospitalist sends you a text message on your hospital's secure messaging platform about a new consult for a known patient to your service. The message states that the consult is for pain control as the patient presented with a pathological fracture. The message also reads that they have started a pain regimen and are feeling comfortable right now.

What is your next best step?

- **A.** Call the hospitalist to obtain further information on the consult.
- **B.** Go about your day as you were, and see the patient if you have time later in the day.
- **C.** Respond back to the message asking if the consult can wait until tomorrow as there are more urgent consults.
- **D.** Go into the patient's chart and look up the remainder of the information you need to triage consult.

Correct Answer: A

Messaging can be convenient for consults but does not give the full picture and does not close the loop of the consult. There is often non-documented information that can be shared in communication with the requesting clinician that adds to the understanding of the patient and family.

B and C are incorrect because there is a need to verify urgency, understand conversations regarding goals of care thus far, and clarify the reason you are seeing the patient and the role they need you to play. It is also better to confirm receipt of the request. D is incorrect because only reviewing the chart will not provide the full scope of the patient, urgency, and reason for consult; and there are always aspects in the care of patients and families that remain undocumented with today's charting.

Annotation

Committee on Ethics of American College of Obstetricians and Gynecologists. ACOG Committee Opinion. Number 365 May 2007. Seeking and giving consultation. Obstet Gynecol. 2007;109(5):1255–1260. doi: 10.1097/01.AOG.0000263900.24330.a4.

Kessler CS, Tadisina KK, Saks M, et al. The 5Cs of consultation: training medical students to communicate effectively in the emergency department. J Emerg Med. 2015;49:713–721. doi: 10.1016/j.jemermed.2015.05.012.

Rogers AI. Consultation etiquette: a proposed set of guidelines. Am J Gastroenterol. 2010;105(7):1477–1478. doi: 10.1038/ajg.2010.163.

9. A 67-year-old painter is admitted to home hospice care for alcoholic cirrhosis. He is able to care for himself and requires assistance with some activities of daily life (ADLs). He lives with his wife, daughter, the daughter's husband, and three young grandchildren. His wife is no longer able to care for him, has cognitive challenges, and appears demented. The family is overwhelmed. The hospice team social worker convenes a family meeting for purposes of determining the best location for the continued care of the patient and his spouse.

What would be the best way for the team to help this man continue in hospice care?

- **A.** Contact the Office for Aging in the community to recommend options.
- **B.** Apply for admission to a skilled nursing facility (SNF).
- **C.** Consult with physical and occupational therapy to refer the patient to a skilled rehabilitation unit (acute rehab).

D. Contact the chaplain to see if there is a local group home that would support a man and his spouse with several comorbidities.

E. Let the couple stay at home and find a home health aide for ADLs and other duties, such as shopping, laundry, etc.

Correct Answer: A

Hospice care can be provided in a number of settings, not just the patient's home. All that is required is a contract between the hospice agency and the facility. Every US community has an office on aging that can assist with available programs which are called "residential care facilities" and "adult residential facility providers" (see link below to access local listings). Referral can be to both publicly and privately funded options. Choice A is correct because this can be a consideration for joint placement. Choice B is incorrect because there are likely options other than skilled nursing home placement that may better meet their needs. Choice C is incorrect because there is no disability that can be rehabilitated. Choice D is incorrect because the Office on Aging is better equipped to provide this referral. Choice E is incorrect because the family is overwhelmed, and this would cause more emotional and psychological stress to the caregivers.

Annotation

Code of Federal Regulations. Condition of Participation: Hospices That Provide Hospice Care to Residents of a SNF/NF or ICF/IID, page 401. Accessed Aug. 8, 2024. https://www.ecfr.gov/current/title-42/chapter-IV/subchapter-B/part-418/subpart-D/section-418.112

Department of Health Care Services. Residential Care Facilities for the Elderly and Adult Residential Care Facilities Provider Enrollment. https://www.dhcs.ca.gov/services/ltc/Pages/Residential-Care-Facility-and-Adult-Residential-Facility-Provider-Enrollment.aspx. Accessed Aug. 8, 2024.

Self-care

10. A palliative care PA has been embedded in an outpatient cancer center for the past 6 years. They have been feeling overwhelmed lately and have been managing a high caseload of seriously ill patients with stage IV cancer that requires providing emotional support to their families. They frequently experience tension headaches, especially during work hours, and struggle to focus during patient consultations and documentation. The clinician's symptoms align with the emotional warning signs of prolonged stress.

Which of the following is the best personal coping strategy in their self-care?

A. Attend regular team meetings.

B. Help develop a counseling service for themselves and other staff members.

C. Take time off and engage in non-job-related outside activities.

D. Consider another clinical work assignment.

Correct Answer: C

The only answer that involves a personal coping strategy this PA can engage in is choice C. Choices A and B are organizational strategies for coping with stress.

Personal coping strategies may include the following: having a sense of competence, control, and satisfaction in working in palliative care; having control over workload; taking time off; having non-job-related outside activities; engaging in physical activities and diversions; ensuring adequate sleep and nutrition; using relaxation techniques (e.g., physical activity, yoga, meditation, complementary therapies); and developing a personal philosophy regarding death that may or may not relate to individual religious or spiritual beliefs.

Scientific studies have supported engaged compassion as a way to protect against burnout. Identifying distinctions between empathy—where the clinician is responding to the feelings of their patients or even mirroring those feelings—and empathic concern (compassion) allows the clinician to focus on the desire to see the patient's difficulties alleviated, empowering them to support a more resilient attitude. This would result in development of resilience for any clinical work, not just palliative care. (Choice D is wrong.)

Annotation

Dimitrov N, et al. Caring for the palliative care clinician: fostering resilience. In Dimitrov N, Kemle K, eds. Palliative and Serious Illness Patient Management for Physician Assistants. New York: Oxford University Press; 2021:110–111. Published Aug. 1, 2021. https://doi.org/10.1093/med/9780190059996.003.0014. Accessed Aug. 21, 2024.

Watson M, et al., eds. Oxford Handbook of Palliative Care. 3rd ed. Oxford: Oxford University Press; 2019. Published July 1, 2019. https://doi.org/10.1093/med/9780198745655.001.0001. Accessed July 19, 2024.

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2

Ethical and Legal Aspects of Care

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Introduction

This section of annotated review questions will help the physician associate (PA) with ethical and legal issues such as surrogate decision-making, substituted judgment, organ donation, the principle of double effect, and various types of sedation at the end of life. In addition, it will introduce the concept of the ethics committee, in which PAs take an active role.

Several high-profile court cases have highlighted the complexities of decision-making at the end of life in the United States. In 1976, Joseph Saikewicz, a 67-year-old intellectually disabled man, was living in a Massachusetts institution when he developed acute leukemia. A court-appointed guardian decided that it would be in the patient's best interest not to undergo chemotherapy. He died a few months later from pneumonia. The case went to the state supreme court, which agreed with the lower court and suggested that a court should generally be involved in making end-of-life decisions for the disabled. A national debate ensued over the roles of surrogate decision makers.

Also in the same year, the New Jersey Supreme Court considered the petition of the father of a comatose young woman, Karen Ann Quinlan, to terminate life support because the hospital had refused. She had lost consciousness at age 21 after consuming alcohol, diazepam, and dextropropoxyphene at a party. The court found that the right to refuse medical treatment is a constitutional right based on the individual's right to privacy and that persons do not lose this right because of incompetency. The court found that her father had the right to refuse medical treatment on her behalf, that judicial intervention in such cases is generally unnecessary, and that clinicians and families should make these decisions. She was removed from the ventilator but remained on percutaneous endoscopic gastrostomy (PEG) feeding until her death from pneumonia 9 years later. This case led to the right-to-die movement and the growth of hospital ethics committees in the United States.

Ethics committees proliferated in the 1960s and 1970s, prompted by the development of dialysis machines and the criteria developed by hospitals to allocate these scarce healthcare resources. Later, ethical issues such as appropriate use of cardiopulmonary resuscitation (CPR), ventilators, feeding tubes, and other innovations changed federal regulations to require a wider array of members, including community representatives. PAs are often members of these interdisciplinary groups.

The primary purpose of hospital ethics committees is to promote the rights of patients and shared decision-making between patients and surrogates and their clinicians. They also promote interdisciplinary education for ethically sensitive policies related to organ donation, end of life, informed consent, and patient rights. They need to be independent of the clinical staff, providing a venue where all voices can be heard. In many hospital systems with mature palliative care services, the role of ethics committees has changed.

Nancy Cruzan was a young Missouri woman who was left in a persistent vegetative state (PVS) after a car accident. She had not completed an advance directive, and after several years, her parents advocated that her PEG be removed, allowing her to die. Missouri law allowed for that possibility but only if the patient had left clear and convincing evidence of her wishes. The Missouri Supreme Court determined that this standard had not been met, and the case was appealed to the US Supreme Court, which made two important decisions in 1990. First, it affirmed that US citizens have a constitutional right to refuse medical treatment, including artificial hydration and nutrition. Second, it agreed that states could set their own standards on the level of evidence required for these difficult decisions. Ultimately, Nancy's parents were able to accumulate enough testimony from family

and friends to satisfy the court that the clear and convincing standard of evidence was met, indicating that Nancy would not have wanted to live that way. Her PEG was removed, and she died several days later.

Terry Schiavo had a cardiac arrest at age 26 that led to a PVS. After several years, the only medical intervention maintaining her life was a gastrostomy tube, and her husband Michael asked that it be removed because she would not have wanted to live in that condition. Mr. and Mrs. Schindler, Terry's parents, did not agree with their son-in-law and objected to the PEG being removed, largely due to their religious beliefs. Over the next 15 years, the PEG was removed three times, but courts ordered the tube reinserted twice. The courts also appointed three different guardians over the years. Several Florida and federal courts ruled on the case, and every judge found that the diagnosis of PVS was correct and that Michael was behaving properly as his wife's surrogate. Terry died in 2005, 13 days after the final PEG withdrawal, 15 years and 1 month after her cardiac arrest.

In response to the Schiavo case, more than 20 state legislatures considered bills to restrict a healthcare surrogate's authority to withhold or withdraw artificial hydration and nutrition in terminally ill patients. Only Louisiana passed such a law, but amendments have weakened its impact. Many legislators have since expressed regret for intruding into this dispute, and the public overwhelmingly supports maintaining family control of such intimate decisions.

There is a broad but not unanimous consensus of bioethicists and courts that it can be ethical to withhold or withdraw artificial nutrition and hydration in accordance with a patient's wishes. Justice Sandra Day O'Connor in the Cruzan case wrote that *artificial feeding cannot readily be distinguished from other forms of medical treatment*.

These and other legal cases, as well as many other social, religious, and political movements, have changed the face of palliative medicine. Americans now widely acknowledge that they have an individual right to determine medical care at the end of their lives, including decisions about artificial hydration and nutrition. PAs need to know the laws and regulations of their states, as well as accepted practice in the healthcare institutions where they work, to practice within legal and ethical guidelines. For example, most states create a hierarchy of surrogate decision makers—start with a state-appointed guardian, next go to a spouse, next to adult children, next to parents, next to siblings, etc. Family conflict in palliative care is often resolved by referral to the legal system.

In general, surrogates should use *substituted judgment*, trying to make the decision that the patient would make themself, if they were able to do so. If this is not possible, then use the *best interest* standard, where the surrogate makes a decision in the best interest of the patient.

It is uniquely American for the default decision to be unrestricted medical interventions. If a patient enters a US hospital without any specification of resuscitation status, full code is assumed. This default then leads to other aggressive and heroic efforts to maintain life, even if there is little or no possibility of benefit. Most other countries in the world have approached this problem from the opposite perspective, that aggressive medical interventions should only be offered when they are indicated, not as the default. Patients and families from other cultures may struggle with this American tradition.

This approach is partly due to our emphasis on the principle of respect for patient *autonomy*, the protection of the patient's right to make their own decision. But other ethical principles include *beneficence*, an action done for the benefit of another; *nonmaleficence*, doing no harm; and *justice*, the ethical allocation of scarce resources—these are also relevant to end-of-life decisions. When these ethical principles conflict, the American solution has traditionally been to give uncontested precedence to autonomy. One of the skills of palliative clinicians is to help families negotiate these competing interests.

A common reason for palliative consultation is when clinicians feel the medical care they are providing is futile, although a better term is "potentially non-beneficial." This concern comes from uncertain prognostication, unrealistic family expectations, and rare cases of spectacular survival—and because clinicians and families may disagree. Also, medicine continues to advance, and untreatable diseases 10 years later may have new treatments: consider cancer immunotherapy, extracorporeal membrane oxygenation, and organ transplantation. When we reach these gray zones of medical practice, there are no clear rules, and skillful communication is key. Practice evidence-based medical care, follow guidelines yet allow for individual circumstances, have regular conversations with patients and families, and use due process when differences of opinion occur.

Ethics in Pediatric Palliative Medicine

Ethical and legal issues in pediatric palliative medicine and serious illness are complex and multifaceted. Pediatric practice varies from adult practice in many critical ways. In pediatrics, there are many rare diseases (some diagnosed prenatally) with distinct disease trajectories. Parents nearly always make healthcare decisions for their children, which creates a triad with the clinician, the parents (and/or other family members), and the child. The decision maker is not the child, not even a person chosen by the child. Parents may have divided loyalties. The fundamental principle thus becomes the best interest standard and not autonomy, as in the adult ethical world. Children are treated aggressively with late palliative care consults, mostly because there is the feeling that children are not supposed to die. This aggressive medical treatment comes from the desires of both the clinicians and the parents.

Landmark cases that influenced pediatric bioethics started with unethical experiments performed by Nazis on children and adults during World War II, which led to the Nuremberg Code in 1947. This code consists of principles that provide legal and ethical rules for conducting research with human subjects. This included details of informed consent: initially the Nuremberg Code forbade any research in children because they could not provide consent.

From 1956 to 1971 mentally impaired children living at the Willowbrook State School of Children in New York City underwent unauthorized experimentation after outbreaks of hepatitis, fostered by unsanitary conditions. Without their knowledge or consent, children were infected with hepatitis virus either by being injected with the virus or by drinking chocolate milk mixed with the feces of infected children. Researchers then monitored how well these children responded to gamma globulin injections.

Decision-making in pediatrics is fraught with controversy. "Consent" is generally defined as someone (usually the parent) making the decision to embark on treatment on behalf of a child, while "assent" refers to the child agreeing to this decision. How old does a child need to be to give assent? Who should be involved in the process? What happens when the parents and child disagree? Does the child have capacity to assent in the first place? Are there circumstances where clinicians can override the parents'

decision (for example, if the parents refuse immunizations or treatment of a serious bacterial infection)?

The issue of assent is even more problematic in adolescents. In the 1960s and 1970s many states allowed adolescents to obtain contraception without parental consent or knowledge, and the legalization of abortion led to recognition that emancipated minors can make some or all of their own decisions. Adolescents can petition the court to become emancipated in some states. However, in many states, parents still make medical decisions for adolescents, including the right to commit them to mental institutions. Recent court decisions have confirmed the rights of mature minors to make their own decisions, but there remains ardent controversy.

Other ethical issues arose from the Baby Doe regulations of the 1980s. These regulations were developed after the death of an infant with a trisomy and esophageal atresia, for whom the parents had refused consent for surgery and the courts had declined to intervene. President Reagan's administration issued regulations that mandated hospitals and physicians to provide maximal medical care to impaired infants as a requirement of federal funding, with certain exceptions. These exceptions included if the patient was irreversibly comatose or if the treatment would prolong dying, but otherwise, both parents and clinicians would be legally liable for neglect if a choice to withhold therapy was made. Hotlines were provided to report suspicions, and regulators monitored clinicians' behavior. The US Supreme Court eventually struck down these rules.

Overturning *Roe v. Wade* has created struggles for parents, ethicists, and clinicians trying to support fetuses and babies with severe congenital disabilities. This category of pediatric disease is the leading cause of infant mortality in the United States, and after repeal of *Roe*, more severely impaired babies are being born, without financial or provider systems in place in manage these tragic cases. With improvement in medications and technology, many of these infants and children live much longer, sometimes into adulthood, but with no cohesive system to manage them and support their families. PAs in pediatric and adult specialties will experience increased exposure to these seriously ill patient populations in the future.

Pediatric bioethics is complicated. Prognostication in the neonatal population is very difficult with many factors influencing outcomes, including uncertainty of gestational age, prenatal care, and access of the mother to prenatal care. Most fetuses are now considered non-viable before 23 weeks. Outcomes are considered generally good by about 25 weeks but with a substantial burden of morbidity. Medical research will continue to change the face of viability.

Non-beneficial Treatment Requests

1. A 63-year-old man with recently diagnosed stage IV non-small cell lung cancer with inoperable malignant airway obstruction has just been admitted to the intensive care unit (ICU) after presenting with acute progression of dyspnea and hemoptysis. Computed tomography (CT) of the chest shows an enlarging obstructive central airway mass causing complete left lung collapse, partial right lower lung collapse, and erosion into local vasculature with diffuse lymphangitic dissemination. The ICU team has advised that any attempts at bronchoscopy or intubation would be futile as these interventions would have a high risk of causing a sudden death. The patient's family is at the bedside and are requesting that aggressive interventions be attempted because they are hoping for a miracle. They are also resistant to the patient receiving anxiolytics or opioids for his dyspnea due to fears that the medications could hasten his death. The patient is currently on high-flow nasal cannula because he could not tolerate a biphasic positive airway pressure (BiPAP) mask. He is alert and awake, anxious appearing, sitting forward, mildly dyspneic, and tachypneic with work of breathing at rest. His oxygen saturation is 92% with maximum settings of 100% FiO_2 at 60 lpm. He is having trouble speaking more than one or two words at a time and has deferred further discussions and decision-making to his wife, who is his designated healthcare proxy.

What is the next best step?

- **A.** Order low-dose intravenous (IV) morphine, observe the patient's symptomatic response, and titrate to comfort.
- **B.** Encourage the family to consider a do-not-resuscitate/do-not-intubate (DNR/DNI) order, and transition to exclusive focus on comfort care.
- **C.** Call the hospital chaplain to come and meet with the family to provide spiritual support.
- **D.** Initiate a discussion with the family about their understanding of the situation.
- **E.** Recommend that the ICU team proceed with intubation even if it would be non-beneficial.

Correct Answer: D

While opioids would be a good initial treatment for the patient's dyspnea, the first step should be a discussion with the family about their concerns immediately. It is important to initiate these difficult conversations so that the patient's symptoms can then be addressed in a timely manner. It is important to elicit the family's current understanding of the situation first and not create a potentially uncomfortable situation in which they are pressured into making decisions about treatment that may go against their beliefs, goals, and wishes. Although a chaplaincy consult may be beneficial, it is important to first talk to the family about their belief system and to ensure they are amenable to receiving spiritual support services. Initiate a discussion with the family first. It is better to first gauge the family's understanding of the situation in order to enable a productive conversation about next steps and navigate any potential conflicts. Despite the challenges, providers have an ethical responsibility to limit non-beneficial or futile medical care, so proceeding with intubation should not be recommended.

Annotation

Kopar PK, Visani A, Squirrell K, Brown DE. Addressing futility: a practical approach. Crit Care Explor. 2022;4(7):e0706. doi: 10.1097/CCE.0000000000000706.

White DB. Responding to Requests for Potentially Inappropriate or Futile Therapies in Adult Intensive Care Unit. Last update February 25, 2025. https://www.uptodate.com/contents/responding-to-requests-for-potentially-inappropriate-or-futile-therapies-in-adult-intensive-care-unit?sectionName=POTENTIALLY%20INAPPROPRIATE%20THERAPY%20REQUESTED&topicRef=95705&anchor=H2412727360&source=see_link#H2412727360. Accessed August 21, 2024.

Principle of Double Effect

2. You are asked to see a 59-year-old man with weeks of nausea, vomiting, and weight loss. His symptoms have been uncontrolled, and he now has repeated episodes of vomiting and hematemesis. He is found to have metastatic gastric cancer on endoscopy. Efforts to control the bleeding are not successful,

and repeated transfusions are provided. He verbalizes significant physical and emotional distress and tells you and his family that he does not want efforts to sustain his life. He would prefer to be sedated and no longer receive blood and platelets. His partner and family support his decision.

What would be the appropriate next step given his uncontrolled symptoms?

A. Continue around-the-clock dosing of the IV Ativan.
B. Request an ethics consultation.
C. Rotate to a different opioid.
D. Obtain consent for proportionate sedation.

Correct Answer: C

Using sedation therapy for refractory symptoms is a procedure that requires discussion, explanations, and consent. Clarifying with the patient his goals are essential. He may wish sedation to unconsciousness or intermittent sedation where he is reawakened and re-evaluated as to continuing. An overt consent process is very important for the patient, family, and clinicians.

Continuing around-the-clock dosing of the IV Ativan is not correct as the present dose is not sufficient. The dose must be titrated to the desired level of sedation.

Call for an ethics consult is not correct here as the patient and family agree as to his goals and the use of sedation for intractable symptoms is ethically sound. There is not an ethical dilemma or question to be addressed.

Rotating to a different opioid might be helpful as his complaints of pain persist. It is important to clarify for him if this intervention alone will suffice to address his distress.

Annotation

Krakauer EL, Penson RT, Truog RD, King LA, Chabner BA, Lynch TJ. Sedation for intractable distress of a dying patient: acute palliative care and the principle of double effect. Oncologist. 2000;5(1):53–62, https://doi.org/10.1634/theoncologist.5-1-53.

Macauley RC. Ethics in Palliative Care: A Complete Guide. Oxford University Press; 2018:251–257.

Maltoni M, Scarpi E, Rosati M, Derni S, Fabbri L, Martini F, Amadori D, Nanni O. Palliative sedation in end-of-life care and survival: a systematic review. J Clin Oncol. 2012;30(12):1378–1383. doi: 10.1200/JCO.2011.37.3795. Erratum in: J Clin Oncol. 2012;30(27):3429.

3. You are asked to see a 64-year-old woman with a 3-year history of metastatic lung cancer with metastases to bone and brain who has had progression of disease on a clinical trial. She was admitted to the ICU in severe respiratory distress from tumor burden and overlying pneumonia. Her respiratory rate is 30 bpm with an O_2 saturation of 93% on a non-rebreather mask. She is agitated and pulling at the face mask, thrashing in the bed. She will calm briefly and then escalate again with physical agitation. She is striking out and hitting staff and her family. According to the family, she has not clearly stated that she does not want her death hastened or prolonged and that she does not want to be intubated or resuscitated.

What is your next best step?

A. Initiate IV morphine.
B. Administer propofol.
C. Quiet the room, and utilize lavender aromatherapy.
D. Administer IV haloperidol, and reassess effects.

Correct Answer: D

This patient has agitated delirium, and quieting the symptoms may ease distress for the patient herself but certainly for the family. Doing this urgently and then working to ease other symptoms that may be driving delirium are essential. This is an indication to try an antipsychotic. Sometimes it is necessary to also use a benzodiazepine in combination.

B. The addition of morphine IV may help the work of breathing and diminish delirium. However, her symptoms are severe, so addressing the agitation is an essential first step.
C. Administering propofol is incorrect. Propofol is an effective analgesic and sedative and may quiet the symptoms; yet it is not a recommended medication to treat delirium. Clarification as to levels of sedation would also be necessary to discuss with the family.

Utilizing quiet and lavender may be effective when delirium is mild or as prevention, but this patient's symptoms have surpassed what non-pharmacologic interventions can ease.

Annotation

Gaertner J, Eychmueller S, Leyhe T, Bueche D, Savaskan E, Schlögl M. Benzodiazepines and/or neuroleptics for the treatment of delirium in palliative care?—a critical appraisal of recent randomized controlled trials. Ann Palliat Med. 2019;8(4):504–515. doi: 10.21037/apm.2019.03.06.

Stollings JL, Kotfis K, Chanques G, Pun BT, Pandharipande PP, Ely EW. Delirium in critical illness: clinical manifestations, outcomes, and management. Intensive Care Med. 2021;47(10):1089–1103. doi: 10.1007/s00134-021-06503-1.

4. A 92-year-old man has end-stage Alzheimer's disease, without any other comorbidities. He has been on home hospice for several months, with his wife and daughter acting as primary caregivers. He is completely dependent in all activities of daily living and is bed-bound. His oral intake has been decreasing, despite patient attempts at hand-feeding. The family is committed to comfort-based care and wants to avoid any medical procedures, even labs or X-rays.

Over several days, he becomes profoundly agitated, manifested by yelling and trying to climb out of the bed. He has become bruised and now refuses to eat or drink anything. He tries to pinch and slap his wife and daughter, and they are exhausted with his constant care needs. The family gladly accepts transfer to an inpatient hospice, where the family does not want him to undergo diagnostic workup but wants him less distressed. The hospice clinician diagnoses an agitated terminal delirium and tries titrated doses of benzodiazepines, but it has no detectable effect. They then propose using sedation with chlorpromazine (Thorazine) to unconsciousness, to manage the delirium.

Which one of the following statements is true regarding this end-of-life practice?

A. This is proportionate palliative sedation, in which gradually escalating doses of a sedating drug are used to manage the symptom, without causing undue sedation.
B. The intended goal of palliative sedation to unconsciousness is the unconsciousness; this is not an unintended side effect.

C. It cannot be used when an imminently dying patient has intolerable symptoms despite state-of-the-art palliative care.

D. It is commonly used for patients who have severe and refractory existential or spiritual suffering, rather than intolerable physical symptoms.

Correct Answer: B

Timothy Quill has defined three types of palliative sedation. First is ordinary sedation, where the goal of treatment is symptom relief without reducing the patient's level of consciousness. Symptoms such as anxiety, depression, and insomnia are commonly treated this way; and if the person's level of consciousness is depressed during waking hours, the dose is reduced or the medication changed. This type of sedation is used every day in typical medical practice as well as palliative settings, is not controversial, and is not what is proposed in the patient vignette.

Second is proportionate palliative sedation (PPS), where sedating medications, usually benzodiazepines, are used along with other symptomatic treatment, to cause sedation during both waking and sleeping hours, to help relieve suffering. This is common with agitated terminal delirium, where the endpoint is using the minimum amount of sedation needed to achieve the goal, according to patient/family preferences and monitoring of physical symptoms. Occasionally, this does require sedation to unconsciousness, but this is an unintended side effect when lower doses are effective in symptom relief. Choice A is incorrect because this is not what is proposed in the vignette.

The third type is palliative sedation to unconsciousness (PSU). This differs from PPS in that the intended goal of the sedation is unconsciousness, not a side effect (choice B is correct). It is generally used when an imminently dying patient has intolerable symptoms despite state-of-the-art palliative care (choice C is incorrect). Examples include severe hyperactive delirium, as in this vignette; uncontrolled hemorrhage; or inability to swallow secretions. More challenging would be using PSU for symptoms that are largely existential or in response to the patient's need for control (choice D is incorrect). With PSU, sedation is rapidly titrated over minutes or hours until the patient is unresponsive, and the patient is left at that level of unconsciousness until they die. This type of sedation is more controversial.

The only indication for PS is a refractory symptom, which means a symptom for which all possible treatment has failed or it is estimated that no methods are available for palliation within the time frame and the risk–benefit ratio that the patient can tolerate. The determination of refractoriness and intolerability often requires expertise from an interdisciplinary group of palliative care experts, especially if the suffering is psychological or existential.

Annotation

Krakauer EL. Medical and ethical consideration in palliative sedation at the end of life. In: Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. Oxford Textbook of Palliative Medicine. 6th ed. Oxford University Press; 2021:1180–1188.

Macauley RC. Ethics in Palliative Care: A Complete Guide. Oxford University Press; 2018:260–264.

Quill TE, Lo B, Brock DW, Meisel A. Last-resort options for palliative sedation. Ann Intern Med. 2009;151:421–424.

5. You are seeing a 72-year-old woman with end-stage ovarian cancer, who is admitted to the inpatient hospice unit with intractable pain and dyspnea. She has been receiving high doses of oral morphine, but her symptoms have become uncontrollable in the past 24 hours. Mrs. Paint is fully conscious but extremely distressed, repeatedly stating "I can't breathe" and "Please help me."

The hospice PA, Sarah, recognizes that the patient's pain and dyspnea require rapid escalation of opioids. She considers starting a continuous IV morphine infusion at a dose that will likely suppress Mrs. Paint's respiratory drive but will effectively manage her symptoms. Mrs. Paint's family is at the bedside, anxious and upset by her suffering. They plead with Sarah to "do something" to help their mother but are conflicted because they do not want to kill her.

What is the most ethically appropriate action for Sarah to take in this situation?

A. Withhold additional opioids due to the risk of respiratory suppression.

B. Administer a low dose of morphine that may not fully control symptoms.

C. Provide palliative sedation to unconsciousness.

D. Explain the principle of double effect and proceed with high-dose morphine infusion.

E. Consult the ethics consult service before making any treatment decisions.

Correct Answer: D

The principle of double effect ethically justifies administering high-dose opioids to relieve suffering, even if there is a risk of hastening death, as long as the intention is symptom relief rather than ending life. Explaining this principle to the family promotes transparency and shared decision-making.

A. Withholding additional opioids would fail to address the patient's severe suffering, violating the principle of beneficence.

B. Administering a low, potentially ineffective dose does not adequately address the patient's distress and may prolong suffering.

C. Palliative sedation to unconsciousness is a more extreme intervention and may not be necessary if symptoms can be controlled with opioids.

E. Consulting the ethics consult service, while valuable, may delay urgent symptom management in this case. If the issue between Sarah and the family is not resolved, then consulting would be appropriate.

Annotation

Dudzinski DM. The principle of double effect in palliative care: euthanasia by another name? In: Van Norman GA, Jackson S, Rosenbaum SH, Palmer SK, eds. Clinical Ethics in Anesthesiology: A Case-Based Textbook. Cambridge University Press; 2010:87–91.

Macauley RC. Ethics in Palliative Care: A Complete Guide. Oxford University Press; 2018:260–264.

Organ Donation

6. A 55-year-old man is admitted from the emergency department directly to a hospital-based palliative care unit for symptomatic management of end-stage liver disease. The emergency room nurse notes that his family says he is an organ donor and asks if the organ donor organization should be notified of his expected death.

Which one of the following statements is true regarding organ donation?

A. Most deaths are not appropriate for organ donation.
B. The clinician should initiate a conversation about organ donation and then call the organ procurement organization (OPO) to follow up.
C. The palliative care service should not be involved with the OPO, to avoid accusations of looking for organs to donate.
D. A driver's license documenting the wish to donate organs is not a legally binding document, and the family will need to be asked if donation is authorized.

Correct Answer: A

This is not in proper test format but covers information that is essential for PA palliative practice.

Federal law requires that healthcare professionals notify their local OPO of all impending deaths, preferably early, to maximize the chance of organ donation. The law also requires that discussions of organ donation be done specifically by the OPO personnel, so the role of the physician and nurse is mainly notification (choice B is incorrect). Most states have organ donation documented on the driver's license, and this is a legally binding document (choice D is incorrect). The palliative care service can work closely with the OPO, often supporting family members who are being asked to make difficult decisions (choice C is incorrect).

Most deaths are not appropriate for organ donation (choice A is correct). Patients who are declared brain-dead or are likely to become brain-dead are the primary donors, and the OPO follows strict guidelines on determination of death and what organs may be appropriate for donation. There are many exclusions from donation, including malignancy, sepsis, and severe organ failure. In rare circumstances, patients who die a cardiac death may be appropriate for organ donation.

Annotation

Haliko S, Arnold RM. Fast Fact 79. Discussing Organ Donation with Families. Palliative Care Network of Wisconsin. Published Jan. 29, 2019. https://www.mypcnow.org/fast-fact/discussing-organ-donation-with-families/. Accessed Aug. 22, 2024.

Ethics Committees

7. Your patient is a 75-year-old woman with advanced metastatic colon cancer who was recently admitted to the ICU for shortness of breath and rectal bleeding. She has been on mechanical ventilation and other life-sustaining treatments for the past 6 days, but her condition has progressively worsened; and she also has end-stage renal disease (ESRD). She had previously expressed her wish not to prolong life artificially to you, her primary care PA, and her family, if there was no "real" hope for recovery. You and the family are in agreement; and the patient has filled out advance directives, and her oldest son is named as her healthcare agent.

However, the pulmonologist reaffirms that "removing mechanical ventilation would be killing the patient and committing euthanasia." The nephrologist has recommended a medical regimen for ESRD to prolong her life.

What is the most ethically appropriate action for you to take regarding withdrawal of life-sustaining treatment in this case?

A. Continue life-sustaining treatments indefinitely to avoid any accusations of euthanasia.
B. Withdraw life-sustaining treatments immediately based on the patient's previously expressed wishes.
C. Consult the ethics consult service to review the case and provide guidance.
D. Transfer the patient to a state that allows physician-assisted suicide.
E. Transfer the patient to another physician who is comfortable with withdrawal of life-sustaining treatments.

Correct Answer: C

Consult the ethics consult service to review the case; provide guidance on the ethics of the case, the ethical implications of withdrawing treatment, and distinctions between withdrawing life-sustaining treatment and euthanasia; and proceed with treatment withdrawal if appropriate.

This option addresses the ethical misconception held by the gastrointestinal (GI) PA while respecting the patient's autonomy and previously expressed wishes. It also aligns with established ethical and legal principles that distinguish between withdrawing life-sustaining treatment (which is considered ethically and legally permissible) and euthanasia (which is illegal in the United States).

A. Continuing life-sustaining treatments indefinitely goes against the patient's previously expressed wishes and violates the principle of respect for autonomy. It also fails to address the misconception about euthanasia.
B. While this option respects the patient's wishes, it fails to address the ethical concerns raised by the GI PA and may lead to unnecessary conflict or misunderstanding among the healthcare team.
D. Transferring the patient to another state that allows physician-assisted suicide is not applicable to this case because the patient would not qualify as they cannot consent for themselves and involuntary physician-assisted suicide is not legal in the United States.
E. Transferring the patient to another physician avoids addressing the ethical issue at hand and may not be in the best interest of the patient, especially given her critical condition.

Annotation

Berlinger N, Jennings B, Wolf SM. Decision-making concerning specific treatments and technologies. In The Hastings Center Guidelines for Decisions on Life-Sustaining Treatment and Care Near the End of Life. Rev. exp. 2nd ed. Oxford University Press; 2013:154–186.
Email: paspecialtyreviewtext@gmail.com

Email: Here is the email to submit ideas, case vignettes and discussion.
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3

Advance Care Planning

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Surrogate Decision-Making

1. A 90-year-old man with end-stage heart failure, is admitted to the intensive care unit (ICU) with cardiogenic shock. He has been on maximal medical therapy, including high-dose inotropes, for the past 48 hours without improvement. His ejection fraction is 10%, and he has developed acute kidney injury. The ICU team believes that further aggressive interventions, including cardiopulmonary resuscitation (CPR) if needed and dialysis, are medically inappropriate and could cause suffering without changing the outcome. However, the patient's family, particularly his eldest son, insists on "doing everything" possible. They state their approach conforms with the patient's deeply held religious beliefs, and "Where there's life, there's hope." As the palliative care physician associate (PA), you have spoken to the family about the clinical situation and prognosis, but they are persistent in their preferences for their father.

What is the most appropriate next step in managing this situation?

- **A.** Continue aggressive interventions and do not ask the family again to change code status.
- **B.** Based on the clinical team, institute a do-not-resuscitate (DNR) order.
- **C.** Conduct another family meeting to ask what "everything" means.
- **D.** Immediately transfer the patient to another facility.

Correct Answer: C

Choice C is correct. Families who request "everything" are commonly met in palliative practice. This can lead to moral distress on the part of the treating team, who do not see the situation in the same way as the family. In the vignette, the care is likely non-beneficial, and the patient will almost certainly die in the hospital.

The next step is to listen to the family's narrative and concerns; in particular, find out what "everything" means to them. Look for areas where you can agree with the family and acknowledge their reliance on religious faith in making difficult medical decisions. If after this discussion the family continues to disagree and request aggressive care, then continue to provide that care and reassess frequently. The chaplain can be useful in this approach, and extended visiting hours and aggressive symptom management might be helpful.

Choice A is incorrect because you want to continue to provide the family support and the opportunity to change course without being judgmental, especially if their religious convictions are supporting full treatment.

Choice B is incorrect and illegal. All states allow the surrogate to make these decisions even if they disagree with the treatment team.

Choice D is incorrect because this is an intervention of last resort, and it is unusual if a disagreement in palliative practice would lead to transfer to another facility. It is highly unlikely another facility would accept the patient in transfer.

Annotation

Kon AA, Shepard EK, Sederstrom NO, et al. Defining futile and potentially inappropriate interventions: a policy statement from the Society of Critical Care Medicine Ethics Committee. Crit Care Med. 2016;44(9):1769–1774.

Quill TE, Arnold R, Back AL. Discussing treatment preferences with patients who want "everything." Ann Intern Med. 2009;151(5):345–349. doi:10.7326/0003-4819-151-5-200909010-00010.

Sullivan SS, Ferreira da Rosa Silva C, Meeker MA. Family meetings at end of life: a systematic review. J Hosp Palliat Nurs. 2015;17:196–205.

2. You are asked to see a 47-year-old woman with metastatic hepatocellular cancer. She was brought in by emergency medical services (EMS) with hepatic encephalopathy and hematemesis. She lives alone, continues to drink heavily, and frequently refuses medical care. She denies the accuracy of her diagnosis and refuses any further workup or assistance at home. She has been seen by psychiatry and determined to have capacity. She has an adult daughter who is requesting medical information, but she has not previously spoken with her mother about her current condition. The patient is clear that she does not want her daughter involved in her care. The patient wishes to be discharged home without home health or hospice support.

What next step needs to be taken to support the patient?

A. Honor her wishes to be discharged home.
B. Tell the daughter about her mother's medical status and your concerns about an unsafe discharge.
C. Convene a family meeting.
D. Clarify who is her healthcare decision maker.

Correct Answer: A

In ethical dilemmas there may be no one perfectly right answer.

While choice A is the best option, we need to know a lot more about why she is refusing and what she would agree to. Most palliative care clinicians would seek to establish rapport and explore her motivations for not agreeing to additional support.

Option B is not medically appropriate because the patient has told the team not to speak to the family.

While choices C and D are common palliative interventions, in this case the patient has told the team not to involve her family. The emphasis has to be on understanding and honoring the patient's values.

Annotation

Macauley R. Patients who make "wrong" choices. J Palliat Med. 2011;14(1):13–16. https://doi.org/10.1089/jpm.2010.0318.

Myers JD. Decision-making toolkit. Dimitrov N, Kemle K, eds. In: *Palliative and Serious Illness Patient Management for Physician Associates*. Oxford University Press; 2021:60–76.

3. You are asked to see a previously energetic 80-year-old woman admitted to an ICU with severe bilateral bacterial pneumonia accompanied by multi-organ failure. Mechanical ventilation is required, and the intensivist believes her chance for functional recovery is very low. She is sedated and unable to communicate. There is no written advance directive available. You meet with the family to learn something about the patient's preferences for aggressive medical interventions.

Which of the following statements would best identify the overall goals of care?

A. Do you want us to continue to do everything we can to keep her alive?
B. I think it's best that we continue aggressive medical interventions for a few more days.
C. If your mother was able to speak to us, what overall advice would she give us?

Correct Answer: C

Surrogates are in the difficult position of making life-and-death decisions about another person. The surrogate's role is to exercise substituted judgment, trying to make the decision that the patient would make, using their previously expressed values and preferences (choice C is the best option).

Choice B is incorrect because you are making the decision without any attempt to elicit the patient's preferences from the surrogate.

Choice A is incorrect and may place the surrogate in a defensive stance to have to argue for or against interventions. It does not frame the question appropriately and will often be answered by yes.

Annotation

Billings JA. The end-of-life family meeting in intensive care. Part I: indications, outcomes, and family needs. J Palliat Med. 2011;14:1042–1050. doi:10.1089/jpm.2011.0038.

Billings JA. Part II: family-centered decision making. J Palliat Med. 2011;14:1051–1057. https://doi.org/10.1089/jpm.2011.0038-b.

Billings JA, Block SD. Part III: a guide for structured discussions. J Palliat Med. 2011;14:1058–1064. doi:10.1089/jpm.2011.0038-c.

Einav S, Cherny NI, Curtis JR. Palliative medicine in the intensive care unit. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*. 6th ed. Oxford University Press; 2021:121–132.

4. You are seeing a 52-year-old man with advanced Alzheimer's disease, who was brought to the emergency department with aspiration pneumonia. He has been non-verbal and bed-bound for the past year, residing in a nursing home. His medical history includes hypertension, type 2 diabetes, and recurrent urinary tract infections over the past 12 months. He has not completed an advance directive. His daughter is his legal guardian and medical decision maker. She insists on full aggressive treatment, including intubation if necessary, stating "Dad always said he wanted everything done." However, his son disagrees, arguing that their father would not want to suffer needlessly.

The patient's vital signs are deteriorating. The PA in the emergency department explains that the patient's prognosis is poor, with a high likelihood of requiring mechanical ventilation and a low chance of meaningful recovery.

What is the most appropriate next step in addressing this situation?

A. Follow the daughter's wishes as she is the legal decision maker.
B. Support the son as his view aligns more closely with the current situation.
C. Conduct a family meeting to discuss the patient's values and best interests after the patient has been stabilized or made comfortable.
D. Request an urgent ethics consultation.
E. Proceed with intubation to stabilize the patient.

Correct Answer: C

A family meeting allows for a thorough discussion of the patient's condition, prognosis, and what he might have wanted based on his previously expressed values and quality of life. It provides an opportunity to work toward a consensus that respects both the patient's wishes and his best interests.

A. Although the daughter is the legal decision maker, it is important to ensure that decisions align with the patient's best interests and values.

B. Supporting the son would only enhance the family conflict that may continue even after the father has died due to lack of discussion and respect.

D. An ethics consult may be helpful; but time may be of the essence, and having an initial conversation to align values is first measure.

E. Proceeding with intubation addresses the immediate need to stabilize the patient. The other choices are important but cannot resolve the urgent need and will of necessity take more time. Family conflict needs to be resolved with dialogue, and the palliative care team can facilitate this, along with their core members—namely the chaplain and social worker—who may be able to offer important guidance to the family to make future decisions with the healthcare team.

Annotation

Berlinger N, Jennings B, Wolf SM. Decision-making concerning specific treatments and technologies. In: *The Hastings Center Guidelines for Decisions on Life-Sustaining Treatment and Care Near the End of Life*. Rev. exp. 2nd ed. Oxford University Press; 2013:131–143.

5. An 82-year-old cognitively challenged man has lived in a nursing home for several years, before which he was undomiciled for at least a decade. He has no known family and never had decision-making capacity. He has recently been admitted to an ICU with bilateral pneumonia and acute respiratory failure, requiring intravenous (IV) antibiotics, mechanical ventilation, and vasopressors. After several days, he has not improved.

By state law, his default resuscitation status is full code, without any restrictions of potential medical interventions. The attending critical care physician believes his risk of mortality to be at least 50% and thinks that if he survives, he will likely be very impaired, perhaps requiring transfer to a long-term care acute hospital or a chronic ventilator unit. The team requests a consult from the palliative medicine service on how to proceed in the absence of a designated decision maker.

Which one of the following is the best clinical approach?

A. Provide medical care according to the default, hoping that he will recover.

B. Provide the medical care that the critical care team recommends, including change in the resuscitation status.

C. Make medical decisions on his behalf with a hospital-appointed administrator/surrogate and according to advice from the palliative medicine and psychiatric consultants.

D. Follow state law in determining who can make medical decisions when there is no legal surrogate.

Correct Answer: D

Clinicians sometimes find themselves managing terminally ill patients when there is no legal decision maker. The process to follow varies by state and even by hospital. In many states, if there is no qualified medical decision maker as determined by statute, the courts can name by expedited process a temporary medical consent guardian (choice D is correct). Routine medical decision-making for patients without a legal decision maker does not require this level of intervention. For example, in most states, two physicians may sign a consent for surgery, and physicians can make routine decisions about medical care such as antibiotics, admission to intensive care, etc.

Choice A is incorrect because at some point this approach may not be medically appropriate, and since the prognosis is so poor, it is important to identify someone who can make these difficult decisions, rather than simply delaying the inevitable. Choice B is incorrect because it is paternalistic (or in this case, maternalistic)—the attending physician does not have all-encompassing power to make end-of-life decisions, without input from anyone else, except in cases where the proposed intervention is absolutely bound to fail. Choice C is incorrect as an extension of the previous sentence. Physicians by themselves, without input from other sources, are not empowered to make end-of-life decisions. There should be some process to assist with this—such as palliative or ethics committee consultation and sometimes intervention by a court.

Annotation

Tolle SW, Back AL, Meier DE. End-of-life advance directives. N Engl J Med. 2015;372:667–670. doi:10.1056/NEJMclde1411152.

Pope TM. Legal Aspects in Palliative and End-of-Life Care in the United States. Last updated March 2024. https://www.uptodate.com/contents/legal-aspects-in-palliative-and-end-of-life-care-in-the-united-states?search=palliative%20care%20legal%20aspects&source=search_result&selectedTitle=1%7E150&usage_type=default&display_rank=1. Accessed August 22, 2024.

6. You are seeing a 68-year-old man, who suffered a large left middle cerebral artery stroke. He could not manage his airway and required mechanical ventilation; 10 days later he has not been successfully weaned from the ventilator. He has severe neurological impairment, which does not improve when sedation is reduced.

He has no advance directive or healthcare proxy, and his only living relative is his son. The patient had told his son last year, after watching a documentary on people suffering from dementia, that he would never "want to live in a state where he did not know the people he loved." The healthcare team has indicated that the patient needs a tracheostomy and a plan for transition to a long-term care facility. They do not expect recovery of neurological function such that he would be able to care for himself. The clinical team has spoken with the patient's son, who says that he is uncertain about what his dad would want in this situation.

Which one of the following is the most appropriate basis on which to decide regarding life-sustaining treatment?

A. A decision based solely on their understanding of what his father would have wanted before he lost decision-making capacity, regardless of his current medical condition.

B. A decision based purely on the surrogate's perception of the clinical situation.

C. The decision made by the healthcare team based on prognostication and laboratory values.

D. A decision that aligns with the patient's previously expressed values and preferences.

E. A decision that minimizes the emotional and financial burden on the son.

Correct Answer: D

Clinical decision-making rests on core ethical principles. The first principle is autonomy: that patients can make their

own decisions. Second is beneficence: that clinicians advocate for effective treatments. Third is non-maleficence: that clinicians avoid hurting patients. Fourth is justice: the ethical allocation of scarce resources. These principles often conflict, and the appropriate balance is necessary in the current clinical situation. In American medicine, the principle of autonomy often takes priority over the others.

The correct answer is D. The overriding goal of making decisions at the end of life is to determine the patient's goals and preferences. Sometimes these preferences are comments made by the patient in personal situations or social events.

Choice A is not correct. The goals and preferences often do not include the exact situation in which the patient finds themself. One must interpret their general goals in the context of the situation at hand.

Choice B is not correct. Making the decision based purely on the surrogate's perception of the patient's best medical interests, without considering the patient's previously expressed preferences, violates the principle of respect for autonomy and fails to uphold the patient's right to self-determination.

Choice C is not correct. Deferring the decision entirely to the healthcare team eliminates the role of the surrogate decision maker and fails to consider the patient's values, preferences, and previously expressed wishes.

Choice E is not correct. Making the decision primarily based on minimizing the emotional and financial burden on the surrogate is a conflict of interest and fails to prioritize the patient's best interests and previously expressed preferences.

Annotation

Cunningham TV. Surrogate decision-making. In: Hester DM, Schonfeld TL, eds. *Guidance for Healthcare Ethics Committees*. 2nd ed. Cambridge University Press; 2022:113–120.

Macauley R. Advance care planning and surrogate decision-making. In: *Ethics in Palliative Care: A Complete Guide*. Oxford University Press; 2018:54–99.

7. A 45-year-old man with end-stage liver disease due to alcoholic cirrhosis is admitted to the ICU with hepatorenal syndrome and hepatic encephalopathy. He has been denied liver transplantation due to ongoing alcohol use. Despite maximal medical therapy, including vasopressors and continuous renal replacement therapy, the patient's condition continues to deteriorate. He is at the point of having almost zero liver function.

The ICU team believes that further aggressive interventions would be medically inappropriate given the patient's irreversible multi-organ failure. They recommend transitioning to comfort-focused care. You meet with the patient's family and describe the clinical outcome—"There is no chance of recovery due to his liver not working at all." However, the patient's spouse and teenage children are adamant about continuing all possible treatments, stating "He's a fighter and will make it to his 55th birthday so he can collect Social Security."

What is the most appropriate approach to address this family conflict regarding potentially inappropriate treatment?

A. Continue all aggressive interventions as requested by the family.
B. Unilaterally withdraw life-sustaining treatments based on medical judgment.
C. Consult the ethics service to have a meeting about the values conflict.
D. Seek an immediate court order to withdraw treatment.
E. Consult the hospital lawyer to determine the legal obligations.

Correct Answer: C

Choice C is correct. This option allows for the values tension to surface and be directly addressed—as this is not potentially inappropriate treatment, it is strictly addressing the issue of futility. Furthermore, an ethics consult allows for a comprehensive discussion of the patient's condition and prognosis and the medical team's concerns about futility. It provides an opportunity to explore the patient's values and preferences, educate the family about the limitations of medical interventions, and work toward a consensus that respects both the patient's best interests and the family's emotional needs.

A. Continuing aggressive interventions without addressing futility concerns may prolong suffering without benefit.
B. Unilaterally withdrawing treatment without thorough discussion could lead to severe conflict and potential legal issues.
D. Seeking a court order immediately is premature and should be a last resort after other avenues have been exhausted.
E. While legal consultation may eventually be necessary, it should not be the first step in addressing this ethical dilemma.

Annotation

Bosslet GT, Pope TM, Rubenfeld GD, et al. An official ATS/AACN/ACCP/ESICM/SCCM policy statement: responding to requests for potentially inappropriate treatments in intensive care units. Am J Respir Crit Care Med. 2015;191(11):1318–1330.

Kon AA, Shepard EK, Sederstrom NO, Swoboda SM, Marshall MF, Birriel B, Rincon F. Defining futile and potentially inappropriate interventions: a policy statement from the Society of Critical Care Medicine Ethics Committee. Crit Care Med. 2016;44(9):1769–1774.

8. A 74-year-old woman with melanoma metastatic to the liver and brain is admitted to the hospital with encephalopathy and is now unable to communicate her preferences. She has no advance directives in place. The patient has two children. Her husband died 15 years ago, and she did not remarry. Her son, who lives out of state, arrives at the hospital and insists on pursuing further aggressive treatment, while her daughter, who is the primary caregiver, believes that the patient would not want any further interventions and prefers comfort-focused care. Your inpatient palliative care team has been consulted for goals-of-care conversations.

Which one of the following is the best way to approach surrogate decision-making in this situation?

A. Assess the patient's prior wishes and values through discussion with family members, medical records review, and any available documentation.
B. Proceed with the treatment plan suggested by the daughter who is the primary caregiver as she is likely the most familiar with the patient's preferences.
C. Proceed with aggressive medical interventions given the disagreement between family members with equal surrogacy standing.
D. Consult risk management since the family disagreement will likely lead to the need for legal system adjudication.

Correct Answer: A

A surrogate decision maker is tasked with honoring a patient's wishes as outlined in living wills, in advance care plans, or through prior discussions. When the patient's preferences are not known, decisions should align with the patient's best interests, thinking about how the patient would have decided if the patient had capacity. If no healthcare proxy is designated and the patient cannot communicate, states differ about how to handle the situation. Every state has laws about decision-making for incapacitated patients. Many have a surrogate hierarchy, which usually gives highest priority to the spouse, children, and/or parents. The hierarchy assumes that the patient's next of kin would be their preferred surrogate. However, numerous studies have revealed that people other than the next of kin were often the individuals whom patients trusted the most to fulfill their wishes. In cases of conflict or absence of a surrogate, court intervention may be necessary.

Choice A is correct because the most important step is to determine what decision the patient would make if she still had capacity. Palliative care teams can help the family think through the options and formulate the plan the patient herself would make.

Choices B and C are incorrect because they defer to a specific child's opinion. In nearly all states, adult children have equal authority to make decisions. The palliative care team should ask the daughter to recall conversations she had with her mother that might inform the current situation.

Choice D is incorrect because while consulting risk management may be eventually needed, the first and most important step is to understand the patient's values and goals. Further, listen carefully to each child's viewpoints and wishes. This is likely to reduce conflict and the need to escalate the situation to an ethics committee, risk management, or legal advice.

Annotation

Altilio T, et al. Ethical considerations in palliative care: an overview. In: Altilio T, Otis-Green S, and Cagle JG, eds. *The Oxford Textbook of Palliative Social Work*. 2nd ed. Oxford University Press; 2022. Published Mar. 1, 2022. Accessed May 16, 2024.

DeMartino ES, Dudzinski DM, Doyle CK, et al. Who decides when a patient can't? Statutes on alternate decision makers. N Engl J Med. 2017;376(15):1478–1482. doi:10.1056/NEJMms1611497.

Myers JD. Decision-making toolkit. In: Dimitrov N, Kemle K, eds. *Palliative and Serious Illness Patient Management for Physician Assistants*. Oxford University Press; 2021:60–76. doi:10.1093/med/9780190059996.003.0006.

9. The hematology and oncology unit consults you as a member of the pediatric palliative care team to assist the treating team to determine the goals of care for Antonio, a 14-year-old boy with a new diagnosis of acute lymphocytic leukemia. Antonio is preparing for a surgical treatment in which a blood transfusion is a possibility. As a safeguard, the family is asked to sign a consent form for a blood transfusion in the event blood products are needed. Antonio and his family are practicing Jehovah's Witnesses (JWs) and interpret their holy scripture as prohibiting receipt of any blood products. Antonio's parents are not willing to sign the consent form as it is against the tenets of their faith.

What would be your next best step in this situation?

A. Refer to the hospital.
B. Remind the parents that Antonio could die without the blood products.
C. Coordinate a conversation with the appropriate staff members and community liaisons for next steps.
D. Document the need for blood transfusion in the electronic medical record (EMR), and seek a court order without consulting the family.
E. Ask Antonio what he prefers.

Correct Answer: C

Hospitals should seek to foster active relationships in the community with representatives from various faith communities. In this case, a JW community liaison could proactively work alongside the patient, the family, and the staff to uphold patient- and family-centered care while also respecting religious practices and beliefs. Further, the team can explore bloodless treatment protocols. This conversation notes that not every JW patient and family is the same, so exploring how this family's religious practices inform medical decisions is necessary at each step of admission. Choice C is correct.

Choice A is a possibility, but before an automatic referral to the ethics committee, attempt to collaborate with the parents to better understand their situation. Choice B is incorrect because it is badgering, directly confronts their faith tradition, and may escalate conflict with the parents. Choice D is incorrect because legal action is probably not necessary; if it became necessary, it would need to be done with the parent's knowledge as they have legal rights that should be protected and honored.

Choice E is possibly correct, depending on the state. In most jurisdictions, a 14-year-old cannot make decisions alone, as an adult; but there are clear exceptions. This approach also may alienate the parents, who likely feel they are doing what is right for their son. A better approach would be to ask the parents if it would be OK to get Antonio's opinion on the transfusion.

Annotation

Garoufalia Z, Aggelis A, Antoniou EA, Kouraklis G, Vagianos C. Operating on Jehovah's Witnesses: a challenging surgical issue. J Relig Health. 2022;61(3):2447–2457. doi:10.1007/s10943-020-01175-5.

Nayfeh A, Yarnell CJ, Dale C, et al. Evaluating satisfaction with the quality and provision of end-of-life care for patients from diverse ethnocultural backgrounds. BMC Palliat Care. 2021;20(1):145. doi:10.1186/s12904-021-00841-z.

Woolley S. Children of Jehovah's Witnesses and adolescent Jehovah's Witnesses: what are their rights? Arch Dis Child. 2005;90(7):715–719. doi:10.1136/adc.2004.067843.

10. A 55-year-old man with advanced alcoholic cirrhosis is hospitalized with *Escherichia coli* peritonitis associated with septic shock. He also has preexisting heart failure, with an ejection fraction of 15%–20%. During a 2-week critical care stay, he develops acute renal failure requiring continuous dialysis and respiratory failure requiring mechanical ventilation. His nutrition is managed by an orogastric tube, and he occasionally needs vasopressors. The pressure settings on the ventilator are too high for a surgeon to safely perform tracheostomy. He is not married and has no children. Prior to his hospitalization he lived with his mother.

The decision maker is his mother, and despite several family meetings in which a palliative consultant reviews the prognosis and recommends transitioning to comfort care, she continues to insist on aggressive medical interventions. The clinician wonders what they can do to help the mother process the situation.

Which one of the following is most likely to be helpful as the clinician continues to address the concerns of the patient's mother?

A. Inform the mother that action is needed today. Let the mother know that clinical decisions are made based on evidence and reason, not emotion.
B. Review continuous dialysis as a part of the bigger picture of how to manage his overall medical care.
C. Advise the chaplain to inform her of the prognostic implications of her son's status.

Correct Answer: C

Let us look at the use of the continuous dialysis not by itself but as a part of the bigger picture of how to manage his overall medical care. There are many useful communication tools for addressing conflict. Active listening means turning your entire attention to the speaker rather than focusing on your own concerns or your own counterarguments. It provides feedback that you understood the other person. Self-disclosure reveals to the listener some private aspect of how you are feeling in a way that does not blame the other person for your emotions. The technique of explaining provides the listener with information on which parts of the situation you are most concerned about. Empathize with the listener, providing evidence that you see and understand their emotional state. Try to describe the situation in a different way, reframing as a mutual problem that can be solved collaboratively. Finally, brainstorm, look for potential solutions without offering initial critiques as a first step in solving problems.

On the other hand, there are pitfalls to avoid when helping families who have conflicts with the treating physicians. Do not avoid or deny that conflict is present because the problem is likely to percolate and become unsolvable. Do not assume you know the whole story—in this case, you could ask the mother to tell you more about her son, especially his prior hospital experiences. Do not make the mistake of repeatedly trying to convince the other party or proceeding as if the issues can be settled rationally or based on evidence—this ignores emotions that may been triggered by the conflict (choice B is incorrect).

Choice C is correct because the clinician tries to describe the situation in a different way, reframing as a mutual problem that can be solved collaboratively.

Do not declare the other party unethical or use anger or sarcasm as a coercive threat. Choices A and D are incorrect because they fall into this trap. This kind of behavior is condescending and often insulting, and it creates resentment and reduces trust. Finally, do not be in a rush to proceed in the heat of the moment (another reason choice A is incorrect).

D is wrong because the chaplain may comfort the mother in her suffering over the state of her son's health but not inform her of his prognosis.

Annotation

Back AL, Arnold RM. Dealing with conflict in caring for the seriously ill. JAMA 2005;293:1374–1381. doi:10.1001/jama.293.11.1374.

LeBlanc TW, Tulsky J. Communication with the patient and family. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:267–276.

Meyerson EM, Meier DE, Kestenbaum A. Honoring thy parent(s): applying the spiritual domain in palliative care decision making. J Law Relig. 2016;31(2):183–196. doi:10.1017/jlr.2016.13.

11. The palliative social worker and you are going to see a patient and their family to address goals of care. You have had previous discussions with the family, and they are processing the poor prognosis and next steps. Your social worker is seasoned in their specialty, though newer to palliative care. They want to know how they can be of help in this conversation.

What is your best response to this?

A. Only have the social worker respond to the patient's and family's emotions.
B. Ask the social worker to complete the portable medical orders form.
C. Ask the social worker to assess the physical and mental supports of the patient and family.
D. Have the social worker work on procuring the hospital bed and additional equipment needed by the patient.

Correct Answer: C

There are three major social work roles in palliative care: addressing the psychosocial concerns of patients and their relatives, promoting and contributing to patient-centered advanced care planning (ACP), and offering or facilitating grief counseling for bereaved relatives. In performing these roles, social workers pay extra attention to vulnerable groups with specific palliative care needs.

Rationale: While A is correct, it is not the only thing social work is able to help with, and the role should not be limited solely to this.

B is incorrect as a social worker is not able to complete this with a patient; rather, it must be a provider. D is incorrect because the case manager and not the social worker is the person usually responsible for coordinating equipment for home and checking insurance coverage. For the social worker it is not the most helpful job they can do to allow them to work at the top of their license.

Annotation

Ferrell BR, Twaddle ML, Melnick A, Meier DE. National Consensus Project Clinical Practice Guidelines for Quality Palliative Care Guidelines, 4th edition. J Palliat Med. 2018;21(12):1684–1689. doi:10.1089/jpm.2018.0431.

Taels B, Hermans K, Van Audenhove C, Boesten N, Cohen J, Hermans K, Declercq A. How can social workers be meaningfully involved in palliative care? A scoping review on the prerequisites and how they can be realised in practice. Palliat Care Soc Pract. 2021;15:26323524211058895. doi:10.1177/26323524211058895. Erratum in: Palliat Care Soc Pract. 2021;15:26323524211067890. doi:10.1177/26323524211067890.

12. A 62-year-old woman arrives to the emergency department (ED) by ambulance. She is accompanied by her close friend, who called the ambulance after she had a syncopal episode at home while the friend was visiting. The patient is confused and not making any sense. Per the friend, the patient does not have a spouse or any living family members. The team has done their due diligence to identify any living family members.

Who is allowed to make decisions for the patient?

A. The friend may be allowed to legally be the surrogate decision maker.
B. The patient needs a court-appointed guardian.
C. An ethics consult should be placed.
D. One doctor should make the medical decisions.

Correct Answer: A

Choice A is correct. However it is state-dependent, and the PA should be aware of the differences. Proxy directives recognize a specific person who is identified as the patient's healthcare agent. States began sanctioning this role in the 1980s and 1990s so that currently every state has a healthcare proxy statute.

In New York State, for example, the Family Health Care Decision Act is a law that makes it easier for loved ones to make healthcare decisions for people unable to make decisions themselves. In the absence of a healthcare proxy, a surrogate (chosen from a prioritized list) may make healthcare decisions for a decisionally incapacitated patient.

B. The patient may or may not need, again depending on the state, a court-appointed guardian.
C. An ethics consult does not need to be placed—since it is a legal, not an ethics, issue.
D. One doctor should make the medical decisions. This is not correct because even when a court-appointed guardian is the surrogate, the interdisciplinary team needs to come to an agreement about next steps, and the guardian is a part of this discussion.

Annotation

Family Health Care Decisions Act, Article 29-CC of the Public Health Law, December 2020.

Macauley RC. Advance care planning and surrogate decision-making. In: *Ethics in Palliative Care: A Complete Guide*. Oxford University Press; 2018:53–99.

13. You are consulted for a 50-year-old man with hepatic cirrhosis due to chronic alcoholism. Despite multiple attempts at sobriety, he has reached end-stage liver disease. He has had recurrent hospitalizations for variceal hemorrhage, refractory ascites, and hepatic encephalopathy. He was admitted this time for another episode of encephalopathy, which has improved so that he regained decision-making capacity. His Child–Turcotte–Pugh (CTP) score is 13 (Class C), and his Model for End-Stage Liver Disease (MELD)-Na score is 31, which suggests a 3-month mortality of 53%.

The patient decides to focus on comfort and dignity for the time he has left. The healthcare team is implementing a palliative care plan tailored to address both his physical symptoms and the complexities of his substance abuse disorder.

Which one of the following is likely to be the primary goal of his palliative care plan?

A. Reverse the effects of liver damage.
B. Provide curative treatment for alcoholism.
C. Focus on symptom management and enhancing quality of life.
D. Prepare the patient for liver transplantation.
E. Implement aggressive life-prolonging treatments.

Correct Answer: C

The patient has clearly articulated his goal of care, to focus on comfort and dignity. Choice C best captures his wishes. Choices A, B, D, and E are common goals for patients with alcohol-related liver disease, but these are no longer part of the patient's desired treatment plan.

Annotation

Bruera E, Hui D. Integrating supportive and palliative care in the trajectory of cancer: establishing goals and models of care. J Clin Oncol. 2010;28(25):4013–4017. doi:10.1200/JCO.2010.29.5618. https://ascopubs.org/doi/full/10.1200/JCO.2010.29.5618.

Woodall H. Patients with substance use disorder. In Dimitrov N, Kemle K, eds. *Palliative and Serious Illness Patient Management for Physician Assistants*. Oxford University Press; 2021. Published Aug. 1, 2021. https://doi.org/10.1093/med/9780190059996.003.0019. Accessed Aug. 21, 2024.

14. An 82-year-old widow with advanced dementia has been a resident at a nursing home for the past 3 years. She has no advance directive, and her spouse is her only living relative. She was recently admitted to the hospital with pneumonia and is currently receiving IV antibiotics. Her condition has stabilized, but she remains lethargic and is having difficulty swallowing, hence is unable to eat orally. The patient's spouse calls the clinical team numerous times a day. He regularly asks why she is not being fed. He tells the team, "I want her fed by any means necessary. I am her husband, and this is what I want." The hospitalist PA notes that the gastrointestinal (GI) service does not recommend a percutaneous endoscopic gastrostomy (PEG) tube for long-term enteral nutrition as it will not improve her clinical outcomes.

Given the conflict between the request of the patient's spouse and the clinical recommendation of the GI team, which of the following would be the most appropriate approach to make a decision regarding PEG tube placement for this patient?

A. Proceed with PEG tube placement as per the spouse's request since he is the legal decision maker.
B. Consult the palliative care team to enhance communication with the spouse regarding PEG placement.
C. Explain the clinical rationale to the spouse and recommend against PEG tube placement if he remains unpersuaded.
D. Involve the hospital's risk management team to clarify the decision-making authority.

Correct Answer: B

Palliative clinicians should be comfortable in leading conversations with families regarding PEG placement in patients with advanced dementia. There is strong evidence, although not randomized clinical trials, that clinicians should recommend against this. PEG tubes in patients with advanced dementia do not improve survival, do not reduce the risk of pneumonia, and do not increase comfort. The best evidence is that pressure sores are worsened by PEG feeding, and the vast majority of patients will require chemical or physical restraints to maintain the tubes.

In the vignette, the next step is for the palliative clinician to gently share this data with the patient's spouse. (Correct answer is B.)

Choice A is incorrect because more conversation is needed. Skillful communication is necessary before moving to the procedure.

Choice C is incorrect because expertise from a palliative care clinician may help in this difficult area.

Choice D is incorrect because family members are allowed to make this decision, even if it is against the clinical team's recommendation.

Annotation

Fischberg D, Bull J, Casarett D, Hanson LC, Klein SM, Rotella J, Smith T, Storey CP Jr, Teno JM, Widera E; HPM Choosing Wisely Task Force. Five things physicians and patients should question in hospice and palliative medicine. J Pain Symptom Manage. 2013;45(3):595–605. doi:10.1016/j.jpainsymman.2012.12.002.

Hallenbeck J. Fast Facts and Concepts #10. Tube Feed or Not Tube Feed? November 2023. https://www.mypcnow.org/fast-fact/tube-feed-or-not-tube-feed/. Accessed Oct. 10, 2024.

15. You are asked to see an 80-year-old female with advanced dementia, diabetes, chronic kidney disease (CKD), hypertension (HTN), and a history of cerebrovascular accident (h/o CVA) who presented to the emergency department from a nursing facility with altered mental status (AMS) and was found to have urosepsis and hyperkalemia. This is the patient's third hospitalization this year. Nephrology was consulted, and the patient's glomerular filtration rate (GFR) was 14 ml/min/m^2. The patient is making urine and responding to a diuretic. On exam she is resting peacefully and is non-verbal at baseline, incontinent of bowel and bladder, and fully reliant on assistance for her activities of daily living. In the last month, she became no longer able to walk and now seems to have trouble holding herself upright in a chair, requiring support. Her daughter wants your opinion regarding conservative kidney management and asks you "How much time do you think she has left?"

Which is the best response?

A. Let me get in touch with your primary team and have them come talk to you.
B. It's so difficult to predict, and that is why I don't like to talk about time.
C. I'm curious what information you have heard from the rest of the clinical team.
D. That is a great question. I will call the nephrologist and find out.

Correct Answer: C

A good goals-of-care conversation should begin with getting a sense of the perspective of the patient and the family. Once you have their perception of the illness, ask permission to give a clinical update. Tailor the update to address misperceptions or concerns that surfaced when the family was talking about their understanding. Always acknowledge and name the emotion that has been expressed before asking permission to move on. Options A and D are incorrect because by deferring to others, you miss an opportunity to build trust and move the conversation forward.

Conservative kidney management (CKM) is a treatment option for patients with stage 5 CKD (i.e., estimated GFR <15 ml/min/1.73 m^2) that focuses on providing supportive care to promote quality of life without pursuing dialysis or transplantation. Older patients with multiple comorbidities who start dialysis require more medical interventions and are more commonly hospitalized compared with those treated conservatively. Their symptom burden is unlikely to improve substantially with dialysis.

Annotation

Brown MA, Collett GK, Josland EA, et al. CKD in elderly patients managed without dialysis: survival, symptoms, and quality of life. Clin J Am Soc Nephrol. 2015;10:260–268. doi:10.2215/CJN.03330414.

Habib MH, Arnold RM, Roseille DA. Fast Facts and Concepts #416. Functional Status Assessment in Serious Illness. November 2023. https://www.mypcnow.org/fast-fact/functional-status-assessment-in-serious-illness/. Accessed Oct. 10, 2024.

Murtagh FE, Marsh JE, Donohoe P, et al. Dialysis or not? A comparative survival study of patients over 75 years with chronic kidney disease stage 5. Nephrol Dial Transplant. 2007;22:1955–1962. doi:10.1093/ndt/gfm153.

Portable Medical Orders

16. You are caring for a 66-year-old man who was diagnosed with advanced non-small cell lung cancer 9 months ago. He initially underwent chemotherapy and external beam radiation therapy to his chest; but his disease rapidly recurred in multiple bones, and he opted for hospice care. He also has three-vessel coronary artery disease, ischemic cardiomyopathy (ejection fraction 18%), and CKD stage 4. He lives alone at home, and his sister (the only living relative) is in the same town.

You filled out a portable medical order (Physician Orders for Life-Sustaining Treatment [POLST]) with him that documents DNR and no tube feeding but would allow for IV fluids or antibiotics. He develops a painful pathologic fracture of the right femur and is transferred to the hospital for consideration of surgical treatment.

How should the DNR status be handled if he is advised to undergo the surgical repair of the fracture?

A. A DNR should be rescinded for the surgery and the immediate postoperative period.
B. Resuscitation should be offered in response to an appropriate clinical event.
C. The original DNR should be retained; the DNR order should be modified to allow limited attempts at resuscitation in the operative and immediate postoperative period.
D. The surgeon should discuss options with the anesthesiologist and the patient's primary care PA to modify a prior DNR decision before the operation.

Correct Answer: D

A unique circumstance where a DNR order may not automatically apply is in the operating room. The frequency of perioperative cardiac arrest in patients undergoing non-cardiac surgery is 4 per 10,000 procedures, and survival is higher than for other in-hospital arrests. Anesthesiologists are essentially resuscitating patients in an ongoing fashion with fluids, vasopressors, and other interventions; and clearly the primary surgical goal is survival.

However, both surgical and anesthesiology guidelines now suggest there should be no automatic suspension of DNR orders inside the operating room. Patients and families may still have preferences that should be honored. There are four possible outcomes for a DNR order in this setting:

1. The DNR order is rescinded for the surgery and immediate postoperative period, and any resuscitation effort is used in response to clinical events.

2. The original DNR order is retained, including any other prior limitations in treatment options.

3. The DNR order is modified to allow limited attempts at resuscitation.

4. The patient/surrogate allows the surgeon and anesthesiologist to use their best clinical judgments on which resuscitative procedures to utilize, based on the clinical circumstances and the patient's goals of care.

When a patient goes to the operating room, there should be no automatic hospital policy to either enforce or cancel a previous DNR order. The surgical team should discuss with the decision maker which resuscitative efforts are essential to the success of the proposed procedure and document that in the medical record (choice D is correct). This may take time, and palliative medicine consultation can be helpful. If a surgeon disagrees with the selected management approach, they may withdraw from the case in a non-judgmental fashion. Choices A, B, and C are all viable options; but none of these approaches should be automatic.

Annotation

Dugan D, Riseman J. Fast Fact #292 Do Not Resuscitate Order in an Operating Room Setting. Palliative Care Network of Wisconsin. Last updated 2019. https://www.mypcnow.org/fast-fact/do-not-resuscitate-orders-in-an-operating-room-setting/. Accessed Aug. 22, 2024.

Shapiro ME, Singer EA. Perioperative advance directives: do not resuscitate in the operating room. Surg Clin North Am. 2019;99(5):859–865. doi:10.1016/j.suc.2019.06.006.

UpToDate. Informed Procedural Consent. Updated July 14, 2023. https://www.uptodate.com/contents/informed-procedural-consent?search=informed%20procedural%20consent&source=search_result&selectedTitle=1%7E150&usage_type=default&display_rank=1. Accessed Aug. 7, 2024.

17. An 83-year-old man with gout, osteoarthritis, and a deteriorating gait fell several times in the last year. He is the primary caregiver for his wife of 62 years, who was diagnosed with Alzheimer's disease 4 years ago. He notices that he has "slowed down" and that his "gait is off." After one fall, he needed a wheelchair for several weeks but became able to walk with a quad cane. He manages his knee pain with an occasional hydrocodone-containing product.

He lives in a ground-floor condominium with a 15-step interior stairwell from the basement garage. His physical examination is normal except for a swollen right knee; his mental status is normal. His Get Up and Go Test is normal, but he has some leg muscle weakness.

Which one of the following palliative interventions should be prioritized in this older adult?

- **A.** Completion of an advance directive and durable power of attorney or healthcare proxy.
- **B.** Completion of a portable medical orders form.
- **C.** Emphasis on managing symptoms and coordinating his care across settings.
- **D.** Referral to the local Area Agency on Aging for help in moving to an assisted living facility.

Correct Answer: A

For the patient in the vignette, the most pressing issues for the short term are rehabilitation from his recent injury and reduction of his fall risk. Likely interventions would be physical therapy evaluation, which will provide an appropriate ambulatory assistive device and perhaps home-based safety evaluation by a rehabilitation therapist or nurse. In the mid-range of 1–5 years, he will likely need a regular source of primary healthcare, periodic assessment for geriatric syndromes, attention to completion of an advance directive, and preparation for his life as a widower. In the longer run, 5–10 years out, it is likely he will need to reconsider his living situation, regardless of his wife's condition. He and his physician will need to plan for his eventual functional decline and frailty. Throughout this multi-year trajectory, he would clearly benefit from a physician who can serve as his advocate and guide.

In his current state, there are no palliative care issues except for encouraging completion of an advance directive (living will and durable power of attorney for healthcare) and safe analgesia for his pain from osteoarthritis (choice A is correct). As he becomes frailer, there will likely be less prevention and disease management and more concentration on managing symptoms and coordinating care across healthcare professionals and across settings (choice C is incorrect). Eventually, more detailed advance directives including portable medical orders (such as a POLST/Medical Orders for Life-Sustaining Treatment [MOLST]) would be helpful, to give more specific patient-centered direction to decisions such as hospitalization and the use of life-sustaining treatments such as mechanical ventilation or intensive care therapeutics (choice B is incorrect).

Hospice could become involved when his prognosis becomes less than 6 months, although determining when this occurs may be difficult, particularly if his functional decline is low, without a catastrophic incident such as a hip fracture. Later in his life, he may need guidance on moving to another environment, such as an assisted living facility or nursing home; but he does not need that yet. Choice D is incorrect.

Annotation

Administration for Community Living. Area Agencies on Aging. https://eldercare.acl.gov/Public/About/Aging_Network/AAA.aspx. Accessed Aug. 22, 2024.

Agar M, Phillips J. Palliative medicine and care of the elderly. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:1046–1060.

Binns-Emerick L, Patel P, Deol BB, Kang M. Multidisciplinary palliative care of the older adult: a narrative review. Ann Palliat Med. 2024;13(4):1002–1011. doi:10.21037/apm-23-541.

Reuben DB. Medical care for the final years of life. "When you're 83, it's not going to be 20 years." JAMA 2009;302(24):2686–2694. doi:10.1001/jama.2009.1871.

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Section 2

Managing Suffering and Distress

4

Natural History of Serious and Complex Illness

RICHARD J. ACKERMANN, MEGAN HIRSCHEL, SARAH BLAKE,
JACK KIMBALL, AND KRIS PYLES-SWEET

Prognostication Tools

1. You see a 68-year-old woman in a joint cardiology/palliative clinic, as part of a comprehensive heart failure program. The patient has well-managed heart failure with reduced ejection fraction, as well as hypertension and coronary artery disease. She has an implanted cardiac defibrillator and is on multiple medications. You estimate her life expectancy at 2–3 years. She has dyspnea with moderate exertion. She was recently hospitalized for an exacerbation of heart failure. You would like to present her with prognostic information to inform her decision-making about future medical care.

Which aspect of her clinical presentation is most strongly associated with an increased risk of mortality?

A. History of hypertension.
B. Presence of an automated cardiac defibrillator.
C. Age under 70 years, compared with older patients.
D. Recent hospitalization for heart failure.

Correct Answer: D

Prognostication is difficult and inaccurate among patients with heart failure, particularly in the current era, in which there are multiple highly effective drug and device interventions. Clinicians can begin advance care planning with patients who have advanced disease or following a hospitalization for heart failure, which triples the subsequent 1-year mortality (choice D is correct). Heart failure is a progressive disease, usually punctuated with crises at unpredictable times, with an ever-present risk of sudden cardiac death.

Other independent predictors of a shorter prognosis include recent heart failure hospitalization, chronic kidney disease, and hypotension (choice A is incorrect), treatment-resistant ventricular arrhythmias, anemia, cachexia, reduced functional ability, and comorbidities including cancer, cerebrovascular disease, cirrhosis, chronic obstructive pulmonary disease (COPD), depression, diabetes, and HIV. Patients over 70 years with heart failure also have a worse prognosis than younger patients (choice C is incorrect). The presence of an implanted defibrillator reduces the risk of cardiac death (choice B is incorrect).

Annotation

Glare PA, Sinclair CT. Palliative medicine review: prognostication. *J Palliat Med*. 2008;11:84–103. DOI: 10.1089/jpm.2008.9992.

Pantilat S, Davidson P, Psotka M. Advanced heart disease. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:976–86.

Salpeter SR, Luo EJ, Malter DS, Stuart D. Systematic review of noncancer presentations with a median survival of 6 months or less. *Am J Med*. 2012;125:512.e1–6.

2. You are asked to see a 60-year-old man with alcoholic cirrhosis who is admitted for acute on chronic liver failure. He also has hypertension, diabetes, and hyperlipidemia. He is status post an emergency appendectomy more than 15 years prior. He has developed distension of his abdomen and tells you that he fills up quickly when eating, sometimes vomiting undigested food. This symptom has been present for many months. He lives alone and is estranged from his family; obtaining his history is difficult as his attention is limited and he is intermittently confused. Admitting imaging reveals some air fluid levels in the small bowel, stool burden in the colon, and ascites. His serum sodium is 128 mEq/l and bilirubin is 3 mg/dl.

Which complication of decompensated cirrhosis is associated with a worse prognosis?

A. Hepatic encephalopathy.
B. Gastroparesis.
C. Ascites.
D. Small bowel obstruction.

Correct Answer: A

Hepatic encephalopathy comes with a higher mortality and worse prognosis.

A and C are both complications. Why are the other answers not correct? Gastroparesis and small bowel obstruction are not complications of decompensated cirrhosis, and although they add to the burden of illness and his prognosis overall, they are not related to his cirrhosis.

Annotation

Ferrarese A, Bucci M, Zanetto A, Senzolo M, Germani G, Gambato M, Russo FP, Burra P. Prognostic models in end stage liver disease. *Best Pract Res Clin Gastroenterol*. 2023;67:101866. DOI: 10.1016/j.bpg.2023.101866.

Ferstl P, Trebicka J. Acute decompensation and acute-on-chronic liver failure. *Clin Liver Dis*. 2021;25(2):419–30. https://doi.org/10.1016/j.cld.2021.01.009. Accessed Aug. 1, 2021.

3. A 78-year-old woman with idiopathic pulmonary fibrosis experiences a rapidly progressive course over 2 years now has dyspnea at rest. The dyspnea is unresponsive to bronchodilators, and she has experienced three hospitalizations for dyspnea, although none required mechanical ventilation. She has chronic hypoxemia (PaO_2 is 42 mm Hg at rest, which rises to 85 mm Hg with high-flow oxygen), although her $PaCO_2$ has always been normal. Echocardiography documents near syncopal episodes and moderately severe pulmonary hypertension, she has a resting heart rate of 110 bpm, and she has lost 10 pounds (from 130 to 120 pounds) over the past month. She desires a comfort-based approach to her illness.

What is the next best step?

A. Cardiopulmonary rehabilitation.
B. Steroids.
C. Increase the carbohydrates in her diet.
D. Refer to hospice care.

Correct Answer: D

The patient has end-stage COPD with hypoxia at rest, weight loss, and symptomatic pulmonary hypertension. She is hospice-eligible, and her goals are aligned with a hospice plan of care. She may enjoy cardiopulmonary rehabilitation but likely will not see measurable sustainable benefit. Increasing the carbohydrates in her diet will actually risk increasing her work of breathing by a greater production of carbon dioxide, and her weight loss will not change. There is no indication for steroids.

She has disabling dyspnea at rest along with clear evidence of progressive disease. She meets the definition of uncorrectable hypoxemia, even though she lacks hypercarbia (this is typical of patients with pulmonary fibrosis). She has several of the supportive factors, including increased hospitalizations, presence of cor pulmonale, hypoxemia at rest, unintentional weight loss (although not quite the 10% loss in 6 months), and resting tachycardia. Choice D is correct, while choices A, B, and C are incorrect.

Annotation

Boland J, Martin M, Wells AU, Ross JR. Palliative care for people with non-malignant lung disease: summary of current evidence and future direction. *Palliat Med*. 2013;27:811–6. DOI: 10.1177/0269216313493467.

Smallwood N, Goh N. Advanced diseases of the lung. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:964–75.

4. A 66-year-old man is hospitalized for an exacerbation of severe COPD. On blood gases, his $PaCO_2$ has varied from 50 to 65 mm Hg. He required 3 days of mechanical ventilation but now has normal oxygen tension with nasal oxygen at 4 l/min. On pulmonary function testing, his FEV_1 is 50% of predicted. He can now walk in the halls but must stop occasionally to catch his breath. His pulmonary physician asks a palliative consultant for help in determining when patients like him become eligible for hospice.

Which one of the patient's clinical findings most strongly supports mortality within 6 months, suggesting hospice eligibility?

A. More than 48 hours of mechanical ventilation.
B. $PaCO_2$ >50 mm Hg.
C. Dyspnea while walking on level ground.
D. FEV_1 <65% of predicted.
E. Requiring more than 2 l/min of nasal oxygen to maintain a normal oxygen saturation.

Correct Answer: A

Prognostication in patients with chronic lung disease is difficult. Patients with severe COPD may have exacerbations that require hospitalization, and this may go on for several months or years. Multiple indices, such as the BODE index (Table 4.1), are not helpful for hospice eligibility (choices C and D are incorrect). Many patients with COPD deemed hospice-eligible live beyond 6 months.

Hospitalized COPD patients who require ventilation have a 25% in-hospital mortality.

However, detailed symptom assessment and addressing any change in symptoms, such as cough, sputum production, breathlessness, and sleep disturbances, especially pain—which is often underdiagnosed and underreported in COPD patients—are better prognostic indicators. In this case, more than 48 hours of mechanical ventilation is necessary, and a 1-year survival is about 50% (choice A is correct).

The other options are not correct. If a patient with COPD is admitted to the hospital with an unmanaged $PaCO_2$ >50 mm Hg, 10% will die during that hospitalization, 33% by 6 months, and 43% by 1 year (choice B is incorrect). Oxygenation that can be managed by nasal oxygen supplementation does not suggest end-stage disease without other symptoms (choice E is incorrect).

Annotation

Bharadwaj P, Kewcharoen J, Unger K. *Palliative Care for COPD Patients: Practical Tips for Home Based Programs*. National Hospice and Palliative Care Organization; 2017. https://www.nhpco.org/wp-content/uploads/2019/04/PALLIATIVECARE_COPD.pdf. Accessed Oct. 9, 2024.

Childers JW, Arnold RM, Curtis JR. Fast Facts and Concepts #141. Prognosis in End-Stage COPD. November 2023. Available at: https://www.mypcnow.org/fast-fact/prognosis-in-end-stage-copd. Accessed Oct. 9, 2024.

Table 4.1 The BODE index, a predictive model for patients with COPD

	Points on the BODE index			
Variable	***0***	***1***	***2***	***3***
FEV_1 (% of predicted)	≥65	50–64	36–49	≤35
Distance walked in 6 minutes (m)	>350	250–349	150–249	≤149
Dyspnea assessment	With strenuous exercise or walking up a slight hill	With walking on level ground, must stop occasionally	Must stop after walking 100 yards or after a few minutes	Cannot leave the house, breathless with dressing
Body mass index (kg/m^2)	>21	≤21	—	—

Total BODE index	*1-year mortality*	*2-year mortality*	*52-month mortality*
0–2	2%	6%	19%
3–4	2%	8%	32%
4–6	2%	14%	40%
7–10	5%	31%	80%

Source: Modified from Celli BR, Cote CG, Marin JM, et al. The body-mass index, airflow obstruction, dyspnea, and exercise capacity index in chronic obstructive pulmonary disease. *N Engl J Med* 2004;350:1005–12. https://www.nejm.org/doi/full/10.1056/NEJMoa021322.

Smallwood N, Goh N. Advanced diseases of the lung. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:964–75.

5. You are seeing an 87-year-old male for an initial palliative care consult after being discharged from the hospital. The patient lives in an assisted living facility with his wife. He has Alzheimer's dementia. Prior to his most recent hospitalization, he spent most of the day in bed and required assistance to ambulate and with all of his activities of daily living (ADLs). His wife is concerned that over the past 36 hours his condition has appeared to change. He has had a severe decrease in oral intake with minimal urine output. He has been more confused than usual and is drooling a lot. He has a living will that specifies "do not resuscitate/do not intubate" (DNR/DNI) and does not want to return to the hospital. On exam you note a blood pressure of 88/54; an irregular breathing pattern; and cool, bluish toes.

What single clinical sign in this patient would most likely prompt you to recommend an urgent hospice referral for expedited admission?

A. Functional Assessment Staging Test (FAST) score of 7c.
B. Cheyne-Stokes respirations.
C. Hypotension.
D. Palliative Performance Scale (PPS) 40%.
E. Decreased urine output.

Correct Answer: B

This patient's irregular breathing pattern is consistent with Cheyne-Stokes respirations, which are a sign that the patient is actively dying. This coupled with the increased confusion, hypotension, mottling, and inability to control his secretions supports the need for urgent hospice referral. However, alone, his hypotension and decreased urine output would not trigger the need for urgent referral. Neither would a FAST 7c or PPS of 40%, although these do support hospice eligibility. Within the past 36 hours his FAST score and PPS have declined further.

Annotation

Ackermann R. Last days and hours of life. Dimitrov N, Kemle K, eds. In: *Palliative and Serious Illness Patient Management for Physician Assistants*. Oxford University Press; 2021:409–16.

Anderson F, Downing GM, Hill J, Casorso L, Lerch N. Palliative performance scale (PPS): a new tool. *J Palliat Care*. 1996;12(1):5–11.

Strothers HS, Patel D. Older adult population. Dimitrov N, Kemle K, eds. In: *Palliative and Serious Illness Patient Management for Physician Assistants*. Oxford University Press; 2021:320–44.

6. You are the physician associate on the palliative care team who has been consulted to evaluate an 80-year-old woman with advanced chronic obstructive lung disease who is hospitalized with pneumonia and septic shock, which leads to acute renal failure. She is in the critical unit, and after 7 days of mechanical ventilation, vasopressor support, and continuous dialysis, she has not improved. Her attending critical care physician has consulted with pulmonary, renal, and infectious disease specialists; and their reports have confirmed that her prognosis is poor. A family meeting with her children has been arranged in order to review the goals for care and specifically to decide on whether to consider tracheostomy and percutaneous endoscopic gastrostomy (PEG) placement. The critical care physician is uncertain about the prognosis and wonders what is the best way to present that uncertainty to the family.

Which one of the following is the best way to handle uncertainty with the family?

A. Wait until the prognosis is nearly 100% certain so that you do not make a mistake and withdraw medical care from a patient who might benefit.
B. Tell the family that you have no idea about her prognosis, so you should continue aggressive medical care until more data becomes available.
C. Concentrate on the need for the tracheostomy and PEG, without dwelling on the uncertain prognosis.
D. Acknowledge the family's emotions about uncertainty, but offer your best estimate of the prognosis, admitting that there are limits to medicine.

Correct Answer: D

When dealing with prognostication, clinicians and the patients and families they counsel must learn to deal directly with uncertainty. If you wait until the prognosis is absolutely 100% certain, many choices will not be offered, and patients may suffer from interventions that have vanishingly small chances of success (choices A and B are incorrect).

Clinicians can help by first normalizing the prognostic uncertainty, that there are limits to medicine, and that we have to work with that (choice D is correct). Acknowledge the patient's and

family's emotions about the uncertainty. They are often angry, confused, or even paralyzed by the physician's inability to tell them what will happen. Help patients manage the uncertainty, to make decisions in the present moment. Be careful with statements such as "We need more time to be sure," which, may not always be true, if followed to the extreme.

Choice C is incorrect because the underlying goal of care is dependent on prognosis; one cannot progress to specific interventions such as tracheostomy, PEG, or others until that is clear. Do not automatically escalate medical care without reviewing the goals for care.

Annotation

Etkind SN, Koffman J. Approaches to managing uncertainty in people with life-limiting conditions: role of communication and palliative care. *Postgrad Med J*. 2016;92(1089):412–9. DOI: 10.1136/postgradmedj-2015-133371.

Smith AK, White DB, Arnold RM. Uncertainty—the other side of prognosis. *N Engl J Med*. 2013;368:2448–50. DOI: 10.1056/NEJMp1303295.

7. A 45-year-old White male with severe alcoholic cirrhosis develops ascites, which responds to standard treatment with spironolactone and furosemide. He is hospitalized with an episode of bleeding from esophageal varices, which stops with endoscopic band ligation. He does not have hepatic encephalopathy. His albumin is 2.0 g/dl, bilirubin 6.0 mg/dl, international normalized ratio (INR) 2.8, and creatinine 1.0 mg/dl. He has mild fatigue and abdominal pain but no dyspnea or insomnia.

You calculate the Child–Turcotte–Pugh (CTP) score in order to estimate his risk of mortality.

Which of the following characteristics comprise the CTP score?

A. Age, gender, race, and type of cirrhosis (alcoholic vs. non-alcoholic).
B. Serum albumin, serum bilirubin, INR, and presence of ascites or encephalopathy.
C. Serum creatinine, presence of biliary obstruction or esophageal varices.
D. Symptoms of fatigue, dyspnea, insomnia, and pain.

Correct Answer: B

The two most widely used prognostic scales for patients with end-stage liver disease (ESLD) are the *CTP score* and the *Model for End-stage Liver Disease* (MELD) *score*. Neither score includes functional information or an overall sense of the patient's well-being.

The CTP score was originally developed to estimate operative risk for patients undergoing portosystemic shunt surgery, but it is helpful in estimating overall prognosis in patients with ESLD. This score looks at five clinical variables: serum albumin, presence of ascites, serum bilirubin, severity of encephalopathy, and INR. Two of the variables, ascites and encephalopathy, are subjective; and it does not contain information on renal function. Each of the five factors is rated as 1, 2, or 3, so the total score varies from 5 to 15 points.

From this total number of points, the patient is assigned a CTP class: A for 5–6 points, B for 7–9 points, and C for ≥10 points. It provides estimates of survival for 1 and 2 years but not for 6 months, so it is less helpful for determining hospice eligibility. However, most patients with liver disease who are CTP Class C are eligible for hospice as their 1-year mortality is 55%. It is likely that many patients in Class B would also be eligible.

The MELD score was developed to prioritize patients with chronic liver disease for transplantation. It is calculated from three readily available biochemical measurements—bilirubin, creatinine, and INR—but it does not contain either the presence of ascites or varices. A variant, the MELD-Na, which adds the serum sodium to the three original labs, is also available.

Neither of these predictive instruments is highly accurate as the clinical progression of ESLD is highly variable. Look at the big picture, including comorbidities, functional status, and the patient's goal of care. It is often wise to get an opinion from a gastrointestinal or liver disease consultant.

Choice B is correct because it contains the five variables that make up the CTP prognostic score. Choices A, C, and D are incorrect because these variables are less predictive than the CTP score.

Annotation

Antaki F, Lukowski A. The Model for End-Stage Liver Disease (MELD) predicts survival of liver cirrhosis patients after discharge to hospice. *J Clin Gastroenterol*. 2007;41:412–5. DOI: 10.1097/01.mcg.0000225594.01201.9b.

Dolan B, Chang A, Baum L, Arnold RM. Fast Facts and Concepts #189. Prognosis in Decompensated Liver Failure. November 2023. https://www.mypcnow.org/fast-fact/prognosis-in-decompensated-liver-failure/. Accessed Oct. 15, 2024.

Patel A, Walling A. Palliative care and end-stage liver disease. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:1004–9.

Potosek J, Curry M, Buss M, Chittenden E. Integration of palliative care in end-stage liver disease and liver transplantation. *J Palliat Med*. 2014;17:1271–7. DOI: 10.1089/jpm.2013.0167.

8. A 90-year-old female patient with Alzheimer's disease has experienced a significant functional and nutritional decline over the last year. She has lost 5% of her body weight, with a serum albumin level of 2.8 g/dl. She has had three urinary tract infections (UTIs), two episodes of pneumonia likely due to aspiration, and the skin on her buttocks is starting to break down. She has lost the ability to say intelligible words and is now unable to ambulate. You estimate her FAST score at 7c.

Which one of the following clinical criteria also qualifies this patient for hospice care?

A. Weight loss.
B. Serum albumin level.
C. Frequency of UTIs.
D. Skin breakdown on buttocks.
E. Episodes of pneumonia.

Correct Answer: E

Dementias, which are broadly defined as a marked and progressive loss of cognition and function, have a complex and unpredictable trajectory, making prognostication difficult.

Currently, hospice criteria for dementia include a FAST score of 7 or more. Also, within the last 12 months, the patient must have had an infection such as aspiration pneumonia, sepsis, pyelonephritis, stage 3–4 decubitus ulcers, recurrent fever after antibiotics, or a weight loss of >10% or a serum albumin of <2.5 gm/dl with an inability to maintain fluids. Choice E is correct because recurrent pneumonias is on this list.

While concerning, a 5% weight loss and a serum albumin of 2.8 g/dl are not sufficient on their own to qualify for hospice (choices A and B are not correct). Pyelonephritis, not recurrent UTIs, is part of the criteria, while the developing wounds on her sacrum would need to be at least a stage 3 ulceration, not merely skin breakdown (choices C and D are not correct).

Annotation

Strothers HS, Patel D. Older adult population. Dimitrov N, Kemle K, eds. In: *Palliative and Serious Illness Patient Management for Physician Assistants*. Oxford University Press; 2021:320–44.

Widera E, Talebreza S, Bernacki RE. Dementia. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:987–C15.4.P127. https://doi.org/10.1093/med/9780198821328.003.0092. Accessed May 31, 2024.

9. You are seeing Mr. Bill for an initial palliative care consult after recent hospital admission for aspiration pneumonia. He is an 87-year-old male who lives in an assisted living facility with his wife. He has Alzheimer's dementia. Prior to his most recent hospitalization, his health had been very stable. He spent most of the day in bed as he could no longer ambulate on his own and required assistance with all of his ADLs. His wife is concerned that over the past 36 hours his condition has appeared to change. He has had a severe decrease in oral intake with minimal urine output. He has been more confused than usual and is drooling a lot. He has portable medical orders that include DNR/DNI and do not hospitalize. On exam you note a blood pressure of 88/54; an irregular breathing pattern; and cool, bluish toes.

What is your appropriate next step?

A. Confirm the validity of the Physician Orders for Life-Sustaining Treatment (POLST) with the patient's healthcare agent.
B. Call emergency medical services (EMS) immediately.
C. Discharge from palliative care services; he is not appropriate.
D. Place a routine hospice referral.
E. Order home health to begin physical therapy and in-home intravenous fluids.

Correct Answer: A

The patient appears to be actively dying, is listed as a DNR/DNI, and does not want to return to the hospital. These desires should be confirmed prior to initiating any additional steps to ensure you are following the patient's wishes.

Annotation

Ackermann R. Last days and hours of life. Dimitrov N, Kemle K, eds. In: *Palliative and Serious Illness Patient Management for Physician Assistants*. Oxford University Press; 2021:409–16.

Strothers HS, Patel D. Older adult population. Dimitrov N, Kemle K, eds. In: *Palliative and Serious Illness Patient Management for Physician Assistants*. Oxford University Press; 2021:320–44.

10. A 73-year-old woman with adenocarcinoma of the ascending colon undergoes right hemicolectomy, but several lymph nodes are positive for tumor. She does not have hepatic or other distant metastases. She also has hypertension, coronary artery disease, hypothyroidism, degenerative joint disease, and mild Parkinson's disease. She has no cognitive impairment. She cannot do housework; but self-care is independent, and she is ambulatory and walks without assistance for more than half of her waking hours.

Using the Eastern Cooperative Oncology Group (ECOG) Performance Scale, this woman's function is grade:

A. 0
B. 1
C. 2
D. 3
E. 4

Correct Answer: C

A consistent factor in determining prognosis in cancer patients is their functional status. The two scales most commonly used by oncologists are the Karnofsky Performance Scale (KPS) and the ECOG (Table 4.2) Performance Scale. Palliative physicians often use a variation of the KPS, the PPS. Higher scores reflect better function with the KPS and PPS, while a lower score reflects better function with the ECOG grade.

A rule of thumb for determining whether a patient is fit for chemotherapy is to ask them how they spend their time. If the patient with advanced cancer spends more than half of their waking time in a chair or lying down, their function is poor, their prognosis is likely less than 3–6 months, and they are probably not a good candidate for chemotherapy. This roughly correlates with a KPS ≤60, PPS ≤60, or ECOG ≥2. The vignette describes a woman who is ambulatory and capable of self-care but unable to carry out any work activities. She is up and about more than half the time. This fits ECOG grade 2; thus, choice C is correct, while choices A, B, D, and E are incorrect.

Annotation

Oken MM, Creech RH, Tormey DC, et al. Toxicity and response criteria for the Eastern Cooperative Oncology Group. *Am J Clin Oncol*. 1982:5:649–55.

Table 4.2 Eastern Cooperative Oncology Group (ECOG) performance status

Description	Grade
Fully active, able to carry on all pre-disease performance without restriction	0
Restricted in physically strenuous activity but ambulatory and able to carry out work of a light or sedentary nature (e.g., light housework, office work)	1
Ambulatory and capable of all self-care but unable to carry out any work activities, up and about more than 50% of waking hours	2
Capable of only limited self-care, confined to bed or chair more than 50% of waking hours	3
Completely disabled, cannot carry on any self-care, totally confined to bed or chair	4
Dead	5

Source: Oken M, Creech R, Tormey D, et al. Toxicity and response criteria of the Eastern Cooperative Oncology Group. *Am J Clin Oncol*. 1982;5(6):649–55. https://pubmed.ncbi.nlm.nih.gov/7165009/. Reprinted with permission from Wolters Kluwer Health, Inc.

Sinclair CT. Predicting survival in patients with advanced disease. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:1083–93.

11. You are asked to see a hospitalized 78-year-old male with diagnoses of hypertension, high cholesterol, stroke with residual right-sided deficits, atrial fibrillation on warfarin, and metastatic rectal cancer on second-line treatment. He is currently admitted for hypercalcemia related to his malignancy which is being treated; calcium and lab values have all returned to baseline. He is nearing discharge and has follow-up with his oncologist, who recently discussed that imaging revealed progression of disease. His daughter is present with him and tells you that she is worried because he has already had a difficult time getting out of bed and is eating poorly this past month. He typically has only been able to eat half the portions he used to eat. He spends all day in his bed and is only up in his wheelchair for appointments when needed. He needs assistance with all ADLs, although he can feed himself. When you visit, he is lying in the hospital bed and appears very fatigued. He is alert and oriented and engaged in conversation. His vital signs are within normal limits.

At this time, what would you anticipate his prognosis to be?

A. Imminent: hours to days.
B. Weeks to months.
C. 6–24 months.
D. Cannot prognosticate.

Correct Answer: B

Prognosis with advanced cancer with the onset of hypercalcemia has a poor prognosis, with 50% of patients dying within 30 days of the development of this complication. Declining PPS also indicates a poor prognosis given that he is now an ECOG functional status of 4 and a PPS of 40%.

Why are the other answers not correct? Nothing on his physical exam indicates a more imminent death (i.e., hours to days) such as tachycardia. Though treatment may attenuate the impact of hypercalcemia, it does not change the end stage this reflects. He is experiencing progression of disease on treatment; thus, further cancer treatments are unlikely to substantially prolong life if they are available. His functional status is too limited for a clinical trial, and his hypercalcemia would likely make him ineligible.

Annotation

Asonitis N, Angelousi A, Zafeiris C, Lambrou GI, Dontas I, Kassi E. Diagnosis, pathophysiology and management of hypercalcemia in malignancy: a review of the literature. *Horm Metab Res*. 2019;51(12):770–8. https://doi.org/10.1055/a-1049-0647.

Lee GJ, Gwak JH, Kim MS, et al. Changes in the Palliative Performance Scale may be as important as the initial Palliative Performance Scale for predicting survival in terminal cancer patients. *Palliat Support Care*. 2021;19(5):547–51. DOI: 10.1017/S1478951520001248.

Ramos REO, Perez Mak M, Alves MFS, Piotto GHM, Takahashi TK, Gomes da Fonseca L, Silvino MCM, Hoff PM, de Castro G Jr. Malignancy-related hypercalcemia in advanced solid tumors: survival outcomes. *J Glob Oncol*. 2017;3(6):728–33. DOI: 10.1200/JGO.2016.006890.

12. An 83-year-old woman with advanced dementia, peripheral vascular disease, diabetes, coronary artery disease, and low–ejection fraction heart failure has lived in a nursing home for 3 years. She is estranged from family and has no designated healthcare agent. Over that time, her function has deteriorated, so that she is now dependent in all ADLs except for feeding. She spends most of the day sitting in a wheelchair. She can walk a few steps, with direct assistance from an aide. She can speak in short sentences, and she has lost 3 pounds since admission to the facility. She develops a painful ischemic ulcer on the lateral malleolus of her right ankle, which is primarily treated with a debriding agent, antibiotic gel, and padded dressing. In addition, you request a consultation with a vascular surgeon. You ask the surgeon to provide information on the long-term prognosis with continued local wound care or medical management and/or surgical revascularization in patients like this.

Which one of the following treatment plans is most accurate regarding the 1-year outcome of lower extremity revascularization among nursing home patients?

A. Continue medical management to make the patient more comfortable.
B. Discuss revascularization in a team meeting with family.
C. Determine who will be the decision maker once the goals for care are established.
D. Determine the level of vascularization, and schedule an amputation.

Correct Answer: C

Patients living in nursing homes (NHs) are frail, and standard medical interventions are less effective than in younger, vigorous patients. Oresanya et al. reported on all lower extremity revascularizations done on elderly Medicare patients living in US NHs between 2005 and 2008. At 1 year of follow-up, 51% of these patients had died, and another 30% had suffered further declines in ADLs (choice C is correct, while choices A, B, and D are incorrect because they are too optimistic).

Also at 1 year, only 17% were both alive and walking, the standard measure of success of those procedures. This 1-year success rate of 17% compares with 83% of patients in a regional registry of such procedures. A reasonable conclusion is that revascularization is rarely effective in frail older NH patients.

It remains unclear what to advise non-ambulatory patients with refractory ischemic rest pain, non-healing arterial wounds, or worsening gangrene. The choices are palliative care alone, amputation, or revascularization, although the latter two should be accomplished along with palliative care. Choice C is correct. The goal of care in many of these patients may be comfort, not maintaining ambulation or even maintaining ADLs. Shared decision-making is crucial, with attention to the big picture, not just the arterial anatomy of the leg.

Annotation

Kim TI, Mena C, Sumpio BE. The role of lower extremity amputation in chronic limb-threatening ischemia. *Int J Angiol*. 2020;29(3):149–55. https://doi.org/10.1055/s-0040-1710075.

Oresanya L, Zhao S, Gan S, et al. Functional outcomes after lower extremity revascularization in nursing home residents: a national cohort study. *JAMA Intern Med*. 2015;175:951–7. DOI: 10.1001/jamainternmed.2015.0486.

Pickmans L, Smith MA, Keefer P, Marks A. Fast Facts 352: Management of Ischemic Limb Pain. Palliative Care Network of Wisconsin. March 6, 2019. https://www.mypcnow.org/fast-fact/management-of-ischemic-limb-pain/. Accessed Aug. 22, 2024.

13. A 78-year-old woman with advanced chronic obstructive lung disease, severe malnutrition, and moderately advanced dementia is enrolled in home hospice by her children. She

is bed-bound and dependent in all ADLs. She can speak in three- to five-word sentences but lacks decision-making capacity. She has two pressure sores—a 3 cm × 4 cm stage III wound over her right greater trochanter and a deep 5 cm × 7 cm stage IV wound over the sacrum, with exposed bone. Her family is committed to aggressive comfort care, including adequate analgesia for her wounds; and they wonder if the wounds are likely to heal.

Which one of the following statements most accurately describes the prognosis of her pressure sores?

A. With appropriate pressure reduction and wound treatment, they will heal.
B. They are likely to heal.
C. They are unlikely to heal.
D. There is no data on the outcome of pressure sores in this population.

Correct Answer: C

The first step in managing pressure sores in a hospice or palliative population is to estimate whether the wound is likely to heal. For a few patients, who have a prognosis of months to years, good nutrition, and good blood flow to the wound, healing is possible, although it may not be likely. Rare palliative patients with painful chronic wounds may benefit from aggressive treatments such as arterial revascularization, vacuum-assisted closure (VAC), or plastic surgical procedures. Many of these patients can be helped by consulting with experts in wound care, and such expertise should be routinely available to patients on hospice. Most palliative patients, whose life expectancy is measured in days to weeks, have anorexia and cachexia and may have reduced oxygenation to the wound through peripheral vascular disease or other abnormalities. For these patients, healing is unlikely or impossible, and attention should turn to comfort.

Hope for the best, and do a thorough assessment; but realize that most wounds in patients near the end of life will not heal. Pressure sores are often unavoidable, particularly in frail patients at the end of life. Ensure that the family understands this reality. For those with severe immobility, fixed contractures, a need for elevation of the head of the bed, severe malnutrition, and thin skin with poor turgor, the risk of developing pressure sores is very high; and it is difficult to protect the skin from physical forces. Choice C is correct, and choices A, B, and D are incorrect.

Annotation

Beers EH. Palliative wound care: less is more. *Surg Clin North Am*. 2019;99(5):899–919. DOI: 10.1016/j.suc.2019.06.008.

Tilley CP, Fu MR, Van Cleave JH, Most AR, Comfort C. Palliative wound and ostomy care. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC. eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:622–47.

Tippett AW. Palliative wound treatment promotes healing. *Wounds*. 2015;27:12–9.

14. A 35-year-old man suffers an out-of-hospital cardiac arrest and is resuscitated by the paramedics at his home. In the hospital, he is treated with hypothermia and placed on mechanical ventilation. At 10 days, he is successfully extubated. At 16 days, he can open and shut his eyes and has limited awareness of himself and the environment. He inconsistently gestures or vocalizes to yes/no questions. The palliative care service is consulted to help his family with prognosis and discharge options.

Which of the following is the most accurate neurologic diagnosis at this time?

A. Coma.
B. Encephalopathy.
C. Minimally conscious state.
D. Vegetative state.

Correct Answer: C

Encephalopathy is a syndrome of global brain dysfunction. This is a non-specific term but is preferred when a precise diagnosis is not yet clear. For example, a patient who presents to the emergency department as minimally conscious without focal neurologic signs and with a normal computed tomography (CT) scan has an encephalopathy, which could be caused by many etiologies, including stroke, seizure, hypoglycemia, etc. Choice B is incorrect because the patient did present with an encephalopathy, but a more precise neurologic diagnosis is now possible.

Consciousness has two key aspects: arousal, which is the ability to wake from sleep, and awareness, which is the ability to comprehend both the self and the outside world. Coma is a state of unconsciousness in which patients are neither awake nor aware of their environment; they lack both arousal and awareness. Comatose patients have total lack of response to any stimulus, even painful stimuli. Patients in a coma do not open and shut their eyes; if their eyes are pushed open, they do not track with their eyes; and they do not follow commands or exhibit any purposeful movements, although they may have reflex movements (choice A is incorrect). Coma is almost always a transient state lasting up to 1 month. After that, patients either regain neurologic function, die, or develop one of two chronic conditions of severely disordered consciousness.

One type of severely disordered consciousness is the vegetative state. In these patients, the cortices have died, but the brainstem continues to have some function. Patients in a vegetative state have sleep–wake cycles, which means they can open and close their eyes. They have eye movements but cannot track with their eyes. They can smile and produce other facial expressions, but these are not purposeful. Similarly, they may have limb movements, but these are reflexive, not purposeful. They cannot think, perceive, or experience pain. Although their eyes are open, they are not conscious because they are not aware of themselves or their environments. Choice D is incorrect because the patient in the vignette has evidence of cognitive function.

The second type of severely disordered consciousness is the minimally conscious state. These patients do not meet criteria for either coma or vegetative state. With detailed neurologic exam and new functional imaging techniques, some minimal level of cognition can be demonstrated. Generally, coma has progressed to a minimally conscious state or, more commonly, from a coma to a vegetative state and then to the minimally conscious state. These patients have intermittent and limited awareness of themselves and the environment. They may gesture or vocalize to yes/no questions. Choice C is correct. Differentiating among these disorders of consciousness often requires expert help from a neurologist.

Annotation

Weitzel L, Bavishi S. Disorders of consciousness. *Phys Med Rehabil Clin N Am*. 2024;35:493–506. DOI: 10.1016/j.pmr.2024.02.003.

Natural History of Serious and Complex Illness

15. You are seeing a 78-year-old man with advanced pancreatic cancer. He has been admitted to the hospital due to uncontrolled abdominal pain and severe fatigue. His comorbidities include diabetes and hypertension, and his oncologist has recently informed him that his cancer is no longer responsive to treatment. He walks slowly but without assistance and lies on the exam table in mild discomfort. He retains decision-making capacity.

The patient is accompanied by his daughter, who is his primary caregiver and will be his surrogate decision maker. She is visibly distraught and overwhelmed by her father's deteriorating condition. The patient expresses his desire to return home and receive care in a familiar environment surrounded by his loved ones. He does not want to be in the hospital unless his pain can be controlled.

What is the most appropriate next step in developing a personalized care plan for this patient?

A. Prescribe opioids to manage his pain using the World Health Organization (WHO) ladder.
B. Refer the patient to a hospice for comfort care.
C. Conduct a comprehensive assessment of the patient's symptoms and needs.
D. Recommend radiation therapy.
E. Refer the daughter to the chaplain before making decisions regarding his care.

Correct Answer: C

Before any medical intervention can be prescribed, the patient needs to be evaluated in a holistic manner. This includes the psychosocial, spiritual, and biophysical aspects. While he is not debilitated by the pain, the concept of total pain must be considered. Choice A is not correct; opioids may not be the first choice for his pain. Total pain must first be assessed in order to guide treatment, and the WHO ladder addresses biophysical pain. Choice B is not correct because he may not necessarily be a candidate for hospice. To make that decision, we need more information on his prognosis. Choice D is incorrect—there is only a limited role for radiation therapy in the treatment of pancreatic cancer, and it is not clear in this case that it would help his symptoms. Choice E is incorrect because the patient is still making decisions. However, a chaplain visit may be helpful for both the patient and his daughter. There are assessment tools that are useful to identify spiritual distress as well as the spiritual community that may be helpful to contact as this patient and his daughter go through this journey.

Annotation

Ferrell B, Battista V. Whole-person assessment of the patient. Dimitrov N, Kemle K, eds. In: *Palliative and Serious Illness Patient Management for Physician Assistants*. Oxford University Press; 2021:31–44.

National Cancer Institute. Palliative Care in Cancer (PDQ®)—Health Professional Version. https://www.cancer.gov/publications/pdq/information-summaries/supportive-care. Accessed Aug. 6, 2024.

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5

Assessment and Management of Pain

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Adult Pain Management Strategies

1. A 58-year-old man with advanced chronic obstructive lung disease and inoperable peripheral arterial disease takes MS Contin 30 mg twice daily, along with 10 mg of immediate-release (IR) morphine (0.5 ml of a 20-mg/ml concentrate) every 2–3 hours as needed for breakthrough pain, which is mostly confined to his legs and feet. There is no evidence of gangrene or ulceration. He routinely uses two doses of the IR morphine a couple hours before the next MS Contin is due and sometimes a dose at other times. On the 0–10 visual analog score, his pain varies from 2 to 6.

Which one of the following is the best strategy in titrating his opioid dosage?

- **A.** No titration is necessary—continue the current doses of both the long-acting and IR morphine.
- **B.** Increase MS Contin to 45 mg PO twice daily (a 30-mg and a 15-mg tablet), and increase the IR morphine to 15 mg every 2–3 hours as needed.
- **C.** Increase MS Contin to 60 mg PO twice daily, and increase the IR morphine to 20 mg every 2–3 hours as needed.
- **D.** Increase MS Contin to 30 mg three times daily, and increase the IR morphine to 15 mg every 2–3 hours as needed.

Correct Answer: D

There are three types of breakthrough pain—spontaneous, end-of-dose failure, and incident pain.

Spontaneous breakthrough pain is pain that occurs out of the blue, unrelated to activity or position change. It is often due to underlying malignancy. It can come within seconds, or more commonly, it arises slowly over several minutes. This type of pain can be treated with an extra dose of IR opioid. For breakthrough pain, generally use the same opioid as the sustained-release product. Prescribe 10%–20% of the 24-hour dose of the chronic opioid as the rescue dose, every 1–3 hours. The goal of the breakthrough dose is to transiently double the serum opioid concentration. This treatment is called the "breakthrough dose," the "rescue dose," or the "escape dose."

The second type of breakthrough pain is incident pain, pain that reliably occurs with an activity or change in posture. For example, a patient with metastatic bone pain may routinely have an exacerbation of pain during physical therapy or when getting up to go to the bathroom. With this type of pain, pre-treat the episode with a dose of IR opioid, calculated as above.

The third type of breakthrough pain is end-of-dose failure pain, which predictably occurs toward the end of the dosing interval. For example, about 15% of patients taking MS Contin for chronic pain will not get a reliable 12 hours worth of analgesia; they will start to have pain in the hours just before the next dose. This is what is happening in the vignette. Rather than increasing the dose of the MS Contin, it is reasonable to prescribe the drug every 8 hours, instead of every 12 hours. If you do this, make a note to that effect on the prescription/order so that the pharmacist understands why you made this decision. Similarly, 10%–15% of patients using transdermal fentanyl will not obtain 72 hours of analgesia; in this case, change the patch every 48 hours.

In the vignette, the patient takes 60 mg of long-acting morphine and 30 mg of IR morphine most days, for a total of 90 mg. Most of the breakthrough pain represents end-of-dose failure, so rather than increasing the MS Contin dose, change the dosing interval to 8 hours. The new 24-hour dose of chronic opioid thus becomes 90 mg, and 10%–20% of that would be 9–18 mg, so a reasonable breakthrough dose would be 15 mg. Choice D is correct, while choices A, B, and C are incorrect.

Annotation

Ballantyne JC, Mao J. Opioid therapy for chronic pain. N Engl J Med 2003;349:1943–1953. DOI: 10.1056/NEJMra025411

Cherny NI, Fallon MT. Opioid therapy: Optimizing analgesic outcomes. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:372–415.

McPherson ML. *Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing*. 2nd ed. ASHP; 2018.

2. A 42-year-old man with type 1 diabetes accesses hospice for advanced coronary artery disease, recurrent stroke, and severe peripheral vascular disease. He has severe leg pain from arterial wounds, and no operative approach is available. He is prescribed titrated doses of morphine to manage his pain.

If he experiences adverse effects from the opioid, which one of the following is the most common approach?

A. Reduce the opioid dose by 25%–50%.
B. Prescribe another medication to manage the adverse effect.
C. Using the equianalgesic chart; switch to another opioid.
D. Change the route of opioid administration from oral to epidural.

Correct Answer: B

In patients taking oral opioids for chronic pain, 10%–30% will have either intolerable side effects or inadequate analgesia. Much of this percentage can be finessed with proper knowledge and manipulation of medications. In case of either inadequate analgesia or side effects, there are several approaches: (1) reduce the dose of the opioid by 25%–50% if the pain remains controlled, (2) prescribe another medicine to manage the side effect, (3) switch to another opioid, or (4) change the route of administration, for example, to epidural or intrathecal.

Of these choices, by far the most common practice in palliative medicine is to add another medicine to manage the side effect, even though this leads to polypharmacy. Choice B is correct, while choices A, C, and D are incorrect because they are less-common approaches to this problem.

Annotation

Cherny NI, Fallon MT. Opioid therapy: Optimizing analgesic outcomes. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:372–415.

McPherson ML. *Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing*. 2nd ed. ASHP; 2018.

Portenoy RK, Ahmed E, Krom C. Assessment and management of pain. Dimitrov N, Kemle K, eds. In: *Palliative and Serious Illness Patient Management for Physician Assistants*. Oxford University Press; 2021:214–259.

3. An 80-year-old man with advanced heart failure, metastatic prostate cancer, and hypertension is currently on hospice. For the past 2 weeks he has been inconsistently taking his morphine sustained release for pain. He reports his pain is still constant and severe in nature at 6/10 on the pain scale. He is worried that morphine is worsening his constipation. He has suffered from constipation for most of his adult life, and he manages it with daily senna tablets.

Which one of the following is most likely to optimize this patient's pain management?

A. Rotate from oral morphine to the transdermal fentanyl patch.
B. Increase the dose of morphine.
C. Rotate from morphine to oxycodone.
D. Rotate to intravenous (IV) morphine.

Correct Answer: A

Successful pain management with opioids requires effective analgesia without limiting or unacceptable side effects. This patient is intolerant of constipation and anxious about morphine worsening that condition, so he is not taking his medication sufficiently. Transdermal fentanyl has lower rates of constipation compared to morphine (choice A), probably because this route of administration bypasses the liver. Increasing the morphine (PO) will likely result in the patient experiencing more side effects, especially constipation, and is not indicated by this scenario (choice B). Choice C is incorrect because rotating to oxycodone sustained release would likely have the same impact on his bowels given that it is a water-soluble opioid like morphine. Choice D is incorrect because there is no reason to complicate his analgesic therapy with IV delivery, and this switch is just as likely to cause constipation.

Annotation

Strothers HS, Patel D. Older adult population. Dimitrov N, Kemle K, eds. In: *Palliative and Serious Illness Patient Management for Physician Assistants*. Oxford University Press; 2021:320–344.

4. A 29-year-old man with cystic fibrosis (CF) has experienced a progressive decline in lung function over the past 4 years. He is currently in the hospital for a *Pseudomonas* lung infection to severe exacerbation of cough, chest pain, and dyspnea. He has received appropriate antibiotics, and the hospitalist and pulmonologist have paged you, a member of the palliative care team. The patient tells you that he wants to get his pain under better control so that he can experience an improved quality of life. He also reports chronic anxiety, symptoms of depression, and refractory dyspnea.

What is the most appropriate initial step regarding pain management for this patient?

A. Refer the patient to psychiatry, and instruct him to follow up with you in the outpatient clinic for pain management.
B. Tell the patient that he needs to focus on treating the CF, and refer him for a lung transplant evaluation.
C. Initiate a discussion about end-of-life care and how he may be eligible to start hospice.
D. Start the patient on 25 mg of tramadol as needed, to manage his pain and respiratory discomfort.
E. Instruct the patient to begin meditating daily, and do not prescribe him any medication.

Correct Answer: D

Start patient on tramadol (25 mg PO once daily PRN) to manage his pain and respiratory discomfort, and follow up with patient at time of discharge.

Tramadol PRN (choice D) will help the patient to manage his pain; using tramadol initially instead of a complete opioid agonist such as morphine or oxycodone is indicated. Choice A delays pain relief, and there is no clear reason that a referral to psychiatry is indicated. Choice B is incorrect because although lung transplantation may become important, it does not manage his current symptoms. Choice C is incorrect because he does not appear to be in the final 6 months of life, and appropriate symptom

management should occur throughout the disease continuum. Choice E is incorrect because while meditation may reduce pain, it should generally be used in addition to standard pharmacologic treatment in patients with serious illness.

Annotation

Cherny NI, Fallon MT. Opioid therapy: Optimizing analgesic outcomes. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:372–415.

Global Initiative for Chronic Obstructive Lung Disease (GOLD). Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease. https://goldcopd.org/. Updated 2023. Accessed July 8, 2024.

5. A 65-year-old man enrolls in hospice with advanced chronic obstructive lung disease as well as advanced adenocarcinoma of the lung. For several weeks, he has taken a stable dose of long-acting morphine 30 mg by mouth twice daily, along with 10 mg IR morphine every 2–3 hours as needed for both pain and dyspnea (he takes about two IR doses per day). These symptoms are well managed, without signs of opioid toxicity or misuse of this medication. Over a long weekend he runs out of his opioid and experiences anxiety, lacrimation, goosebumps, rhinorrhea, and an increase in pain.

Which one of the following most accurately describes this situation?

A. He is addicted to morphine, and the drug should be discontinued.
B. Evidence of morphine abuse, and the drug should be discontinued.
C. Withdrawal from morphine and indication of drug dependence.
D. The patient is diverting the morphine to someone else.

Correct Answer: C

Choice C is correct. Clinicians often confuse the terms "withdrawal," "dependence," and "addiction." Withdrawal is a syndrome that manifests when a drug is stopped, the dose is abruptly reduced, or an antagonist is given to a habitual user of a drug. Patients on chronic high-dose opioids will experience withdrawal if these clinical situations occur. This in no way implies that the patient is addicted. However, this person is pharmacologically dependent on the drug—"dependence" refers to a situation where a drug is required in order to prevent a therapeutic withdrawal response. Most patients on chronic doses of opioids, especially on more than trivial doses, will show dependence and withdrawal—these are expected findings for opioid users. Dependence by itself suggests neither medication abuse nor addiction.

On the other hand, addiction is a behavioral syndrome and pattern of substance misuse, involving compulsive psychological and physiological needs for a substance. The sufferer is unable to control their behavior. Note that this definition includes a lack of control and often use of the drug for alternative purposes. A patient who is addicted to opioids centers their life around taking the drug, cannot reduce or control their use, has functional deficits caused by the use, and uses the drug for purposes other than pain relief. Choice A is incorrect.

There are also some differences between the terms "medication misuse," "abuse," and "diversion." "Medication misuse" is inappropriate use of a medication for a medical purpose, whether willful or unintentional and regardless of whether harm results. For example, opioid misuse includes unauthorized escalation for pain treatment or sharing the opioid with a family member who is in pain. "Medication abuse" is the intentional self-administration of a medication for a non-medical purpose, such as to experience the agent's mind-altering effects. Opioid abuse includes taking more doses than prescribed not for pain but for the euphoria it can produce. Finally, "medication diversion" is the intentional removal of a medication for unlawful distribution and dispensing channels. Opioid diversion includes selling prescriptions written for the patient to earn extra money. Choices B and D are incorrect.

Annotation

Ballantyne JC, Mao J. Opioid therapy for chronic pain. N Engl J Med 2003;349:1943–1953. DOI: 10.1056/NEJMra025411

Pergolizzi JV, et al. Opioid therapy: Managing risks of abuse, addiction, and diversion. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:416–426.

6. A 68-year-old woman with advanced chronic obstructive lung disease and metastatic non-small cell lung cancer is referred to hospice. Due to her underlying lung disease, previous physicians have been reluctant to prescribe opioids for her pain and dyspnea. She is opioid-naive, but she has not slept well in several days and is highly anxious.

You are visiting the patient at home; upon initial evaluation in the morning, you find her with substantial pain, and you administer 5 mg of IR oral morphine. This helps both her dyspnea and her bone pain. Later that evening, after taking two more 5-mg oral morphine doses, the family telephones you to report that the patient is asleep, and they are fearful that the morphine is too strong. The nurse visits and finds that the morphine has been administered correctly, the patient's respiratory rate is 14 breaths/minute, and she can be awakened with voice, noise, or gentle shaking, although she falls back to sleep.

Which one of the following is the most likely explanation of her sleepiness?

A. She is opioid-toxic; full-dose naloxone should be administered, and the patient should be transferred to the emergency department.
B. She is opioid-toxic; small doses of naloxone should be administered, with close observation.
C. The dose of opioid is too high. Awaken her every 1–2 hours, and reduce the next morphine dose to 2.5 mg per hour.
D. She has been sleep-deprived due to severe pain and is now "catching up" on sleep. No action is needed except for routine observation.

Correct Answer: D

Opioid-induced sedation and respiratory depression should be uncommon in palliative practice, and the risk quickly subsides if it does happen because the cause is not a massive overdose but a relative problem. Sedation may be seen as the dose is being titrated because the serum level is changing but usually not at steady state. If the palliative care clinician is conservative in initiating and titrating opioids, oversedation is rare. Do not mistake catch-up sleep in a patient whose opioid dose is finally effective with pathologic sedation (choice D is correct). Similarly, if a patient on a chronic long-term dose of opioid suddenly becomes lethargic or comatose, it is very unlikely to be caused by the opioid—expand

the differential diagnosis, considering intracerebral hemorrhage, electrolyte abnormalities, etc.

The modified Ramsay scale is one way to monitor for sedation from opioids. In the vignette, she scores 4 on the Ramsay scale, and the action is simply to observe. There is no indication to give an opioid antagonist or transfer her to the emergency department (choices A and B are incorrect). Choice C is also incorrect because she is safely asleep and does not need her sleep disrupted.

Annotation

Cherny NI, Fallon MT. Opioid therapy: Optimizing analgesic outcomes. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:372–415.

Harris JD. Management of expected and unexpected opioid-related side effects. Clin J Pain 2008;24:S8–S13. DOI: 10.1097/AJP.0b013e31816b58eb

Ramsay MA, Savage TM, Simpson B, et al. Controlled sedation with alphaxalone–alphadolone. Br Med J 1974;2(5920):656–659. DOI: 10.1136/bmj.2.5920.656

7. A 68-year-old man with stage IV prostate cancer sees you in the palliative care clinic. He is currently receiving transdermal fentanyl for pain management, and his pain is not well controlled despite multiple increases in long- and short-acting pain medications. He has reduced renal function with borderline creatinine level. You are considering rotating to methadone.

Which of the following statements regarding this transition is most accurate about this change?

A. Generally has a shorter half-life than fentanyl.
B. Less effective in managing chronic pain.
C. May cause QT prolongation.
D. Should be initiated equianalgesic with fentanyl.
E. Contraindicated in patients with renal impairment.

Correct Answer: C

Choice C is correct. Methadone is an effective opioid for chronic pain management, but it carries a risk of QT interval prolongation, which may lead to serious arrhythmias. Clinicians should assess the baseline electrocardiogram (ECG) and monitor for QTc prolongation during methadone therapy. Close monitoring and dose adjustments are necessary, especially in patients with cardiac risk factors or concurrent medications that prolong the QT interval.

A. Methadone generally has a shorter half-life than fentanyl is incorrect. Methadone has a long and variable half-life of 8–59 hours, whereas fentanyl has a half-life of 3–12 hours for IV and iontophoretic transdermal systems, 5.25–11.99 hours for sublingual, and 20–27 hours for the transdermal patch.

B. Methadone is less effective in managing chronic pain is incorrect. Methods of pain management may be individualized, and there is no evidence that methadone is less effective than other opioids for managing pain in this patient population.

D. Methadone should be initiated at the same dose as fentanyl is incorrect. Conversion from fentanyl to methadone is complex, and there is not a 1:1 conversion ratio. Typically when a patient has already been on an opioid, the initial dose of methadone is greatly reduced.

E. Methadone is contraindicated in patients with renal impairment is incorrect. Methadone is metabolized in the liver and excreted in the gut. It is a preferred analgesic in patients with renal impairment.

Annotation

McLean S, Twomey F. Methods of rotation from another strong opioid to methadone for the management of cancer pain: A systematic review of the available evidence. J Pain Symptom Manage 2015;50(2):248–259. DOI: 10.1016/j.jpainsymman.2015.02.029

Odoma VA, Pitliya A, AlEdani E, Bhangu J, Javed K, Manshahia PK, Nahar S, Kanda S, Chatha U, Mohammed L. Opioid prescription in patients with chronic kidney disease: A systematic review of comparing safety and efficacy of opioid use in chronic kidney disease patients. Cureus 2023;15(9):e45485. DOI: 10.7759/cureus.45485

Portenoy RK, Ahmed E, Krom C. Assessment and management of pain. Dimitrov N, Kemle K, eds. In: *Palliative and Serious Illness Patient Management for Physician Assistants*. Oxford University Press; 2021:214–259.

8. An 88-year-old man with advanced Parkinson's disease has established care with a palliative care clinic. He also has heart failure and chronic kidney disease. You concentrate on helping him cope with the progressive nature of his illness, symptom burden, and functional decline.

He now reports severe, constant musculoskeletal pain that is poorly managed with his current regimen of acetaminophen (650 mg QID) and physical therapy to support ambulation and balance. His pain significantly impacts his quality of life, and he is experiencing considerable distress. His family is concerned and wants to ensure he is as comfortable as possible.

Which one of the following is the most appropriate pain management strategy?

A. Increase the frequency of acetaminophen dosing.
B. Start a low-dose opioid while closely monitoring for adverse effects.
C. Add a nonsteroidal anti-inflammatory drug (NSAID) like ibuprofen to his regimen.
D. Refer him to a neurosurgeon for consideration of a deep brain stimulation (DBS) procedure.
E. Initiate a trial of gabapentin.

Correct Answer: B

Choice B is correct. In the context of palliative care for a patient with advanced Parkinson's disease and significant pain impacting quality of life, starting a low-dose opioid is appropriate. Opioids are effective for managing severe pain and can significantly improve comfort and quality of life in palliative care settings. Close monitoring is essential to manage potential adverse effects, especially in patients with comorbidities.

Choice A is incorrect because increasing the frequency of acetaminophen dosing may not adequately manage severe pain and could risk exceeding the safe dosage limits, especially in patients with comorbidities. The US Food and Drug Administration (FDA) recommends that a single dose of acetaminophen should not exceed 650 mg, and the total daily dose should not exceed 4 g. However, in this frail older patient, a maximum daily dose of 2 g is probably safer.

Choice C is not recommended due to the patient's chronic kidney disease as NSAIDs can exacerbate renal impairment,

worsen volume overload in heart failure, and cause other serious and life-threatening adverse effects.

Choice D, referring for deep brain stimulation, is not appropriate in the palliative care context due to the invasiveness of the procedure and the advanced stage of his illness.

Choice E, initiating gabapentin, might be beneficial for neuropathic pain but is less likely to address severe, constant musculoskeletal pain effectively on its own. It can be considered as part of a multimodal approach but not as the primary intervention. The gabapentin dose must be reduced in patients with renal impairment.

Annotation

Buhmann C, Kassubek J, Jost WH. Management of pain in Parkinson's disease. J Parkinson's Dis 2020;10(s1):S37–S48. https://doi.org/10.3233/JPD-202069

Skogar O, Lokk J. Pain management in patients with Parkinson's disease: Challenges and solutions. J Multidiscip Healthc 2016;9:469–479. https://doi.org/10.2147/JMDH.S105857

9. You are seeing a 90-year-old woman on hospice for end-stage chronic obstructive pulmonary disease who also has had severe lancinating neuropathic pain in her right cheek from trigeminal neuralgia for the past 3 weeks. She has received little analgesic effect from opioids or gabapentin. She is depressed because she is unable to brush her teeth since it can trigger pain, as can chewing her food. She is suffering from weight loss and weakness due to the pain.

Which one of the following medications is the drug of choice for this pain syndrome?

A. Amitriptyline.
B. Carbamazepine.
C. Lidocaine patch.
D. Oxcarbazepine.

Correct Answer: D

In treating neuropathic pain, the most commonly used drugs are anticonvulsants and antidepressants. Of the anticonvulsants, gabapentin or pregabalin is generally used first, except for special circumstances where another drug has unique efficacy. Such a situation is trigeminal neuralgia, where the anticonvulsant carbamazepine and its congener oxcarbazepine are highly effective. Of the two, oxcarbazepine is preferred because it lacks the serious toxicity of carbamazepine, which includes cytopenias, dizziness, and drowsiness. Choice D is correct, while choice B is incorrect. Choices A and C are reasonable for many types of neuropathic pain, but they are not first-line for trigeminal neuralgia.

Annotation

Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:487.

Fast Fact 271, Anti-epileptic drugs for pain. Palliative Care Network of Wisconsin. https://www.mypcnow.org/fast-fact/anti-epileptic-drugs-for-pain/. Published on March 3, 2019. Accessed August 20, 2024.

Smith TJ. Symptom management in the older adult: 2015 update. Clin Geriatr Med 2015;31:155–175. DOI: 10.1016/j.cger.2015.01.006

10. A 54-year-old man with Pick's disease has severe pain and agitation after he fractures his femur. When prescribed IV morphine, he becomes more agitated, so the clinician decides to try another opioid, hydromorphone.

What is the most appropriate rationale behind this change in pain management?

A. Morphine and hydromorphone have equal efficacy, but their potency differs.
B. Morphine and hydromorphone have equal potency, but their efficacy differs.
C. Morphine is a strong or complete opioid agonist, while hydromorphone is a partial opioid agonist.
D. Morphine is a strong or complete opioid agonist, while hydromorphone is a mixed opioid agonist/antagonist.

Correct Answer: A

The term "efficacy" is used to express a drug's ability to produce an effect. Drugs may act on the same receptor but produce differing degrees of effect. Most of the opioids in use are complete or strong agonists, such as morphine, hydromorphone, and fentanyl. This means that as long as you use the correct dose, one drug does not provide more analgesia than the other. On the other hand, potency is the dose of the drug that is required to provide a specific effect. Morphine and hydromorphone have equal efficacy, but hydromorphone is more potent, meaning that fewer milligrams are needed to produce a maximal effect. Choice A is correct, while choice B is incorrect.

A partial agonist is a ligand that binds to a receptor but does not produce full activation. Partial opioid agonists include buprenorphine and tramadol. Choice C is incorrect because hydromorphone is a complete agonist.

Further, there are mixed agonist–antagonists, agents that produce agonist effects at one receptor and antagonist effects at another. Mixed agonist–antagonists have lower efficacy than pure agonists. For example, pentazocine (Talwin) and butorphanol (Stadol) are mixed opioid agonists–antagonists. An opioid like this may produce analgesia in opioid-naive patients but may reduce analgesia or even precipitate withdrawal for those already on strong opioids. Choice D is incorrect because hydromorphone is a complete agonist.

Annotation

Ballantyne JC, Mao J. Opioid therapy for chronic pain. N Engl J Med 2003;349:1943–1953. DOI: 10.1056/NEJMra025411

Cherny NI, Fallon MT. Opioid therapy: Optimizing analgesic outcomes. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:372–415.

11. The palliative care team is consulted to evaluate a 47-year-old man with recently diagnosed acute myelogenous leukemia who underwent autologous stem cell transplant 10 days ago. He remains inpatient awaiting engraftment and count recovery. Despite a prophylactic IV micafungin regimen, he is complaining of mouth and throat pain that is minimal at rest but severe when attempting to chew, swallow, or talk. He has not been able to tolerate PO fluids or food. On physical exam his pulse is 110, blood pressure (BP) is 146/78, respiration rate (RR) is 14, and pulse oximetry is 98%. Bloodwork shows pancytopenia with a white blood cell (WBC) count of 1.2×10^9 liters, platelets 25×10^9 liters, and elevated liver enzymes. He is breathing comfortably without dyspnea at rest but is only able to whisper one or two words at a time, grimaces in pain when attempting to swallow his saliva, and is observed spitting saliva into a napkin periodically. Examination of the oropharynx shows diffuse erythema without lesions, exudate, or white patches.

He has been using various analgesic oral rinses prescribed by his primary team with minimal improvement. He has no allergies to medications and was not taking any pain medication at home prior to this admission. The primary team would like to avoid use of acetaminophen due to the risk of fever masking.

What is the next best step in the management of his pain?

A. IV fluconazole.
B. IV Toradol.
C. IV hydromorphone.
D. IV valacyclovir.

Correct Answer: C

This patient has treatment-related mucositis without evidence of infectious candidiasis. He is already on a prophylactic antifungal, so there is no need to recommend a second-line treatment unless he starts to exhibit symptoms concerning for oral candidiasis. Toradol is an NSAID which should be avoided in the setting of thrombocytopenia due to potential risk of bleeding complications. Hydromorphone is the most appropriate choice for temporary relief of acute mucositis pain in this patient. A patient-controlled anesthesia pump with demand doses would allow the patient to manage his incidental pain and pre-medicate prior to meals or any activities which could exacerbate his pain. This patient has treatment-related mucositis without evidence of lesions concerning for herpes simplex virus activation.

Annotation

Ali M, Kerio AA, Khattak TA, Hussain M, Khan MA, Abbas Y. Oral mucositis in patients undergoing hematopoietic stem cell transplantation. J Coll Physicians Surg Pak. 2023;33(7):804–808. DOI: 10.29271/jcpsp.2023.07.804

Nakagaki M, Kennedy GA, Gavin NC, et al. The incidence of severe oral mucositis in patients undergoing different conditioning regimens in haematopoietic stem cell transplantation. Support Care Cancer 2022;30:9141–9149. https://doi.org/10.1007/s00520-022-07328-4

12. A 64-year-old female, non-smoker, is newly diagnosed lung cancer (CA) on targeted therapy. She has one painful osseous lesion in her spine, but her overall prognosis is good. She rates the pain in her spine 5/10, and it is constant; however, it is greatly reduced with 5 mg of oxycodone. She does not like being sleepy from the oxycodone and worries about getting "addicted," so she is limiting her dosing to two tabs of the oxycodone a day. When the medication wears off, she supplements it with ibuprofen, but it is of limited benefit.

What is your next-in-line pharmacologic pain management that should be included in your regimen?

A. Add a buprenorphine patch at 5 mcg/hour q 7 days.
B. Decrease the oxycodone dose to 2.5 mg PO and the frequency.
C. Rotate to Dilaudid 8 mg PO q 8 hours PRN.
D. Gradually reduce the opioids and add 600 ibuprofen q 6 hours.

Correct Answer: A

Start a buprenorphine patch at 5 mcg/hour q 7 days and continue the oxycodone 5 mg PO q 4 hours PRN. B is incorrect because the patient's pain will not be managed on a reduce regimen.

C is incorrect because the patient has not failed oxycodone, and Dilaudid 8 mg is not the equivalent of oxycodone 5 mg.

D is not correct because the patient needs opioids to manage her pain, and she would only be able to take ibuprofen for 5 days, though her pain is unlikely to improve in 5 days.

Annotation

Chwistek M, et al. Should buprenorphine be considered a first-line opioid for the treatment of moderate to severe cancer pain? J Pain Symptom Manage 2023;66(5):e638–e643. DOI: 10.1016/j.jpainsymman.2023.06.022

13. A 62-year-old woman with metastatic ovarian cancer is experiencing severe, refractory pain despite high doses of systemic opioids and adjunctive medications. Her pain is in the lower abdominal region and pelvis and is thought to be due to invasion of neural plexuses. She has magnetic resonance imaging (MRI) evidence of erosive cancer lesions in her sacrum. She has received four interventional caudal steroid injections with diminishing relief. She was originally on oxycodone products but was switched to transdermal fentanyl patch and IR hydromorphone with some success, though she reports that she feels "a bit loopy" after taking her breakthrough medications. Her life expectancy is estimated to be around 6 months.

Her labs show a hemoglobin of 9.5 g/dl, a white blood cell count of 7,000/µl, and a platelet count of 150,000/µl. Her kidney and liver functions are within normal limits. Electrocardiography (EKG) shows a normal sinus rhythm with a corrected QT interval of 502 milliseconds.

Which one of the following is most likely to help with her pain?

A. Initiate methadone.
B. Refer the patient for sacral kyphoplasty.
C. Evaluate the patient for an intrathecal pain pump.
D. Increase the dose of oral opioids.
E. Consult with integrative medicine for non-pharmacologic pain options.

Correct Answer: C

Interventional pain management is an important tool in the palliative physician associate (PA)'s arsenal. Interventional modalities include local anesthetic and/or steroid injections, neurolytics or radiofrequency ablations, and intrathecal or epidural devices. Indications for interventional therapies include uncontrolled pain despite adequate systemic analgesics and/or unacceptable adverse effects from those medicines. Intrathecal drug delivery has been around since the 1980s but is often underutilized in advanced cancer pain despite recommendations supporting its use.

An intrathecal pump may be highly effective in treating this patient's pain (choice A is correct). Spinal administration of opioids targets both the peripheral afferent nociceptors and the second-order spinal neurons by inhibiting the transmission of pain signals. Opioid concentrations in the cerebrospinal fluid (CSF) are much higher than in the blood. Intrathecal therapies bypass the blood–brain barrier. Some of the advantages of intrathecal therapy include need for less systemic opioids, direct binding to dorsal horn receptors, and higher medicine concentrations to key receptors.

The main contraindications for intrathecal therapy include coagulopathy, immunosuppression, and systemic infection. Spinal metastases are not a contraindication. This intervention is typically not performed if the patient has less than 3 months to live. Risks of the procedure include infection, granuloma formation,

malfunction of the pump, and CSF leakage. Other side effects are similar to those of systemic opioids and include risk for respiratory depression, endocrine imbalances, sweating, and peripheral edema. Other medications such as ketamine, baclofen, clonidine, bupivacaine, and ziconotide can be administered through the intrathecal device. Intrathecal medicines can be given by bolus, continuous infusion, or patient-controlled analgesia (PCA).

Choice A is incorrect because methadone is contraindicated with the prolonged QT interval. Choice B is incorrect; kyphoplasty would not treat her visceral pain and is commonly used for sacral vertebrae. Choice D is incorrect because it has already been tried several times, with limited success. Choice E is incorrect because acupuncture and physical exercise do have strong evidence of benefit in pain syndromes, but they are not appropriate in managing this patient's severe pain syndrome.

While trying different opioids can be an effective part of pain management, this strategy has already been implemented with only mild success. The patient also has a contraindication to methadone given a QTc of more than 500 milliseconds. Surgical invention is an option, but kyphoplasty would not treat her visceral pain and is not commonly used on the sacrum. Increasing systemic opioid doses can lead to worsening side effects and may still not achieve adequate pain relief in refractory cases. While acupuncture and physical therapy are research-backed pain strategies and could prove beneficial, the patient's level of pain requires more aggressive management.

Annotation

Mitchell A, Somerville L, Williams N, et al. Implanted intrathecal drug delivery systems may be associated with improved survival in patients with cancer. Br J Pain 2024;18(2):110–119. DOI: 10.1177/20494637231202089

Portenoy RK, Ahmed E, Krom C. Assessment and management of pain. Dimitrov N, Kemle K, eds. In: *Palliative and Serious Illness Patient Management for Physician Assistants*. Oxford University Press; 2021:214–259.

Swarm RA, Karanikolas M, Rao LK, Shah RK. Interventional approaches for chronic pain. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:443–453.

14. You are caring for a 38-year-old man with squamous cell cancer of the anus. He received radiation treatment 4 weeks ago and is currently on chemotherapy. He has been hospitalized multiple times for uncontrolled severe cancer pain. He describes the pain as a deep ache in his perineum, rectum, and anus as well as "excruciating" pain when having a bowel movement. He has stopped eating because he worries about having bowel movements. His pain regimen has been aggressively increased, and he is currently on high doses of methadone and hydromorphone as well as multiple adjunctive medications for constipation.

Which one of the following is most likely to provide him pain relief?

A. Celiac plexus block.
B. Cordectomy.
C. Ganglion impar block.
D. Increased dosages of pain medication.

Correct Answer: C

Interventional pain procedures use local anesthetics or neurolytic agents to achieve pain control when conservative treatments have been ineffective, as in this patient. Traditional indications for interventions include uncontrolled pain and/or toxic side effects from systemic analgesics. Neurolytic blocks such as chemical, cryoablation, and radiofrequency ablation involve the destruction of afferent sympathetic nerves. Some providers first use a local anesthetic before attempting a neurolytic block. The ganglion impar, also known as the ganglion of Walther, supplies nociceptive innervation to the perineum, part of the rectum, the anus, the distal urethra, the vulva/scrotum, and areas of the vagina, as well as other regions. Complications of blocks to this ganglion include rectal or anal perforation and infection. Choice C is correct.

Choice A is incorrect because celiac plexus block is best for pancreatic cancer or other upper abdominal malignancies due to its innervation pattern. Choice B is incorrect because cordectomy is appropriate for terminally ill patients with refractory pain who are bed-bound. It creates total anesthesia distal to the intervention. Choice D is incorrect because the patient is already on maximum tolerated doses of opioids, and part of the pain syndrome may be from opioid-induced hyperalgesia, where the opioid itself is contributing to escalating pain.

Annotation

Abd-Elsayed A, Rushmer T, Abd-Elsayed A. Neurolytic and nonneurolytic blocks in pain management. Abd-Elsayed A, ed. In: *Advanced Anesthesia Review*. Oxford University Press; 2023. https://doi.org/10.1093/med/9780197584521.003.0216. Published March 1, 2023. Accessed June 4, 2024.

Chou CZ, Hopkins TJ, Badiola I, et al. Top ten tips palliative care clinicians should know about interventional pain and procedures. J Palliat Med 2020;23(10):1386–1391. DOI: 10.1089/jpm.2020.0487

Koyyalagunta D, Bhaskar A. Sympathectomy for cancer pain. Sharma M, Simpson KH, Bennett MI, Gupta S, eds. In: *Practical Management of Complex Cancer Pain*, 2nd ed. Oxford Specialist Handbooks in Pain Medicine. Oxford University Press; 2022:159–180. https://doi.org/10.1093/med/9780198865667.003.0015. Published January 1, 2022. Accessed June 4, 2024.

Lin CS. Ganglion impar block: Fluoroscopy and ultrasound. Narouze SN, ed. In: *Multimodality Imaging Guidance in Interventional Pain Management*. Oxford University Press; 2016. https://doi.org/10.1093/med/9780199908004.003.0036. Published October 1, 2016. Accessed June 4, 2024.

15. A 64-year-old male with stage IV pancreatic cancer is undergoing his fifth round of chemotherapy with FOLFIRINOX (leucovorin calcium, fluorouracil, irinotecan hydrochloride, and oxaliplatin). He presents to your outpatient palliative care clinic with severe pins and needles as well as burning sensations in his hands and feet. The pain is relentless and is only partially relieved by as-needed oxycodone, which he takes every 4 hours. The patient's spouse reports that he has lost interest in many of his normal activities and has been more irritable lately. The spouse worries he is depressed. He denies any suicidal ideation or thinking. Physical examination includes decreased sensation to monofilament in both feet to the level of the ankle, and he has begun looking at his feet while he walks.

What is the most appropriate next step in managing his symptoms?

A. Begin long-acting morphine.
B. Begin gabapentin.
C. Begin duloxetine.
D. Order a nerve conduction study.
E. Consult psychiatry.

Correct Answer: C

Neuropathic pain is a disruption in the normal signaling pathways of the central or peripheral nervous system. Pain can develop immediately after the insult or months later. Neuropathy in cancer patients can be caused by the disease itself or the treatment. Neurotoxic effects have been noted in many standard chemotherapies such as platinum-based medicines like oxaliplatin or carboplatin and taxanes like docetaxel or paclitaxel.

Treatments for neuropathic pain include tricyclic antidepressants (TCAs), serotonin norepinephrine reuptake inhibitors (SNRIs), gabapentinoids, botulinum toxin, and local treatments such as lidocaine or capsaicin. Note that the selective serotonin reuptake inhibitors (SSRIs) are not effective for neuropathic pain. Duloxetine is an SNRI antidepressant that also has analgesic properties. Duloxetine has been shown in randomized trials to have a modest effect in reducing pain from chemotherapy-induced peripheral neuropathy. Choice C is correct.

Choice A is incorrect because opioids have only partially been effective for his pain, they are not first-line for neuropathic pain, and beginning a long-acting opioid may lead to more adverse effects without significant relief. It is more appropriate to use medications specifically targeting neuropathic pain.

While gabapentin, or its structurally related counterpart pregabalin, is an effective treatment for neuropathic pain, duloxetine is more appropriate given its dual action on neuropathic pain and mood symptoms, which makes it more suitable for this patient who is also experiencing significant stress and loss of interest in activities (choice B is incorrect).

Choice D is incorrect because ordering a nerve conduction study would give you more information, but a plausible neuroanatomical explanation coupled with a physical exam including sensory findings are enough for a working diagnosis of neuropathy.

Choice E is incorrect because in a patient with chemotherapy-induced peripheral neuropathy and depression, duloxetine treats both conditions; and psychiatric referral can be reserved if drug treatment is inadequate. In addition, psychiatric referral is unlikely to directly reduce neuropathic pain.

Annotation

Smith EML, Pang H, Cirrincione C, et al. Effect of duloxetine on pain, function, and quality of life among patients with chemotherapy-induced painful peripheral neuropathy: A randomized clinical trial. JAMA 2013;309(13):1359–1367. DOI: 10.1001/jama.2013.2813

Ventzel L, Finnerup NB. Management issues in neuropathic pain. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:485–491.

16. A 42-year-old man who lives alone presents with a history of a widely metastatic non-small cell lung cancer and is experiencing severe burning and lancinating pain in his right shoulder and arm. Physical examination reveals radiating paresthesias in the shoulder, forearm, and hand and loss of intrinsic muscle strength in the hand. Titrated doses of both long-acting and IR morphine have had no effect on his pain. MRI of the plexus detected neoplastic involvement of the brachial plexus.

What is the most likely reason that opioids are not effective in treating this type of pain?

A. The pain is purely nociceptive in nature.
B. Opioid partially responsive pain.
C. The patient's arm needs to be immobilized.
D. The opioid has been too rapidly titrated.

Correct Answer: B

Choice D is incorrect. About 20% of cancer patients with pain do not respond to opioids; their pain is not opioid-sensitive. There are at least four major reasons for this:

- opioid-irrelevant pain
- opioid–partially responsive pain
- opioid-unresponsive pain
- opioid-induced pain

"Opioid-irrelevant pain" refers to the fact that not all pain comes from nociceptors—one can hurt because of emotional, spiritual/existential, or psychological reasons. Dame Cicely Saunders coined the term "total pain" to describe this concept. If the patient has pain because he does not know why this is happening to him or because he is estranged from his daughter, this is not a morphine deficiency. Exploring these areas and asking for help from mental health professionals are indicated. Choice A is incorrect.

The most common reason that morphine does not work is opioid–partially responsive pain. Nociceptive pain is largely opioid-responsive, and even neuropathic pain is partially opioid-responsive; but you can explore many other options. First, aggressively treat opioid side effects so that the opioid dose itself can be optimized. Consider switching to another opioid. Assess whether non-pharmacologic and pharmacologic techniques will aid the opioid in relieving pain.

Choice B is correct. The third cause of pain resistant to opioids is opioid-unresponsive pain. This term may be a little strong but includes some bone pain and neuropathic pain, although both usually have some component of opioid responsiveness. The vignette describes brachial plexus pain, which is neuropathic.

Choice C is incorrect. Finally, there is opioid-induced pain, also called "opioid-induced hyperalgesia." In this situation, the opioid itself is causing or at least exacerbating the pain. This is especially common if the opioid has been rapidly titrated or is used at high dose, if there is renal or hepatic dysfunction, and in patients who are dehydrated.

Annotation

Cherny NI, Fallon MT. Opioid therapy: Optimizing analgesic outcomes. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:372–415.

Fallon M. When morphine does not work. Support Care Cancer 2008;16:771–775. DOI: 10.1007/s00520-008-0402-8

17. You are seeing a 72-year-old female with esophageal cancer who has chronic pain that is well controlled on MS Contin 60 mg PO every 12 hours, with morphine oral solution 20 mg every 2 hours PRN breakthrough pain. She uses about two doses per day of her morphine solution. Unfortunately, she has difficulty swallowing the MS Contin tablets. You decide to switch the MS Contin to a transdermal fentanyl patch.

With the short-acting morphine solution for breakthrough pain, which one of the following opioid prescriptions is most appropriate?

A. Take a final 60 mg MS Contin the same time as applying a 50-mcg/hour transdermal fentanyl patch.
B. Take a final 60 mg MS Contin the same time as applying a 75-mcg/hour transdermal fentanyl patch.
C. Apply a 50-mcg/hour transdermal fentanyl patch, without any more MS Contin.
D. Apply a 75-mcg/hour transdermal fentanyl patch, without any more MS Contin.

Correct Answer: B

Fentanyl does appear in some opioid equianalgesic charts, but most experts recommend against accomplishing a direct conversion in this way. For example, if you are converting from transdermal fentanyl 50 mcg/hour to a 24-hour oral morphine product, you are converting from one opioid to another, from hours to days, from micrograms to milligrams, and from transcutaneous to oral. This conversion is complicated and fraught with error.

A simpler way is to use a rule of thumb—the 2:1 rule: 2 mg of oral morphine/24 hours is roughly equivalent to 1 mcg/hour of transcutaneous fentanyl. Or express it as a 1:2 rule: 1 mcg/hour of transdermal fentanyl equals about 2 mg/day of oral morphine.

The patient in the vignette has well-controlled pain on 120 mg of sustained-release plus 40 mg of IR morphine per day, for a total of 160 mg oral morphine/day. Using the 2:1 conversion, 160 mg of oral morphine/day is approximately equivalent to fentanyl 80 mcg/hour. Fentanyl patches do not come in the 80-mcg/hour dose, but they do come as 75 or 87.5 or 100 mcg/hour. As the patient is an older adult and her pain is well controlled, it would be prudent to round down to 75 mcg/hour. Therefore, choices A and C are incorrect.

Because it takes 12–18 hours to detect therapeutic fentanyl serum levels after applying a patch and up to several days to reach steady state, provide other opioid coverage during the conversion period. In this case, the patient should take her last dose of MS Contin 60 mg PO at the same time as she applies the first 75 mcg/hour fentanyl patch. The effects of the last morphine dose will be tapering off as the transdermal fentanyl kicks in. She will also need to continue the short-acting morphine for breakthrough pain, as needed. Choice B is correct, while choice D is incorrect.

Annotation

Fast Fact 3, Converting to/from transdermal fentanyl. Palliative Care Network of Wisconsin. https://www.mypcnow.org/fast-fact/converting-to-transdermal-fentanyl/. Published January 28, 2019. Accessed August 20, 2024.

McPherson ML. *Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing*. 2nd ed. ASHP; 2018.

Taylor KP, Singh K, Goyal A. Fentanyl transdermal. StatPearls. https://www.ncbi.nlm.nih.gov/books/NBK555968/. Updated July 6, 2023. Accessed August 20, 2024.

18. A 42-year-old man who enters hospice with advanced colorectal cancer has retroperitoneal and bone pain, without evidence of bowel obstruction. He is no longer a candidate for any cancer-directed therapy. His pain is well managed on Percocet-10 (oxycodone 10 mg/acetaminophen 325 mg)—two tablets every 6 hours (eight tablets per day), along with pregabalin 100 mg PO three times a day. On this regimen, he always wakes in pain, and he would prefer to take medications less often. The hospice formulary does not cover long-acting oxycodone (OxyContin), but it does cover IR morphine and MS Contin.

Which one of the following is the best opioid prescription?

A. MS Contin 15 mg PO twice daily, keeping the Percocet-10 for breakthrough pain.
B. MS Contin 15 mg PO three times a day, with morphine IR 5 mg PO every 2–3 hours PRN.
C. MS Contin 30 mg PO twice daily, without an IR product.
D. MS Contin 30 mg PO twice daily, with morphine IR 15 mg PO every 2–3 hours PRN.

Correct Answer: D

His total daily dose of oxycodone is eight tablets of 10 mg oxycodone, or 80 mg, along with 2,600 mg of acetaminophen. According to the equianalgesic opioid chart, oxycodone is more potent than morphine. Using the ratio of oral oxycodone/morphine = 20/25, 80 mg of oral oxycodone per day is equivalent to 100 mg of oral morphine per day. But because his pain is well controlled and because of incomplete cross-tolerance when changing from one opioid to another, make a less-than-equianalgesic conversion. Reduce the dose by one-third, leaving 67 mg of daily oral morphine.

MS Contin is a 12-hour sustained-release formulation of morphine; it comes in 15-, 30-, 60-, 100-, and 200-mg tablets. Prescribe MS Contin 30 mg PO every 12 hours. The IR morphine dose is calculated as 10%–20% of the long-acting opioid given every 2–3 hours, so that comes to 6–12 mg of IR morphine every 2–3 hours. IR morphine comes as a 15-mg tablet, so the final prescription becomes MS Contin 30 mg PO every 12 hours, with morphine IR 15 mg PO every 2–3 hours. Choice D is correct, while choices A, B, and C provide an inadequate daily dose of opioid.

Annotation

Cherny NI, Fallon MT. Opioid therapy: Optimizing analgesic outcomes. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:372–415.

McPherson ML. *Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing*. 2nd ed. ASHP; 2018.

19. A 42-year-old woman with aggressive breast cancer develops a painful metastasis in her left femur while receiving chemotherapy. The metastatic lesion is 4 cm in diameter, but no other bones are involved.

Which one of the following is the most appropriate treatment for bony metastasis?

A. Continuation of chemotherapy.
B. Surgical fixation.
C. External beam radiation therapy.
D. Prescription of opioids.
E. Referral to hospice.

Correct Answer: B

Treatment of metastatic bone pain sometimes involves orthopedic surgery, even before fracture. If a metastasis involves a long bone with ≥20% loss of cortical bone or >3 cm length, or if it involves a vertebra, consider surgical intervention to prevent fracture (choice B is correct). If these high-risk criteria are not met, external beam radiation therapy may be helpful, especially if there is just one or a group of bones involved (choice C is incorrect). Usually a brief course of radiation, rather than several weeks, is offered. Another option for diffuse bony metastasis is radiopharmaceutical injection. This method provides a radiation path of only about 1 cm, so surrounding normal tissue is protected. However, bone marrow is heavily irradiated, producing temporary anemia and thrombocytopenia.

Choice A is not correct for two reasons—the metastasis occurred while on the chemotherapy and the bone is at high risk of fracture.

Choice D is not appropriate because there are several treatment modalities that should be considered prior to hospice referral.

Annotation

Ghosh A, Berger A. Opioids, adjuvants, and interventional options for pain management of symptomatic metastases. Ann Palliat Med 2014;3:172–191. DOI: 10.3978/j.issn.2224-5820.2014.07.07

Hoskin P. Management issues in bone pain. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:478–484.

20. You are asked to see a 72-year-old man diagnosed with colon cancer 8 years ago, also diagnosed with prostate cancer 2 years ago, who takes hormonal therapy for the prostate cancer and presents to the emergency department with sudden onset of severe pain in the right proximal femur, rated 10 on a scale of 0 to 10. He takes only naproxen 500 mg BID for pain; he has not taken opioids since his prostate surgery 2 years ago.

Before diagnostic or therapeutic procedures are completed, what can you prescribe to relieve his pain?

A. Prescribe 800 mg of ibuprofen every 4–6 hours.
B. Administer an oral opioid, such as Norco-5 (hydrocodone 5 mg/acetaminophen 325 mg).
C. Administer morphine 5 mg IV, repeating the dose every 5 minutes if the pain remains severe.
D. Administer morphine 1 mg IV every minute, up to 10 mg, depending on the response.

Correct Answer: D

In an opioid-naive patient, and in a closely monitored setting, when a patient has sudden severe pain, it is appropriate to administer up to 10 mg of IV morphine over 10 minutes (1 mg/min), followed by a 5-minute pause, and then repeated until the pain is controlled. "Controlled" does not mean pain relief; it means an initial 2- to 4-point drop, using the 0 to 10 visual analog scale. If the patient has not achieved pain relief after 20–30 mg of parenteral morphine and/or if the patient becomes sedated or the respiratory rate drops below 10 per minute, then further investigation of the pain complaint is needed.

Mercadente used this method in 29 consecutive patients admitted to a palliative care unit with a cancer pain emergency. Rapid analgesia occurred in all 29, within a mean of 9.7 minutes and a mean dose of 8.5 mg of IV morphine. There were no substantial side effects, and all patients were promptly switched to oral medications over the next few days.

The patient in the vignette probably has a pathologic femur fracture, and acute pain management should precede and occur along with the diagnostic workup (choice A is incorrect). The fact that he is on hormonal therapy for the prostate cancer indicates that the disease is metastatic. The patient is opioid-naive, but he is also in a closely monitored clinical setting. The emergency department physician should administer 1 mg of IV morphine every minute for up to 10 mg of total morphine depending on the analgesic response. Choice D is correct. Choice B is incorrect because it is overly cautious and such a low dose of opioid will not lead to analgesia, while choice C suggests too much opioid in an opioid-naive patient.

Choice A is incorrect because ibuprofen is a relatively weak analgesic with greater anti-inflammatory qualities, which may be appropriate if the patient indicated they were averse to opioids, and it can be augmented by acetaminophen. However, it will not succeed in providing analgesia in this case.

Annotation

Dowell D, Haegerich TM, Chou R. CDC guideline for prescribing opioids for chronic pain United States, 2016. MMWR Recomm Rep 2016;65(1):1–49. DOI: http://dx.doi.org/10.15585/mmwr.rr6501e1

McPherson ML. *Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing*. 2nd ed. ASHP; 2018.

21. A 69-year-old woman with pleural mesothelioma is prescribed OxyContin 30 mg PO twice daily, with 10 mg of IR oxycodone PO every 2–3 hours as needed for pain. On this regimen for a week, she rates her pain between 6 and 9 (on a visual analog scale of 0 to 10), and she uses an average of four IR oxycodone tablets per day.

Which one of the following is the most appropriate prescription?

A. Leave the OxyContin at 30 mg twice daily, increasing the oxycodone IR to 15 mg.
B. Increase the OxyContin to 40 mg twice daily, increasing the oxycodone IR to 15 mg.
C. Increase the OxyContin to 60 mg twice daily, increasing the oxycodone IR to 15 mg.
D. Increase the OxyContin to 60 mg twice daily, increasing the oxycodone IR to 30 mg.

Correct Answer: C

To escalate the opioid dose when the patient has uncontrolled pain, increase the total daily dose by 25%–50% if the pain is mild to moderate, and increase by 50%–100% if the pain is moderate to severe. Note that this increase is always by percentage, not by milligrams. Remember to increase both the sustained-release and IR product as you titrate up. For oral opioids such as morphine, oxycodone, or hydromorphone, the IR or rescue dose is calculated as 10%–20% of the total sustained-release dose, given every 2–3 hours.

In the vignette, the baseline sustained-release dose of oxycodone is 60 mg per day, with an IR dose of 10 mg, which is 17% of the total daily dose (between 10% and 20%). She takes four of the 10-mg IR oxycodone doses most days, for a total of 40 g. Thus, the total daily dose of oxycodone is 60 + 40 = 100 mg. The pain is moderate to severe, so increase by 50%–100%. This would lead to a new total daily dose of between 150 and 200 mg of oxycodone.

In choice A, the total daily dose of sustained-release oxycodone will be only 60 mg, and even with several doses of 10-mg IR oxycodone 15 mg, the total daily dose will not reach 150–200 mg. The IR dose is 25% of the sustained-release dose—this is too high. So, for two reasons, choice A is incorrect.

In choice B, the total daily dose of sustained-release oxycodone will be 80 mg, and even with several doses of 15-mg IR oxycodone will not reach 150–200 mg. The IR dose is 23% of the sustained-release dose—too high. For these two reasons, choice B is incorrect.

In choice C, the total daily dose of sustained-release oxycodone will be 120 mg, and with only two 15-mg IR doses, 150 of total oxycodone will be reached. If the patient takes four IR doses, the total daily dose of oxycodone would be 180 mg. Thus, the total amount of opioid is in the right range. The IR dose is 13% of the sustained-release dose, just right. Choice C is correct.

In choice D, the total daily dose of sustained-release oxycodone will be 120 mg, and with two to four IR doses, 160–200 mg of total daily oxycodone will be reached. The total amount of

opioid is in the right range. However, the IR dose is 25% of the sustained-release dose, which is too high. Choice D is incorrect.

Annotation

Cherny NI, Fallon MT. Opioid therapy: Optimizing analgesic outcomes. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:372–415.

Fast Fact 20, Opioid dose escalation. Palliative Care Network of Wisconsin. https://www.mypcnow.org/fast-fact/opioid-dose-escalation/. Published January 28, 2019. Accessed August 20, 2024.

McPherson ML. *Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing*. 2nd ed. ASHP; 2018.

22. A 72-year-old woman with back pain from metastatic pancreatic cancer has failed to obtain analgesia from several non-opioid analgesics. She was recently started on morphine 5 mg PO every 4 hours, eventually titrated to extended-release morphine 45 mg PO every 8 hours. At that dose, she complained of over-sedation and nausea, so she was switched to OxyContin 30 mg PO every 12 hours, with oxycodone IR 10 mg PO every 2 hours PRN breakthrough pain; but the sedation and nausea persisted. Several antiemetics and methylphenidate have not helped. You decide to reduce her opioid dose to see if this will help her complaints.

Which one of the following is the best approach at this point?

A. Discontinue long-acting products and utilize just oxycodone IR 10 PO every 2 hours PRN pain.
B. Reduce the long-acting opioid by a minimal amount to OxyContin 20 mg PO in the morning and 30 g PO in the evening.
C. Reduce the OxyContin to 20 mg PO every 12 hours, and consider reducing it again in 3–5 days.
D. Reduce the OxyContin to 10 mg PO every 12 hours, and discontinue it 3 days later.

Correct Answer: C

As with opioid dose escalation, there are rules of thumb for opioid dose reduction. Dose reduction may be appropriate either because the pain is improving or due to unacceptable side effects. The Cleveland Clinic offers these rules of thumb:

- For patients whose pain is well controlled but who are experiencing unacceptable side effects, reduce the 24-hour opioid dose by 30%, leaving the rescue dose unchanged.
- For patients with continued pain but who have adverse effects, consider adding a co-analgesic, reducing the opioid dose by 30%–50%, or rotating to a completely new opioid.
- For patients undergoing a definitive pain-relieving procedure, reduce the 24-hour opioid dose by 50% immediately, and continue dose reductions every third day until the opioid is discontinued or at a new lower dose. Continue to offer breakthrough opioids during this period of downward titration.

The main clue that a dose reduction is too rapid is poorly controlled pain—the patient is increasing the use of breakthrough opioids. A second clue to too rapid dose reduction is the onset of opioid withdrawal symptoms, which may include restlessness, irritability, agitation, dysphoric mood, abdominal pain or cramping, papillary dilation, lacrimation, rhinorrhea, piloerection, yawning, sneezing, anorexia, nausea, vomiting, or diarrhea.

In the vignette, reduce her 24-hour opioid dose by 30%, to OxyContin 20 mg PO every 12 hours, maintaining the IR dose of 10 mg (choice C is correct). Assess both the resolution of the opioid adverse effects (in this case, sedation and nausea) as well as her pain. Choices A and D are incorrect because the down-titration of opioids is too rapid, while choice B is incorrect because it is too slow.

Annotation

Fast Fact 20, Opioid dose escalation. https://www.mypcnow.org/fast-fact/opioid-dose-escalation/. Published January 18, 2019. Accessed August 20, 2024.

McPherson ML. *Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing*. 2nd ed. ASHP; 2018.

23. A 62-year-old woman on home hospice with advanced cholangiocarcinoma takes morphine sulfate controlled-release 60 mg every 8 hours, as well as five 20-mg doses of IR morphine per day. Her pain is severe and poorly controlled, and she accepts your offer to admit her to inpatient hospice and start an IV morphine drip.

Which one of the following is the most appropriate initial IV opioid order?

A. Morphine 2 mg/hour by continuous IV infusion, with a bolus of 4 mg IV every 2–3 hours PRN pain.
B. Morphine 4.5 mg/hour IV, with a bolus of 9 mg IV every 2–3 hours PRN.
C. Morphine 6 mg/hour IV, with a bolus of 12 mg IV every 2–3 hours PRN.
D. Only bolus morphine without a drip: morphine 12 mg IV every 2–3 hours PRN.

Correct Answer: C

This is an appropriate use of general inpatient hospice because home titration of opioids is not working. Her 24-hour dose of oral morphine is MS Contin 60 mg three times a day, plus the five 20-mg doses of IR morphine (180 mg + 100 mg), for a total of 280 mg. To convert this to IV morphine, divide the oral dose by 2.5, which is 280 mg/2.5 = 112 mg IV morphine/24 hours. If you start a morphine IV drip at 4.5 mg/hour, that would provide 108 mg of IV morphine/day. However, in this case, the pain is poorly controlled, so make a more than equianalgesic switch, especially in the case of a closely monitored setting such as an inpatient hospice.

If pain severity is mild to moderate, consider a 25%–50% increase in the opioid dose, while if the pain severity is moderate to severe, consider a 50%–100% increase. On the other hand, you may not be completely confident that the patient has taken all the prescribed oral doses, in which case you would start with a lower rate drip. In unstable pain situations, it is safer to underdose the IV drip rate, relying more on boluses. Then as the patient's analgesic needs become clearer over the next 12–36 hours, convert more of the total daily opioid dose to the IV infusion.

In the vignette, a 50% increase would be to about 6 mg/hour, while a 100% increase would be to 9 mg/hour. It is safer to choose the lower dose, providing generous bolus medication (12 mg IV every 2–3 hours) over the next 12–24 hours and then reassessing the situation. Choice C is correct, while choices A and B provide infusion rates that are too low. Choice D is incorrect because in this opioid-tolerant patient, bolus-only morphine will not provide analgesia and may precipitate opioid withdrawal.

Annotation

Cherny NI, Fallon MT. Opioid therapy: Optimizing analgesic outcomes. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:372–415.

Fast Fact 36, Calculating opioid dose conversions. Palliative Care Network of Wisconsin. https://www.mypcnow.org/fast-fact/calculating-opioid-dose-conversions/. Published January 28, 2019. Accessed August 20, 2024.

McPherson ML. *Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing*. 2nd ed. ASHP; 2018.

24. You are asked to see a 72-year-old opioid-naive woman who experiences mental fuzziness, nausea, itching, and constipation when starting IR morphine, used to manage pain from metastatic renal cell carcinoma. She has no other comorbidities or history of allergy to opioid products.

Which one of her opioid adverse effects is least likely to be transient, more likely to become chronic?

A. Mental fuzziness.
B. Nausea.
C. Itching.
D. Constipation.

Correct Answer: D

All the opioid adverse effects except for constipation tend to be transient (choice D is correct). Many of them are related to initiating or increasing the dose of the opioid, and once steady state occurs, the side effect may abate, or the patient may learn to tolerate it. Explain to the patient that mental fuzziness, nausea, and itching are common with the first few days of opioid therapy but usually wear off (choices A, B, and C are incorrect).

Annotation

Cherny NI, Fallon MT. Opioid therapy: Optimizing analgesic outcomes. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:372–415.

Fast Fact 175, Opioid allergic reactions. Palliative Care Network of Wisconsin. https://www.mypcnow.org/fast-fact/opioid-allergic-reactions/. Published February 12, 2019. Accessed August 20, 2024.

Harris JD. Management of expected and unexpected opioid-related side effects. Clin J Pain 2008;24:S8–S13. DOI: 10.1097/AJP.0b013e31816b58eb

25. You are seeing a 65-year-old transgender female with metastatic breast cancer in your outpatient palliative care facility. They have been experiencing uncontrolled pain over the past 8 days. Their current pain management regimen is oxycodone 10 mg every 6 hours as needed. With this regimen, they have minimal relief of pain for approximately 2–3 hours after taking their pain medication and then the return of severe pain. The partner is very distressed to witness their distress and its impact on function.

Which of the following is the most appropriate next step in managing their pain?

A. Increase the dose of oxycodone to 20 mg every 6 hours as needed.
B. Add an NSAID to the current regimen.
C. Start a scheduled long-acting opioid in addition to the current regimen.
D. Rotate to an alternative opioid, such as morphine.
E. Discontinue oxycodone, and initiate gabapentin for neuropathic pain.

Correct Answer: C

Choice C is correct. Start a scheduled long-acting opioid in addition to the current regimen is the most appropriate next step. Scheduled long-acting opioids provide continuous analgesia and are particularly useful for patients with constant pain. They help maintain stable blood levels of the medication, reducing breakthrough pain episodes. Oxycodone is a water-soluble opioid without active metabolites. The 6-hour dosing schedule is too long for a medication with a half-life of 6 hours.

A. The patient's pain has been inadequately controlled with oxycodone 10 mg every 6 hours as needed. This indicates the need for a more effective pain management strategy. The dose appears insufficient as well as infrequent. Just increasing the dose of their short-acting pain medication is likely not going to allow for optimal coverage of their pain symptoms.
B. While adding an NSAID may help, it is unlikely to be sufficient given the severe nature of the pain.
D. Rotating to an alternative opioid may be considered if the patient develops tolerance to oxycodone. However, the oxycodone dose is low and infrequent; opioid rotation would be premature.
E. While gabapentin is effective for neuropathic pain, it is not the primary choice in this scenario. The patient's pain is not specifically neuropathic, and addressing the inadequate analgesia with a long-acting opioid takes precedence.

Annotation

McPherson ML. *Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing*. 2nd ed. ASHP; 2018.

Portenoy RK, Ahmed E, Krom C, Assessment and management of pain. Dimitrov N, Kemle K, eds. *Palliative and Serious Illness Patient Management for Physician Assistants*. Oxford University Press; 2021:214–259.

26. A 92-year-old female with moderately advanced dementia also suffers from widespread osteoarthritis, which causes pain, manifested mainly by crying out and resistive behavior when she is moved or bathed.

Which of the following should be prescribed first?

A. Ibuprofen.
B. Acetaminophen.
C. Morphine.
D. Celecoxib.
E. Tramadol.

Correct Answer: B

Management of chronic pain does have differences and nuances in older adults, and the American Geriatrics Society (AGS) guideline on this topic is helpful. Older people may be reluctant to complain, may use words other than "pain" to describe discomfort, are often hesitant to take analgesics, and have comorbidities that make prescribing more difficult. Older patients are undertreated for pain in a wide range of settings. The most important initiative is to ask older adults if they have pain, generally using the 0–10 visual analog scale. Many patients with mild to moderate cognitive impairment can also

answer questions about pain, and there are specific tools to assess patients with advanced dementia or other causes of severe cognitive impairment.

Acetaminophen should be considered the initial and ongoing analgesic in older adults with chronic pain, with care not to exceed a daily maximal dose of 4 g (choice B is correct). NSAIDs at the lowest effective dose are a second choice, despite their gastrointestinal and renal side effects (choice A is incorrect). Older adults prescribed NSAIDs should take a proton pump inhibitor or H2-blocker or misoprostol to reduce the risk of gastrointestinal (GI) bleeding. Avoid cyclooxygenase-2 inhibitors in older adults because these drugs increase cardiovascular mortality. (Choice D is incorrect.)

For older adults with moderate or severe chronic pain, opioids can be considered. Start with around-the-clock medications such as tramadol, morphine, or oxycodone and convert to long-acting opioids when appropriate. Chronic opioids are often safe and effective in frail older adults, although this area needs more research. For the patient in the vignette, choices C and E are incorrect because acetaminophen should be tried first, moving to an opioid that is ineffective.

Annotation

Agar M, Phillips J. Palliative medicine and care of the elderly. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:1046–1062.

American Geriatrics Society Panel on the Pharmacological Management of Persistent Pain in Older Persons. Pharmacological management of persistent pain in older persons. J Am Geriatr Soc 2009;57:1331–1346. DOI: 10.1111/j.1532-5415.2009.02376.x

Strothers HS, Patel D. Older adult population. Dimitrov N, Kemle K, eds. In: *Palliative and Serious Illness Patient Management for Physician Assistants*. Oxford University Press; 2021:335–336.

27. An 82-year-old woman has end-stage dementia, sacral and trochanteric pressure sores, as well as long-standing severe osteoarthritis, for which she receives Kadian 30 mg PO every 12 hours. Although she cannot provide a pain rating due to her dementia, the nurse notes that during dressing changes she moans, cries out, and becomes tense, holding her body stiffly.

Which one of the following is the best approach?

A. Increase the extended-release capsules to 40 mg PO every 12 hours.
B. Switch to morphine sulfate controlled-release tablets 30 mg PO every 12 hours.
C. Give 10 mg of oral morphine sulfate liquid (0.5 ml of 20 mg/ml morphine concentrate) 30–60 minutes before the dressing change.
D. Give 20 mg of morphine sulfate liquid (1 ml of 20 mg/ml morphine concentrate) 30–60 minutes before the dressing change.

Correct Answer: C

She has incident pain caused by the dressing change, a predictable part of her day. The best strategy is to prescribe a breakthrough dose of IR morphine about 30–60 minutes before the event, calculated as 10%–20% of her total daily dose (or a 3-hour portion). As she is receiving 60 mg of PO morphine per day, 10% would be 6 mg, and 20% would be 12 mg. It would be reasonable to try a 5- or 10-mg dose of IR morphine and observe the patient (choice C is correct).

Choice A is incorrect because she has good analgesia throughout the day, except during dressing change, so this is better managed with an extra dose of IR morphine. Choice B is incorrect because Kadian and MS Contin are equianalgesic, the same opioid. Choice D is incorrect because the dose of opioid is too high.

Annotation

Cherny NI, Fallon MT. Opioid therapy: Optimizing analgesic outcomes. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:372–415.

McPherson ML. *Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing*. 2nd ed. ASHP; 2018.

28. A 42-year-old man has end-stage renal disease due to long-standing diabetes and hypertension. He undergoes regular hemodialysis, and his main complaint is severe pain in his legs from diabetic neuropathy as well as peripheral vascular disease. A recent vascular evaluation did not suggest that further revascularization would be helpful. For analgesia he uses a fentanyl patch 50 mcg/hour, changed every third day, and pregabalin 25 mg PO twice daily, along with occasional use of IR morphine; but the pain is still usually moderate to severe (5–8 on the 0–10 visual analog scale). You decide to try the TCA amitriptyline to help with neuropathic pain.

Which one of the following statements is most helpful in your management of this patient's symptoms?

A. Amitriptyline is well tolerated by most palliative/hospice patients who experience neuropathic pain, with a low burden of adverse effects.
B. For TCAs, the analgesic dose is lower than the antidepressant dose.
C. Analgesia occurs much sooner than an antidepressant effect with amitriptyline.
D. In addition to TCAs, the antidepressants paroxetine, sertraline, and trazodone have substantial analgesic effect.
E. Amitriptyline has fewer adverse effects than nortriptyline.

Correct Answer: B

The TCAs have analgesic activity, with most evidence for the tertiary amine amitriptyline. However, this drug also has serious side effects, including sedation, prolongation of the QT interval, orthostatic hypotension, and anticholinergic effects. These adverse effects can be mitigated by using low doses (10–25 mg per day, often dosed at night). However, many palliative patients are elderly or have substantial comorbidities (cardiac conduction problems, arrhythmias, congestive heart failure [CHF]) or functional or cognitive loss, and these drugs are generally contraindicated (choice A is incorrect). For these, it is possible to consider the secondary amine nortriptyline. Amitriptyline (a tertiary amine) is metabolized to nortriptyline (a secondary amine), and nortriptyline has good analgesic activity with fewer side effects (choice D is incorrect).

Amitriptyline as an analgesic is thus appropriate only for younger patients who are not predisposed to the anticholinergic, sedative, or cardiovascular side effects. If amitriptyline or nortriptyline is used, start with small doses; but it is acceptable to titrate up from these starting doses.

For TCAs, the analgesic dose is lower than the antidepressant dose, often much lower; and analgesia occurs much sooner than an antidepressant effect—usually the pain is better in the first few

days (choice B is correct). Non-depressed patients can experience analgesia with TCAs, and depressed patients can experience analgesia without effects on mood. These observations suggest that the mechanism for pain relief is separate from its antidepressant effect.

Neither SSRIs nor trazodone have efficacy for pain (choice C is incorrect). Venlafaxine dosed under 150 mg/day acts only as an SSRI, without analgesic effect, while doses higher than 150 mg/day may provide some analgesia. This drug has a high risk of withdrawal effects even with a single missed dose, and there are substantial rates of nausea and vomiting. If it used, it should be slowly titrated.

Annotation

Fast Fact 187, Non-tricyclic antidepressants for neuropathic pain. Palliative Care Network of Wisconsin. https://www.mypcnow.org/fast-fact/non-tricyclic-antidepressant-for-neuropathic-pain/. Published February 24, 2019. Accessed August 20, 2024.

Smith TJ. Symptom management in the older adult: 2015 update. Clin Geriatr Med 2015;31:155–175. DOI: 10.1016/j.cger.2015.01.006

Ventzel L, Finnerup NB. Management issues in neuropathic pain. Cherny NI, Fallon MT, Kaasa S, Portenoy RK, Currow DC, eds. In: *Oxford Textbook of Palliative Medicine*, 6th ed. Oxford University Press; 2021:485–490.

29. A 57-year-old retired elementary school teacher has far advanced, refractory cervical cancer. Her comorbidities include long-term manic-depressive disorder, for which she had been managed on multiple medications; but she has recently stopped taking them due to her pain. She is enrolled in hospice care. She has severe pelvic pain. Serial trials of opioids, infusional lidocaine, ketamine, SNRIs, and TCAs have been 20% helpful. An epidural catheter with an opioid and local anesthetic was withdrawn because of delirium; there was no pain relief associated with the procedure. She has a loving, supportive husband; and her three children, all of whom are not yet college age or independent, think that she will return home to be with them.

The missing component of the comprehensive patient evaluation in this case is:

A. Spiritual distress and pastoral care.
B. Discussion about palliative sedation.
C. Referral to pain management to review medication management.
D. Addition of integrative medicine modalities.
E. Psychiatric evaluation.

Correct Answer: A

Hospice care was codified to require physician, nurse, social worker, and chaplain teams based on the science that physical, emotional, practical, and spiritual issues can result in pain. In this scenario, the realm not yet explored is the spiritual. B is not correct because the patient has not described her situation as unbearable, and all reasonable avenues have not yet been exhausted. C is not correct because she has already received the attentions of multiple specialists in the physical realm of pain. D is not correct because, while it might feel good, it does not aim to get at the pain as it is described.

Annotation

Code of Federal Regulations-2023-title42-vol3-part418 418.64 page 386. Accessed August 5, 2024. https://www.ecfr.gov/current/title-42/chapter-IV/subchapter-B/part-418/subpart-C/subject-group-ECFR35b48a647589673/section-418.64

Ferrell B, Battista V. Whole-person assessment of the patient. Dimitrov N, Kemle K, eds. *Palliative and Serious Illness Patient Management for Physician Assistants*. Oxford University Press; 2021:31–38. https://doi.org/10.1093/med/9780190059996.003.0004. Published August 1, 2021. Accessed October 1, 2024.

Puchalski C, Ferrell B. *Making Healthcare Whole: Integrating Spirituality into Patient Care*. Templeton Press; 2010.

30. A 43-year-old woman with advanced endometrial cancer experiences both severe nociceptive and neuropathic pain, which has required multiple treatment modalities. She complains of spontaneous spasms of lightning-like pain shooting down her legs.

This type of sensation is an example of:

A. Allodynia.
B. Dysesthesia.
C. Hyperalgesia.
D. Visceral pain.

Correct Answer: B

There are two primary physiologic types of pain—nociceptive and neuropathic. Nociceptive pain results from tissue damage: the neurons are doing their job correctly. This type is divided into somatic and visceral, and it is often described as sharp, dull, or aching (choice D is incorrect). Nociceptive pain typically responds to NSAIDs or opioids.

The second physiologic type of pain is neuropathic; in this pain type, the symptom of pain is coming from a damaged nerve, in either the central or peripheral nervous system. It frequently coexists with nociceptive pain. It is often described as burning or electrical, follows a nerve distribution, and is relatively resistant to treatment with NSAIDs and opioids.

There are also specific terms defining abnormal sensations. "Allodynia" is pain experienced from a stimulus that is not normally painful. For example, you lightly touch a patient or rub your finger across the patient's face, and the patient experiences pain; that is allodynia. This finding strongly suggests neuropathic pain, rather than nociceptive pain, and is typical in patients with post-herpetic neuralgia, for example. Allodynia can also be caused by opioids themselves. Choice A is incorrect.

"Hyperalgesia" is an increased response to a stimulus that is normally painful. If you apply gentle painful pressure with your fingernail on the skin of the forearm and very severe pain is felt, that is hyperalgesia. This also suggests either a neuropathic origin to the pain or opioid-induced pain. Choice C is incorrect.

A "paresthesia" is an abnormal sensation, either spontaneous or evoked. It does not have to be painful or unpleasant, just abnormal. Numbness and a feeling of lightning-like pain are both examples of paresthesia. If the abnormal sensation occurs on its own or only when you touch the area or blow air over it, it is a paresthesia. A dysesthesia, on the other hand, is an unpleasant abnormal sensation, whether spontaneous or evoked. Choice B is correct.

Annotation

Portenoy RK, Ahmed E, Krom C. Assessment and management of pain. Dimitrov N, Kemle K, eds. In: *Palliative and Serious Illness Patient Management for Physician Assistants*. Oxford University Press; 2021:214–259.

Smith TJ. Symptom management in the older adult: 2015 update. Clin Geriatr Med 2014;31:155–175. DOI: 10.1016/j.cger.2015.01.006

31. A 72-year-old woman with advanced adenocarcinoma of the pancreas was recently hospitalized, and her pain was well managed on a low-dose continuous IV morphine infusion. She was converted to oral morphine solution for discharge home on hospice. She has strong family support, and both she and her family want her to remain home for her last days. Her pain was well controlled on morphine 10 mg oral solution every 3 hours; but after a few days, she began throwing up after most doses, and her pain returned. Haloperidol had little impact on the situation. Her life expectancy is probably no more than 2 or 3 days.

Which one of the following opioid prescriptions is most appropriate?

A. Morphine rectal suppository 5 mg routinely every 3 hours.
B. MS Contin 15 mg inserted into the rectum every 12 hours.
C. Morphine 3.5 mg subcutaneously every 3 hours.
D. Fentanyl patch 50 mcg/hour, changed every 3 days.

Correct Answer: C

Her pain was well managed when she could ingest 80 mg daily of IR morphine. As she has strong family support, one option would be to switch to rectal morphine suppositories. Rectal and oral absorption of morphine are equivalent, and the dosing interval is identical. Morphine rectal suppositories are available as 5-, 10-, 20-, and 30-mg suppositories. A prescription of morphine 10 mg by rectal suppository every 3 hours should work. Choice A is incorrect because the dose is too low.

MS Contin tablets can also be inserted into the rectum, although they are not FDA-approved for that route. Bioavailability is identical, so in this case, one could also consider MS Contin 30 by rectal suppository twice daily. When giving medications by rectum, be sure that the tablet is placed up against the rectal wall and not pushed into the middle of a fecal bolus. Rectal opioids may be useful for patients who are NPO or have nausea, vomiting, dysphagia, GI obstruction, altered consciousness, or impaired neuromuscular function. Choice B is incorrect because the dose is too low.

Another option for patients on home hospice is a continuous subcutaneous or even an IV infusion of morphine. As her daily dose of oral morphine was 80 mg, the 24-hour subcutaneous dose is the same as the IV dose, which is 40% of the oral dose, or 32 mg. A dose of 3.5 mg of subcutaneous morphine every 3 hours provides 28 mg/day of parenteral morphine, a good starting point. Choice C is correct.

A fentanyl patch is a poor choice of analgesic in a dying patient because there may not be perfusion to the skin, many terminally ill patients do not have fatty tissue where the patch can be placed, and it takes several days to reach steady state (choice D is incorrect).

Annotation

Fast Fact 36, Calculating opioid dose conversions. Palliative Care Network of Wisconsin. https://www.mypcnow.org/fast-fact/calculating-opioid-dose-conversions/. Published January 28, 2019. Accessed August 20, 2024.

McPherson ML. *Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing*. 2nd ed. ASHP; 2018.

Pediatric Pain Management Strategies

32. The neonatal intensive care unit (NICU) has just received a term infant born by cesarean section for placental abruption. Apgar scores were 0 at 1 minute of life, 3 at 5 minutes of life, and 4 at 10 minutes of life. The baby was intubated in the delivery room and received chest compressions during the resuscitation. Passive cooling was begun, and the transport team actively cooled the baby on the return trip to the accepting NICU. The baby received a Sarnat score of 3, indicating severe hypoxic ischemic encephalopathy. An initial electroencephalogram (EEG) on admission shows severely abnormal background activity consistent with burst suppression. The baby is cooled. After 72 hours, rewarming is started. After rewarming has been completed, the bedside nurse notices multiple episodes of jerking of the right upper extremity, lasting 2–3 minutes. The patient appears to be more active, grimacing often.

Which of the management strategies for the neonate at this stage in care is least helpful?

A. Continue morphine sulfate 0.1 mg/kg/hour.
B. Start gabapentin 10 mg/kg/dose enterally q 8 hours.
C. Swaddle, containment, minimal interruptions, and bundled care.
D. Continue dexmedetomidine 0.3 mcg/kg/hour.
E. A loading dose of phenobarbital 20 mg/kg.

Correct Answer: B

There is significant morbidity associated with cooling, and careful monitoring is warranted (Sakr et al. 2024 highlights many of the complications). In some cases cooling can cause worsening oxygenation due to significant vasoconstriction and worsen pulmonary hypertension. In this setting sedation is usually warranted but must be used with caution as the pharmacokinetics and pharmacodynamics of sedatives and analgesics can be altered. Morphine is often used in conjunction with dexmedetomidine. Newer literature reports that morphine may lead to a prolonged hospital course; however, the infant now has significant neuro-irritability that has to be managed prior to discharge.

In this case the child was noted to have what appeared to be a seizure. Initial cooling and rewarming are when seizures most frequently occur. Ideally some type of EEG is placed when the patient arrives and begins cooling and remains in place until the infant is rewarmed. On initial seizure a loading dose of 20 mg/kg is usually done and may be repeated in 10-mg/kg boluses up to 40 mg/kg/day. Neurology should be involved with all cooling patients on admission and can monitor EEG tracings. They usually will decide based on the physical exam and EEG if and how long the patient will remain on phenobarbital. Swaddling and containment should be done once the child is rewarmed and bundling care so that the patient has periods of rest after exams, diaper changes, and lab draws. While the child is actively cooled a modified swaddle of just the arms may help to keep the infant calm. The correct choice above is B. Gabapentin, while often used in the NICU, is not usually used until well after rewarming and if the child is demonstrating signs of neuro-irritability (see Rent et al. 2021).

Annotations

Friedrichsdorf SJ, Khalid F, Noah N. Pediatric population. Dimitrov N, Kemle K, eds. In: *Palliative and Serious Illness Patient Management for Physician Assistants*. Oxford University Press; 2021:285–320.

Rent S, Bidegain M, Lemmon M. Neuropalliative care for neonates. J Child Neurol 2021;36(12):1120–1127. https://doi.org/10.1177/08830738211045238

Sakr M, Shah M, Balasundaram P. Neonatal therapeutic hypothermia. Stat Pearls. https://www.ncbi.nlm.nih.gov/books/NBK567714/. Published February 2024. Accessed October 16, 2024.

33. The above infant has been rewarmed. In preparation for extubating the baby the team decides to begin to wean the sedation. The baby weighs 3.5 kg. The baby is currently on morphine sulfate 0.2 mg/kg/hour and dexmedetomidine 0.3 mcg/kg/hour. He had only one dose of phenobarbital, and the seizures were subsequently controlled. The baby has been on the medications for 9 days total. The baby is being tube-fed and is now up to full-volume feeds of 140 cc/kg/day. Withdrawal Assessment Tool (WAT-1) scoring is initiated.

What is the initial step to wean the medication?

A. Alternate QOD weaning of the morphine drip and dexmedetomidine by 10% of the highest total daily dose until medication can be transitioned to enteral or off.
B. Begin gabapentin at 10 mg/kg/dose enterally q 8 hours as you wean the dose of dexmedetomidine
C. Start midazolam 0.05 mg/kg enterally q 6 hours as the dexmedetomidine is weaned.
D. Start methadone enterally at 0.05 mg/kg q 8 hours.

Correct Answer: A

Choice A is the best method for weaning the sedation. While some patients may not need more than dexmedetomidine, it is unusual, and many have morphine added while cooling. Morphine can be weaned by 10% of the highest total daily dose QOD safely. It can be weaned faster if the patient has been on the drip for <5 days. Dexmedetomidine as a medication does have several advantages in that is does not cause respiratory depression and often helps with shivering. It can cause bradycardia, and that may become concerning in a patient who is being cooled and already has a lower heart rate. Institutions will often alternate weaning between the dexmedetomidine and morphine. If the baby tolerates the morphine wean, some units will wean the morphine drip first as quickly as possible, even daily if tolerated, and then switch to enteral morphine. Adjunct medications (gabapentin or clonidine) can be used for neuro-irritability once the dexmedetomidine dose is low enough. (Answer B is not correct because we need to wean the dexmedetomidine and see if the baby even needs an adjunct medication.) In this case, although the baby is on full feeds, the methadone dose in answer D is too low as a starting dose. Answer C is not correct because benzodiazepines in general are avoided in the NICU secondary to studies showing poor long-term neurocognitive outcomes. Of note, scoring systems are not consistent across NICUs; some use the Neonatal Pain, Agitation and Sedation Scale and some the WAT-1.

Annotations

Elliott M, Firchild K, Zanelli S, et al. Dexmedetomidine during therapeutic hypothermia: A multicenter quality initiative. Hosp Pediatr 2024;14(1):30–36. https://doi.org/10.1542/hpeds.2023-007403

Friedrichsdorf SJ, Khalid F, Noah N. Pediatric population. Dimitrov N, Kemle K, eds. In: *Palliative and Serious Illness Patient Management for Physician Assistants*. Oxford University Press; 2021:285–320.

Joshi M, Muneer J, Mbuagbaw L, et al. Analgesia and sedation strategies in neonates undergoing whole body therapeutic hypothermia: A scoping review. PLOS ONE 2023;18(12):e0291170. https://doi.org/10.1371/journal.pone.0291170

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6

Management of Non-Pain Symptoms

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Gastrointestinal

1. A 52-year-old patient with advanced ovarian cancer presents to the palliative care clinic with complaints of severe constipation. The patient is currently receiving opioids for pain management and is taking a daily stool softener. You wish to optimize bowel function while minimizing adverse effects.

   Which of the following interventions is most appropriate for managing constipation in this patient?

   A. Add a stimulant laxative to the current regimen.
   B. Increase the stool softener.
   C. Recommend dietary modifications, including increased fiber intake.
   D. Advise the patient to increase fluid intake to prevent bloating.

   Correct Answer: A

   Opioid-induced constipation is a common challenge in palliative care. The correct answer emphasizes evidence-based management with stool softeners and stimulant laxatives. Since the patient is already on a stool softener, adding a stimulant laxative (e.g., senna or bisacodyl) is the next step in managing constipation. Stimulant laxatives promote bowel movements and can be used in combination with stool softeners. Regular monitoring and adjustments are essential.

   B. Increasing the stool softener may actually worsen the situation. Stool that is too soft is difficult to pass.
   C. Recommend dietary modifications, including increased fiber intake. While dietary fiber is important, it alone may not be sufficient for opioid-induced constipation.
   D. Advise the patient to increase fluid intake. Although increasing fluid intake may help, it is likely not sufficient for opioid-induced constipation.

Annotation

Larkin PJ, Cherny NI, La Carpia D, Guglielmo M, Ostgathe C, Scotté F, Ripamonti CI; ESMO Guidelines Committee. Diagnosis, assessment and management of constipation in advanced cancer: ESMO clinical practice guidelines. Ann Oncol. 2018;29(Suppl 4):iv111–iv125. DOI: 10.1093/annonc/mdy148

Wickham RJ. Managing constipation in adults with cancer. J Adv Pract Oncol. 2017;8(2):149–161.

2. You see a 62-year-old man with metastatic prostate cancer for pain management in an outpatient supportive care clinic. He is currently undergoing cancer-directed treatment; however, his disease has been slowly progressing despite the treatment. During your prior visit you had started him on long-acting for treatment of his persistent pain related to skeletal lesions in his ribs, pelvis, and spine. At this visit, he reports that his pain is now well controlled on the new regimen, but he has persistent constipation despite taking senna twice daily along with polyethylene glycol once daily which you had co-prescribed with his opioids. He also describes having transient crampy abdominal pain and bloating after taking the senna. His last bowel movement was 3 days ago, which required straining to evacuate stool described as hard and dry.

What class of drug would be the best next step in management for this patient's constipation?

A. Stimulant laxative.
B. Surfactant lubricant.
C. Osmotic laxative.
D. Peripherally acting opioid receptor antagonist.
E. Bulk-forming agent.

Correct Answer: D

The patient is already taking senna, which is a stimulant laxative. Since they are already having abdominal cramping, adding another stimulant laxative or increasing the dose may cause more discomfort. Surfactants such as docusate which can lubricate and soften stool have been shown to have little efficacy in opioid-induced constipation (OIC). The patient is already on polyethylene glycol (PEG), which is an osmotic laxative which they should continue. PAMORAs (peripherally acting, mu-opioid receptor antagonists) such as naloxegol (https://medlineplus.gov/druginfo/meds/a615016.html) and methylnaltrexone are the best choice for a patient with opioid-induced constipation who have symptoms refractory to conventional laxatives. Bulk-forming agents such as psyllium are not the best choice in opioid-induced constipation. Caution should be used in dehydrated or terminally ill patients, for whom adding bulk could worsen constipation.

Annotation

Davies A, Leach C, Caponero R, et al. MASCC recommendations on the management of constipation in patients with advanced cancer. Support Care Cancer. 2020;28:23–33. https://doi.org/10.1007/s00520-019-05016-4

Muldrew DH, Hasson F, Carduff E, et al. Assessment and management of constipation for patients receiving palliative care in specialist palliative care settings: a systematic review of the literature. Palliat Med. 2018;32(5):930–938. DOI: 10.1177/0269216317752515

Sizar O, Genova R, Gupta M. Opioid-Induced Constipation. StatPearls. Updated August 7, 2023. Available at: https://www.ncbi.nlm.nih.gov/books/NBK493184. Accessed August 21, 2024.

3. A 48-year-old man with chronic hepatitis C develops hepatocellular carcinoma, complicated by malignant ascites. He receives dramatic pain relief from two large-volume paracenteses, but the fluid rapidly reaccumulates. He is no longer a candidate for cancer-directed therapy, and his prognosis is estimated at 3–4 months.

Which one of the following is the best way to manage his recurrent malignant ascites?

A. Titrated spironolactone and furosemide.
B. Observation, with no specific treatment.
C. Placement of a tunneled (PleurX) catheter into the peritoneal space.
D. Placement of a peritoneovenous shunt, connecting the peritoneal cavity to a central vein.

Correct Answer: C

Similar to pleural fluid, ascitic fluid is divided into transudates and exudates. For palliation of transudative ascites, medical management with spironolactone and furosemide is the first choice. However, for an exudative malignant effusion, diuretic treatment is ineffective (choice A is incorrect).

Periodic large-volume paracentesis, drawing 4–6 liters per session (up to 20 liters has been reported) is also safe and effective. If repeated taps become necessary, consider asking an interventional radiologist to place a permanent catheter such as the tunneled catheter (PleurX). These catheters may have lower infection rates and greater stability than the peritoneal catheters typically used for dialysis. If life expectancy is longer, consider peritoneovenous shunting, in which a catheter connects the peritoneal cavity to a central vein, usually the superior vena cava. The risk of disseminated intravascular coagulation can be reduced by completely draining the ascites before placement of the catheter. Choice C is correct.

Choice B is incorrect because the ascites may respond dramatically to external drainage, while observation would not provide any symptomatic benefit. Peritoneovenous shunting is rarely used for malignant ascites (choice D is incorrect).

Annotation

Firth J, Conlon C, Cox T (eds). Oxford Textbook of Medicine, 6th edition. Oxford University Press; 2020. January 1, 2020. https://doi.org/10.1093/med/9780198746690.001.0001. Accessed August 19, 2024.

Ikegami T, Ishiki H, Kadono T, Ito T, Yokomichi N. Narrative review of malignant ascites: epidemiology, pathophysiology, assessment, and treatment. Ann Palliat Med. 2024;13(4):842-857. DOI: 10.21037/apm-23-554

Narayanan G, Pezeshkmehr A, Venkhat S, Guerrero G, Barbery K. Safety and efficacy of the PleurX catheter for the treatment of malignant ascites. J Palliat Med. 2014;17:906–912. DOI: 10.1089/jpm.2013.0427

Shingina A, Larson AM. Jaundice, ascites, and encephalopathy. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:556–567.

4. A 48-year-old man with chronic hepatitis C develops advanced cirrhosis with ascites. He is not a candidate for antiviral treatments or a liver transplant. His SAAG index (serum ascites albumin gradient) is high, indicating a transudative effusion. He also has variceal bleeding and a previous episode of hepatic encephalopathy and has opted for hospice. His hemoglobin is 8.5 g/dl, platelet 65,000/dl, and international normalized ratio (INR) 2.2.

Which one of the following treatments is most effective for his ascites?

A. Restrict sodium intake to less than 2 g/day.
B. Prescribe oral furosemide 40–80 mg/day.
C. Prescribe oral spironolactone 25 mg three times daily.
D. Arrange for placement of a tunneled peritoneal catheter.

Correct Answer: C

In transudative, high SAAG ascites, there is activation of the renin–angiotensin–aldosterone system, which causes sodium retention. Treatment starts with modest sodium restriction to 5–6 g/day. Tighter sodium restriction is not helpful and makes the diet unpalatable, especially in patients with advanced disease (choice A is incorrect).

Prescribe oral spironolactone 75–200 mg/day in divided doses or a single daily dose (choice C is correct). Spironolactone may take up to 2 weeks to start working. Do not start with a loop diuretic as monotherapy (choice B is incorrect). Sequentially increase the dose of spironolactone to a maximum of 400 mg/day, and then add furosemide titrated from 20 to 160 mg orally per day. To avoid hypovolemia, daily weight loss should not exceed 1 kg in the presence of peripheral edema or 0.5 kg in the absence of edema.

Monitor the serum creatinine and electrolytes. Diuretic effectiveness can also be measured by a decrease in abdominal girth. As the ascites mobilizes, consider reducing the diuretic dose to avoid complications such as hyponatremia, hypo- or hyperkalemia, renal failure, hepatic encephalopathy, or gynecomastia. Drug treatment of transudative ascites is usually effective, and this option should precede placement of a peritoneal catheter (choice D is incorrect).

Annotation

Khan S, Linganna M. Diagnosis and management of ascites, spontaneous bacterial peritonitis, and hepatorenal syndrome. Cleve Clin J Med. 2023;90:209–213. DOI: 10.3949/ccjm.90a.22028

Lenz K, Buder R, Kapun L, Voglmayr M. Treatment and management of ascites and hepatorenal syndrome: an update. Ther Adv Gastroenterol. 2015;8:83–100. DOI: 10.1177/1756283X14564673

5. A 39-year-old woman with stage IV metastatic breast cancer presented to clinic yesterday with jaundice and worsening diffuse pruritus over the last week. She is found to have elevated liver function tests (LFTs) and hyperbilirubinemia, and imaging shows increased hepatic and nodal metastatic disease causing intrahepatic biliary duct dilatation. She underwent biliary stenting, and her bilirubin levels are so far unchanged. You are asked to re-evaluate her because she was not able to sleep all night due to the pruritus. At bedside she is restless and constantly scratching her torso and extremities.

Which of the following drugs is recommended for treatment of this patient's pruritus?

A. Urodeoxycholic acid.
B. Cholestyramine.
C. Benadryl.
D. Hydroxyzine.
E. Topical menthol/camphor emollient.

Correct Answer: B

Cholestyramine, a bile sequestrant, is the first-line treatment for patients with moderate to severe cholestatic pruritus. In cases of obstructive causes of cholestasis, pruritus is often relieved within 24–48 hours of biliary decompression, so the patient's symptoms may start to improve before additional lines of treatment would need to be investigated. Benadryl and hydroxyzine may be beneficial for sedation but typically are not effective for the itch as it is not histamine-related. Topical emollients may provide temporary limited relief.

Annotation

Beuers U, Wolters F, Oude Elferink RPJ. Mechanisms of pruritus in cholestasis: understanding and treating the itch. Nat Rev Gastroenterol Hepatol. 2023;20(1):26–36. DOI: 10.1038/s41575-022-00687-7

Patel SP, Vasavda C, Ho B, Meixiong J, Dong X, Kwatra SG. Cholestatic pruritus: emerging mechanisms and therapeutics. J Am Acad Dermatol. 2019;81(6):1371–1378. DOI: 10.1016/j.jaad.2019.04.035

Shah R, John S. Cholestatic Jaundice. StatPearls. Updated July 10, 2023. Available at: https://www.ncbi.nlm.nih.gov/books/NBK482279/. Accessed August 21, 2024.

6. A 63-year-old man with a medical history of tobacco smoking, remote chronic alcohol use disorder, cirrhosis, non-insulin-dependent diabetes mellitus, and hypertension has been referred to your outpatient pain and palliative care clinic after a new diagnosis of pancreatic adenocarcinoma. He is still awaiting a scheduled follow-up consultation with his medical oncologist to discuss his treatment options. His chief complaint is constant epigastric abdominal discomfort over the last several weeks to months that is unrelieved by non-steroidal anti-inflammatory agents (NSAID).

Of the following, which would be the most appropriate next step?

A. Thoroughly assess the physical, psychological, and spiritual domains.
B. Initiate an opioid pain regimen.
C. Refer to an interventional pain specialist.
D. Defer evaluation and treatment of pain until the patient has seen the oncologist.

Correct Answer: A

The first step is to perform a thorough palliative evaluation, concentrating on physical, psychological, and spiritual domains (choice A is correct). Choice B is incorrect because an assessment should always precede prescription of an opioid, particularly in patients with a history of substance use disorders. Choice C is incorrect because standard analgesic treatments should be considered before interventional pain techniques. In this case a celiac plexus block could be beneficial if front-line treatments are ineffective. Choice D is incorrect because pain management should occur concurrently with cancer treatment.

Annotation

Bruera E, Kuehn N, Miller MJ, Selmser P, Macmillan K. The Edmonton Symptom Assessment System (ESAS): a simple method for the assessment of palliative care patients. J Palliat Care. 1991;7(2):6–9.

Ferrell B, Battista V. Whole-person assessment of the patient. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:31–44.

Puchalski C, Ferrell B, Virani R, et al. Improving the quality of spiritual care as a dimension of palliative care: the report of the consensus conference. J Palliat Med. 2009;12(10):885–904. DOI: 10.1089/jpm.2009.014210

7. A 45-year-old woman is admitted to hospice with advanced heart failure and lumbar spinal stenosis. She continues to take evidence-based medications for her heart failure and is able to walk without assistance to the bathroom but needs assistance with bathing and dressing. She takes MS Contin 15 mg PO twice daily, as well as PRN short-acting morphine for dyspnea and back pain. She also takes senna regularly. Over the next few weeks she develops diarrhea without fever or nausea or change in her diet or activity.

Which one of the following is the most likely cause of her diarrhea?

A. Overuse of laxatives.
B. Fecal impaction, with overflow diarrhea.
C. *Clostridium difficile* colitis.
D. Fat malabsorption.

Correct Answer: A

The most common cause of diarrhea in palliative care settings is overuse of laxatives, often prescribed to prevent or treat opioid-induced constipation. Perform a rectal exam to ensure that the diarrhea is not passing around a fecal impaction (overflow diarrhea). If diarrhea seems to be caused by laxatives, stop them for a couple of days, and then consider restarting them at a lower dose. Choice A is correct, while the other choices (B, C, and D) are incorrect because they are less common causes.

Annotation

Alderman J. Fast Facts and Concepts #96. Diarrhea in Palliative Care. November 2023. Available at: https://www.mypcnow.org/fast-fact/diarrhea-in-palliative-care/. Accessed October 9, 2024.

Larkin PJ, Constipation and diarrhoea. Cherny NI, et al. (eds) In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:550–555.

8. An 85-year-old woman has lived in the nursing home for several years with gradually progressive Alzheimer's disease.

She also has hypertension, chronic kidney disease stage III, and diabetes. Her weight has steadily diminished over several months, and she has developed minor pressure sores and has twice been hospitalized with delirium and urinary tract infection. Her physician associate counsels the family about the trajectory of illness and advises against the option of gastrostomy feeding, but her children insist on gastrostomy tube placement, saying "We just can't let mom starve to death."

Which one of the following approaches is best?

A. Arrange for gastrostomy placement.
B. Discuss positive outcomes of gastrostomy—including benefit in survival, infections, pressure sores, and comfort.
C. Emphasize that tube feeding is a medical intervention with risks and that it does not promote comfort.
D. Place a nasogastric tube instead.

Correct Answer: C

Families struggle with the decision to place or withhold a percutaneous endoscopic gastrostomy (PEG) tube in their demented loved one. Choice A is not optimal because further counseling may help the family better understand the risks and benefits of treatment. Choice B is incorrect because some families, when provided thorough counseling, will still opt for this approach. Choice C is probably the best choice—it does not antagonize the family but provides an alternative, evidence-based viewpoint and helps to individualize the treatment. Choice D is inappropriate because a nasogastric tube is not indicated for long-term nutritional support.

Annotation

Lee YF, Hsu TW, Liang CS, et al. The efficacy and safety of tube feeding in advanced dementia patients: a systematic review and meta-analysis study. J Am Med Dir Assoc. 2021;22:357–363. DOI: 10.1016/j.jamda.2020.06.035

Palecek EJ, Teno JM, Casarett DJ, et al. Comfort feeding only: a proposal to bring clarity to decision-making regarding difficulty with eating for persons with advanced dementia. J Am Geriatr Soc. 2010;58:580–584. DOI: 10.1111/j.1532-5415.2010.02740.x

9. An 82-year-old man develops an unresectable squamous cell carcinoma of the middle esophagus. He receives temporary benefit from both external beam radiation therapy (EBRT) and chemotherapy, but he now has progressive disease with increasing dysphagia and decreasing oral intake. He is still alert and has communicated his wishes with family and friends that he is at peace with his diagnosis and wants to live as long as possible without pain. No further cancer-directed therapies are available, and he is considering referral to hospice.

Which one of the following is the best option to manage his dysphagia?

A. Placement of a PEG tube.
B. Prescription of a nectar-thickened diet.
C. Placement of an esophageal stent.
D. Prescription of an opioid.

Correct Answer: C

The most common cause of malignant dysphagia is esophageal cancer, either squamous cell carcinoma or adenocarcinoma, with lung cancer the second most common cause. Dysphagia can also be caused by tracheoesophageal fistula or extrinsic compression from tumor. Placement of an esophageal stent can provide effective palliation for all of these.

The goals of stenting are to minimize symptoms, promote oral intake, seal fistulas and anastomotic leaks after surgical interventions, and improve quality of life. Gastroenterologists, interventional radiologists, and surgeons place these devices. A stent may allow the patient to swallow and eat, although it does not directly treat the underlying malignancy.

In the vignette, an esophageal stent could provide substantial benefit; thus, choice C is correct. Choice A bypasses the obstruction, but it would not seal a leak or help the patient swallow. Choice B is incorrect because it provides inadequate nutrition in a patient who likely has several weeks of life left. Choice D is incorrect because interventions such as esophageal stenting should be available to hospice patients. The hospice can contract for this procedure while the patient remains on hospice. As another option, the patient could have the procedure done first and then be referred to hospice.

Annot ation

Mougey A, Adler DG. Esophageal stenting for the palliation of malignant dysphagia. J Supp Oncol. 2008;6:267–273.

Sabharwal T, Fotiadis NI, Adam A. Interventional radiology in the palliation of cancer. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:861–871.

10. Your next patient in the oncology clinic is a 65-year-old woman with metastatic ovarian cancer who presents with persistent nausea and occasional vomiting over the past 2 weeks. She is currently undergoing platinum-based chemotherapy and taking opioids for pain management. The nausea occurs for several days after a dose of intravenous (IV) chemotherapy and gradually tapers off. Her nausea is affecting her ability to eat and drink, leading to significant weight loss and dehydration. She still has a normal bowel movement about every 2 days. Her vital signs are normal, and physical exam does not suggest any signs of bowel obstruction.

Which one of the following is most likely to alleviate her nausea?

A. Increase the dosage of her current opioids.
B. Add ondansetron to her medications.
C. Prescribe a proton pump inhibitor (PPI).
D. Request nutritionist consultation.
E. Initiate metoclopramide.

Correct Answer: B

Ondansetron is a selective serotonin 5-HT3 receptor antagonist that is highly effective in managing chemotherapy-induced nausea and vomiting (CINV). Given that the patient is undergoing chemotherapy and experiencing persistent nausea, ondansetron is a first-line treatment and is specifically indicated for this type of nausea (choice B is correct). Platinum-based chemotherapy is highly emetogenic, and at the time of chemotherapy, guidelines suggest the use of multiple medications to prevent nausea.

Choice A is incorrect because increasing the dosage of opioids may worsen nausea and other adverse effects. For this patient, the nausea seems related to the chemotherapy and the routine opioid use. Opioid-induced nausea should be managed with antiemetics rather than increasing the opioid dose.

Choice C, prescribing a PPI, might be helpful if the nausea is due to gastroesophageal reflux disease (GERD), but this is less likely given the context of chemotherapy and opioid use.

Choice D, recommending ginger supplements and dietary modifications, may offer some relief for mild nausea but is unlikely to be sufficient for managing the severe nausea associated with chemotherapy. Further, ginger can interact with some chemotherapy agents and should be avoided in patients undergoing standard chemotherapy.

Choice E, initiating metoclopramide, could be beneficial for nausea and vomiting, particularly if there is a component of gastric stasis; but ondansetron is generally more effective for CINV.

Annotation

Desanti-Siska L, Fellows S, Polito N. Constitutional symptoms. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:125–160.

Hesketh PJ, Kris MG, Basch E, Bohlke K, Barbour SY, Clark-Snow RA, Danso MA, Lyman GH. Antiemetics: ASCP guideline update. J Clin Oncol. 2020;38(24):2782–2797. https://doi.org/10.1200/JCO.20.01296

Cardiopulmonary

11. You serve as the attending of record for an 82-year-old man with end-stage chronic obstructive pulmonary disease (COPD) who has elected home hospice care. Despite optimal medical management of his COPD, he has refractory dyspnea at rest with conversation and with minimal physical exertion. He uses oxygen at 3 liters continuously and has a pulse oximetry of 94%. He has never had an episode of hypercarbic respiratory failure. You arrange for a handheld fan to blow air across his face, which does provide some relief. His family asks if an increase in supplemental oxygen would help his dyspnea.

    Based on the literature, what recommendations can you provide regarding his supplemental oxygen?

    A. An increase in his nasal oxygen should reliably and dramatically relieve his dyspnea.
    B. Additional supplemental nasal oxygen risks accelerating his disease.
    C. Increasing his supplemental nasal oxygen will provide no further benefit than airflow alone.
    D. All hospice patients will need supplemental oxygen.

    Correct Answer: C

In hospice and palliative care, oxygen is often used even in the absence of hypoxemia, as a non-specific, even symbolic measure, although the additional cost to the agency can be substantial. Palliative and hospice clinicians should distinguish dyspnea from hypoxemia. Abernethy asked the important question whether oxygen helps relieve dyspnea in patients who are not hypoxemic. She randomized 239 adult Australians with PaO_2 >55 mm Hg (mean was 79 mm Hg) who also had refractory dyspnea, excluding those on long-term O_2, with a history of hypercarbic respiratory failure or anemia, or with an estimated survival of less than 1 month. The patients were randomized to 7 days of nasal cannula gas at 2 liters/minute: half got oxygen, and half got air, delivered in their homes. The primary outcome was a 0–10 visual analog scale to measure dyspnea.

Dyspnea did not differ between the groups getting air or oxygen delivered to them, at any time during the week-long period. In each group 40%–50% reported improved breathlessness, testifying to a robust placebo effect or perhaps to the benefit of the perception of air flow in the nasal passages. Patients with the most severe dyspnea reported the most benefit, but there was no difference in the groups receiving oxygen or air. The choice that best describes this result is C, while choices A and B are incorrect.

These results suggest that moving air near the nasal passages can improve the symptom of breathlessness. Air can do this as well as oxygen. Oxygen is more expensive, it is flammable, and it can be difficult to obtain. Patients with hypercarbia, especially those with central hypoventilation syndromes, may have respiratory depression if given too much oxygen. The first step should be a simple handheld or tabletop fan. We should avoid prescribing burdensome treatment that is unlikely to provide symptomatic relief. Hospices should not routinely deliver oxygen to their home hospice patients nor apply in the dying process as it may attenuate the time to death significantly. (Choice D is incorrect.)

Annotation

Abernethy AP, McDonald CF, Frith PA, et al. Effect of palliative oxygen versus room air in relief of breathlessness in patients with refractory dyspnoea: a double-blind, randomized controlled trial. Lancet. 2010;376:784–793. DOI: 10.1016/S0140-6736(10)61115-4

Johnson MJ, Currow DC. Breathlessness and other respiratory symptoms in palliative care. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:589–603.

12. A 73-year-old woman with end-stage COPD experiences dyspnea at rest. She is optimized on inhaled bronchodilators, and she did not benefit from a trial of systemic corticosteroids. Her oxygen saturation is 94% on 1 liter/minute of supplemental nasal cannula oxygen, which she turns up to 2 liters/minute at night. She enrolls in hospice and asks for help managing her dyspnea, which frightens her so that she is afraid to go to sleep. She is naive to opioids.

Which one of the following treatments should be the next step in managing her dyspnea?

A. Fit her with a mask for continuous positive pressure ventilation.
B. Try a fan blowing air across her face.
C. Prescribe oral glycopyrrolate to reduce respiratory secretions.
D. Prescribe MS Contin 15 mg twice daily.

Correct Answer: B

In treating the dyspnea of COPD, the first step should be to optimize bronchodilators, both inhaled β2-agonists and antimuscarinic drugs. Supplemental oxygen should be used if the patient is hypoxemic but is not usually helpful if oxygen tension is normal. Corticosteroids can be considered, although they may lead to long-term complications. They should be given on a trial basis and stopped if there is no clear benefit.

Non-pharmacologic treatments include coughing up secretions, pursed lip breathing, using a handheld fan, relaxation therapy, and conserving energy for important activities (choice B is correct). Although non-invasive ventilation such as continuous positive pressure ventilation may reduce dyspnea in some patients with COPD, the technique is noisy, frightening, and expensive and interferes with family intimacy.

Anticholinergic drugs such as scopolamine or glycopyrrolate may reduce respiratory secretions; but their efficacy is uncertain, and they can cause oral dryness and delirium (choice C is incorrect).

Non-pharmacologic methods should be tried first (choice A is incorrect). An opioid such as morphine can be utilized after non-pharmacologic methods have failed, but it would not be appropriate to start a long-acting opioid product in an opioid-naive patient (choice D is incorrect).

Annotation

Boland J, Martin M, Wells AU, Ross JR. Palliative care for people with non-malignant lung disease: summary of current evidence and future direction. Palliat Med. 2013;27:811–816. DOI: 10.1177/0269216313493467

Johnson MJ, Currow DC. Breathlessness and other respiratory symptoms in palliative care. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:589–603.

Luce JM, Luce JA. Management of dyspnea in patients with far-advanced lung disease. JAMA. 2001;285:1331–1337. DOI: 10.1001/jama.285.10.1331

Weissman DE. Fast Facts and Concepts #27. Dyspnea at the End-of-Life. November 2024. Available at: https://www.mypcnow.org/fast-fact/dyspnea-at-end-of-life/. Accessed October 10, 2024.

13. You are a palliative care physician associate (PA) embedded in an outpatient pulmonology practice. You have been asked by a pulmonologist to see an 82-year-old patient with stage III non-squamous cell lung cancer undergoing immunotherapy and COPD at his 6-month follow-up for ongoing issues with chronic dyspnea and fatigue. Upon initial observation, the patient appears to be thin and frail. He reports his diet is unchanged. After further investigation, the patient was found to have unintentional weight loss of 6% over the past 9 months.

Which is the best next step in your approach to the management of this patient?

A. Involving a registered dietician and starting nutritional supplementation.
B. Referral to physical therapy for exercise training.
C. Asking the palliative care social worker to assist with psychosocial interventions.
D. Treatment of inflammation, anemia, and any reversible symptoms.
E. Ask the patient what they know about their condition and prognosis.

Correct Answer: E

A comprehensive patient evaluation starts with a basic question to the patient (using tools such as SPIKES and the Serious Illness Conversation Guide, among others) to assess what the patient knows and discuss prognosis. Following this, an assessment of his symptoms should be addressed with appropriate symptom management to facilitate his goals of care. This is a multimodal approach aimed at improving or alleviating the effects of cachexia and increasing his energy and psychological and spiritual support. This will result in a reduction of catabolic changes, include muscle training as tolerated, and enhance his sense of well-being. Therefore, choices A, B, C, and D need to occur after choice E.

Annotation

National Consensus Project for Quality Palliative Care. Guideline 1.2 Comprehensive palliative care assessment. In: Clinical Practice Guidelines for Quality Palliative Care, 4th edition. National Coalition for Hospice and Palliative Care; 2018. https://www.nationalcoalitionhpc.org/ncp. Accessed October 9, 2024.

Watanabe H, Oshima T. The latest treatments for cancer cachexia: an overview. Anticancer Res. 2023;43(2):511–521. DOI: 10.21873/anticanres.16188

Yourman LC, Lee SJ, Schonberg MA, et al. Prognostic indices for older adults: a systematic review. JAMA. 2012; 307:182–192. DOI: 10.1001/jama.2011.1966

14. A 69-year-old woman has severe COPD despite maximal medical intervention, including bronchodilators, oral prednisone, and nasal cannula oxygen. Her other comorbidities include mild hypertension and hypothyroidism. She still occasionally smokes a cigarette or two. She has opted for home hospice but remains limited by substantial dyspnea at rest or with minimal exertion.

Which one of the following should be the next step in relieving her dyspnea?

A. A fan directed toward her face.
B. Pulmonary rehabilitation.
C. Morphine immediate release 2.5–5 mg PO every 2–3 hours as needed.
D. Furosemide 40 mg PO daily.

Correct Answer: A

Movement of air across the face is safe and effective in treating dyspnea. A randomized (although not blinded) trial has confirmed the common hospice lore that blowing air across the face relieves dyspnea, probably by stimulating the trigeminal nerve. Reduction in dyspnea is substantial, more than that provided by either oxygen or opioids in other trials. This is an acceptable, safe, and effective intervention that one can consider for almost all patients with dyspnea, even those without advanced disease. A small fan held close to the face may be more effective than a larger fan blowing from across the room. Sitting in front of an open window often works well. Choice A is correct.

Pulmonary rehabilitation is a clinically proven therapy for patients with advanced chronic obstructive lung disease. Supervised exercise sessions may improve exercise capacity, severity of dyspnea, and quality of life. Exercise has also been shown to have beneficial effects in patients with lung cancer who are undergoing resection, but it is unlikely this can be extrapolated to most palliative care or hospice patients. These approaches are probably less effective as function decreases at the end of life (choice B is incorrect).

Initial palliative management of dyspnea should generally include non-pharmacologic treatments, although morphine may be useful if these fail (choice C is incorrect). Occasionally a loop diuretic may be helpful in relieving dyspnea in patients with heart failure or other diseases, but there is no reason to think it would be effective for the patient in the vignette (choice D is incorrect).

Annotation

Galbraith S, Fagan P, Perkins P, Lynch A, Booth S. Does the use of a handheld fan improve chronic dyspnea? A randomized, controlled, crossover trial. J Pain Symptom Manage. 2010;39:831–838. DOI: 10.1016/j.jpainsymman.2009.09.024

Hui D, Bohlke K, Bao T, Campbell TC, et al. Management of dyspnea in advanced cancer: an ASCO guideline. J Clin Oncol 2021;39:1389–1411. DOI: 10.1200/JCO.20.03465

Johnson MJ, Currow DC. Breathlessness and other respiratory symptoms in palliative care. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:595.

15. You are seeing a 67-year-old man who presents to your outpatient palliative clinic with advanced COPD. He is on 4 liters/minute of nasal cannula oxygen and reports worsening dyspnea on exertion over the last 6 months. He is unable to walk 10 feet without stopping to rest, and he takes multiple breaks when completing activities of daily living such as bathing and dressing. He was seen by his pulmonologist last week, who reported he is on optimal medical therapy (Trelegy Ellipta one puff daily, roflumilast 500 mg daily, and prednisone 20 mg daily). He has never taken opioids. There is no evidence of pneumonia or heart failure to explain the dyspnea. His oxygen saturation is 92% at rest, and labs are all within normal limits. He is cachectic and has conversational dyspnea despite his normal oxygen saturation. He presents to the palliative clinic to discuss management of his significant dyspnea and poor quality of life. After counseling, you decide to initiate morphine to better manage his dyspnea.

Which one of the following would be the best way to initiate morphine to manage his dyspnea?

A. 2.5 mg PO q 2 hours PRN.
B. 7.5 mg PO q 6 hours PRN.
C. Extended release (ER) 15 mg BID.
D. 5 mg q 8 hr.
E. 3 mg IV q 4 hours PRN.

Correct Answer: A

This patient has no contraindication for using morphine for symptomatic relief of dyspnea. He has been evaluated by pulmonology, and no reversible issues were found. He may benefit from a low dose of opioids to treat dyspnea and maximize function while also improving quality of life. The best practice is to start with the lowest effective oral dose such as morphine 2.5–5 mg q 2–4 hours PRN dyspnea (choice A is correct).

Choice B is incorrect as this starting dose is too high and the frequency too low.

Choice C is incorrect as clinicians should never initiate long-acting opioids without a trial of titrated immediate-release doses to determine effectiveness and to monitor for adverse effects.

Choice D is incorrect as one should start with as-needed dosing instead of scheduled dosing. Choice E is incorrect for several reasons: start with oral opioids rather than parenteral unless there is a clear reason to prefer the IV route, IV opioids cannot be administered in a home setting except for special circumstances such as hospice enrollment, and the suggested starting dose of morphine is too high.

Annotation

Curseen KA, Taj J. Cardiopulmonary system. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:181–198.

McPherson ML. Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing, 2nd edition. ASHP; 2018. https://doi.org/10.37573/9781585284306. Accessed August 16, 2024.

16. An 86-year-old man with end-stage heart failure is seen in the palliative care clinic. He has severe dyspnea at rest, which has been progressively worsening over the past few weeks. Despite optimized heart failure medications including beta-blockers, angiotensin-converting enzyme (ACE) inhibitors, diuretics, and digoxin, his symptoms persist. He is experiencing significant anxiety due to his breathlessness, and his quality of life is markedly diminished. He expresses a desire for better relief from his dyspnea and anxiety.

Which one of the following is the most appropriate management strategy for the patient's dyspnea?

A. Increase the dose of diuretics to manage fluid overload.
B. Initiate low-dose morphine to alleviate dyspnea.
C. Start a high-dose benzodiazepine to reduce anxiety.
D. Administer supplemental oxygen continuously.
E. Refer the patent for a heart transplant evaluation.

Correct Answer: B

Primary goals of palliative care are to improve quality of life and alleviate symptoms. Low-dose morphine is effective in relieving dyspnea by decreasing the sensation of breathlessness, thus improving comfort. It also has the added benefit of reducing anxiety related to dyspnea.

Option A is incorrect because while diuretics can help manage fluid overload in heart failure, the patient's symptoms persist despite optimized heart failure medications, indicating that fluid overload is likely not the primary cause of his dyspnea at this stage.

Option C is not appropriate because high-dose benzodiazepines can cause sedation, respiratory depression, and other side effects; and they are not first-line treatments for dyspnea. In palliation of dyspnea, start with an opioid; and after titrating that treatment, consider adding a benzodiazepine.

Option D may not be necessary if the patient is not hypoxic. Supplemental oxygen is only indicated if there is documented hypoxemia, and its routine use in non-hypoxic patients with dyspnea is not supported by evidence.

Option E is inappropriate given the patient's age and the advanced stage of his heart failure, making him unlikely to be a candidate for heart transplantation. Very few patients with heart failure will get a heart transplant, so it is important to manage symptoms with evidence-based practice, including titrated doses of opioids in selected patients.

Annotation

Connolly M, Ryder M. Consideration of symptom management in advanced heart failure. Int J Environ Res Public Health. 2022;19(22):15160. DOI: 10.3390/ijerph192215160

Olson TJP, Pinkerton C, Brasel KJ, Schwarze ML. Palliative surgery for malignant bowel obstruction from carcinomatosis: a systematic review. JAMA Surg. 2014;149(4):383–392. https://doi.org/10.1001/jamasurg.2013.4059

17. You are following a 78-year-old woman in a palliative care clinic with advanced low ejection fraction heart failure, mild cognitive impairment, and chronic kidney disease. She complains of disturbed sleep, and on detailed history she describes an unpleasant sensation in her legs at night, which is temporarily resolved by moving them.

Which one of the following is the next step?

A. Discuss cognitive behavioral treatments of insomnia.
B. Prescribe ropinirole 0.25 mg PO at night.
C. Prescribe temazepam 15 mg PO at night.
D. Refer the patient for a sleep study (polysomnography).

Correct Answer: B

A common and treatable primary sleep problem among palliative populations is restless legs syndrome (RLS). It is diagnosed when all four of the following criteria are met:

1. An urge to move the legs, with an unpleasant sensation in the legs (sometimes arms).
2. These symptoms begin or worsen during periods of rest, such as lying or sitting.
3. These symptoms are partially or totally relieved by movement.
4. These symptoms are worse in the evening or night or only occur then.

Supportive criteria for the diagnosis are a family history of RLS, a clear response to dopaminergic therapy, periodic limb movements at night, and disturbed sleep. RLS is common in patients with chronic kidney disease and is also associated with iron deficiency.

Treatment is with low doses of one of the newer dopamine agonists, either pramipexole (0.125 mg, 0.25 mg) or ropinirole (0.25 mg). Choice B is correct. The response is usually dramatic and immediate. Due to adverse effects of the dopamine agonists, do not treat RLS unless the symptoms affect quality of life, function, or sleep, as in the vignette. The disordered sleep resolves with the treatment of the leg symptoms, while treating the insomnia associated with RLS with hypnotics is not effective (choice C is incorrect). This diagnosis can be made in palliative or hospice settings.

In this vignette, the history is classic for RLS, and there is no indication for a sleep study (choice D is incorrect). Also, RLS has a highly effective pharmacologic treatment and does not respond to behavioral treatments (choice A is incorrect).

Annotation

Kvale EA, Shuster JL. Sleep disturbances in supportive care of cancer: a review. J Palliat Med. 2006;9:437–450. DOI: 10.1089/jpm.2006.9.437

Yeh WC, Li YS, Chang YP, Hsu CY. Dopamine agonists in restless leg syndrome treatment and their effects on sleep parameters: a systematic review and meta-analysis. Sleep Med. 2024;119:379–388. DOI: 10.1016/j.sleep.2024.05.011

Genitourinary Issues

18. You are seeing a 52-year-old woman who has a history of stage II estrogen receptor/progesterone receptor (ER/PR)–positive breast cancer and a latex allergy. She started adjuvant tamoxifen 20 mg daily 6 months ago and has noticed progressive vaginal dryness and dyspareunia. She has tried over-the-counter lubricants but feels the duration of benefit is too short and thus is not meeting her needs. The dyspareunia is affecting her desire, and she would like to enjoy physical intimacy again. She has 4.5 more years of tamoxifen therapy and does not feel these symptoms can be endured until she is able to stop therapy.

    What is the appropriate next step in management?

    A. Transdermal estrogen replacement patch.
    B. Oral estrogen replacement.
    C. Hyaluronic acid vaginal suppositories.
    D. Conjugated estrogen cream.
    E. Lubricated latex condoms.

    Correct Answer: C

Choice C is correct as it is a safe, non-hormone option to address vaginal dryness. Choices A and B are both incorrect as you need to avoid all systemic hormone/estrogen therapy considering her diagnosis of hormone receptor–positive breast cancer.

Choice D is incorrect as conjugated estrogen cream has the highest systemic absorption and thus should be avoided in the setting of hormone receptor–positive breast cancer. Other topical estrogen options are available, but the degree of absorption is variable across agents; thus, each case should be carefully examined before introducing hormonal agents in the setting of hormone receptor–positive cancers.

Choice E is incorrect as she is allergic to latex.

Annotation

Jokar A, Davari T, Asadi N, Ahmadi F, Foruhari S. Comparison of the hyaluronic acid vaginal cream and conjugated estrogen used in treatment of vaginal atrophy of menopause women: a randomized controlled clinical trial. Int J Community Based Nurs Midwifery. 2016;4(1):69–78.

Lester J, Pahouja G, Andersen B, Lustberg M. Atrophic vaginitis in breast cancer survivors: a difficult survivorship issue. J Pers Med. 2015;5(2):50–66. DOI: 10.3390/jpm5020050

Nappi RE, Martella S, Albani F, Cassani C, Martini E, Landoni F. Hyaluronic acid: a valid therapeutic option for early management of genitourinary syndrome of menopause in cancer survivors? Healthcare (Basel). 2022;10(8):1528. DOI: 10.3390/healthcare10081528

19. A 73-year-old patient with renal cell carcinoma status post right nephrectomy is experiencing significant fatigue. The patient is currently receiving chemotherapy and has received radiation therapy for bone metastases in the past. Labs show mild anemia, chronic kidney disease stage IIIa, normal thyroid function, normal electrolytes, and other blood counts within normal limits. The patient spends most of the day in bed or in a chair and is taking multiple naps during the day. Although the patient remains optimistic, this fatigue is significantly affecting quality of life.

    Which one of the following is the most appropriate next step to address the patient's fatigue?

    A. Start methylphenidate.
    B. Start dexamethasone.
    C. Recommend acupuncture.
    D. Discuss an exercise program.
    E. Start sertraline.

    Correct Answer: D

Fatigue is a common and distressing symptom in patients with advanced cancer, often significantly impacting quality of life, with studies showing that is affects up to 70% of patients. Cancer-related fatigue is a multidimensional problem whose pathophysiology is not well understood. Consider checking for potentially reversible causes such as pain, hypothyroidism, electrolyte imbalances, anemia, and sleep disorders. Cancer fatigue requires a multimodal approach. Exercise has the strongest empirical support (choice C is correct). Multiple national and international oncologic guidelines list exercise as a strong recommendation, although the exact prescription of how much exercise and what type of activity is less clear. Pharmacologic treatments are generally second line (choice A, B, and E are not correct).

Stimulants like methylphenidate are typically considered when other non-pharmacological interventions have failed or are not feasible. Steroids are effective in treating fatigue but come with significant side effects and are generally not used long term. Choice C is incorrect because acupuncture has been shown to be effective in managing cancer-related fatigue, but it is not as well supported as exercise.

Annotation

Fabi A, Bhargava R, Fatigoni S, et al. Cancer-related fatigue: ESMO clinical practice guidelines for diagnosis and treatment. Ann Oncol. 2020;31(6):713–723. DOI: 10.1016/j.annonc.2020.02.016

Mücke M, Kravchenko D. Fatigue. In: MacLeod RD, Van Den Block L (eds). Textbook of Palliative Care. Springer International Publishing; 2019:191–205. DOI: 10.1007/978-3-319-77740-5_12

Yennurajalingam S, Lu Z, Rozman De Moraes A, et al. Meta-analysis of pharmacological, nutraceutical and phytopharmaceutical interventions for the treatment of cancer related fatigue. Cancers. 2022;15(1):91. DOI: 10.3390/cancers15010091

Hematologic

20. A 75-year-old woman presents with dyspnea, fatigue, and right chest pain. Chest X-ray and computed tomography (CT) reveal a right lung mass, mediastinal adenopathy, liver lesions, and a right pleural effusion. Cytologic examination of the pleural fluid confirms a diagnosis of small cell lung cancer. The disease is widespread, with metastasis to the contralateral lung, adrenal glands, bone marrow, and brain. She is otherwise healthy, with no heart, lung, or kidney disease.

    Which one of the following treatment options is most likely to be helpful?

    A. Chemotherapy.
    B. Repeated thoracentesis.
    C. Tube thoracostomy (chest tube).
    D. Talc pleurodesis.

    Correct Answer: A

There are several options for treating malignant pleural effusions. If the effusion is small or does not recur after diagnostic thoracentesis, no other treatment may be necessary. For chemo-sensitive tumors such as small cell lung cancer or some lymphomas, chemotherapy should be considered (choice A is correct). Needle-/catheter-based methods include repeated thoracentesis, tube thoracostomy, or an indwelling pleural catheter. Pleurodesis, or permanent obliteration of the pleural space, can sometimes be accomplished with thoracentesis alone; but it often requires instillation of a sclerosant such as talc, tetracycline, doxycyline, bleomycin, or other agents. Choices B, C, and D are options but not the first choice in a vigorous patient with a chemo-sensitive tumor. Finally, surgical pleurectomy can be considered, but this is a major operation with substantial morbidity and mortality.

Patients with a malignant pleural effusion usually have a limited life expectancy, so the emphasis should be on quality of life. The large majority of malignant pleural effusions arise from lung, breast, ovarian, or lymphoma primaries; and they usually indicate a poor prognosis, with a median survival of only 4–6 months, so most of these patients are hospice-eligible.

Annotation

Ferreiro L, Suárez-Antelo J, Álvarez-Dobaño JM, Toubes ME, Riveiro V, Valdés L. Malignant pleural effusion: diagnosis and management. Can Respir J. 2020;2020:2950751. DOI: 10.1155/2020/2950751

Sabharwal T, Fotiadis NI, Adam A. Interventional radiology in the palliation of cancer. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:861–871.

Thai V, Damant R. Fast Facts and Concepts #157. Malignant Pleural Effusions: Interventional Management. November 2023. Available at: https://www.mypcnow.org/fast-fact/malignant-pleural-effusions-interventional-management/. Accessed October 10, 2024.

21. A 42-year-old man has rapidly progressive non-small cell lung cancer metastatic to his pleura, liver, and bones. He is taking second-line chemotherapy, but the doses had to be reduced due to adverse effects. He has severe anorexia, and his family wants him to eat more so that he can fight the tumor.

    Which one of the following is the best advice?

    A. Offer total parenteral nutrition.
    B. Offer him appetizing food and drink.
    C. Add a progestational agent and modafinil.
    D. Refer him for psychotherapy.

    Correct Answer: B

This is a difficult problem with no easy answers. As patients reach the end of life, they usually lose their appetite, particularly with advanced malignancy. Providing appetizing food and drink that is culturally and ethnically appropriate is the best choice (B). Earlier in the disease, exercise as well as protein or nutritional supplementation may be helpful but not in a patient with such a large tumor burden.

Multiple randomized controlled trials (RCTs) have documented lack of effectiveness or harm with total parenteral nutrition (TPN) in patients with advanced cancer on chemotherapy (choice A is incorrect). The evidence base for drugs such as steroids, progestational agents, or modafinil is very weak; and their prescription should not be automatic (choice C). Choice D assumes that he has a mental illness such as depression—this is possible and should be assessed, but referral for psychotherapy is premature.

Annotation

de Raaf PJ, van der Rijt CCL. Can you help me feel less exhausted all the time? J Clin Oncol. 2013;31:3056–3060. DOI: 10.1200/JCO.2013.49.3403

Desanti-Siska L, Fellows S, Polito N. Constitutional symptoms. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:125–160.

22. A 74-year-old man with advanced non-small cell lung cancer on home hospice has persistent and disabling cough. He is opioid-naive. No further cancer-directed therapy is indicated, and after reviewing the history and conducting a directed physical examination which revealed no abnormal breath sounds or dyspnea, you prescribe symptomatic treatment rather than further workup.

    Which one of the following medications is most likely to be effective in alleviating his cough?

    A. Benzonatate 100–200 mg PO twice daily.
    B. Dextromethorphan 10–20 mg PO every 4–6 hours.
    C. Gabapentin 200 mg PO three times daily.
    D. Morphine 2.5–5 mg PO every 2–3 hours.

    Correct Answer: D

In many patients on hospice, workup of cough may not be indicated, and the clinician moves to simply suppressing the cough. Antitussives are divided into centrally acting and peripherally acting drugs. The centrally acting drugs include dextromethorphan and opioids. Dextromethorphan is dosed at 10–20 mg every 4–6 hours.

The most commonly used opioid to treat cough has been codeine, and it is effective; but because of its side effect profile, other opioids such as hydrocodone are also prescribed. One can also prescribe morphine, hydromorphone, or methadone; but these are usually reserved for patients who also need them for other reasons such as pain.

The American College of Chest Physicians recommends the use of centrally acting opioids to suppress cough in patients with lung cancer. In this circumstance, an opioid is more effective than dextromethorphan. Choice D is correct, while choice B is incorrect.

There is one peripherally acting antitussive, benzonatate. It anesthetizes vagal stretch receptors and is dosed at 100–200 mg twice daily. However, in a patient with advanced cancer, experts recommend going straight to a centrally acting antitussive, rather than benzonatate, so choice A is incorrect.

There is also some evidence that gabapentin helps in chronic cough, but the studies were accomplished in non-palliative patients (choice C is incorrect).

Annotation

Marks S, Rosielle DA. Fast Facts and Concepts #199. Opioids for Cough. November 2023. Available at: https://www.mypcnow.org/fast-fact/opioids-for-cough/. Accessed October 10, 2024.

Marks S, Rosielle DA. Fast Facts and Concepts #200. Non-Opioid Anti-Tussives. November 2023. Available at: https://www.mypcnow.org/fast-fact/non-opioid-anti-tussives/. Accessed October 10, 2024.

Ryan NM, Birring SS, Gibson PG. Gabapentin for refractory chronic cough: a randomised, double-blind, placebo-controlled trial. Lancet. 2012;380:1583–1589. DOI: 10.1016/S0140-6736(12)60776-4

Tse D, Chan K-S, Cough and other pulmonary symptoms. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:604–610.

23. You are seeing a 65-year-old woman, who presents to your outpatient palliative care clinic with metastatic breast cancer that has spread to her bones, liver, and both lungs. Despite undergoing multiple rounds of chemotherapy and radiation therapy to the thoracic spine, her cancer has progressed; and she is now experiencing severe dyspnea. Chest X-ray and chest CT confirm a large burden of tumor in both lungs but no fluid overload, pleural effusion, pericardial effusion, or pneumonia. Her oxygen saturation is normal. It is unclear if further cancer-directed therapies are available, and the patient is most interested in getting relief of her dyspnea so that she can sleep and have better quality of life.

Which one of the following medications is the best choice to relieve her dyspnea?

A. Alprazolam.
B. Lorazepam.
C. Furosemide.
D. Morphine.
E. Methadone.

Correct Answer: D

Dyspnea can often be managed by disease-specific treatments, such as cancer therapy, thoracentesis, or treatment of pneumonia. Choice C is incorrect because there is no evidence of volume overload and no reason to suspect a loop diuretic would help. In this case, a workup has not revealed a reversible cause of dyspnea, so attention turns to symptomatic relief.

In this circumstance in palliative care patients, the initial treatment of dyspnea should be an opioid, usually oral. The opioid usually prescribed first is morphine (choice D is correct), but any standard opioid agonist including hydrocodone, oxycodone, or hydromorphone is acceptable. Choice E, methadone, is incorrect because that opioid has multiple considerations such as drug–drug interaction, QTc prolongation, etc., and thus is not an opioid of first choice for dyspnea.

Choices A and B are incorrect because benzodiazepines are not the first choice for dyspnea in palliative care patients; opioids should be tried first. However, many patients with dyspnea experience a dyspnea/anxiety/dyspnea cycle, and after starting a layer of opioid, it can be appropriate to add a benzodiazepine; but they should be prescribed in that order.

Annotation

Curseen KA, Taj J. Cardiopulmonary system. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:181–198.

Hui D, Bruera E, Bao T, et al. Management of Dyspnea in Advanced Cancer: ASCO Guideline. J Clin Oncol. 2021;39(12):1389–1411. DOI: 10.1200/JCO.20.03465

Wiebe LA, Von Roenn JH. Working with a palliative care team. Cancer J. 2010;16(5):488–492. DOI: 10.1097/PPO.0b013e3181f28ae6

Neurologic

24. A 58-year-old man with advanced Parkinson's disease and moderate dementia presents for help with refractory constipation. His ambulatory status is limited; however, he can still transfer from supine to seated and upright with assistance. His oral intake is poor, and he is gradually losing weight despite excellent caregivers, who have decided against PEG feeding. He also has hypertension, hypothyroidism, and mild coronary artery disease. He takes carbidopa–levodopa (Sinemet), pramipexole, lisinopril, hydrochlorothiazide, aspirin, thyroxine, and metoprolol. His abdomen is mildly tender and distended, and the rectum is empty on digital exam.

Which one of the following non-pharmacologic treatments is most likely to be effective in treating his constipation?

A. Educate the patient and caregivers that a normal bowel movement (BM) needs to occur every day.
B. Increase fiber gradually up to 35 g/day.
C. Increase fluid intake up to 1.5 liters/day.
D. Encourage him to use a bedside commode rather than a bedpan for defecation.

Correct Answer: D

There are effective non-pharmacologic treatments for constipation in patients with advanced disease. Educate the patient that a daily BM does not define health and that a reasonable expectation is a BM from three times a day to every third day (choice A is incorrect). Patients should attempt a BM in the morning, when peristalsis is most active, and immediately following meals, to take advantage of the natural gastrocolic reflex. Try to ensure privacy or discrete assistance with toileting.

Increasing fiber and fluid can be effective in preventing and treating constipation in healthy, non-palliative patients. Ideal fiber intake for healthy Americans is up to 35 g/day, with at least 1.5 liters of fluid. When increasing fiber, go slowly, increasing by no more than 5 g/day to avoid bloating. Fiber only helps if fluid intake increases along with it; simply increasing fiber can turn the stool contents harder.

However, 1.5 liters of daily fluid is more than many frail patients with advanced disease can tolerate, and the ability to consume both fiber and fluid decreases as chronic diseases progress. Fiber is not effective in treating the constipation associated with opioids. Thus, recommend against increasing fiber and fluids in palliative/hospice populations (choices B and C are incorrect).

Increasing physical activity and decreasing immobility may help relieve constipation, but these are often not possible in patients with advanced disease. However, defecation is easier when the patient is sitting at a bedside commode rather than lying flat in bed (choice D is correct).

Annotation

Hallenbeck J. Fast Facts and Concepts #15. Constipation. November 2023. Available at: https://www.mypcnow.org/fast-fact/constipation/. Accessed October 10, 2024.

Larkin PJ. Constipation and diarrhoea. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:545–555.

Larkin PJ, Sykes NP, Centeno C, et al. The management of constipation in palliative care: clinical practice recommendations. Palliat Med. 2008;22:796–807. DOI: 10.1177/0269216308096908

McCallum IJ, Ong S, Mercer-Jones M. Chronic constipation in adults. BMJ 2009;338:763–766. DOI: 10.1136/bmj.b831

25. A 70-year-old man is enrolled by his family into home hospice because of advanced Parkinson's disease, with accompanying dementia and weight loss. He no longer has decision-making capacity, and his son has opted against artificial hydration and nutrition as part of an overall goal of comfort care. He takes carbidopa–levodopa (Sinemet) and a vitamin D supplement.

The patient has severe insomnia, often napping fitfully during the day and then being awake most of the night. The son asks about any natural products that might be helpful in managing his father's insomnia.

Which one of the following products has the most evidence to support treating insomnia?

A. Alcohol (4 ounces of wine at night).
B. Prescribe melatonin 1 mg PO at night.
C. Ask son to give his father St. John's wort 300 mg PO at night.
D. Start valerian 400 mg PO at night.
E. l-Tryptophan at night.

Correct Answer: D

From Fast Facts: Sleep disorders are common in the general population, the elderly, and the terminally ill. Sleep deprivation causes reduced tolerance to pain and increased fatigue that prevents patients from participating in meaningful daytime activities and decreasing their quality of life. A sleep diary is helpful; but if the patient also has dementia, it would be difficult to accomplish this task. A is incorrect.

Melatonin has been examined in several randomized controlled trials for sleep, at doses between 0.1 and 10 mg at bedtime. Effects were minimal, as were side effects. There is some evidence that lower doses may be more effective (0.5–1 mg PO QHS) than higher ones. Choice B is incorrect because the suggested dose of melatonin is too high, and there is also concern that melatonin, an amino acid, could interfere with dopa therapy for the Parkinson's disease.

Valerian is a plant native to Europe and Asia and naturalized in the Americas. Its mechanism is unclear; it may act as a gamma-aminobutyric acid (GABA) agonist or through adenosine or 5HT-5a receptors. Studies are poor but suggest either no or little effect but also no substantial toxicity. It is dosed at either 400 mg or 900 mg (choice D is correct).

When choosing a drug for insomnia, it is reasonable to first consider melatonin or valerian because they are safe and inexpensive, although efficacy is unclear. St. John's wort has been recommended for anxiety and depression but not for sleep (choice C is incorrect). Alcohol also has no beneficial effect in insomnia, either in spirits or as part of a proprietary sleep medicine (choice A is incorrect).

Annotation

Arnold RM, Miller M, Mehta R. Fast Facts and Concepts #104. Insomnia: Non-pharmacologic Treatments. November 2023. Available at: https://www.mypcnow.org/fast-fact/insomnia-non-pharmacologic-treatments/. Accessed October 10, 2024.

Arnold RM, Miller M, Mehta R. Fast Facts and Concepts #105. Insomnia: Drug Therapies. November 2023. Available at: https://www.mypcnow.org/fast-fact/insomnia-drug-therapies/. Accessed October 10, 2024.

Mystakidou K, Parpa E, Tsilika E. Sleep disorders. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:708–716.

Tariq SH, Pulisetty S. Pharmacotherapy for insomnia. Clin Geriatr Med. 2008;24(1):93–105. DOI: 10.1016/j.cger.2007.08.009

26. A 78-year-old woman with amyotrophic lateral sclerosis has chosen against both mechanical ventilation and artificial hydration and nutrition. On home hospice for several months, she develops noisy respiratory secretions, without clinical evidence of pneumonia. However, she remains alert, is still able to recognize her family, and communicates weakly. Her family wants to keep her at home.

Which one of the following drugs is most likely to help with her secretions while minimizing adverse effects?

A. Atropine 1% eye drops: one to two drops on the tongue every 4–6 hours PRN.
B. Glycopyrrolate 0.2 mg subcutaneously (SC) every 4–6 hours PRN.
C. Hyoscyamine (Levsin) 0.125 mg sublingually (SL) every 4–6 hours PRN.
D. Scopolamine 1.5 mg patch (Transderm Scop) changed every third day.

Correct Answer: B

The evidence base for drug treatment of noisy secretions at the end of life is weak. Usually, the drugs are given as needed, but routine dosing or even conversion to continuous SC or IV infusion is also reasonable. All the listed choices are antimuscarinic drugs with the correct recommended dose, which block secretions by inhibition of the parasympathetic nervous system.

Of the four listed antimuscarinic drugs, only one, glycopyrrolate, has a quaternary ammonium structure and thus does not cross the blood–brain barrier. It causes less central anticholinergic side effects such as delirium and is preferred in patients with noisy secretions who are still conscious (choice B is correct). Typical doses are 0.2 mg SC every 4–6 hours as needed for secretions.

Besides glycopyrrolate, the other listed agents in the vignette are tertiary amines that cross the blood–brain barrier. Atropine is profoundly anticholinergic, but it is often used when glycopyrrolate is not available because it is fast-acting. Atropine

eye drops are an inexpensive and convenient way to give an antimuscarinic drug to a comatose patient. Choice A is incorrect.

Hyoscyamine at the listed dose is also available but has a higher incidence of delirium (choice C is incorrect).

The scopolamine patch releases 1.5 mg of drug slowly over 72 hours, but it takes 24 hours to reach steady state and therefore will not help an acute situation. The patch is placed on the skin just behind the ear, and up to three patches can be used at a time. It crosses the blood–brain barrier and causes more delirium than glycopyrrolate (choice D is incorrect).

Annotation

Clark K, Butler M. Noisy respiratory secretions at the end of life. Curr Opin Supp Palliat Care. 2009;3:120–124. DOI: 10.1097/SPC.0b013e32832af251

Hsin G, Hallenbeck J. Fast Facts and Concepts #158. Respiratory Secretion Management. November 2023. Available at: https://www.mypcnow.org/fast-fact/respiratory-secretion-management/. Accessed October 10, 2024.

Prommer E. Anticholinergics in palliative medicine: an update. Am J Hosp Palliat Med. 2012;30:490–498. DOI: 10.1177/1049909112459366

Sabharwal T, Fotiadis NI, Adam A. Interventional radiology in the palliation of cancer. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:861–871.

27. An 8-year-old is readmitted to the hematology/oncology unit with recurrent pilocytic astrocytoma located in the cerebellum. The first tumor was treated with primary resection and monitoring. The palliative care team is called because of the relapse. She complains of a mild headache, ataxia, and nausea and vomiting. Her vital signs are stable despite her CT scan, which shows the following: a T2 hyperintense enhancing mass centered in the right cerebellar hemisphere with superior extension into the right ambient cistern measuring 5.0 × 4.7 × 4.7 cm. There is mass effect on the right cerebellum, fourth ventricle, cerebral aqueduct, and midbrain/pons, with persistent obstructive hydrocephalus.

What is the most appropriate immediate treatment to manage the patient's hydrocephalus?

A. IV decadron 0.1 mg–1.5 mg/kg (maximum of 4–10 mg) and morphine 0.05 mg–0.1 mg/kg every 2–4 hours PRN pain.
B. Place an external ventricular device.
C. Go to surgery immediately and resect the tumor.
D. Do a ventriculoperitoneal shunt (VPS) now.

Correct Answer: A

In this case the answer is A. The patient, while symptomatic, is stable (so not answer C).

Relief of symptoms is the primary goal until oncology and neurosurgery can meet and discuss the plan and then approach the family with options. Surgery is the mainstay of treatment and with complete resection is curable (Chheda and Wen 2024; Knight and De Jesus 2023). The goal is usually resection and then treating the hydrocephalus if needed. If the patient was unstable, an externalized ventricular device could be warranted and might be attached at the time of resection (answer B). VPSs are not usually done at the time of resection so as to avoid seeding the peritoneal cavity with tumor cells (answer D). Survival rates for low-grade pilocytic astrocytoma in pediatric patients in one study at a single institution were 87% for 10-year survival and 82% for 20-year survival. That does not mean that there is no morbidity associated with resection.

Annotation

Chheda M, Wen P. Uncommon Brain Tumors: Pilocytic Astrocytoma. UpToDate. 2024. Accessed August 26, 2024. https://www.ncbi.nlm.nih.gov/books/NBK560614/ from StatPearls Internet.

Friedrichsdorf SJ, Khalid F, Noah N. Pediatric population. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:285–320.

Lund M. Pilocytic astrocytoma. Case study, Radiopaedia.org. Accessed October 01, 2024. https://doi.org/10.53347/rID-92255

Knight J, De Jesus O. Pilocytic Astrocytoma. Stat Pearls. August 23, 2023. https://www.ncbi.nlm.nih.gov/books/NBK560614/. Accessed August 26, 2024.

28. The patient eventually undergoes tumor resection, and a VPS is placed. Two years later she is playing volleyball at school in a tournament when she develops another headache, nausea and vomiting, and blurred ataxia. CT scan shows regrowth of the tumor and recurrent hydrocephalus; the tumor is now closer to the brain stem. The oncology team and neurosurgeon are recommending replacing the VPS and doing radiation therapy.

What topic is least helpful in the conversation the palliative team has with the family?

A. Length of radiation therapy.
B. Sedation needed for the procedure.
C. Goals of care.
D. Discussion of therapy side effects.
E. Recovery from the VPS placement.

Correct Answer: B

Prior to any therapy where the treatment may have significant side effects, symptom management should be discussed. This is the patient's third episode of recurrent disease.

Surgery is no longer an option because of the tumor's location. Discussing things like the length of therapy and the fact that the patient will need to be out of school for 6 weeks and at the hospital 4 days a week are all important (answers A, C, D, E) because she is in school and actively engaged in activities such as volleyball. The patient is now 10. She has had no sequelae. Discussions about goals of care should be approached carefully as the tumor is now unresectable, and there is a change in the patient's prognosis. The side effects of radiation should be discussed with the patient and how they can be treated. Ample time should be given for questions from both the patient and the family. Ideally the interdisciplinary team would all be there—including the hematology/oncology service, palliative care, and the radiation oncologist. It is unlikely that the patient will need sedation for the procedure. Based on the child's age and abilities, adjunct therapy and child-life specialists should be able to work with her during her treatment times.

Annotation

Bogetz J, Rosenberg AR. What are special considerations for pediatric palliative care? Goldstein NE, Woodrell CD, Morrison RS (eds). In: Evidence-Based Practice of Palliative Care, 2nd edition. Elsevier; 2023:477–488.

Knight J, De Jesus O. Pilocytic Astrocytoma. Stat Pearls. August 23, 2023. https://www.ncbi.nlm.nih.gov/books/NBK560614/. Accessed August 26, 2024.

Thorvilson M, Walter JK. What are the special communication issues involved in caring for pediatric patients? Goldstein NE, Woodrell CD, Morrison RS (eds). In: Evidence-Based Practice of Palliative Care, 2nd edition. Elsevier, 2023:284–291.

29. An 88-year-old woman presents with cognitive impairment, stroke-like symptoms, and seizures. Brain biopsy reveals glioblastoma. The patient is otherwise healthy, with no functional impairment or important comorbidities.

Which one of the following treatment approaches is likely to be most helpful for this patient?

A. Surgical excision and chemotherapy.
B. Whole-brain radiation therapy (WBRT) and palliative care.
C. Referral to hospice, without WBRT or corticosteroids.
D. Referral to hospice after prescribing corticosteroids.

Correct Answer: B

Glioblastoma in young, vigorous patient is usually treated with a combination of WBRT, corticosteroids, and chemotherapy. This regimen is palliative, and virtually all patients relapse. More nuance is required in designing a treatment regimen for very old or frail patients.

WBRT can lead to cognitive impairment, but in this vigorous 88-year-old, it is more likely to improve than worsen her cognition. A randomized trial of vigorous adults over 70 years old with newly diagnosed glioblastoma showed that survival and quality of life improved with WBRT, compared with supportive care alone. The survival benefit was modest (median survival was 29 weeks in the WBRT arm compared with 17 weeks with supportive care, and all patients died within 2 years), but performance, quality of life, and cognitive function were all better in the radiation group. Choice B is correct.

Glioblastoma is rarely cured, so choice A is incorrect. Choices C and D are incorrect because vigorous older adults with glioblastoma should undergo WBRT, and virtually all of them should also receive corticosteroids.

Annotation

Hoskin P. Radiotherapy in symptom management. Cherney NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:808–829.

Schaff LR, Mellinghoff IK. Glioblastoma and other primary brain malignancies in adults: a review. JAMA. 2023;329:574–587.

Musculoskeletal

30. A vigorous 55-year-old woman taking combination chemotherapy for renal cell carcinoma develops multiple painful bony metastases. A total-body bone scan demonstrates osteoblastic lesions of ribs, vertebrae, and both scapulae. She has normal blood counts and renal function.

Which one of the following treatments is most likely to be effective in treating the bony metastases?

A. Continued combination chemotherapy.
B. EBRT.
C. Strontium (Sr-89) given IV.
D. Opioid analgesia and referral to hospice, without any further cancer-directed therapy.

Correct Answer: C

Bony metastasis occurs in 65% of patients with prostate or breast cancer and in about a third of patients with lung, thyroid, or kidney cancer. Metastatic bone pain presents as a dull, low-intensity pain, often worse at rest, progressing to a chronic state with intermittent breakthrough episodes of severe pain. The best screening test for bony metastases is a total-body bone scan. Two major options for the treatment of these metastases are EBRT and radiopharmaceuticals.

EBRT is highly effective, especially if there is a single metastasis or a group of metastases in close proximity; 80%–90% of patients will experience partial or complete pain relief, typically within 10–14 days, with minimal side effects, and 70% of patients will never get pain again in the irradiated regions. If pain does recur in a previously irradiated field, radiopharmaceuticals are still an option. In the vignette, the lesions are too widespread to be effectively managed by EBRT, so choice B is incorrect.

Radiopharmaceuticals can be used either as primary treatment of bony metastases or as rescue following EBRT. Most candidates have failed chemotherapy or have experienced side effects from these agents, but radio-isotopes can also be used earlier in disease. The most commonly used isotopes are the beta-emitters strontium (Sr-89) and samarium (Sa-153), with phosphorus and rhenium isotopes used less often. These radioactive elements bind avidly to hydroxyapatite in osteoblastic bone cells. They then deliver highly localized beta radiation, with a tissue penetration of only a few millimeters. They are given in a single IV injection and are generally indicated for extensive bony disease that cannot be controlled by localized EBRT. Choice C is correct.

The lesions should have some osteoblastic activity—they can be either completely osteoblastic or mixed osteoblastic/osteolytic, and a recent (less than 8 weeks prior) bone scan should correlate with pain. The best response occurs in patients with high function who have predominantly osteoblastic lesions. Purely lytic lesions are not helped with this technique.

Because the bony metastasis occurred while on combination chemotherapy, simply continuing that therapy would not be effective (choice A is incorrect). And choice D is incorrect because there are still reasonable cancer-directed treatments available.

Annotation

Hoskin P. Radiotherapy in symptom management. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:808–829.

Jones JA, Lutz ST, Chow E, Johnston PA. Palliative radiotherapy at the end of life: a critical review. CA Cancer J Clin 2014;64:296–310. DOI: 10.3322/caac.21242

Reisfield GM, Wilson GR. Fast Facts and Concepts #116. Radiopharmaceuticals for Painful Osseous Metastases. November 2023. Available at: https://www.mypcnow.org/fast-fact/radiopharmaceuticals-for-painful-osseous-metastases/. Accessed October 10, 2024.

31. A 72-year-old man with locally advanced non-small cell lung cancer sustains a partial response to combination chemotherapy. However, he presents with severe shoulder pain, and an isolated metastasis is found in the right humerus. Workup reveals no other metastasis, with controlled disease in the chest.

Which one of the following is the best treatment for the bone metastasis?

A. Hospice referral for the core team to manage pain.
B. A single fraction of EBRT to the humerus.
C. A standard course of 40–60 Gy EBRT to the humerus.
D. Second-line chemotherapy.

Correct Answer: B

This patient has excellent local control of his primary lung malignancy and has an isolated metastasis to a single bone, which

is causing severe pain. The chemotherapy is probably helping, so switching to second-line chemotherapy is not appropriate (choice D is incorrect). Choice A is also incorrect because radiation therapy is indicated for the bony metastasis, both to relieve pain and to prevent pathologic fracture. Primary pain management is done in multiple settings and may be advisable as the patient awaits referral to radiation therapy.

Choice C is the standard way to treat malignancy, but this is not indicated when there is a previously unirradiated peripheral bone or vertebral metastasis from malignancy. Single-fraction radiation therapy provides comparable pain relief and morbidity compared with multiple-fraction treatment, and the decreased burden outweighs any consideration of long-term effectiveness in a patient like this, who has a limited life expectancy (choice B is correct).

Annotation

Fischberg D, Bull J, Casarett D, et al. Five things physicians and patients should question in hospice and palliative medicine. J Pain Symptom Manage. 2013;45:595–605. DOI: 10.1016/j.jpainsymman.2012.12.002

Hoskin P. Radiotherapy in symptom management. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:808–829.

Portenoy RK, Ahmed E, Krom C. Assessment and management of pain. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:214–259.

32. You are asked to see a 72-year-old man with widely disseminated multiple myeloma who is undergoing first-line chemotherapy. He also has comorbidities of hypertension and chronic kidney disease stage IV.

Which one of the following medications would be most appropriate to reduce his risk of future skeletal metastasis, bone pain, and fracture?

A. Anastrozole (Arimidex) 1 mg PO daily.
B. Calcium 800 mg and vitamin D 1,000 IU PO daily.
C. Denosumab (Xgeva) 120 mg SC every 4 weeks.
D. Zoledronic acid (Zometa) 4 mg IV every 4–12 weeks.

Correct Answer: C

Metastatic bone pain has several effective preventive and treatment strategies. For prevention, the IV bisphosphonates pamidronate (Aredia) and zoledronic acid (Zometa), as well as the RANK-ligand inhibitor denosumab (Xgeva), reduce skeletal events (fractures or the need for surgery or radiation) by over 50% for patients with malignancies such as breast cancer, prostate cancer, or myeloma. For cancer, the bisphosphonates are given by monthly infusion, but after several months to a year, the frequency can be spread out to once per quarter without losing effectiveness. Denosumab may be more effective than the bisphosphonates but is more expensive, and denosumab can be used in patients who do not respond to bisphosphonates or for those with chronic kidney disease stage (CKD) IV or V. For asymptomatic bone metastasis from prostate cancer, early orchiectomy or gonadotropin-releasing hormone (GnRH) agonist therapy also reduces skeletal events.

In the vignette, denosumab (choice C) is the best option due to his renal disease. Choice A is inappropriate—anastrozole is an aromatase inhibitor that causes osteoporosis and skeletal fracture; it is not used to prevent fractures. Choice B is not as effective as a bisphosphonate or denosumab. Zoledronic acid (choice D) is contraindicated in patients with advanced renal disease.

Annotation

Keisner SV. Prevention of skeletal-related events with extended-interval denosumab: a review of the literature. Ann Pharmacother. 2024;58(2):174–184. DOI: 10.1177/10600280231168456

Prommer E. Palliative oncology: denosumab. Am J Hosp Palliat Med. 2015;32:568–572. DOI: 10.1177/1049909114539035

Psychiatric Symptoms

33. A 64-year-old patient with metastatic breast cancer sees you in the palliative care clinic. She experiences episodes of severe anxiety related to her prognosis and fears of dying alone. These occur whenever she reaches the anniversary of her diagnosis and anytime she has a scan. She feels hopeful and continues to engage in activities that she enjoys. You wish to effectively address her anxiety.

Which of the following interventions is most appropriate for managing the episodes of anxiety in this patient?

A. Initiate low-dose lorazepam as needed.
B. Prescribe a high-dose selective serotonin reuptake inhibitor (SSRI).
C. Recommend mindfulness meditation and relaxation techniques.
D. Suggest avoiding discussions about prognosis.
E. Encourage the patient to distract herself from anxious thoughts.

Correct Answer: A

Low-dose lorazepam (a short-acting benzodiazepine) is effective for acute anxiety relief. It provides rapid symptomatic relief during distressing moments. Long-term use of benzodiazepines is generally discouraged due to tolerance, dependence, and cognitive impairment.

B. Prescribe a high-dose SSRI for long-term anxiety control. SSRIs are preferred for chronic anxiety but take weeks to achieve full effect.
C. Recommend mindfulness meditation and relaxation techniques. Mindfulness and relaxation techniques may be useful for mild-to-moderate anxiety and may be helpful adjuncts but may not provide immediate relief in a patient with severe anxiety. Mindfulness-based interventions (MBIs) have demonstrated efficacy in reducing anxiety and depression symptom severity in a broad range of treatment-seeking individuals. MBIs consistently outperform non-evidence-based treatments and active control conditions, such as health education, relaxation training, and supportive psychotherapy.
D. Suggest avoiding discussions about prognosis to prevent anxiety exacerbation. Avoiding discussions about prognosis can hinder emotional processing and patient–provider communication.
E. Encourage the patient to distract herself from anxious thoughts. Distraction alone may not address the underlying anxiety.

Annotation

Hofmann SG, Gómez AF. Mindfulness-based interventions for anxiety and depression. Psychiatr Clin North Am. 2017;40(4):739–749. DOI: 10.1016/j.psc.2017.08.008

Lebel S, Mutsaers B, Tomei C, Leclair CS, Jones G, Petricone-Westwood D, Rutkowski N, Ta V, Trudel G, Laflamme SZ, Lavigne AA, Dinkel

A. Health anxiety and illness-related fears across diverse chronic illnesses: a systematic review on conceptualization, measurement, prevalence, course, and correlates. PLoS One. 2020;15(7):e0234124. DOI: 10.1371/journal.pone.0234124

Stoklosa J, Patterson K, Rosielle DA, Arnold RM. Fast Facts and Concepts #186. Anxiety in Palliative Care—Causes and Diagnosis. November 2023. Available at: https://www.mypcnow.org/fast-fact/anxiety-in-palliative-care-causes-and-diagnosis/. Accessed October 10, 2024.

34. A 78-year-old woman with breast cancer metastatic to bone and liver receives palliative chemotherapy. She is Catholic and lives with her husband and handicapped daughter. After months of insisting on aggressive medical treatment so that she can care for her daughter, she says she is now too sick to care for anyone and does not want further treatment. Her pain is reasonably controlled, her appetite is poor, and she has lost interest in her hobbies. When asked about her future, she answers "My future is over. There's nothing left for me. If it weren't for my religion, I'd call that doctor who kills people." Her physician estimates her life expectancy at less than 4 weeks. When asked if she thinks she is depressed, she said that she is nervous and that anyone would be depressed in her condition. Titration of analgesics helps her pain, but she continues to express hopelessness, and other mood symptoms do not improve. She denies suicidal ideation.

Which one of the following is the most appropriate next step?

A. Prescribe citalopram 20 mg PO every morning.
B. Offer palliative sedation with increasing doses of lorazepam.
C. Call 911 and have her transferred to the hospital emergency department to be evaluated by psychiatry.
D. Prescribe methylphenidate 2.5 mg PO at 8 a.m. and again at noon.

Correct Answer: D

Psychostimulants may be particularly helpful for treating depression in patients with a limited life span because they work quickly, sometimes with evidence of improvement after the first couple of doses. These drugs are safe even in patients who are debilitated and fatigued. For patients who have several weeks or months to live, one can start with a psychostimulant and add an SSRI after the initial response, titrate up the dose of the SSRI, and then discontinue the psychostimulant.

Psychostimulants are indicated in depressed patients when a prompt response is needed and long-term tolerance is irrelevant, such as the patient in the vignette (choice D is correct). If close follow-up is possible, response often occurs within a few days. However, due to lack of rigorous evidence, if the prognosis is greater than 2–3 months, the drug of choice for depression is a conventional antidepressant, probably an SSRI (choice A is incorrect). If the first psychostimulant is ineffective or produces side effects, it is reasonable to try another.

A desirable side effect of psychostimulants in palliative patients is appetite stimulation. Other adverse effects include restlessness, jitteriness, and insomnia. A starting dose of methylphenidate or dextroamphetamine is 2.5–5 mg in the morning, increasing every 1–2 days to as much as 20 mg twice daily. For modafinil, start with 100 mg in the morning and increase gradually up to as much as 200 mg daily.

Choice B is incorrect because she appears to be in pain and to be depressed—deal with both before palliative sedation is considered. Choice C does not seem to honor her preferences, and directly treating her depression is a better option.

Annotation

Jackson V, Block S. Fast Facts and Concepts #61. Use of Psycho-Stimulants in Palliative Care. November 2023. Available at: https://www.mypcnow.org/fast-fact/use-of-psycho-stimulants-in-palliative-care/. Accessed October 10, 2024.

Perusinghe M, Chen KY, McDermott B. Evidence-based management of depression in palliative care: a systematic review. J Palliat Med. 2021;24:767–781. DOI: 10.1089/jpm.2020.0659

Rosenberg LB, deLima Thomas J. Fast Facts and Concepts #309. Pharmacologic Management of Depression in Advanced Illness. November 2023. Available at: https://www.mypcnow.org/fast-fact/pharmacologic-management-of-depression-in-advanced-illness/. Accessed October 10, 2024.

35. A 47-year-old woman in the early stages of Huntington's disease (HD) presents to the outpatient palliative care clinic. Within the past 12 months, her health-related quality of life (HRQoL) has declined. She reports experiencing more anxiety and some depression regarding the progression of HD and the terminal nature of this disease. Currently, her only medication is tetrabenazine (PO) 16 mg q 8 hours. She does not appear to have major depression. She does think about dying and the effect that will have on her loved ones, but she denies any thoughts of suicide. She has good family and friend support but admits becoming demoralized about the untreatable progressive nature of her illness.

Which one of the following is the most appropriate next step in most effectively managing the patient's symptoms?

A. Increase the patient's dose of tetrabenazine (PO) from 16 mg q 8 hours to 20 mg q 6 hours.
B. Start the patient on fluoxetine 20 mg QD in the morning.
C. Provide the patient with a list of local support groups for those with HD.
D. Refer the patient to a professional therapist for meaning-centered psychotherapy.

Correct Answer: D

Meaning-centered psychotherapy focuses on addressing death anxiety, which is likely a significant factor in the patient's decreased HRQoL. It also addresses depression by helping patients find meaning and purpose in the face of irreversible neurologic decline (choice D). Choice A is incorrect because the patient is currently on the maximum dose of tetrabenazine; increasing the dose would increase the risk of adverse drug reactions such as somnolence. While HD support groups may help the patient to find meaning in and cope with HD, this intervention should be provided in addition to, rather than instead of, directly addressing her symptoms of anxiety and depression (choice C is incorrect). Fluoxetine may help address her symptoms of anxiety and depression, but you may need to decrease the dosage of tetrabenazine in half when initiating the patient on fluoxetine (choice B is incorrect), so this approach is best reserved as a backup plan if meaning-centered psychotherapy (MCP) is ineffective in addressing the patient's mental health challenges.

Annotation

Paulsen JS, Langbehn DR, Stout JC, et al. Detection of Huntington's disease decades before diagnosis: the Predict-HD study. J Neurol Neurosurg Psychiatry. 2008;79:874–880 doi: 10.1136/jnnp.2007.128728. [DOI] [PMC free article] [PubMed] [Google Scholar].

Roos RA. Huntington's disease: a clinical review. Orphanet J Rare Dis. 2010;5:40. https://doi.org/10.1186/1750-1172-5-40

Sokol L, Fine E, Matthews A, et al. Death anxiety in Huntington's disease: associations with mental health and implications for existential palliative interventions. J Neurol. 2023;270(2):716–726. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10316526/

Dermatology

36. An 82-year-old woman with advanced dementia and chronic obstructive lung disease is hospitalized for fever and delirium, and wound sepsis is diagnosed. She has a 3-cm pressure sore over the right greater trochanter, with full-thickness skin loss down to subcutaneous fat. Fascia is exposed, but there is no damage to the fascia or to bone, tendon, or joint.

Which one of the following is the correct stage of this pressure sore?

A. Stage II.
B. Stage III.
C. Stage IV.
D. Unstageable.

Correct Answer: B

Pressure sores can develop wherever there is pressure. For patients lying in the supine position, they tend to occur on the heels, sacrum, elbows, scapulae, and the back of head, while if the patient lies prone, skin at risk includes that of the toes, knees, genitals, breasts, acromion, cheek, and ear. Finally, for those lying directly on their sides, areas at risk include the medial and lateral ankles, medial and lateral condyles of the knee, greater trochanter, ribs, acromion, and ear.

Pressure sores are staged from I to IV:

Stage I: Non-blanchable erythema, without a break in the skin.
Stage II: Partial-thickness skin loss into the epidermis or dermis but not down to subcutaneous fat; appears as an abrasion, blister, or superficial crater.
Stage III: Full-thickness skin loss down to subcutaneous fat; fascia may be exposed but not involved.
Stage IV: Full-thickness skin loss with damage to muscle, bone, fascia, tendon, or a joint; oftentimes the underlying skin is undermined, and sinus tracts may be present.

A pressure sore is unstageable if it appears to be full thickness but the surface is covered either by slough or eschar, so the depth cannot be properly assessed. In the vignette, the wound eposes fascia but no deeper tissues, which defines stage III. Choice B is correct, while choices A, C, and D are incorrect.

Annotation

Ferris F, von Gunten CF. Fast Facts and Concepts #40. Pressure Ulcer Management: Staging and Prevention. February 2024. Available at: https://www.mypcnow.org/fast-fact/pressure-ulcer-management-staging-and-prevention/. Accessed October 10, 2024.

Levine JM, Delmore B. Pressure injuries and skin failure. Clin Geriatr Med. 2024;40:385–395. DOI: 10.1016/j.cger.2023.12.006

Tilley CP, Fu MR, Van Cleave JH, Most AR, Comfort C. Palliative wound and ostomy care. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:622–647.

37. You are seeing a 52-year-old woman with a large fungating, pruritic mass on her left breast, present for several years. She is well educated, and no mental illness is present. She fears medical treatments and decided not to pursue diagnosis and treatment. She fully understands her medical condition and that her refusal to allow treatment of the likely malignancy will lead to her early death. She does not even allow a biopsy of the mass or imaging to determine the spread of the tumor. After consultation with medical, surgical, and radiation oncologists, she opts for hospice and is transferred to an inpatient hospice facility for better management of the fungating mass. On physical exam, the breast is replaced with a large, purplish, nodular mass, with areas of friability, bleeding, and heavy exudate. There is mild odor and pruritus, and pain is mild to moderate.

Which one of the following approaches is likely to be most effective in local management of her tumor?

A. Insist that she at least allow a biopsy, and start an aromatase inhibitor for palliation.
B. Apply a layer of metronidazole gel, then a non-adherent contact layer such as petrolatum gauze, then cover that with absorbent dressings, changed once or twice daily.
C. Create a bulky primary dressing with several layers of cotton gauze, which will allow for debridement when the dressing is changed.
D. The pruritus should respond quickly to oral diphenhydramine or hydroxyzine.

Correct Answer: B

Wounds like this are seen in patients with highly aggressive tumors and in patients who neglect symptoms and present late. They are often highly vascular, with a large amount of exudate, areas of necrosis, and distressing odor. In palliative populations, the goal for managing fungating malignant wounds is to improve the quality of life by reducing pain, exudates, odor, and bleeding and improving appearance, which will often help psychologic reactions such as fear, guilt, blame, and low self-esteem.

After a competent adult is presented with options, respect their choices and turn toward aggressive symptom management (choice A is incorrect). However, for patients who will allow it, primary treatment of the cancer may help reduce pain and infection as well as enhance healing. EBRT can reduce the size of the wound, especially for soft tissue sarcomas or cutaneous melanoma relapse. Surgery can either excise the lesion or debulk it. Chemotherapy or hormonal therapy may relieve tumor symptoms in sensitive tumors.

Exudates from malignant wounds can be extensive; they can macerate surrounding normal tissue and get into the patient's clothes and bedclothes. For wounds with a heavy exudate, first apply a layer of metronidazole gel, then a non-adherent contact layer such as petrolatum gauze, then cover that with absorbent dressings such as gauze or abdominal pads, changed once or twice daily (choice B is correct). Alginates may be helpful if there is bleeding.

Calcium alginate dressings and hydrophilic foams are highly absorbent and usually the dressings of choice for fungating malignant wounds. The alginate dressing should be pulled apart (fluffed) before application to increase its surface area. Gauze should not be used as the primary dressing because it is less absorbent and will adhere to the wound, leading to bleeding, pain, and reinjury when it is removed (choice C is incorrect). For lesions that bleed easily, place a non-adherent primary dressing with either petrolatum gauze or silicone netting.

Malignant wounds are often highly pruritic but are unresponsive to typical systemic treatment (choice D is incorrect). Hydrogel dressings that have been cooled before being applied, topical menthol in an aqueous cream, and transcutaneous nerve stimulation may reduce itching.

Annotation

Ferris F, von Gunten CF. Fast Facts and Concepts #46. Malignant Wounds. February 2024. Available at: https://www.mypcnow.org/fast-fact/malignant-wounds/. Accessed October 10, 2024.

Tilley CP, Fu MR, Van Cleave JH, Most AR, Comfort C. Palliative wound and ostomy care. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:622–647.

38. A 92-year-old woman with advanced chronic obstructive lung disease as well as heart failure with reduced ejection fraction has entered home hospice. Her dyspnea is severe but stable, managed with both disease-specific medications as well as titrated low-dose opioids. Her major complaint is severe diffuse itching of the skin, mainly in her arms and lower legs, sparing her axilla, groin, face, and scalp. The itching transiently improves after bathing. Examination reveals lots of scratching, but no lesions where she cannot reach. Her skin is dry and flaky.

Which one of the following is the most likely diagnosis?

A. An underlying malignancy.
B. Hypercarbia, from the chronic obstructive lung disease.
C. Medication-induced pruritus.
D. Xerosis (dry skin).

Correct Answer: D

This patient has classic xerosis, or dry skin (the correct answer is D), the most common cause of pruritus in patients in palliative care settings. Xerosis is suggested if there is scratching in the absence of a rash and if there are no lesions where the patient cannot reach, such as the middle of the back. It is worse in the winter, when the humidity is low. Xerosis transiently improves after bathing or showering and worsens when the skin is dry. It affects primarily the lower legs and lower arms, generally sparing the axilla, groin, scalp, and face.

There is no reason to suspect an underlying malignancy in this patient (choice A is incorrect), and hypercarbia does not cause pruritus (choice B is incorrect). Although medications can cause pruritus, the classic presentation in the vignette suggests simple xerosis (choice C is incorrect).

Annotation

Berger TG, Shiva M, Harper M. Pruritus in the older patient: a clinical review. JAMA. 2013;310:2443–2450. DOI: 10.1001/jama.2013.282023

Desanti-Siska L, Fellows S, Polito N, Constitutional symptoms. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:125–160.

39. A 72-year-old man with squamous cell cancer of the oral cavity was treated with radical surgery, EBRT, and chemotherapy. Despite this, the cancer progressed and has created a large fungating wound on his face and neck. He enrolls in home hospice. In addition to pain, his biggest problem is the horrible odor of the wound, which prevents him from leaving his home and causes him distress, even when the wound nurse changes the dressing daily.

Which one of the following interventions is most likely to be effective in reducing wound odor?

A. Create a bulky wet–dry dressing with povidone iodine and saline.
B. Place a competing smell in the room, such as perfume.
C. Apply metronidazole gel and an occlusive dressing.
D. Apply an alginate dressing impregnated with honey from a health food store.

Correct Answer: C

Infection with anaerobic or fungal species is common with malignant wounds, and an early sign is foul odor. The first step is to debride the wound of contaminated necrotic tissue, if that is possible. For superficial infections, topical treatment with metronidazole or silver sulfadiazine (Silvadene) is appropriate; systemic metronidazole is the first choice of a systemic antibiotic. Metronidazole comes as a topical 0.75% gel and is applied directly to the wound in a one-eighth-inch layer once or twice daily for up to 2 weeks; this may need to be repeated (choice C is correct).

Other natural products sometimes recommended for topical treatment of malodorous wounds include yogurt, buttermilk, or honey. Medical-grade irradiated honey can create a hyperosmotic wound environment that is toxic to bacteria and provides autolytic debridement. It can deodorize a wound and stimulate granulation tissue and healing. Choice D is incorrect because the honey product should be medical-grade, not from a grocery.

Other interventions to contain odor are thorough cleansing, containing the drainage, and an air-tight secondary dressing. Low-profile dressings also help with cosmetic appearance. Choice A is incorrect because this cotton gauze can absorb some exudate but will not mask odor. Place kitty litter or charcoal briquettes in a tray under the bed (never place these in the wound!). There are special dressings containing charcoal, although they are expensive. Other techniques are to introduce competing smells in the room such as with candles, air fresheners, or bowls of vanilla, vinegar, peppermint, or coffee. Using perfumes to mask odors is generally not well tolerated (choice B is incorrect). Some experts sprinkle baking soda between the layers of wound dressings to reduce odor.

Wound odor is embarrassing and may cause psychologic distress, so an interdisciplinary team is often crucial in helping the patient and family cope. Educate the caregivers about chronic wound care management, try to control the odor as much as possible, and try not to demonstrate distress at the overwhelming smell where the patient can see or hear.

Annotation

Ferris F, von Gunten CF. Fast Facts and Concepts #46. Malignant Wounds. February 2024. Available at: https://www.mypcnow.org/fast-fact/malignant-wounds/. Accessed October 10, 2024.

Tilley CP, Fu MR, Van Cleave JH, Most AR, Comfort C. Palliative wound and ostomy care. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:622–647.

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7

Management of Palliative Care Emergencies and Refractory Symptoms

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Delirium

1. A 78-year-old man with mild hearing loss, reduction of higher-level intellectual functioning or cognitive impairment, low–ejection fraction heart failure, and chronic obstructive lung disease is hospitalized with urosepsis. He is treated in the intensive care unit with fluids, antibiotics, and pressor support; and his clinical status improves so that he can transfer to the medical floor. However, he becomes more cognitively challenged and demonstrates behavior such as pulling at his central line and telemetry leads, yelling out, and resisting care.

Which one of the following interventions has strong evidence that it can reduce the incidence and severity of this condition among older adults in the hospital?

A. A non-pharmacologic program including orientation, avoiding immobility, and providing support for hearing and visual impairment.
B. Empathy, playing calming music, and utilizing one-on-one nursing.
C. Low-dose haloperidol, titrated off after several days.
D. Low-dose risperidone, titrated off after several days.

Correct Answer: A

Inouye published a landmark randomized trial in hospitalized older adults (not a palliative population) who were at risk for delirium. Seven non-pharmacologic intervention modules were shown to reduce the incidence of delirium by 40%. They include "reorientation, therapeutic activities, reduction of psychoactive medications, early mobilization, promoting sleep, maintaining hydration and nutrition, and providing vision and hearing adaptations." (choice A is correct):

- Cognitive impairment—regular orientation, cognitive activities like discussion of current events or reminiscing, allowing the patient's own clothing and room decorations
- Sleep deprivation—warm milk or herbal tea at bedtime, minimizing interruptions and noise at night, relaxation tape/music, back massage
- Immobility—ambulation, range of motion exercises, minimizing catheters and restraints
- Visual impairment—glasses or magnifying lenses, adaptive equipment
- Hearing impairment—amplifying device, earwax disimpaction, and dehydration, encouraging oral intake

Other non-pharmacologic suggestions are practical but lack evidence: keep the patient's room calm and quiet. Ask a family member or sitter to be constantly at the bedside. In some cases, this might mean limiting visitors or noisy conversations; covering up mirrors, television screens, or pictures that are misinterpreted; and reducing the lighting. Surround the patient with people and objects with which they are familiar. Ask the patient to perform easy tasks like eating but avoid excessive demands. Try to remain empathetic and respectful, even if the patient is negative and demanding. Play familiar calming music. Keep a clock and calendar in the room. Do not contradict or challenge delirious patients. Patients may need one-on-one nursing care or a sitter, but restraints should be used rarely, if ever (choice B is incorrect).

Inouye has also reviewed 16 studies of the pharmacologic treatment of delirium, although not specifically in the palliative population. She only considered studies that examined more than 25 patients and met methodologic criteria. No drug showed clear evidence of effectiveness; in fact, many of the trials either were negative or showed harm. There is particularly a paucity of evidence in the management of hypoactive delirium. Inouye

recommends against routine medication to either prevent or treat delirium.

A randomized trial of haloperidol, risperidone, or placebo in the treatment of delirium on Australian palliative care units showed that delirium was worsened by both antipsychotics (choices C and D are incorrect). Further, survival was 10 days less in the antipsychotic-treated groups.

Annotation

Agar MR, Lawlor PG, Quinn S, et al. Efficacy of oral risperidone, haloperidol, or placebo for symptoms of delirium among patients in palliative care. A randomized clinical trial. JAMA Intern Med 2017;177:34–42. DOI: 10.1001/jamainternmed.2016.7491

Inouye SK, Westendorp RGJ, Saczynski JS. Delirium in elderly people. Lancet 2014;383:911–922. DOI: 10.1016/S0140-6736(13)60688-1

Quijada E, Billings A, Bukowy EA. Fast Facts and Concepts #60. Pharmacologic Management of Delirium: Update on Newer Agents. November 2023. Available at: https://www.mypcnow.org/fast-fact/pharmacologic-management-of-delirium-update-on-newer-agents/. Accessed October 10, 2024.

2. A 72-year-old male is admitted into the hospital for dehydration and a urinary tract infection (UTI). This man is well known to you and followed by your outpatient palliative care service for debility, frailty, and frequent falls. Over the course of 48 hours while undergoing active treatment with intravenous (IV) fluid resuscitation and IV antibiotics, he develops an acute change in mental status with fluctuating attention, restlessness, and visual and auditory hallucinations. His vital signs are stable, and he is not requiring additional cardiopulmonary support.

What is the best intervention to assist him at this time as you continue to stabilize and monitor his clinical status?

A. Limit visitors.
B. Keep the room lights and TV on.
C. Initiate physical therapy.
D. Begin lorazepam.
E. Use physical restraints.

Correct Answer: C

This patient meets Confusion Assessment Method (CAM) criteria for delirium (specifically hyperactive subtype). Physical therapy will not only promote mobility, wakefulness, and interaction to help with the delirium but also help improve his strength and mobility in preparation for discharge. Given his frailty and frequent falling, physical therapy should be continued upon discharge as well. At night we should be promoting rest with a dark room and limiting stimuli. Physical restraints and benzodiazepines should be avoided. Visitors and human interaction are beneficial.

As you continue to stabilize the patient, it is helpful to know that "investigation of neurobiological mechanisms of delirium using biomarker analyses in the delirium subtypes may reveal mechanisms of and therapeutic targets for delirium" (Potter et al.).

Annotation

Potter KM, Kennedy JN, Onyemekwu C, et al. Data-derived subtypes of delirium during critical illness. EBioMedicine 2024;100;104942. http://doi.org/10.1016/j.ebiom.2023.104942

Strothers HS, Patel D. Older adult population. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:320–344.

Wei LA, Fearing MA, Sternberg EJ, Inouye SK. The Confusion Assessment Method: a systematic review of current usage. J Am Geriatr Soc 2008;56(5):823–830. DOI: 10.1111/j.1532-5415.2008.01674.x

3. A 76-year-old male with stage IV small cell lung cancer is under palliative care. It is determined he has a prognosis of months and has been having ongoing hospice conversations. He develops post-obstructive pneumonia, euvolemic hyponatremia, and altered mental status. He has no evidence of brain metastasis.

What is the most appropriate next step in treating his condition?

A. Chemotherapy.
B. Haloperidol.
C. 5% dextrose in 0.45% saline.
D. Salt tablets.
E. Fluid restriction.

Correct Answer: E

With small cell lung cancer and pneumonia with euvolemic hyponatremia this patient has syndrome of inappropriate antidiuretic hormone secretion (SIADH). First-line treatment is water and fluid restriction. Although haloperidol is the gold standard for terminal delirium, this would not treat the underlying cause. Given the prognosis, other options would not be indicated.

Annotation

Currow D, Clark K, Kleinig P. Renal and metabolic disorders. Currow D, Clark K, Kleinig P (eds). In: Emergencies in Supportive and Palliative Care, 2nd edition. Oxford University Press; 2024:207–224.

Weissman DE, Rosielle DA, Bukowy EA. Fast Facts and Concepts #01. Diagnosis and Treatment of Terminal Delirium. November 2023. Available at: https://www.mypcnow.org/fast-fact/diagnosis-and-treatment-of-terminal-delirium/. Accessed October 10, 2024.

Device Loss or Malfunction

4. You are asked to see a 62-year-old woman who has heart failure with reduced ejection fraction (HFrEF) due to a viral myocarditis at home as she and her family are considering hospice support. She has been treated with standard evidence-based drugs and devices, including an automatic implanted cardiac defibrillator. She has experienced two recent hospitalizations for exacerbations of heart failure, one of which included treatment for cardiogenic shock and acute renal failure.

Within a few days of being home again following the most recent hospitalization, her defibrillator began to discharge frequently, more than 15 episodes in a 24-hour period. She was forced to return to the emergency department, and interrogation of the device confirmed multiple episodes of ventricular tachycardia terminated by well-timed shocks. Hypokalemia and hypomagnesemia were corrected, and the cardioversions stopped. However, these events caused her substantial distress, and she has now decided it is time to change the focus to comfort care and access hospice. She now affirms that she does not want cardiopulmonary resuscitation (CPR) in the event of a cardiac arrest. She worries about the automated implantable cardioverter defibrillator (AICD).

Which one of the following is the best way to manage the defibrillator?

A. Leave the defibrillator active.
B. Deactivate the defibrillator.
C. Send her home with a doughnut magnet.
D. Upgrade the defibrillator to a new model.

Correct Answer: B

Implanted cardiac defibrillators (ICDs) are inserted not to improve symptoms or function but rather to reduce the risk of sudden death. In the last weeks of life, 20% of patients with ICDs receive shocks that are painful, reduce quality of life, and cause distress. ICD discharges can be uncomfortable and cause serious anxiety among patients and their families. Up to one-third of patients with ICDs experience an inappropriate shock, lead malfunction, infection, or device malfunction. ICD storm, in which the device provides multiple shocks in a 24-period, can cause lasting psychological effects, with the fear of repeated shocks decreasing quality of life. And finally, ICDs can interfere with the dying process. The device may fire, often repeatedly, as metabolic imbalances accumulate and cause ventricular arrhythmias. These shocks may be transmitted to families, though at a lesser amplitude.

In the vignette, the patient has given clear instructions about her goal of care, which is comfort. Further, she has directed that she not receive CPR. The ICD should be deactivated as its purpose no longer aligns with her goals of care (choice B is correct, while choice A is incorrect).

If the need for deactivation is urgent, use an external doughnut magnet. These turn off all features of the ICD, but they resume when the magnet is removed. Every hospital and hospice should have an external magnet. Consider providing a magnet to patients with terminal illness who have an active ICD. For permanent deactivation, a special external device is required. If no magnet is available, consider palliative sedation with a benzodiazepine until the device is deactivated. In the vignette, choice C is incorrect because the correct action is to deactivate the ICD, not wait for further discharges.

Choice D is incorrect for two reasons. First, the ICD discharges were appropriate, so an upgrade is not necessary. Second, upgrading the ICD is not consistent with the patient's goals.

Annotation

Harrington MD, Luebke DL, Lewis WR, Aullisio MP, Johnson NJ. Fast Facts and Concepts #112. Implantable Cardioverter-Defibrillators at End-of-Life. November 2023. Available at: https://www.mypcnow.org/fast-fact/implantable-cardioverter-defibrillators-at-end-of-life/. Accessed October 10, 2024.

Khera R, Pandey A, Link MS, Sulistio MS. Managing implantable cardioverter defibrillators at end-of-life; practical challenges and care considerations. Am J Med Sci 2019;357:143–150. DOI: 10.1016/j.amjms.2018.11.016

Fractures

5. You are asked to see an 81-year-old woman with advanced metastatic non-small cell lung cancer. She was admitted to the hospital after sustaining a pathological fracture of her left femur. She is in significant pain, and her cancer is deemed terminal, with a prognosis of less than 6 months. The patient has expressed that she does not want aggressive treatment and wishes to focus on comfort and quality of life. Her family supports her decision. The orthopedic team suggests surgical fixation of the fracture to manage pain and improve mobility, but the patient is hesitant about undergoing surgery.

Which of the following is the most appropriate next step in the management strategy for the patient's fracture?

A. Proceed with surgical fixation of the fracture to alleviate pain and improve mobility.
B. Initiate high-dose opioid therapy to manage pain without surgical intervention.
C. Recommend radiation therapy to the fracture site to relieve pain.
D. Suggest a combination of physical therapy and non-opioid pain medications.
E. Discuss the goals of care with the patient and her family.

Correct Answer: E

The most appropriate approach is to have a thorough discussion with the patient and her family about her goals of care. The proposed surgical procedure is palliative and relatively low-risk, while non-surgical management of a femur fracture is not particularly effective. Perhaps more detailed input from the orthopedic surgeon and anesthesiologist would be helpful. The focus should be on how to best enhance her primary goal of care, comfort, for whatever time she has left. Choice A is incorrect because more discussion is needed before proceeding to surgery.

Choice B, while addressing pain, does not involve a comprehensive discussion of her overall goals of care and could lead to significant adverse effects from high-dose opioids. If the patient decided against surgery, then titration of opioids, starting with smaller doses, would be reasonable.

Choice C, radiation therapy, does offer another option but is likely less effective in alleviating pain with a fracture through a weight-bearing bone. However, surgery followed by radiation therapy (probably just one or a few fractions) may provide the best palliation, as long as the patient understands this treatment and feels it aligns with her goals of care.

Choice D, involving physical therapy and non-opioid pain medications, is unlikely to provide enough symptomatic relief for her to remain comfortable.

Annotation

Migliorini F, Giorgino R, Hildebrand F, Spiezia F, Peretti GM, Alessandri-Bonetti M, Eschweiler J, Maffulli N. Fragility fractures: risk factors and management in the elderly. Medicina (Kaunas, Lithuania) 2021;57(10):1119. https://doi.org/10.3390/medicina57101119

Rizzo SE, Kenan S. Pathologic Fractures. StatPearls. Updated May 22, 2023. Available at: https://www.ncbi.nlm.nih.gov/books/NBK559077/. Accessed August 16, 2024.

Strothers HS, Patel D. Older adult population. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:320–344.

Hemorrhage

6. You are seeing a 53-year-old heavy smoker with localized adenocarcinoma of the right upper lobe. You are arranging for him to be seen by thoracic surgery and have scheduled pulmonary function tests. He has mild to moderate chronic obstructive lung disease, hypertension, and stable coronary artery disease. He tells you in the last 2 weeks he has been intermittently coughing up blood-tinged sputum. Imaging shows localized disease without involvement of lymph nodes or large blood vessels.

Which one of the following interventions is the most appropriate at this time?

A. Urgently arrange for external beam radiation therapy.
B. The consideration of surgery is appropriate and timely.
C. The hemoptysis indicates poor prognosis, and he should be directly referred to hospice.
D. Chemotherapy should be started quickly.

Correct Answer: B

Hemoptysis can be the presenting symptom of lung cancer, but it is not a contraindication to radical or even curative surgery. The patient in the vignette appears to have limited disease, and given appropriate imaging and perioperative assessment, he may be a good candidate for an attempt at surgical cure. Choice B is correct.

If surgery is not indicated because of the extent of the tumor (surgically unresectable) or the severity of comorbidities (medically unresectable), then standard external beam radiation therapy would be indicated. However, choice A is incorrect because he is likely a surgical candidate. Choice D is also incorrect because there is no evidence that he is end-stage. For patients whose prognosis is less than a month or two. Chemotherapy should not be considered in this context because of localized disease.

Choice C is incorrect because he has several therapeutic options that should be explored before referral to hospice.

Annotation

Jones JA, Lutz ST, Chow E, Johnston PA. Palliative radiotherapy at the end of life: a critical review. CA Cancer J Clin 2014;64:296–310. DOI: 10.3322/caac.21242

Tse D, Chan K-S. Cough and other pulmonary symptoms. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:604–613.

7. You are a palliative care physician associate (PA) caring for a 50-year-old woman with recurrent left tonsillar squamous cell carcinoma. She was originally treated with chemotherapy and radiation to the area. Unfortunately, the lesion recurred several months ago. The patient has previously indicated verbally and in written advance directives that she wants to pursue aggressive treatment and live as long as possible. A computed tomography (CT) scan performed at that time demonstrated a left internal carotid artery that was markedly narrowed by extrinsic tumor compression. During her visit today, the patient went to the bathroom and noticed that her nose was dripping blood into the sink. She coughed up one large blood clot. Blood pressure (BP) is 140/90 mm Hg sitting and 120/70 mm Hg lying down, temperature is 97.8ºF, and pulse oximetry reads 98% on room air.

Which one of the following is the most appropriate next step?

A. Order a stat CT to check for disease progression and monitor for hemoptysis.
B. Refer patient urgently for external beam radiation therapy.
C. Consult vascular surgery for emergent carotid artery ligation.
D. Start fluid resuscitation and consult for emergent endovascular treatment.

Correct Answer: D

Carotid blowout syndrome (CBS) is a feared complication of head and neck cancers. CBS can be classified into three types: type I, or threatened CBS, detectable through examination or imaging; type II, or impending blowouts, manifested by sentinel bleeds that can be temporarily controlled with pressure and wound packing; and type III, or acute hemorrhage, often rapidly fatal, especially in non-hospital settings.

The main risk factors are previous surgery such as radical neck dissection, radiotherapy, postoperative healing problems, visible arterial pulsations, fistulas, and fungating tumors. Early identification is key to increase the chance of survival, if the patient is still interested in aggressive treatments. Initial management includes control of blood loss, fluid resuscitation, and urgent endovascular consult as endovascular techniques are now the standard of care (choice D is correct), although in some cases, surgery may still be an option. Sedative drugs may be administered to ease discomfort, with experts favoring the administration of 5–10 mg of midazolam IV due to its swift action and capacity to induce retrograde amnesia, although in terminal hemorrhage, death may come quicker than the medicines can take effect.

Choice A is incorrect because repeat imaging delays definitive emergency treatment Radiation therapy can help control bleeding in many types of cancers, but it should not be used for acute bleeding like CBS (choice B is incorrect). Choice C is incorrect because endovascular treatment, not carotid ligation, is the current gold standard for emergency treatment. Surgery could be used in this scenario; but recognizing that the patient will need fluid resuscitation is fundamental, and endovascular therapy is now the standard of care for managing CBS.

Annotation

Hulme B, Wilcox S, Ashwood P, Deacon L, Gilkes H, Montgomery V. Assessment and management of bleeding complications in the medically ill. In: Cherny NI, et al. (eds). Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:727–736. DOI: 10.1093/med/9780198821328.003.0070

Mayland CR, Rogers SN. Palliative care issues in head and neck cancers. In: Cherny NI, et al. (eds). Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:918–926. DOI: 10.1093/med/9780198821328.003.0086

Syrett AQ, Buckley MJ, Carlson B. Palliative emergencies. Dahlin C, Coyne P (eds). In: Advanced Practice Palliative Nursing, 2nd edition. Oxford University Press; 2021:666–675.

8. A 55-year-old male smoker with alcohol use disorder has developed squamous cell carcinoma of the larynx. He is 18 months status post radical surgery and radiation therapy. He has no sign of infection. The disease has recurred in the neck, and his carotid artery is now exposed but has not yet bled. His vital signs are stable, he has no other comorbidities, and he is ambulatory. He still wants to consider aggressive medical interventions.

Which one of the following is the most appropriate next step?

A. Evaluate for endovascular stenting.
B. Refer for carotid artery ligation.
C. Initiate anticoagulation.
D. Refer him to hospice.

Correct Answer: A

Carotid artery blowout is external rupture of the carotid artery, usually due to head and neck cancer, in patients who have undergone extensive surgery or radiation therapy or who have wound infection, progressive tumor, or fistulas. The condition is termed "threatened" if no bleeding has occurred but the artery is exposed, as in this case. The condition is "impending" if there has been a small sentinel bleed, and "acute" carotid blowout is when the bleeding cannot be stopped by packing or pressure.

The gold standard for diagnosis is angiography, but often CT or MRI is useful. In the past, standard treatment was artery ligation, but this is no longer recommended (choice B is incorrect). The newer technique of endovascular stenting is now preferred and has fewer complications (choice A is correct). Anticoagulation should not be performed until surgical evaluation is considered. Choice D is appropriate for many palliative and hospice patients with carotid blowout but would not be the first choice for a patient who is pursing aggressive treatments.

If the goal is comfort, then settle on a discrete plan because exsanguinating hemorrhage can be terrifying for the patient and family. If bleeding occurs, apply direct pressure, use dark towels to camouflage blood loss, consider suction, place the patient in a lateral position to protect the airway, and provide oxygen. Sedation with a prefilled syringe of either midazolam or lorazepam may also be necessary.

Annotation

Harris DG, Noble SLR. Management of terminal hemorrhage in patients with advanced cancer: a systematic literature review. J Pain Symptom Manage 2009;38:913–927. DOI: 10.1016/j.jpainsymman.2009.04.027

Kozin E, Kapo J, Straton J, Rosielle DA. Fast Facts and Concepts #251. Carotid Blowout Management. April 2024. Available at: https://www.mypcnow.org/fast-fact/carotid-blowout-management/. Accessed October 10, 2024.

Mayland CR, Rogers SN. Palliative care issues in head and neck cancers. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:918–927.

Hypercalcemia

9. A healthy 55-year-old man is diagnosed with renal cell carcinoma, which has spread to his lungs and bones. He has not responded well to chemotherapy and elects to enroll in hospice. He prefers not to be resuscitated and wants to avoid hospitalization. He is treated with long-acting and immediate-release morphine for pain, and his function and cognition remain normal. Over 2 weeks, he becomes more confused. The hospice clinician confirms her suspicion of malignant hypercalcemia with a serum calcium level of 13.5 mg/dl, with a normal serum albumin and serum creatinine.

Which one of the following treatments is most likely to be safe and effective?

A. Aggressive hydration followed by IV furosemide.
B. Gentle hydration plus an oral bisphosphonate.
C. Gentle hydration plus an IV bisphosphonate.
D. Comfort care only, without an attempt to reverse the hypercalcemia.

Correct Answer: C

Malignant hypercalcemia presents as cognitive (sedation, delirium), gastrointestinal (anorexia, nausea, and vomiting) or renal (dehydration, thirst) symptoms. It is nearly always a sign of advanced malignancy, not the presenting sign of cancer.

Treatment of hypercalcemia starts with rehydration, but the old treatment of aggressive hydration followed by furosemide diuresis is no longer recommended (choice A is incorrect). Instead, the drug of choice is an IV bisphosphonate, either zoledronic acid 4 mg or pamidronate 60–90 mg (choice C is correct). The lower-dose oral bisphosphonates used for osteoporosis are not effective in the management of malignant hypercalcemia (choice B is incorrect). Treatment may need to be repeated every few weeks and is sometimes appropriate in patients on hospice. Treatment of the underlying malignancy may also be an option for long-term management but not in the patient described in the vignette.

Dying from severe malignant hypercalcemia is generally peaceful, so it may be appropriate in selected circumstances to simply allow the disease to take its course, without reversing the endocrine abnormality. On the other hand, sometimes in palliative or hospice practice, reversal of hypercalcemia is indicated, although this does not affect the course of the underlying malignancy. In the vignette, it appears that reversal of hypercalcemia should be considered for this patient on hospice (choice D is incorrect).

Annotation

de Bray A, Tomas J, Gittoes N, Hassan-Smith Z. Management of endocrine conditions at the end of life. Br J Hosp Med (Lond) 2020;81(5):1–9. DOI: 10.12968/hmed.2020.0096

Siddiqui F, Weissman DE. Fast Facts and Concepts #151. Hypercalcemia of Malignancy. July 2024. Available at: https://www.mypcnow.org/fast-fact/hypercalcemia-of-malignancy/. Accessed October 10, 2024.

Increased Intracranial Pressure

10. The inpatient palliative care PA is asked to assess a 32-year-old male with inoperable anaplastic astrocytoma to the brainstem who underwent prior cancer directed treatment. He is admitted with a 3-week history of progressively worsening lethargy, headaches, and neck pain as well as difficulty swallowing. Brain MRI shows rapid enlargement of his brain tumor with localized cerebral edema. The primary team administered a one-time bolus of dexamethasone 10 mg IV and started dexamethasone 4 mg IV BID while he undergoes further inpatient workup to address his progression of disease and symptoms associated with increased intracranial pressure. Acetaminophen and non-steroidal anti-inflammatory drugs (NSAIDs) have provided only minimal relief of his headache pain. He was started on a trial of morphine 4 mg IV q 3 hours PRN, though now he has intractable nausea, which worsens after each dose of morphine despite addition of ondansetron. He has had a total of six doses of morphine in the last 24 hours. At bedside the patient is sitting in a chair hunched forward, holding an emesis basin. His vital signs are BP 146/96, heart rate (HR) 107, respiratory rate (RR) 20/regular, and pulse oximetry 96%. The patient mentions having had vivid hallucinations and disorientation after receiving morphine and hydromorphone in the past. He has no allergies or prior adverse reactions to other drugs.

What is the next best step in his management?

A. Titrate morphine.
B. Add prochlorperazine.
C. Rotate to fentanyl.
D. Add mirtazapine.
E. Rotate to methadone.

Correct Answer: C

He is likely having a dose-limiting side effect of nausea from the morphine. Titration by increasing the dose or frequency may risk causing the symptoms to worsen, and decreasing the dose would not have any benefit given the lack of pain relief with the current dose. It is best to rotate to a different opioid to see if that works better. Although adding a secondary antiemetic is worth considering for refractory nausea, the patient's primary symptom

is poorly controlled headache pain due to his increased intracranial pressure. Address the pain management first and then decide what further recommendations may be needed if the nausea remains refractory despite opioid rotation. Prochlorperazine would not be the best second-line antiemetic choice for a patient with increased intracranial pressure due to the potential of lowering the seizure threshold. Fentanyl is the best choice given concerns about dose-limiting side effects from morphine and possibly hydromorphone. He could be started on a patient-controlled anesthesia pump for dose finding and then easily transitioned to a transdermal patch if his pain can be stabilized. Mirtazapine is not the appropriate drug of choice at this point. Although it has been shown to be beneficial for insomnia and anorexia in cancer patients, this patient's headache is directly related to his increased intracranial pressure, which could potentially improve after a corticosteroid regimen. Also, given that he is at risk of aspiration due to dysphagia, it would be advisable to avoid oral medications at this time pending further workup and formal speech/swallow testing. Methadone is a long-acting opioid and would not be the first choice in treating acute head and neck pain in this patient. He is still undergoing workup for his symptoms and awaiting response to corticosteroids. Methadone would be a consideration if the patient ends up requiring long-acting treatment of chronic pain refractory to more standard opioids.

Annotation

Cho S, Chu MK. Headache in brain tumors. Neurol Clin. 2024;42(2):487–496. DOI: 10.1016/j.ncl.2023.12.004

Rogers E, Mehta S, Shengelia R, Reid MC. Four strategies for managing opioid-induced side effects in older adults. Clin Geriatr. 2013;21(4). http://www.consultant360.com/articles/four-strategies-managing-opioid-induced-side-effects-older-adults

11. A 52-year-old man developed non-small cell lung cancer with brain metastasis. There is a single 3-cm lesion above the tentorium, with compression of the ventricles and right to left displacement of the brain, suggesting increased intracranial pressure. He has a low burden of metastatic disease elsewhere. He has no substantial comorbidities or functional limitations.

Which one of the following treatments is most likely to be effective?

A. Urgent craniotomy for surgical excision, along with IV dexamethasone.
B. Whole-brain radiation therapy (WBRT) and dexamethasone, without surgery.
C. Stereotactic surgery and dexamethasone as the lesion is in an area not amenable to safe surgical excision.
D. Dexamethasone and referral to hospice, without WBRT or surgery.

Correct Answer: A

About 10% of cancers metastasize to the brain, most commonly from lung and breast. The major factors predicting survival are the number and location of metastases. Survival is better if the brain is the first and only site of relapse and if there is a long disease-free interval, a good performance status, and younger age. Poor prognostic factors include multiple comorbidities and the presence of meningeal carcinomatosis.

In general, for all patients with brain metastases, supportive care alone is associated with a median survival of about 1 month. The addition of a corticosteroid improves survival to 2 or 3 months. WBRT improves median survival in unselected patients to about 3–6 months, with longer survival in patients with a better performance status. Choice B is incorrect because the preferred approach here would be surgery, not WBRT.

Surgical resection is usually the best choice for highly functioning patients with a single or limited (<3 or 4 cm in size) intracranial disease in an area accessible to neurosurgery. This describes the patient in the vignette, so choice A is correct. In patients who are highly functioning with a limited intracranial lesion in an area not amenable to safe surgical resection (for example, below the tentorium), stereotactic surgery (SRS) may be possible. Choice C is incorrect.

Choice D is incorrect because this patient is a good candidate for surgery, but if that was not possible or not accepted by the patient, WBRT should be offered.

Annotation

Hashmi MF, Agarwal MS, Maani EV, et al. Palliative Radiation Therapy for Brain Metastases. StatPearls. Updated June 4, 2023. Available at: https://www.ncbi.nlm.nih.gov/books/NBK563192/. Accessed August 22, 2024.

Lin X, DeAngeslis LM. Treatment of brain metastases. J Clin Oncol 2015;33:3475–3484. DOI: 10.1200/JCO.2015.60.9503

Seizures

12. A 53-year-old man with an advanced astrocytoma is admitted to a hospital palliative care unit for progressive personality changes. No further anticancer therapy is indicated. He has a history of focal seizures managed on lamotrigine. Three days after admission, he becomes acutely confused, with sudden global aphasia and resistance to care. CT shows no change, and laboratory tests remain normal.

Which one of the following is the most likely diagnosis?

A. Alcohol withdrawal.
B. Increased intracranial pressure.
C. Lamotrigine toxicity.
D. Non-convulsive status epilepticus (NCSE).

Correct Answer: D

Tonic clonic seizures are typically brief and easy to diagnose. By contrast, NCSE, a condition of ongoing or intermittent clinical epileptic activity without convulsions, can occur in terminally ill patients and be difficult both to diagnose and to treat.

NCSE may be caused by primary brain tumor or metastasis, stroke, intracranial hemorrhage, metabolic disturbance, as well as non-compliance with anticonvulsants. The presentation varies from confusion to coma, often with automatisms or unilateral tonic head or eye movements but no discrete motor seizures. It should be part of the differential diagnosis of delirium. A characteristic finding is resistance to care, with some patients insisting on leaving the hospital (choice D is correct).

This can be difficult to distinguish from other causes of altered mental status such as medication toxicity or withdrawal, infection, metabolic derangement, stroke, trauma, or tumors (choices A, B, and C are incorrect). The diagnosis is made by electroencephalography (EEG), and treatment is with standard anticonvulsants.

The prognosis is poor, particularly if seizures have lasted longer than 3 hours (sometimes they have been present for days). In general medical practice, the mortality is 10%–20%, but this rises to as high as 80% in palliative care settings. Treatment in the palliative care environment may be complicated because it

may be difficult to titrate powerful IV anticonvulsants in those settings, and clinicians may even decide not to treat, depending on the underlying goals of care.

Annotation

Connelly J, Weissman DE. Fast Facts and Concepts #229. Seizure Management in the Dying Patient. November 2023. Available at: https://www.mypcnow.org/fast-fact/seizure-management-in-the-dying-patient/. Accessed October 10, 2024.

Samala RV, Parala-Metz A, Davis MP. Nonconvulsive status epilepticus in a palliative care unit: when delirium is a seizure. Am J Hosp Palliat Med 2015;32:243–247. DOI: 10.1177/1049909113512719

13. The inpatient pediatric palliative care team has been asked to consult on a 16-year-old female patient with cystic fibrosis who was admitted to the pediatric intensive care unit (PICU). At the time of admission, the patient had a 10% right-sided pneumothorax. This is her first pneumothorax, and she has not been admitted to the PICU before. After recovery from the pneumothorax and at discharge her arterial blood gas showed a partial pressure of arterial carbon dioxide of >30 mm Hg ($PaCO_2$). Her forced expiratory vital capacity in 1 second (FEV_1) just prior to discharge from the PICU was <40% of predicted; her previous FEV_1 10 months earlier was <60%. Her 6-minute walk test (6MWT) is <400 meters. She is discharging home on nasal cannula (baseline went from 1 liter to now 2 liters). She has a history of being compliant with her medications and treatments. After discharge she has an echocardiogram which shows a systolic pulmonary arterial pressure >40 mm Hg. The family is specifically asking about her prognosis and trying to decide if they want to pursue referral for lung transplantation.

Which of the following is no longer an indication for need for lung transplant referral?

A. FEV_1 <40% of predicted value.
B. Increase in baseline requirement of oxygen from 1 liter to 2 liters by nasal cannula (NC).
C. Pneumothorax.
D. A systolic pulmonary arterial pressure >30 mm Hg (pulmonary hypertension).
E. A $PaCO_2$ >50 mm Hg.

Correct Answer: C

A single episode of pneumothorax is not in and of itself an indication for transplantation (Drummond et al. 2024).

Recurrent pneumothorax indicating worsening cystic disease or bleb formation is potentially a consideration, as is severe hemoptysis. Per the consensus guidelines outlined in Ramos et al. (2019), answers A, B, D, and E are all indications for referral under the age of 18 years (Table 7.1).

Annotation

Drummond D, Roy C, Cornet M, et al. Acute respiratory failure due to pulmonary exacerbation in children with cystic fibrosis admitted in a pediatric intensive care unit: outcomes and factors associated with mortality. Respir Res. 2024;25:190. DOI: 10.1186/s12931-024-02778-2

Ramos KJ, Smith PJ, McKone EF, Pilewski JM, Lucy A, Hempstead SE, Tallarico E, Faro A, Rosenbluth DB, Gray AL, Dunitz JM; CF Lung Transplant Referral Guidelines Committee. Lung transplant referral for individuals with cystic fibrosis: Cystic Fibrosis Foundation consensus guidelines. J Cyst Fibros 2019;18(3):321–333. DOI: 10.1016/j.jcf.2019.03.002

Serotonin Syndrome

14. A 62-year-old female being treated for colon cancer with oxaliplatin and has developed severe peripheral neuropathy from the medication. Her previous chronic cancer pain has been well controlled on fentanyl 25 mcg/hour and oxycodone 5 mg orally every 6 hours as needed for pain. You decide to add duloxetine 30 mg orally daily for 7 days, then increase to 60 mg daily. After a week she increases her dose, as instructed. She was also having increased nausea from her chemotherapy regimen, so she has started taking her ondansetron 8 mg orally three times a day. On the same day she increased her duloxetine dose and started her ondansetron she notices tachycardia, diaphoresis, muscle twitching, and a slight tremor. She calls you for recommendations.

Which medication is causing these symptoms?

A. Fentanyl.
B. Duloxetine.
C. Oxycodone.
D. Ondansetron.
E. Oxaliplatin.

Correct Answer: B

The patient is presenting with mild symptoms of serotonin syndrome. Medications that can contribute to serotonin syndrome include fentanyl, duloxetine, and ondansetron; but the patient had been on fentanyl and ondansetron successfully, without complication, before the addition of duloxetine and subsequent dose increases. Discontinuing the duloxetine should reverse the

Table 7.1 Lung transplant and referral criteria

When lung function declines to FEV_1 <40% predicted	• Increase frequency of cystic fibrosis (CF) clinic visits (e.g., more often than quarterly), if indicated, to address contributing factors. • Emphasize the importance of nutrition, diabetes control, physical conditioning, self-care, mental health, adherence, and social support and correlate them with clinical outcomes and implications for candidacy for transplant. • Evaluate for markers of shortened survival using 6-minute walk test (6MWT), nocturnal oximetry, blood gas, and echocardiogram. • Assess for organisms with implications for transplant candidacy (e.g., non-tuberculous mycobacteria, fungus, and *Burkholderia* species). • **Referral for individuals with markers of increased severity of disease** (e.g., 6MWT distance <400 meters, supplemental oxygen requirement, hypercarbia, pulmonary hypertension, adults with body mass index <18). Discuss implications for decreased survival in the presence of markers of increased severity of disease as the rationale for referral to consider lung transplantation. • In the presence of CF-related liver disease, identification of liver cirrhosis (e.g., abdominal ultrasound) may affect the timing and/or transplant center of choice for referral. Chronic kidney disease may warrant consideration of lung–kidney transplant. Early communication with partnering transplant centers is important in the case of a potential need for multiple organ transplantation. • **Referral for all individuals under 18 years of age.**

Source: Reprinted with permission from Ramos et al. (2019).

symptoms, and then a new plan to care for her neuropathy can be developed.

Annotation

Fast Facts #403: Serotonin Syndrome in Palliative Care. July 31, 2020. https://www.mypcnow.org/fast-fact/serotonin-syndrome-in-palliative-care/. Accessed October 3, 2024.

Hung CK, Joasil PW, Fernandez J, Balwan S. Neuroleptic malignant syndrome, serotonin syndrome, and rhabdomyolysis. Manu P, Karlin-Zysman C, Grudnikoff E (eds). In: Handbook of Medicine in Psychiatry, 3rd edition. American Psychiatric Association Publishing; 2020:349–367.

15. An 85-year-old female patient with metastatic breast cancer, receiving home hospice care, is brought to the emergency room by her daughter due to altered mental status. Her pain is managed with both sustained-release and immediate-release morphine. For symptoms of depression, she was recently started on mirtazapine 15 mg at night. Prior to this change in status, her mental status had been normal without evidence of dementia.

Physical exam reveals a temperature of 102.6ºF (39.2ºC), heart rate 120 beats/min, and BP 170/96. Cardiovascular exam is normal except for tachycardia. Neurologic exam reveals myoclonus, and she has an agitated delirium, mumbling, fidgeting, and trying to get out of the bed.

Which one of the following is the most appropriate next step in the management of this patient?

A. Administer lorazepam.
B. Perform a lumbar puncture.
C. Discontinue mirtazapine.
D. Obtain CT head.

Correct Answer: C

Mirtazapine, an alpha 2-adrenergic receptor inhibitor, increases release of both serotonin and norepinephrine and subsequently has most likely induced serotonin syndrome in this patient. While the management of serotonin syndrome involves symptomatic relief such as by administering benzodiazepines (choice A), that should be done after addressing the cause of serotonin accumulation (i.e., mirtazapine). Lumbar puncture (choice B) is not indicated in acute management of serotonin syndrome and is a relatively invasive procedure, especially given that this patient is currently on hospice. While CT head (choice D) may be used in an effort to determine the underlying cause of altered mental status, that is not necessary in this case as the signs and symptoms described in this clinical scenario are consistent with serotonin syndrome.

The serotonin syndrome is usually seen when multiple serotonin-raising drugs are used together, particularly when the dose of one of these is increased. Onset is usually rapid and progressive, and the most reliable indicator of serotonin excess is spontaneous clonus.

Some, but not all, opioids are associated with the serotonin syndrome, especially methadone, meperidine, and tramadol (but rarely morphine). Other drugs associated with the syndrome include monoamine oxidase inhibitors, all selective serotonin reuptake inhibitors (SSRIs), dextroamphetamine (but not methylphenidate), and the antihistamines chlorpheniramine and brompheniramine.

Annotation

Jilani TN, Gibbons JR, Faizy RM, Saadabadi A. Mirtazapine. StatPearls. August 28, 2023. Available at: https://www.ncbi.nlm.nih.gov/books/NBK519059/. Last Update: November 9, 2024.

Strothers HS, Patel D. Older adult population. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:320–344.

Wagner J. Mirtazapine monotherapy and serotonin syndrome: when "benign" interventions become hazardous. J Pain Symptom Manage 2024;67(5):e743–e744.

16. A 73-year-old woman with chronic kidney disease stage IV, hypertension, and mild dementia develops acute myelogenous leukemia. Her family opts for home hospice after consultation with a medical oncologist. The family is committed to managing her terminal illness with comfort as their primary goal, although they are open to transfer to an inpatient hospice as needed for symptom support. Her medications include benazepril, hydrochlorothiazide, and paroxetine. Due to increasing pain and agitation, the hospice physician prescribes an immediate-acting opioid, eventually adding transdermal fentanyl at 25 mcg/hour.

Over just a few hours, the patient becomes increasingly confused, with fever, agitation, diarrhea, and tremors. On physical exam, she has myoclonus, tachycardia, profuse salivation, and hyperreflexia.

Which one of the following is the most appropriate next step?

A. Diagnose terminal delirium, and transfer her to an inpatient hospice to start a continuous IV fentanyl infusion, along with regular doses of lorazepam.
B. Initiate a workup for sepsis, including a chest X-ray, complete blood count (CBC), urinalysis, and blood cultures.
C. Transfer to inpatient hospice, discontinue the paroxetine and fentanyl, and provide supportive care with oxygen and IV fluids.
D. Discharge the patient from hospice, and ask her family to transfer her to the emergency department for further workup and treatment.

Correct Answer: C

A potentially life-threatening complication of SSRIs is the serotonin syndrome, which can be seen if multiple serotonin-raising drugs are used together. Many of the drugs associated with serotonin syndrome are in common use in palliative practice, so vigilance is required to prevent serotonin toxicity. Onset of the serotonin syndrome is usually rapid and progressive, and the most reliable indicator of serotonin toxicity is spontaneous clonus.

In the vignette, the serotonin syndrome has likely arisen from the combination of the SSRI paroxetine with fentanyl. After consultation with the family, and if consistent with the goals of care, she could be transferred to an inpatient hospice, the offending drugs stopped, and basic supportive care such as fluids and oxygen administered (choice C is correct).

Choice A is incorrect because the serotonin syndrome is potentially reversible, and simply providing more IV opioids does not address the cause of the acute confusional state. Choice B would be difficult to accomplish either at home or in an inpatient hospice, and it ignores the possibility of the serotonin syndrome. Choice D is incorrect because it does not seem consistent with comfort as the primary goal of care, although that option could be explored with the family.

Annotation

Chiew AL, Isbister GK. Management of serotonin syndrome (toxicity). Br J Clin Pharmacol. Published online ahead of print June 26, 2024. https://doi.org/10.1111/bcp.16152

Chow R, Kozhevnikov D, Prsic EH. Fast Facts and Concepts #403. Serotonin Syndrome in Palliative Care. November 2023. Available at: https://www.mypcnow.org/fast-fact/serotonin-syndrome-in-palliative-care/. Accessed October 10, 2024.

Spinal Cord Compression

17. A 72-year-old man with a history of stage IV prostate cancer presents to the palliative care clinic with new-onset severe back pain. He reports difficulty walking and numbness in both legs. On examination, he has bilateral leg weakness and decreased sensation below the level of T10. The patient has expressed in previous goals-of-care discussions that he is unsure if he would want any advanced surgical procedures to extend his life but is open to interventions that would improve his quality of life. Discussions regarding his current medical status and goals of care are ongoing. He has an active do-not-resuscitate/do not intubate (DNR/DNI) order but is currently receiving chemotherapy for his prostate cancer.

While ongoing goals-of-care discussions with the patient continue, what is the most appropriate immediate next step in managing this patient's condition?

A. Immediate surgical decompression.
B. High-dose corticosteroids.
C. Palliative radiation therapy.
D. Physical therapy rehabilitation.
E. Enroll in hospice.

Correct Answer: B

High-dose corticosteroids are the correct answer to reduce inflammation and edema around the tumor. This is the next best step in the management of this patient, which may help address immediate symptoms while further ongoing goals and plans of care can be established.

A. Immediate surgical decompression: Urgent consideration should be given to remove the tumor compressing the spinal cord. While this is definitive treatment, this may not be the most appropriate immediate next step given the patient's goals.
C. Palliative radiation therapy: While this might be helpful for the patient in alleviating pain and preserving function, may be in line with their goals, and should be urgently considered, it is not the next best immediate step.
D. Physical therapy and rehabilitation: Supportive measures to improve mobility and quality of life such as this may be appropriate when the patient has been stabilized.
E. While hospice might be an option for this patient, he is currently receiving treatment of his prostate cancer, and further discussion with the patient would be warranted.

Annotation

Watson M, et al. (eds). Oxford Handbook of Palliative Care, 3rd edition. Oxford University Press; 2019. https://doi.org/10.1093/med/9780198745655.001.0001. Accessed 19 July 2024.

Superior Vena Cava Syndrome

18. A 58-year-old male is being managed in the outpatient palliative care clinic. He was diagnosed with stage III non-small cell lung cancer (NSCLC) 10 months ago and has been undergoing chemotherapy. He was admitted to your hospital overnight with headache, chest pain, and shortness of breath. Imaging shows an interval increase in the tumor size, mediastinal widening, and pleural effusion, indicating superior vena cava (SVC) syndrome. No thrombus is present.

What is the most appropriate next step to palliate the patient's symptoms?

A. Radiation therapy.
B. Diuretics and hydration.
C. Endovenous recanalization and SVC stenting.
D. High-dose corticosteroids.

Correct Answer: C

Option C, endovascular recanalization with or without stenting, is the faster way to relieve symptoms compared with radiation therapy (RT)(option A), particularly for patients with life-threatening symptoms. Diuretics can be used, as needed, but with care to not further deplete intravascular volume. In general, overhydration of the patient should be avoided if possible. For patients receiving RT on an emergency basis for severe airway obstruction that is not amenable to stenting, a short course of high-dose corticosteroids to minimize the risk of central airway obstruction secondary to edema is recommended. However, corticosteroids are not effective as sole therapy. Radiation therapy is no longer thought to be the best option as an endovenous stent restores venous return and provides rapid and sustained symptom palliation in patients with malignant SVC syndrome even in the absence of life-threatening symptoms.

Annotation

Azizi AH, Shafi I, Zhao M, et al. Endovascular therapy for superior vena cava syndrome: a systematic review and meta-analysis. EClinicalMedicine 2021;37:100970. https://doi.org/10.1016/j.eclinm.2021.100970

Friedman T, Quencer KB, Kishore SA, et al. Malignant venous obstruction: superior vena cava syndrome and beyond. Semin Intervent Radiol 2017;34:398–408. DOI: 10.1055/s-0037-1608863

19. A 72-year-old man with non-small cell lung cancer has been treated with combination chemotherapy. He presents with a swollen right arm and neck, along with mild dyspnea and cough. Chest X-ray and CT imaging confirm the diagnosis of SVC syndrome. He has moderate chronic obstructive lung disease, with normal functional status and cognition.

Which one of the following is the next step?

A. Emergency use of steroids and external beam radiation therapy.
B. Urgent biopsy for histologic confirmation of tumor type.
C. Placement of a vena cava stent.
D. Steroids and diuretics.

Correct Answer: B

Compression of the SVC often presents dramatically, usually with neck and arm swelling, dyspnea, cough, and obliterated chest veins. Despite the dramatic appearance, SVC syndrome is usually not an emergency. This is important because curable tumors sometimes present with this syndrome, and it is important to get a histologic diagnosis and proceed with optimal therapy (choice A is incorrect, while choice B is correct). Worrisome signs that do indicate an emergency include stridor, which suggests laryngeal edema, and confusion, which suggests cerebral edema. Without

those signs, the patient needs a biopsy and proper staging before treatment.

Chest X-ray is usually abnormal, and the most common findings are a widened mediastinum (64% of cases) and a pleural effusion (26%). The diagnosis is generally confirmed with chest CT with contrast, and venography may be indicated if an endovascular stent is planned. Rarely, there are non-malignant causes of SVC syndrome, including fibrosing mediastinitis or thrombosis of a central line or pacemaker/defibrillator wire.

Traditionally, steroids and diuretics were recommended, but this is not evidence-based (choice D is incorrect). Patients should receive supplemental oxygen, and the head of the bed should be elevated. Consider anticoagulation if imaging demonstrates a clot.

External beam radiation therapy produces a response within 7–15 days. Chemotherapy may be the primary treatment in cases caused by lymphoma, small cell lung cancer, or a germ cell tumor. Surgery is almost never indicated because the tumor is unresectable (choice C is incorrect). For emergency cases (stridor or delirium), endovascular stenting can provide rapid relief. There are no randomized controlled trials comparing these treatment methods.

Annotation

Azizi AH, Shafi I, Shah N, Rosenfield K, Schainfeld R, Sista A, Bashir R. Superior vena cava syndrome. JACC Cardiovasc Interv 2020;13(24):2896–2910. DOI: 10.1016/j.jcin.2020.08.038

Hoskin P. Radiotherapy in symptom management. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:819–820.

Proportional Sedation

20. You are seeing a 93-year-old man who was found face down at his nursing home. He had no pulse or respirations, and CPR was started by nursing home staff. Return of spontaneous circulation was achieved once emergency medical services (EMS) arrived; however, he has remained unconscious and dependent on the ventilator and a dobutamine drip since admission to the hospital 48 hours ago. The family arrived to the hospital this morning, and after a goals-of-care conversation, both children agreed that their father would want to change the focus to comfort and move toward compassionate extubation. This decision is supported by the advance directive they brought to the hospital stating the patient does not wish to be dependent on life support. He had checked DNR and DNI on a current Physician/Medical Orders of Life-Sustaining Treatment (POLST/MOLST).

All members of the medical team agree with this decision, and he was compassionately extubated 10 minutes later; the dobutamine drip was discontinued. The nurse has called you to the bedside as the patient is tachypneic to 30 breaths a minute, has upper airway secretions, and is grimacing but not alert. The family is distressed as they do not want to see him suffer.

Which one of the following is the next best step?

A. Reintubate the patient due to the physical distress of the patient.
B. Administer morphine IV (2–5 mg) and reassess often.
C. Apply bilevel positive airway pressure (BiPAP) to relieve hypoxia, and monitor his respirations and secretions.
D. Administer morphine (10 mg IV every 15 minutes) until the patient is no longer in distress.
E. Administer acetaminophen (650 mg IV every 6 hours).

Correct Answer: B

Choice B is correct because doses of IV opioid are usually effective in relieving dyspnea associated with compassionate extubation. This is grounded on the principle of double effect, in which your intention of relieving distress is paramount while understanding bad effects, such as respiratory depression and hastening death, are foreseen but are not the intended goal. To achieve the shared goal of relieving suffering, you accept the risk of negative side effects. The nurse is a vital part of the medical team, and their concerns should not be dismissed. Start by ordering the lowest effective dose of morphine to treat dyspnea, then reassess often to decide subsequent dosing and frequency.

Choice A is incorrect as reintubating opposes the surrogate's stated wishes as well as the wishes stated in the patient's advance directives. It would likely relieve his respiratory distress; however, it is not in line with the stated goals.

Choice C is incorrect because this is likely only to prolong the dying process and opposes the stated comfort goal.

Choice D is incorrect as you would start with the lowest effective dose, then assess response before giving repeated doses. Higher opioid doses are usually unnecessary and could be interpreted as intentionally hastening death.

Choice E is incorrect as acetaminophen does not treat dyspnea at the end of life nor would it provide adequate relief of suffering.

Annotation

Krakauer EL. Medical and ethical considerations in palliative sedation at the end of life. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:1180–1191.

21. A 68-year-old male has advanced amyotrophic lateral sclerosis and an anxiety disorder. He receives hospice care at home. He suffers from progressive dyspnea. He has declined tracheostomy and a ventilator. He is unable to tolerate a continuous positive airway pressure (CPAP) mask due to its claustrophobic effects. Clonazepam 4 mg twice daily for many years controlled his anxiety in the past. Lorazepam 2 mg at bedtime helps with sleep. He and his wife both worry that the dyspnea will become unbearable. You explain that other medications can produce sedation to unconsciousness, and this is possible if his dyspnea is intolerable.

Where can palliative sedation be performed?

A. At home with hospice care.
B. In a hospital only after an ethics consultation.
C. In a nursing home with a sitter.
D. At home but without hospice as this is euthanasia.

Correct Answer: A

The ethical basis for palliative sedation (proportional sedation for refractory symptoms) is well established. The relative privacy of care at home with a hospice program is a positive feature of this modality. B is not correct. There is no need to escalate this to a hospital setting. C is not correct. A nursing home is regulated to maintain or improve care; not even a sitter will make this a good location for palliative sedation. D is not correct. There is no ethical or legal reason in any of the 50 US states to withdraw hospice care if palliative sedation is indicated; it is not euthanasia.

Annotation

42 CFR 418.64(a). "Standard: Physician services. The hospice medical director, physician employees, and contracted physician(s) of the hospice, in conjunction with the patient's attending physician, are responsible for the palliation and management of the terminal illness and conditions related to the terminal illness." https://www.ecfr.gov/current/title-42/part-418#p-418.64(a). Accessed August 8, 2024.

22. An 82-year-old woman with adenocarcinoma of the colon metastatic to the retroperitoneum and liver is receiving hospice care at home. She has been experiencing severe back pain, and her healthcare team has been gradually increasing her dosage of opioid pain medication. Despite the higher dosages, she remains alert and oriented and is still in pain. Her family members express concern that further increases in the opioid dose may hasten her death.

According to the principle of double effect, which of the following statements best reflects the ethical permissibility of escalating the patient's pain medication dosage?

- **A.** It is unethical to increase the pain medication dosage as the primary intent is to hasten death.
- **B.** It is ethical to increase the pain medication dosage as the primary intent is to relieve suffering, and any potential hastening of death is an unintended but foreseen consequence.
- **C.** It is unethical to increase the pain medication dosage as the risks of respiratory depression and death outweigh the potential benefits of pain relief.
- **D.** It is ethical to increase the pain medication dosage only if the patient explicitly consents to potential hastening of death as a side effect.
- **E.** It is unethical to increase the pain medication dosage as there are always alternative approaches to managing pain that do not risk hastening death.

Correct Answer: B

The principle of double effect states that as long as the intent of an action is to achieve something (such as relief of pain or suffering) through either a morally good our neutral action (such as opioids), then even if unintended consequences occur (the patient's life is shortened), the action is ethical. Intent is paramount in this distinction. Choice B is correct: titration of opioids is justified because the intent is to relieve pain, and any small risk of causing respiratory depression or death is acceptable because that result is unintended, although foreseen.

Choice A is incorrect because this statement incorrectly characterizes the intention as hastening death, which is not the primary goal of escalating opioid medication in the vignette.

- **C.** This statement fails to consider the proportionality of the good effect (relief of suffering) and the unintended but foreseen consequence (potential hastening of death).
- **D.** Explicit consent is not a requirement for application of the principle of double effect, as long as the primary intention is ethically justified and the harmful consequence is unintended but foreseen.
- **E.** This statement assumes alternative approaches are always available, which may not be the case in end-of-life care and fails to consider the ethical justification for relieving suffering through necessary means.

Annotation

Berger JM. Ethics in palliative and end-of-life care. Vadivelu N, Kaye A, Berger J (eds). In: Essentials of Palliative Care. Springer; 2013:483–500. https://doi.org/10.1007/978-1-4614-5164-8_27

Sulmasy DP, Pellegrino ED. The rule of double effect: clearing up the double talk. Arch Intern Med. 1999;159(6):545–550. DOI: 10.1001/archinte.159.6.545

Acute Hypoxia

23. While working on an inpatient hospice unit, you are called by the bedside nurse to see a 68-year-old man with extensive small cell lung cancer who is alert and oriented but visibly distressed. He has severe acute-onset dyspnea along with significantly increased respiratory effort. Auscultation reveals decreased breath sounds on the right side. Vital signs are as follows: 25 breaths/minute = respiratory rate, 112 beats per minute = pulse, 88% on room air = O_2 saturation.

The patient previously documented his wishes against CPR or mechanical ventilation. He further told his family that he did not want more tests or procedures or to return to the hospital; rather, he valued comfort as his primary goal.

Which one of the following is the most appropriate next step in managing this patient's hypoxia?

- **A.** Order an arterial blood glass (ABG) analysis along with CBC and metabolic profile.
- **B.** Obtain a chest X-ray.
- **C.** Instruct the respiratory therapist to initiate non-invasive positive pressure ventilation (NIPPV).
- **D.** Instruct the nurse to administer supplemental O_2 via nasal cannula.

Correct Answer: D

The clinical picture suggests acute pneumonia, an expected and common complication in patients with advanced lung cancer. The patient directed that his primary goal is comfort, so interventions should be focused on that preference.

Supplemental O_2 via nasal cannula (choice D) is a non-invasive intervention that helps alleviate hypoxia and increase O_2 saturation, often providing prompt relief of dyspnea. Ordering blood tests (choice A) and non-invasive ventilation (choice C) are relatively burdensome interventions that are more likely to cause the patient discomfort, and they conflict with his goals of care. Although non-invasive ventilation can sometimes be palliative, it is rarely initiated in the hospice setting, and nasal oxygen would always be tried first. Imaging (chest X-ray) findings (choice B) would also conflict with the patient's palliative care goals, may cause discomfort, and are unlikely to lead to an improvement in symptoms.

Annotation

Zhou Q, Liu Q, Chen X, Zeng W. High-flow nasal cannula versus non-invasive ventilation for treatment of acute hypoxemic respiratory failure in adults: a systematic review and meta-analysis. Respir Care 2020;65(10):1444–1455. DOI: 10.1186/s13054-022-04218-3.

Bowel Obstruction

24. A 63-year-old woman with locally advanced endometrial cancer presents with malignant bowel obstruction (MBO). She has multiple sites of obstruction in both the small and large bowel, poor nutritional status, and a large amount of

ascites. She has intractable vomiting within a couple hours of clamping her nasogastric tube (NGT). She responds poorly to haloperidol, dexamethasone, opioids, and octreotide.

Which one of the following interventions is most likely to relieve her vomiting?

A. Debulking abdominal surgery multi-agent chemotherapy.
B. Prolonged nasogastric suction.
C. Venting gastrostomy.

Correct Answer: C

In patients who are poor candidates for surgery or chemotherapy (choices A and B are incorrect), it is reasonable to try aggressive medical management of bowel obstruction, which generally includes the use of an opioid, dexamethasone, haloperidol, and octreotide.

If this fails, a salvage procedure is venting gastrostomy, in which a standard gastrostomy tube is placed, not to feed the patient but to vent out gas and liquids. With this intervention, the patient can often drink and eat small amounts, with the ingested materials vented back out. This may also allow a patient to attend an important ceremony such as a wedding or graduation, with the gastrostomy tube tucked under a blanket (choice D is correct). Although choice C is an option, it is a miserable way for the patient with cancer to spend the rest of their life.

Annotation

Laval G, Marcelin-Benazech B, Guirimaud F, et al. Recommendations for bowel obstruction with peritoneal carcinomatosis. J Pain Symptom Manage 2014;48:75–91. DOI: 10.1016/j.jpainsymman.2013.08.022

Madriaga A, Lau J, Ghoshal A, Dzierzanowski T, et al. MASCC multidisciplinary evidence-based recommendations for the management of malignant bowel obstruction in advanced cancer. Support Care Cancer 2022;30:4711–4728. DOI: 10.1007/s00520-022-06889-8

Sabharwal T, Fotiadis NI, Adam A. Interventional radiology in the palliation of cancer. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:861–872.

25. You are seeing a 78-year-old woman with metastatic ovarian cancer and extensive peritoneal carcinomatosis. She presents to the hospital with nausea, vomiting, and abdominal pain. Diagnostic evaluation confirms a MBO, and the surgical consultant does not feel she is a surgical candidate due to the extent of disease, her malnutrition, and her poor functional status. The oncologist has met with her and the family, and the patient elects to redirect goals to comfort-focused treatments.

As a member of the palliative care team, you were consulted to assist with goals of care and symptom assessment. As a result of your meeting, she has decided to enroll with hospice. With her intractable symptoms, dependence on an NGT for suction, and frailty, you recommend transfer to an inpatient hospice unit.

She is receiving ondansetron 8 mg q 6 hours for nausea, prochlorperazine 10 mg q 6 hours PRN breakthrough nausea, morphine 3 mg IV q 3 hours as needed for pain, and lorazepam 0.5 mg IV q 6 hours as needed for anxiety and nausea (off-label usage) but remains uncomfortable with significant pain and NGT output.

Which one of the following medications is most likely to reduce her symptom burden?

A. Metoclopramide.
B. Diphenhydramine.
C. Promethazine.
D. Octreotide.

Correct Answer: D

Octreotide (choice D) is correct as it inhibits gastric, pancreatic, and intestinal secretions, thus reducing gastrointestinal motility. Choice A (metoclopramide) is contraindicated because its pro-motility mechanism of action increases the risk of bowel perforation. Diphenhydramine (choice B) is incorrect because it does not treat the symptoms and has a high burden of adverse effects. Choice C is incorrect because promethazine is in the same drug class as prochlorperazine, and thus would be a duplication of therapy.

Annotation

Desanti-Siska L, Fellows S, Polito N. Constitutional symptoms. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:125–160.

Peng X, Wang P, Li S, Zhang G, Hu S. Randomized clinical trial comparing octreotide and scopolamine butylbromide in symptom control of patients with inoperable bowel obstruction due to advanced ovarian cancer. World J Surg Oncol 2015;13:50. DOI: 10.1186/s12957-015-0455-3

26. A 64-year-old woman with locally advanced adenocarcinoma of the colon presents to the emergency department with a 3-day history of progressively worsening anorexia, abdominal pain, nausea, and vomiting.

She had been diagnosed with cecal cancer 5 months previously and had undergone tumor debulking and ileal to colon bypass, followed by 3 months of adjuvant FOLFOX chemotherapy (5-fluorouracil, leucovorin, and oxaliplatin), which she had tolerated well.

Physical examination reveals a distended abdomen with high-pitched bowel sounds. An abdominal X-ray and CT confirm large bowel obstruction. Surgical consultation is in process, but the patient is reluctant to undergo further surgical intervention. She is most interested in being comfortable during the time she has left.

Which one of the following is the next step in your management?

A. Ask the surgical team to create a diverting colostomy to reduce the risk of bowel perforation.
B. Initiate total parenteral nutrition (TPN) to maintain nutritional status.
C. Administer IV fluids, correct electrolyte abnormalities, and place an NGT.
D. Refer for colonic stent placement.

Correct Answer: C

Managing bowel obstruction in a patient with malignancy requires patient-centered and interdisciplinary team care. Of all bowel obstructions in cancer patients, 10%–50% are benign, caused by a hernia or adhesions from prior surgery, radiation, or reaction to intraperitoneal chemotherapy. If the obstruction is malignant, it may be a single site of obstruction, multiple, or diffuse, and it may be partial or complete. Almost all patients with presumed MBO should undergo a workup, unless they are in the last few days or weeks of life. There are many palliative interventions.

At presentation, most patients with MBO need fluid resuscitation and replacement of electrolytes. Short-term drainage with an

NGT is reasonable but not for long periods. Choice C is correct because it allows time for investigation to occur and for all appropriate options to be considered. Note that long-term treatment with an NGT does not promote comfort.

Choice B is rarely indicated. At least initially, provide standard IV fluids. If the patient is not a candidate for any palliative treatment (see below), then proceeding to TPN does not promote comfort in a patient with a high burden of malignancy.

The other choices reflect potential palliative interventions, after the patient has been stabilized. Choice A, creation of an ostomy to relieve the obstruction, is possible, although associated with substantial morbidity. It would be most appropriate in a patient with no palpable abdominal mass, minimal ascites, a unifocal obstruction, and good baseline nutrition. Another less invasive surgical option that may provide excellent long-term palliation is a venting gastrostomy.

Choice D suggests stenting, where a self-expanding metallic stent is placed directly across the site of obstruction. This procedure has markedly lower morbidity than surgery, has lower mortality, and avoids the need for colostomy. For malignant colonic obstruction, stenting is a technical success in over 90% of cases and a clinical success, defined as prompt colonic decompression, in 90%.

A key point is to thoroughly evaluate patients with MBO, rather than skipping that step and directly referring to hospice, unless that is consistent with the patient's goals and preferences.

Annotation

Franke AJ, Iqbal A, Starr JS, Nair RM, George TJ, Jr. Management of malignant bowel obstruction associated with GI cancers. J Oncol Pract 2017;13:426–434. DOI: 10.1200/JOP.2017.022210

Helyer L, Easson AM. Surgical approaches to malignant bowel obstruction. J Support Oncol 2008;6(3):105–113.

Paul Olson TJ, Pinkerton C, Brasel KJ, Schwarze ML. Palliative surgery for malignant bowel obstruction from carcinomatosis: a systematic review. JAMA Surg 2014;149(4):383–392. https://doi.org/10.1001/jamasurg.2013.4059

27. A 53-year-old woman with advanced ovarian cancer and intermittent MBO from peritoneal carcinomatosis is no longer a candidate for cancer-directed therapy. She suffers mainly from recurrent nausea and vomiting. She is admitted to the hospital, and imaging confirms bowel obstruction; there is no response to ondansetron. She is naive to opioids.

Which one of the following drug combinations is most likely to be helpful?

A. Promethazine 25 mg IV every 6 hours, pantoprazole 20 mg IV daily, and morphine 2 mg IV every 2 hours as needed.

B. Metoclopramide 10 mg IV every 6 hours, dexamethasone 4 mg IV daily, and morphine 2 mg IV every 2 hours as needed.

C. Haloperidol 1 mg every 8 hours, dexamethasone 4 mg IV daily, morphine 2 mg every 2 hours as needed, and octreotide 150 mcg subcutaneously (SC) every 8 hours.

D. Haloperidol 1 mg every 8 hours, dexamethasone 4 mg IV daily, morphine 5 mg IV every 2 hours as needed, and octreotide 150 mcg SC every 8 hours.

Correct Answer: C

Without high-level evidence, various cocktails of medications are now recommended for the medical management of MBO. These usually include an anticholinergic agent such as glycopyrrolate or scopolamine, a corticosteroid such as dexamethasone, an opioid, haloperidol, octreotide, and sometimes an H2-blocker or a proton pump inhibitor.

Metoclopramide should not be used in patients with a complete bowel obstruction, so choice B is incorrect. Choice A is incorrect because promethazine (Phenergan) is not the antinausea medicine of choice, and this choice lacks both a steroid and octreotide.

The difference between choices C and D is the dose of morphine, and choice C is a more appropriate option for a patient who is naive to opioids. The use of octreotide remains controversial, and the single largest randomized controlled trial showed no benefit over placebo, although in that trial, patients received 1 liter of IV hydration per day, which may have negated the benefit of octreotide.

Annotation

Currow DC, Quinn S, Agar M, Fazekas B. Double-blind, placebo-controlled, randomized trial of octreotide in malignant bowel obstruction. J Pain Symptom Manage 2015;49:814–821. DOI: 10.1016/j.jpainsymman.2014.09.013

Laval G, Marcelin-Benazech B, Guirimaud F, et al. Recommendations for bowel obstruction with peritoneal carcinomatosis. J Pain Symptom Manage 2014;48:75–91. DOI: 10.1016/j.jpainsymman.2013.08.022

Madriaga A, Lau J, Ghoshal A, et al. MASCC multidisciplinary evidence-based recommendations for the management of malignant bowel obstruction in advanced cancer. Support Care Cancer 2022;30:4711–4728. DOI: 10.1007/s00520-022-06889-8

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8

Additional Management Strategies

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Respiratory Support

1. A 68-year-old patient with end-stage heart failure and severe chronic obstructive pulmonary disease (COPD) is referred to your palliative care clinic with continued severe breathlessness despite optimized treatment by cardiology and pulmonology. The current medication regimen includes 40 mg of furosemide (Lasix) twice daily, guideline-directed medical therapy for heart failure, inhaled long-acting beta-agonist and anticholinergic medications managed by pulmonary medicine, and 10 mg of prednisone daily. On physical examination, the patient has scant dry crackles at the lung bases but no wheezing or rhonchi. Vital signs are within normal limits with an SpO_2 of 93% on 2 liters of O_2 via nasal canula. The jugular vein is visible at 3 cm above the sternal angle of Louis. Labs are unremarkable.

Which of the following is the most appropriate next step in managing this patient's breathlessness?

A. Increase the dose of furosemide to 60 mg twice daily.
B. Add a second long-acting bronchodilator.
C. Initiate low-dose morphine 2.5–5 mg every 4 hours as needed.
D. Start a course of broad-spectrum antibiotics.
E. Increase prednisone to 20 mg daily.

Correct Answer: C

Dyspnea, or the subjective experience of breathlessness, inhibits activity and the quality of life in patients with severe cardiopulmonary diseases. In a patient with end-stage heart failure and severe COPD who is experiencing significant breathlessness, initiating low-dose morphine can help reduce the sensation of dyspnea by decreasing the perception of respiratory discomfort and reducing the ventilatory response to hypoxia and hypercapnia (choice C is correct). With chronic or refractory dyspnea—defined as breathlessness that persists despite optimal management of the underlying etiology—low-dose morphine has been demonstrated to be a safe and effective therapy. Once an effective oral dose is reached, the short-acting opioid can be converted into a long-acting equivalent. Research more strongly supports, however, the use of a single dose before exertion to improve activity. If kidney function or another reason prohibits the use of oral morphine, other formulations of opioids can be used. The benefits of opioid use should be balanced against potential adverse effects, including constipation, sedation, and non-medical use.

Choices A and E are incorrect because increasing the dose of furosemide or prednisone would not likely provide relief of symptoms given the patient has minimal dry crackles, non-elevated jugular veins, and no physical evidence of a COPD exacerbation. Choice D is incorrect because starting broad-spectrum antibiotics is not indicated without signs of infection. Choice B is incorrect because adding another long-acting bronchodilator would not be helpful for COPD management given the patient is already on optimal therapy.

Annotation

Avant LC, Dionne-Odom JN, Swetz KM. What interventions are effective for managing dyspnea in heart failure? In: Goldstein NE, Woodrell CD, Morrison RS (eds). Evidence-Based Practice of Palliative Medicine. Elsevier; 2023:138–146. DOI: 10.1016/B978-0-323-84702-5.00017-8

Currow D, Ferreira D. Palliative management of breathlessness. In: MacLeod RD, Van Den Block L (eds). Textbook of Palliative Care. Springer International Publishing; 2019:179–190. DOI: 10.1007/978-3-319-77740-5_11

Liu M, Xiao W, Du L, et al. Effectiveness and safety of opioids on breathlessness and exercise endurance in patients with chronic

obstructive pulmonary disease: a systematic review and meta-analysis of randomised controlled trials. Palliat Med 2023;37(9):1365–1378. DOI: 10.1177/02692163231194838

2. A 65-year-old man with severe COPD presents to the emergency department with increasing dyspnea, cough, and fever. He had previously established do-not-resuscitate (DNR) and do-not-intubate (DNI) orders. His baseline quality of life is acceptable to him, and he is willing to accept a trial of aggressive treatment, including intensive care unit (ICU) admission, if there is a significant chance his condition is reversible. Chest X-ray shows a right middle lobe pneumonia. However, he confirms that he does not want intubation even as a trial. He is treated with antibiotics, steroids, and updrafts, as well as non-invasive ventilation (continuous positive airway pressure, or CPAP).

Which one of the following best describes the effect of CPAP in patients like this?

A. Bilevel positive airway pressure (BIPAP) is contraindicated because of his resuscitation status.
B. BIPAP is contraindicated because his condition is irreversible.
C. BIPAP is indicated because it may relieve dyspnea and is consistent with his goals.
D. BIPAP is indicated but only if he changes his resuscitation status to full code.

Correct Answer: C

Non-invasive ventilation is a method for providing pressure support to patients without resorting to tracheal intubation. It has well established roles in respiratory failure due to exacerbation of either severe chronic lung disease such as COPD or pulmonary fibrosis, severe congestive heart failure, as well as hypoxic respiratory failure in immunocompromised patients.

CPAP provides a constant pressure through either a face mask or a small nasal pillow. In BIPAP, there are two different pressures provided, one for inhalation (ipap) as well as a lower pressure for exhalation (epap), so that the patient does not have to push as much when exhaling. Emerging uses of BIPAP in palliative medicine include patients with a DNI restriction plus a potentially reversible cause of respiratory failure, as well as a method to palliate dyspnea near the end of life or to buy time until family arrives.

In the vignette, the patient has a potentially reversible cause of respiratory failure (pneumonia), and use of BIPAP is consistent with his goals of care. This is best described by choice C. Choice A is incorrect because BIPAP can be provided to patients who do not want to be intubated, although this can lead to difficult circumstances if the patient becomes dependent on the intervention. Choice B is incorrect because although his COPD is terminal, an exacerbation of COPD is potentially reversible, especially in the presence of the lobar pneumonia. Choice D is incorrect because use of BIPAP is fully compatible with a decision not to proceed to mechanical intubation.

Annotation

Kamal AH, Maguire JM, Wheeler JL, Currow DC, Abernethy AP. Dyspnea review for the palliative care professional: treatment goals and therapeutic options. J Palliat Med 2012;15:106–114. DOI: 10.1089/jpm.2011.0110

Nava S, Ferrer M, Esquinas A, et al. Palliative use of non-invasive ventilation in end-of-life patients with solid tumours: a randomised feasibility trial. Lancet Oncol 2013;14:219–227. DOI: 10.1016/S1470-2045(13)70009-3

Smallwood N, Goh N. Advanced diseases of the lung. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:964–976.

3. Palliative care is asked to see a 58-year-old woman with widely metastatic leiomyosarcoma to lungs, liver, and peritoneum with continued progression of disease through multiple lines of systemic therapy. She was admitted to an inpatient unit for dyspnea and failure to thrive. A multidisciplinary family meeting was held, and the patient expressed that her goals are in line with a focus on comfort care and discharge home with hospice services. DNR/DNI code status has been established. Her dyspnea has been well controlled with oxygen via low-flow nasal cannula, and a hydromorphone patient-controlled anesthesia pump has stable settings for the last 48 hours. You observe that the family has placed a pulse oximeter on the patient's finger and are continuously monitoring her oxygenation. The patient appears to be resting comfortably and is arousable to verbal stimuli without non-verbal signs of dyspnea or other distress. Her pupils are equal, round, and reactive to light. Vital signs are blood pressure (BP) 110/62, heart rate (HR) 63 bpm, temperature 36.8°C, respiratory rate (RR) 10 and regular, and pulse oximetry 86% on 4 lpm O_2 via low-flow nasal cannula (LFNC). She is oriented to self, place, and date and shakes her head when asked if she is experiencing any shortness of breath or other distressing symptoms. The patient's family is now requesting she be started on high-flow nasal cannula therapy because her pulse oximetry readings are declining.

What is the most appropriate next step?

A. Decrease the hydromorphone settings.
B. Increase oxygen flow rate to 6 liters per minute.
C. Initiate high-flow nasal cannula oxygen.
D. Reassure the family.

Correct Answer: D

The patient is not exhibiting signs or symptoms concerning for dose-limiting side effects from the hydromorphone such as hypoventilation. Decreasing her titrated opioid settings may worsen her underlying symptoms. The patient is comfortable without symptomatic dyspnea, so there is no indication for increasing the oxygen flow rate at this time. It is important to focus only on treatments that will improve the patient's comfort. Treating hypoxia alone in the absence of distressing symptoms would not be in line with this patient's goals of care. Initiation of high-flow nasal cannula is unlikely to create additional comfort, will prolong the dying process, and will likely be an impediment to being discharged home with hospice services. It is important to respectfully address any specific concerns of the family and have a productive dialogue with them about your recommendations before making any changes. The patient is symptomatically stable at present, and it would be best to discuss the family's concerns and explore their expectations about end-of-life symptom management at home before removing the pulse oximeter. However, removing the gadgets and accessories can be helpful, teaching the family to focus on her face as a mirror of her comfort. The family is distressed about the hypoxia and would benefit from reassurance that the patient's comfort is the primary goal, followed by the ability for her to be discharged home. Educating the family as to changes in respirations as people get close to death can be

alarming, yet when they are unconscious, they do not feel short of breath or in distress. Compassionate and effective communication skills are a vital component of palliative care and will help reduce distress for the patient, family, and treating team.

Annotation

Bramati PS, Azhar A, Khan R, et al. High flow nasal cannula in patients with cancer at the end of life. J Pain Symptom Manage 2023;65(4):e369–e373. https://doi.org/10.1016/j.jpainsymman.2022.12.141

Campbell ML, Yarandi H, Dove-Medows E. Oxygen is nonbeneficial for most patients who are near death. J Pain Symptom Manage 2013;45(3):517–523. DOI: 10.1016/j.jpainsymman.2012.02.012

4. An 80-year-old woman with a brainstem glioma is transferred from the hospital to an inpatient hospice for better control of seizures, delirium, and prominent noisy respiratory secretions. She is unconscious and is not receiving intravenous (IV) fluids. For the secretions, the hospice physician associate (PA) prescribes both transdermal scopolamine patch 1.5 mg every third day as well as glycopyrrolate 200 mcg subcutaneously (SC) every 4–6 hours as needed.

Which one of the following statements is most accurate regarding the effectiveness of antimuscarinic drugs to reduce noisy secretions in patients who are dying?

A. They are both effective and safe.
B. They can be effective but have a substantial rate of adverse effects.
C. They are ineffective in removing secretions already present inside the airways.
D. They worsen respiratory secretions and should be avoided.

Correct Answer: C

Until recently, randomized controlled trials (RCTs) of antimuscarinic drugs to treat noisy respiratory secretions in dying patients were generally small and of poor methodologic quality. Most do not have a placebo group, while others lack blinding.

In the only large RCT of substantial size and good methodologic quality that compared antimuscarinic drugs, Wildiers found equal effectiveness from atropine, scopolamine, and hyoscine (the latter drug is available in Europe but not in the United States). As there was no placebo arm, this equal effectiveness could also be interpreted as equal ineffectiveness.

There is only one well-constructed RCT of an antimuscarinic drug compared with placebo in a palliative population experiencing noisy secretions. Heisler studied patients who were dying in an inpatient palliative unit and found that atropine drops reduced noisy respirations to the same extent as a placebo.

In 2018 Mercadente et al. published the first RCT of an antimuscarinic used to prevent noisy secretions in a palliative population. They randomized 132 patients with terminal cancer who were unconscious and did not have noisy secretions at baseline to two groups: hyoscine butylbromide as a routine or, alternatively, the same drug only when noisy secretions developed. There is no placebo here; they compared an early preventive strategy with a late treatment strategy. In the early treatment group, only 6% developed noisy secretions versus 61% in the group that received the drug later, a 90% reduction.

All the antimuscarinic drugs can cause peripheral side effects (dry mouth, urinary retention, photophobia, tachycardia, and constipation) as well as central nervous system side effects (headache, nervousness, weakness, dizziness, delirium). And although these drugs may reduce the production of new secretions, there is no postulated mechanism for how they could help with secretions already present in the airways.

Therefore, the best summary of this evidence is choice C, while choices A, B, and D provide incorrect interpretations. The bottom line is that early antimuscarinic drug therapy effectively reduces noisy secretions, but no drug is clearly effective once the noisy secretions have appeared. This argues for prophylactic use of an antimuscarinic drug in end-of-life vigil, once the patient has become unconscious.

Annotation

Heisler M, Hamilton G, Abbott A, Chengalaram A, Koceja T, Gerkin R. Randomized double-blind trial of sublingual atropine vs. placebo for the management of death rattle. J Pain Symptom Manage. 2013;45(1):14–22. DOI: 10.1016/j.jpainsymman.2012.01.006

Lacey J, Cherny NI, Management of the actively dying patient. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:1104–1121.

Mercadente S, Marinangeli F, Masedu F, et al. Hyoscine butylbromide for the management of death rattle: sooner rather than later. J Pain Symptom Manage 2018;56:902–907. DOI: 10.1016/j.jpainsymman.2018.08.018

Wildiers H, Dhaenekint C, Demeulenaere P, et al. Atropine, hyoscine butylbromide, or scopolamine are equally effective for the treatment of death rattle in terminal care. J Pain Symptom Manage. 2009;38(1):124–133. DOI: 10.1016/j.jpainsymman.2008.07.007

5. A 16-year-old female patient with cystic fibrosis (CF) was admitted to the pediatric intensive care unit (PICU). At the time of admission, the patient had a 10% right-sided pneumothorax. After recovery from the pneumothorax and at discharge, her arterial blood gas showed a partial pressure of arterial carbon dioxide of >30 mm Hg ($PaCO_2$). Her 6-minute walk test (6MWT) is <400 meters. She is discharging home on nasal canula (baseline went from 1 liter to now 2 liters). After discharge she has an echocardiogram, which shows a systolic pulmonary arterial pressure >40 mm Hg. The family is specifically asking about her prognosis and trying to decide if they want to pursue referral for lung transplantation. The patient is discharged home, continuing her aggressive regimen while awaiting evaluation at a transplant center. She continues to meet with CF palliative care in their outpatient clinic.

Palliative medicine/care is different in patients with CF; this is least supported by which of the following features?

A. No curative treatments.
B. Decision-making is primarily the role of the familial caregivers.
C. Lung transplant as an option for advanced disease.
D. Lifelong disease course with limited life expectancy.

Correct Answer: B

According to Trandel et al., overall palliative care in the CF patient population is thought to differ from other types of palliative care because of several factors, which include options A, C, and D. Routine care for CF aims to control symptoms since there is no cure for the disease. Answer B is correct because as patients age they have more of a say in their care. Palliative care teams in conjunction with pulmonologists and primary care pediatricians should frequently communicate and address the goals of care of patients and their families until the patients transition into adulthood.

If the patient has capacity, decisions may be made independently. Regardless, because compliance is an issue related to how the patient thrives and/or for consideration for lung transplant, many teams continue to advocate for the child under 18 years of age to also have a say regarding their medical interventions and their willingness to participate.

In this case the question is asking specifically about how palliative medicine differs across the continuum. Recommendations for palliative medicine start at the time of diagnosis, which in this case may be within the first few days of life. CF patients are living much longer now, some well into their 40s and 50s, with new therapies that are now offered; and because of their complex treatment regimen, many CF patients have the ability to advocate for themselves. Combined teams, providers/patients, and families can better collaborate and establish good communication strategies while working on shared goals and decisions.

Annotation

Goldstein N, Woodrell C, Morrison R (eds). Evidence-Based Practice of Palliative Medicine, 2nd edition. Elsevier; 2023:515–521, Box 59.1.

Kavalier D, Georgiopoulos AM, Dhingra L, et al. Models of palliative care delivery for individuals with cystic fibrosis: Cystic Fibrosis Foundation evidence-informed consensus guidelines. J Palliat Med 2021;24(1):18–30. DOI: 10.1089/jmp.2020.0311

Trandel ET, Kavalieratos D, Basile M, et al. Palliative care skills in CF: perspectives of adults with CF, caregivers and CF team members. Pediatr Pulmonol 2020;55(8):2017–2024. DOI: 10.1002/ppul.24806

6. A 92-year-old woman with both dementia and chronic obstructive lung disease is transferred to an inpatient hospice for end-of-life care, due to progressive pain and agitation. These symptoms are now well managed, and the patient is stuporous, without any oral intake, likely in the last few days of life. This hospice routinely measures dyspnea in noncognitive patients with the Respiratory Distress Observation Score (RDOS), which quantitates vital signs, respiratory pattern, and behavioral indicators.

What is the average effect on dyspnea of providing oxygen to patients like this, as compared to standard palliative care without oxygen?

A. Marked relief of dyspnea.
B. Minor relief of dyspnea.
C. No difference in dyspnea.
D. No effect on dyspnea.

Correct Answer: C

Margaret Campbell, the nurse investigator who developed the RDOS, which measures vital signs, respiratory patterns, and behavior indicators, published an RCT of oxygen at the end of life. She investigated 32 patients near death, with either lung cancer, COPD, congestive heart failure (CHF), or pneumonia, diseases in which dyspnea was expected. Patients were excluded if they were on mechanical ventilation, needed high-flow oxygen, had a tracheostomy, or were experiencing respiratory distress at enrollment. In addition to the RDOS, she measured end-tidal CO_2 ($etCO_2$) and pulse oximetry.

In an elegant study design, each patient served as their own control. Patients were observed in three states: with oxygen at 1–4 liters/minute (whatever setting they were on; if they were not on oxygen, it was set at 2 liters/minute), medical air, or no flow. The investigators covered the flow meter with a towel so that both the patient and the research assistant would be blinded—they could obviously hear gas flowing but did not know if it was oxygen or air. When the patient was switched to no flow, that treatment session was not blinded.

The patient was switched from one of three states to the other every 10 minutes, for six sessions (two in each state, in a random order). The nurse who made the changes did that while the research assistant was out of the room. Then the research assistant came back in and measured the RDOS, $etCO_2$, and oxygen saturation with each state. To protect the patient from harm, if the RDOS rose to 4 or higher during the protocol, the patient was restored to their baseline state, without any further flow rotations.

There were no significant changes in any of the parameters—RDOS, $etCO_2$, or pulse oximetry—throughout the observation period. Thus, oxygen does not generally provide benefit to a dying patient—choice C best captures that conclusion, and choices A and B are incorrect. Choice D is incorrect—oxygen is flammable, expensive, and unnecessary in the clear majority of dying patients. Nasal cannula oxygen can cause nasal irritation and epistaxis, and it may prolong the dying process without conferring benefit if the patient is not experiencing respiratory distress or is incapable of experiencing that symptom; it also increases costs.

Annotation

Campbell ML, Yarandi H, Dove-Medows E. Oxygen is nonbeneficial for most patients who are near death. J Pain Symptom Manage 2013;45:517–523. DOI: 10.1016/j.jpainsymman.2012.02.012

Johnson MJ, Currow DC. Breathlessness and other respiratory symptoms in palliative care. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:589–604.

Kamal AH, Maguire JM, Wheeler JL, Currow DC, Abernethy AP. Dyspnea review for the palliative care professional: treatment goals and therapeutic options. J Palliat Med 2012;15:106–114. DOI: 10.1089/jpm.2011.0110

7. A 68-year-old man with advanced non-small cell lung cancer is not a candidate for cancer-directed therapies. He undergoes placement of a PleurX indwelling pleural catheter for a recurrent malignant pleural effusion. He is referred to hospice, where the home hospice nurse drains the catheter once or twice per week. She calls you, as a member of the hospice team, to report that less than 50 ml has drained on each of the last three occasions. His chest pain and dyspnea remain well controlled with a long-acting opioid.

Which one of the following would you recommend?

A. Recommend that the catheter can be removed.
B. Recommend that she stop further attempts at drainage.
C. Discontinue the opioid.
D. Order a chest X-ray.

Correct Answer: D

A tunneled pleural catheter can be ideal for hospice patients with malignant pleural effusions. A commonly used device is the PleurX catheter, a 15.5 French (5.2 mm) tunneled catheter that can be placed with conscious sedation in an interventional radiology (IR) suite. The tube has a stopcock that allows periodic drainage. Drain up to 1,000 ml every other day at first. If the drainage dwindles to less than 50 ml on three consecutive occasions, this means that either the effusion has resolved or the catheter has become blocked. The next step would be a chest X-ray (choice D is correct).

If the X-ray shows no residual effusion, the tube can be pulled because 50% of patients with these tunneled devices achieve mechanical pleurodesis within 30 days. However, if the chest film shows a large effusion, then the catheter is likely blocked. Patency can often be restored in the IR suite by infusion of tissue plasminogen activator (TPA) into the catheter. If the malignant effusion is multi-loculated, then either one or more small pigtail catheters can be placed or a more traditional 34–36 French (large) chest tube.

Without a chest X-ray, choices A and B are premature because you do not know if the effusion is resolved or if the device is blocked. Choice C is incorrect because symptom management with the opioid is not dependent on the amount of fluid being drained.

Annotation

Gonnelli F, Hassan W, Bonifazi M, et al. Malignant pleural effusion: current understanding and therapeutic approach. Respir Res 2024;25:47. DOI: 10.1186/s12931-024-02684-7

Moffett PU, Moffett BK, Laber DA. Diagnosing and managing suspected malignant pleural effusions. J Supp Oncol 2009;7:143–146.

Thai V, Damant R. Fast Facts and Concepts #157. Malignant Pleural Effusions: Interventional Management. November 2023. Available at: https://www.mypcnow.org/fast-fact/malignant-pleural-effusions-interventional-management/. Accessed October 10, 2024.

8. An 84-year-old man has advanced chronic obstructive lung disease, mild chronic kidney disease (CKD), mild cognitive impairment, and peripheral vascular disease. He lives in his daughter's home and accessed home hospice following a hospitalization for a COPD exacerbation 4 weeks earlier. He is prescribed bronchodilators and a low dose of oral steroid, but he takes no opioids, for either pain or dyspnea. He continues to experience progressive dyspnea, and the hospice team, in concert with the patient and family, decides not to perform any diagnostic testing but rather to primarily treat his symptoms. He receives minimal benefit from a fan directed at his face.

Which one of the following should be the next step in managing his dyspnea?

- **A.** Admit the patient to inpatient hospice and start a continuous IV opioid drip.
- **B.** Start morphine 2.5–5 mg PO every 2–3 hours as needed.
- **C.** Start lorazepam 0.5–1 mg PO every 8 hours as needed.
- **D.** Start MS Contin 15 mg PO twice daily, in addition to morphine 5 mg PO every 2–3 hours as needed.

Correct Answer: B

In an opioid-naive patient with advanced disease and progressive dyspnea, start with disease-specific treatments and nonpharmacologic interventions such as a fan directed at the face. If these do not provide adequate relief, prescribe immediate-release morphine or hydrocodone 2.5–5 mg PO every 2–3 hours; and once the patient is using several doses per day, consider converting to a long-acting preparation such as Kadian or MS Contin.

Choice B is correct but not choice D, which starts with too much opioid in an opioid-naive patient. In the inpatient hospice setting, continuous IV morphine allows faster titration, but even in that setting, you would start with intermittent dosing in an opioid-naive patient (thus choice A is incorrect). The initial drug class for symptomatic treatment of dyspnea in the palliative setting is an opioid, not a benzodiazepine (choice C is incorrect).

Annotation

Johnson MJ, Currow DC, Breathlessness and other respiratory symptoms in palliative care. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:589–604.

Kamal AH, Maguire JM, Wheeler JL, Currow DC, Abernethy AP. Dyspnea review for the palliative care professional: treatment goals and therapeutic options. J Palliat Med 2012;15:106–114. DOI: 10.1089/jpm.2011.0110

Obarzanek L, Wu W, Tutg-Lehr V. Opioid management of dyspnea at the end of life: a systematic review. J Palliat Med 2023;26:711–726. DOI: 10.1089/jpm.2022.0311

9. You are asked to see a 93-year-old woman with a diagnosis of advanced dementia who was admitted overnight from a nursing home. For the past month, she does not get out of bed, no longer recognizes her family, and has become much less responsive to family. Overnight, the patient developed a fever and became tachypneic and tachycardic. She has a DNR/DNI order, and the family wishes to keep the patient comfortable. The overnight staff was worried the patient had pneumonia and sent her to the hospital. Currently she is receiving high-flow oxygen and broad-spectrum antibiotics for aspiration pneumonia. She is tachypneic, and her pulse oximetry is 90%.

Given the scenario, the next best step is:

- **A.** Stop antibiotics given her code status.
- **B.** Clarify with the surrogate their understanding and goals of care.
- **C.** Recommend intubation for the pneumonia given her respiratory failure.
- **D.** Start morphine for her work of breathing.

Correct Answer: B

Although the nursing home staff has communicated the goals are for comfort, this must be confirmed with the surrogate. The actions taken during the night of transfer and the initiating of interventions suggest that there is ambivalence around the best action to take. The family likely needs support and guidance regarding options.

Stopping antibiotics is incorrect until decisions are made with the surrogate. Likewise, escalating treatment before clarifying is incorrect despite her respiratory failure. Initiating morphine without consent is incorrect; the patient cannot consent, and her surrogate must do so on her behalf.

Annotation

Gomutbutra P, O'Riordan DL, Pantilat SZ. Management of moderate-to-severe dyspnea in hospitalized patients receiving palliative care. J Pain Symptom Manage. 2013;45(5):885–891. DOI: 10.1016/j.jpainsymman.2012.05.004

van der Maaden T, van der Steen JT, de Vet HC, Achterberg WP, Boersma F, Schols JM, van Berkel JF, Mehr DR, Arcand M, Hoepelman AI, Koopmans RT, Hertogh CM. Development of a practice guideline for optimal symptom relief for patients with pneumonia and dementia in nursing homes using a Delphi study. Int J Geriatr Psychiatry 2015;30(5):487–496. DOI: 10.1002/gps.4167

10. You are asked to see a 75-year-old man with oxygen-dependent COPD, hemodialysis-dependent chronic renal disease, and peripheral vascular disease who has been hospitalized three times in 3 months for hypercarbic respiratory failure. He values his independence and has difficulty adjusting to his progressive disability. When the critical care

physician asks about cardiopulmonary resuscitation (CPR) and mechanical ventilation, he says "I want everything." You explore the meaning behind "everything" and learn that no restrictions at all are desired, no matter how harsh or invasive the intervention. His ICU nurse feels this choice is harsh and may lead to suffering and death during this hospitalization.

Which one of the following is the best approach at this time?

A. Honor the patient's philosophy, even in the face of high burden and low likelihood of success.
B. Repeatedly ask the patient and his family to reconsider as it is your professional duty to reduce harm to your patient.
C. Refer him to hospice.
D. Insist that he confront the inevitability of his death.
E. Transfer him to a colleague who is more sympathetic with his choice.

Correct Answer: A

Even with counseling expertise, there are times when patients continue to request treatments with marginal benefits, outside of what the clinician believes is beneficial. Ensure there is understanding of the patient's condition and prognosis, look for common ground, and try to find a solution that accommodates all perspectives.

Some patients and families will continue to value life extension more highly than preventing suffering, others simply do not trust the medical system to forego any treatment, and others may not yet be able to confront the possibility of dying. Once it is clear that no restrictions at all are desired, no matter how harsh or invasive the intervention, honor the patient's philosophy, even in the face of high burden and low likelihood of success (choice A is correct). In these cases, rather than repeatedly badgering the family to reconsider, move to harm reduction strategies (choices B and D are incorrect). For example, if the success rate of CPR is essentially zero, stop CPR after one cycle of drugs. Referral to hospice is inappropriate because he does not desire a palliative approach to his illness (choice C is incorrect). Transferring the patient to another provider is not the best approach when patients do not agree with our recommendations (choice E is incorrect).

Annotation

Cherny NI, Portenoy RK. Core concepts in palliative care. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:44–54.

Quill TE, Arnold R, Back AL. Discussing treatment preferences with patients who want "everything." Ann Intern Med 2009;151:345–349. DOI: 10.7326/0003-4819-151-5-200909010-00010

Renal Replacement Therapy

11. A 76-year-old woman has had CKD for several years, with regular follow-up by a nephrologist and a primary care PA. She has now entered CKD 5, or end-stage renal disease (ESRD), and she and her family are deciding whether to establish vascular access and start hemodialysis. Her comorbidities include advanced osteoarthritis, low–ejection fraction heart failure, atrial fibrillation, and mild dementia.

She has not been hospitalized in the last 2 years. However, her functional status is (Karnofsky Performance Scale) 30%, which is mainly due to her arthritis and dementia. She receives substantial help from her daughter, who lives with her and is the primary caregiver and designated healthcare proxy. Lab values include mild anemia, and serum albumin is modestly depressed at 3.1 g/dl.

To the surprise question ("Would you be surprised if your patient died within the next year?"), both the PA and the nephrologist answer "I'm not sure." She has not completed an advance directive, and her daughter is ambivalent about dialysis, as compared with more conservative management.

Which of the following responses is best regarding consideration of hemodialysis?

A. She would be a good candidate because her function is reasonable, she has not been recently hospitalized, and her life expectancy will likely be longer on dialysis.
B. All patients should at least have a trial of hemodialysis, after which functional burden, benefits, and risks can be better assessed.
C. She would not be a good candidate because of her comorbidities, functional dependence, frailty, and symptom burden.
D. Personalize the potential benefits (longer life, better symptom control) with the burdens (surgery, indefinite duration of dialysis, more hospitalizations).

Correct Answer: D

It is often possible to divide potential new dialysis candidates into three categories. First are healthy, fit patients, with no or few prior hospitalizations, independence in activities of daily living, no or few comorbidities, and good quality of life. If you asked the surprise question ("Would you be surprised if this patient died in the next year?"), the answer would be yes. These patients are optimal for transplant or dialysis. Choice A is incorrect because the patient in the vignette is not in this group.

On the other end of the spectrum are the frail—these patients have experienced numerous hospitalizations and may already be living in a nursing home due to multiple comorbidities and functional loss. They have a significant symptom burden and may have one or more geriatric syndromes such as falls, cognitive impairment, incontinence, and polypharmacy. One simple way to diagnose frailty is if three or more of the following five criteria are present: unintentional weight loss of more than 10 pounds in the last year, self-reported exhaustion, weak grip strength, slow walking speed, or low physical activity. The answer to the surprise question is a clear no. These patients are at high risk for poor outcomes, are suboptimal dialysis candidates, and may be better candidates for either conservative management or a time-limited trial of dialysis. Choice C is incorrect because the patient in the vignette is not in this group.

There are intermediate or vulnerable patients. They have dependence in some, but not all, activities of daily living, with a history of increasing hospitalizations and one or more comorbidities. The answer to the surprise question may be, "I'm not sure." These are typical dialysis patients. Co-management of geriatric and palliative problems may improve their quality of life, and the patient may need to consider withdrawal of dialysis at some point in the future. For these patients, personalize the potential benefits and burdens of dialysis. Burdens include surgery for dialysis access, indefinite duration (unless the patient is a candidate for transplant), and the time spent in dialysis, transportation, and hospitalizations. Benefits include longer life and better control of symptoms such as volume overload. Choice D is correct.

For some patients, the right path may not be clear, and a time-limited trial of hemodialysis can be offered, with clearly defined targets such as improvement in cognition or function, symptoms,

and quality of life. One can also assess whether complications occur, such as vascular access issues, intolerance of hemodialysis, or hospitalization. However, it is perfectly appropriate to choose against hemodialysis, and a trial of therapy is not mandatory (choice B is incorrect).

Annotation

Koncicki HM, Swidler MA. Decision making in elderly patients with advanced kidney disease. Clin Geriatr Med 2013;29:641–655. DOI: 10.1016/j.cger.2013.05.004

Strothers HS, Patel D. Older adult population. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:320–344.

12. In a joint nephrology/palliative care clinic, you are seeing a 58-year-old woman with ESRD on hemodialysis for the past 2 years. Recently, she has been feeling increasingly depressed, reporting low mood, lack of interest in activities, poor sleep, and fatigue. Her healthcare team has noted that she has missed several dialysis sessions and that she expresses feelings of hopelessness about her condition. She has no history of psychiatric illness and denies suicidal ideation. She has discussed advance directives and remains full code.

Which one of the following is the most appropriate management strategy for her symptoms?

A. Start selective serotonin reuptake inhibitor (SSRI) therapy.
B. Refer to a psychiatrist for evaluation and management.
C. Increase the frequency of dialysis sessions.
D. Initiate cognitive behavioral therapy (CBT).
E. Recommend the use of St. John's wort as a natural antidepressant.

Correct Answer: A

SSRIs are effective and commonly used for the treatment of depression, including in patients with chronic medical conditions such as ESRD. SSRIs have a favorable side effect profile and can be safely used in patients with renal failure, with dose adjustments if necessary. Choice A is correct.

Choice B, referral to a psychiatrist, is a reasonable consideration, especially for comprehensive mental health management; but starting an SSRI can be done by the palliative care team and provides immediate intervention for depression.

Choice C, increasing the frequency of dialysis sessions, addresses physical aspects of ESRD but does not directly treat depression.

Choice D, initiating CBT, is an effective treatment for depression and can be very beneficial. However, it is often not accessible, and it is less effective for severe depression. Combining CBT with pharmacotherapy (SSRIs) may provide the best outcome. In most medical settings, treatment of depression starts with pharmacotherapy, and psychotherapy is added as needed.

Choice E, recommending the use of St. John's wort, is not advisable as it can interact with many medications and its safety and efficacy in patients with ESRD have not been well established.

Annotation

Kimmel PL. Depression in patients with chronic renal disease: what we know and what we need to know. J Psychosom Res 2022;53(4):951–956.

Moustafa Y, Kilpatrick M, Schuh M, Robinson M. Fast Facts and Concepts #404. Depression in End-Stage Renal Disease. November 2023. Available at: https://www.mypcnow.org/fast-fact/depression-in-end-stage-renal-disease/. Accessed October 10, 2024.

13. A 75-year-old obese woman developed ESRD 3 years ago and has undergone hemodialysis via an arteriovenous (AV) shunt. She occasionally has symptomatic hyperkalemia, managed by the nephrologist. She has had two recent hospitalizations, one for pneumonia and one for a right femoral midshaft fracture, which left her unable to ambulate, along with a Karnofsky Performance Status <50%.

Which aspect of her history, combined with her renal failure and dialysis, suggests a median life expectancy less than 6 months, even with continued dialysis?

A. Hospitalization for pneumonia.
B. Hip fracture, leaving her unable to ambulate.
C. Obesity.
D. Symptomatic hyperkalemia.

Correct Answer: B

The Medicare guidelines for referral of patients with ESRD to hospice include criteria for both acute and chronic renal failure, but these only apply to patients who either are not seeking renal replacement therapy or wish to withdraw from dialysis. However, a guideline published by Salpeter et al. at Stanford does have recommendations about when to refer patients on hemodialysis to hospice (Table 8.1). Note that the patient must be over age 70 and have two of the six conditions listed—in the vignette, the combination of hip fracture leaving her non-ambulatory plus a Karnofsky Performance Status <50% suggests a life expectancy under 6 months (choice B is correct). None of the other choices (A, C, or D) present combinations that meet the Stanford criteria.

Referring patients on hemodialysis to hospice presents difficulties for most hospices because if the hospice qualifying diagnosis is ESRD and the patient elects to continue dialysis, then the hospice would have to cover the cost of dialysis out of the per diem. Most hospices will not accept patients in that circumstance. However, if the patient on dialysis opts to stop dialysis, then hospice coverage should not be a problem.

Annotation

Davison SN. Fast Facts and Concepts #163. Decision Making in Chronic Kidney Disease (CKD). November 2023. Available at: https://www.mypcnow.org/fast-fact/decision-making-in-chronic-kidney-disease-ckd/. Accessed October 10, 2024.

Hudson M, Weisbord S, Arnold RM. Fast Facts and Concepts #191. Prognostication in Patients Receiving Dialysis. November 2023. Available at: https://www.mypcnow.org/fast-fact/prognostication-in-patients-receiving-dialysis/. Accessed October 10, 2024.

Koncicki HM, Swidler MA. Decision making in elderly patients with advanced kidney disease. Clin Geriatr Med 2013;29:641–655. DOI: 10.1016/j.cger.2013.05.004

Salpeter SR, Luo EJ, Malter DS, Stuart D. Systematic review of noncancer presentations with a median survival of 6 months or less. Am J Med 2012;125:512.e1–6. DOI: 10.1016/j.amjmed.2011.07.028

Cardiac Support

14. A 45-year-old man with ischemic cardiomyopathy (ejection fraction 12%) has dyspnea and fatigue at rest and with minimal exertion, despite optimal drug treatment and a biventricular pacemaker and an automated defibrillator. His medications include the following: angiotensin-converting

Table 8.1 Stanford criteria for hospice referral of patients with chronic kidney disease, on dialysis or not

Median life expectancy is less than 6 months in patients with end-stage renal disease ***not on dialysis*** who are > age 70 years and also have ≥***1 of the following***:

- ☐ dialysis withheld for those with decreased performance status and significant comorbidity
- ☐ dialysis withdrawn due to advanced age, functional dependence, and comorbidity Median life expectancy is less than 6 months in patients with end-stage renal disease ***on dialysis*** who are > age 70 years and also have ≥***2 of the following***:
- ☐ Karnofsky performance status <50 (disabled, requiring special care and assistance, or frailer) or dependency in activities of daily living (bathing, dressing, toileting, transfer, continence, or feeding)
- ☐ significant comorbid condition(s) such as coronary artery disease, peripheral vascular disease, heart failure, or cancer
- ☐ malnutrition (BMI <19.5 kg/m^2 or serum albumin <2.2 g/dl)
- ☐ residence in a skilled nursing facility
- ☐ admission to an intensive care unit for an acute illness
- ☐ hip fracture with inability to ambulate

BMI = body mass index.

Source: Reprinted with permission from Salpeter et al. (2012).

enzyme (ACE) inhibitor, beta blocker, loop diuretic, spironolactone, simvastatin, aspirin, and coumadin.

Due to chronic hepatitis C, he is not a candidate for a left ventricular assist device or cardiac transplant. He enrolls in hospice, with an estimated life expectancy of 2–4 months, and his cardiologist and hospice physician agree to collaborate in managing his illness.

What is the next best step?

A. Deactivate the automated defibrillator and the biventricular pacemaker.
B. Continue his ACE inhibitor, beta blocker, loop diuretic, and spironolactone but discontinue his statin, aspirin, or other anticoagulants.
C. Cancel measurement of electrolytes, renal function, and digoxin level while on hospice.
D. Arrange for the home hospice nurse to administer an IV dose of furosemide once per week.

Correct Answer: B

For patients with advanced heart failure who enter hospice, design a customized palliative care plan, ideally in cooperation with a cardiologist or heart failure specialist. Drugs and devices not only prolong life but many are also palliative, providing immediate symptom relief.

As patients with heart failure reach the end of life, continue evidence-based medications such as the ACE inhibitor, beta blocker, aldosterone blocker, etc. Stop other drugs that are not immediately useful for symptom management, such as statins, aspirin, or other anticoagulants (choice B is correct). Doses of diuretics may need to be titrated up or down or be converted to IV or SC form. Digoxin, even with its serious toxicity, can improve symptoms in patients with advanced heart failure. Close clinical follow-up, including measurement of electrolytes, renal function, and digoxin levels, is often still indicated for patients on hospice (choice C is incorrect). However, once the patient in hospice cannot safely swallow, discontinue the heart failure drugs, and do not replace them with IV forms (choice D is incorrect). Furthermore, his volume status is well managed.

There is no requirement to deactivate an implantable cardioverter defibrillator (ICD) for patients who enter hospice, but after counseling, most patients choose to do so because the device is reducing the risk of a painless sudden death, which may not be consistent with a comfort approach. Rarely would a standard or biventricular pacemaker be deactivated, however, because these devices are likely providing immediate symptomatic benefit (choice A is incorrect).

Annotation

Gadoud AM, Jenkins SMM, Hogg KJ. Palliative care for people with heart failure: summary of current evidence and future direction. Palliat Med 2013;27:822–828. DOI: 10.1177/0269216313494960

Pantilat S, Davidson P, Psotka M. Advanced heart disease. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:976–986.

15. A 76-year-old woman has a severe hypertensive cardiomyopathy (ejection fraction 12%) that is optimally treated with evidence-based drugs and devices. She also has diabetes and mild cognitive impairment. In the past year, she was hospitalized three times for volume overload and once for syncope. Her serum B-type natriuretic peptide (BNP) on the last admission was 1,500 pg/ml. Her electrolytes, creatinine, troponin, and C-reactive protein are normal. She has symptoms at rest and wants to remain at home, without further hospitalization or aggressive treatment. She is unsure about deactivating her implanted defibrillator.

Is this patient eligible for hospice?

A. No, because her defibrillator remains active.
B. No, because her estimated life expectancy exceeds 6 months.
C. Yes, because she wants a comfort-based approach, and her estimated life expectancy is less than 6 months.
D. Yes, because she wants a comfort-based approach, even though her estimated life expectancy is more than 6 months.

Correct Answer: C

The National Hospice and Palliative Care Organization (NHPCO) guidelines for referring heart failure (HF) patients to hospice are found in Table 8.2; all four criteria should be met as they are in the vignette. A low ejection fraction by itself does not identify a group appropriate for hospice. There are many effective treatments for heart failure, and often the ejection fraction will improve after a period of intense management. It is the combination of the severity of heart failure with progression, other complications, and comorbidities that identifies a group appropriate for hospice. Choice C is correct (and choices B and D are incorrect) because her life expectancy is less than 6 months.

Table 8.2 National Hospice and Palliative Care Organization/Centers for Medicare & Medicaid Services guideline for referral of patients with heart failure to hospice

All four criteria must be met for consideration of hospice referral.

1. The patient must have symptoms and signs of congestive heart failure at rest.
2. The patient must be on (or not tolerated) optimal medical management, generally including a diuretic and vasodilator.
3. The ejection fraction should be ≤20%, if that test is available.
4. The following factors are further indications of decreased survival time:
   - symptomatic supraventricular or ventricular arrhythmia resistant to antiarrhythmic therapy
   - history of syncope of any cause, cardiac or otherwise
   - cardiogenic brain embolism (i.e., embolic cerebrovascular accident of cardiac origin)
   - concomitant HIV disease

In addition to a life expectancy of less than 6 months, Medicare requires that the patient express a preference for comfort care. However, patients do not have to be DNR or deactivate a defibrillator to accept hospice (choice A is incorrect).

Annotation

Kutner JS. An 86-year-old woman with cardiac cachexia contemplating the end of her life. JAMA 2010;303:349–356. DOI: 10.1001/jama.2009.2015

National Hospice and Palliative Care Organization. *NHPCO's Standards of Practice*. 2022. https://www.nhpco.org/wp-content/uploads/Standards_of_Practice.pdf. Accessed August 22, 2024.

Salpeter SR, Luo EJ, Malter DS, Stuart B. Systematic review of noncancer presentations with a median life expectancy of 6 months or less. Am J Med 2012;125:512.e1–16.

Taj J, Taylor EP. End-stage/advanced heart failure: geriatric palliative care considerations. Clin Geriatr Med 2023;39:369–378. DOI: 10.1016/j.cger.2023.04.010

Antibiotics

16. An 84-year-old woman with Alzheimer's disease has lived in a nursing home for 3 years. Over that time, her function has decreased, and she is now dependent in all activities of daily living except for feeding. She has lost 8 pounds (from 130 to 122 pounds) over the last 3 months and has been hospitalized twice, once for a urinary tract infection and once for aspiration pneumonia. The family is struggling with the goals of care but favor improving her quality of life and reducing suffering.

What should you recommend now?

A. Continue to treat recurrent pneumonias with antibiotics.
B. Placement of a feeding tube.
C. Speech therapy referral.
D. Hospice assessment.

Correct Answer: D

Givens et al. analyzed the outcomes of severely demented patients living in nursing homes who had experienced pneumonia—specifically, whether antibiotics were given and by what route and the impact of pneumonia treatment on their survival and comfort. This was not a randomized trial, just a report of what happened, a cohort study. Both oral and parenteral routes of antibiotic use were associated with a reduction in mortality, and the only factor associated with increased mortality was a DNR order. There were very intriguing findings related to comfort. Compared with no antibiotic treatment, patients who received antibiotics for their pneumonia had reduced comfort, with progressively more discomfort the more aggressive the treatment.

"For these patients, our results indicate that antimicrobial treatment for suspected pneumonia may be a double-edged sword, as it was associated with both survival and discomfort" (Givens et al. 2010).

This makes sense and can be explained to caregivers and family members. Antibiotics can be effective in frail older adults with advanced dementia who develop pneumonia. Although they are not as effective as in younger, healthier, patients, they sometimes work, curing the pneumonia. Aggressive treatment of pneumonia often requires hospitalization, intensive care, specialists, etc. Treatment of the pneumonia, however, has no effect on the dementia itself, and antibiotic treatment, whether oral or parenteral, in the nursing home or in the hospital, is associated with substantial discomfort for demented patients.

A reasonable approach is to discuss with the decision maker the overall goals of care and whether antibiotic treatment of pneumonia and other infections seems consistent with those goals. Placement of a feeding tube is not associated with a reduction in pneumonia as feedings increase the production of saliva, and aspiration pneumonia is typically the result of aspirating mouth flora. Speech therapy will not be helpful for a patient with advanced dementia. Assessment by hospice is the correct answer as engaging the hospice team to accompany the family in the process may provide additional support and comfort.

Annotation

Eisenmann Y, Golla H, Schmidt H, Voltz R, Perrar KM. Palliative care in advanced dementia. Front Psychiatry 2020;11:699. DOI: 10.3389/fpsyt.2020.00699

Givens JL, Jones RN, Shaffer M, Kiely DK, Mitchell SL. Survival and comfort after treatment of pneumonia in advanced dementia. Arch Intern Med 2010;170:1102–1107. DOI: 10.1001/archinternmed.2010.181

Widera E, Talebreza S, Bernacki RE. Dementia. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:987–995.

17. An 83-year-old man has been receiving hemodialysis for 23 years. He is admitted to the hospital for the fifth time in 6 months. The current admission is due to sepsis secondary to cholecystitis, and he remains in the critical care unit due to septic shock. He has been managed conservatively as surgery thought that cholecystectomy was too risky, and the patient declined cholecystostomy. He has not significantly improved in the 5 days since admission.

His nephrologist has been unable to complete his full dialysis sessions due to hemodynamic instability. Through all this, the patient retained decision-making capacity and decided to stop all life-prolonging interventions, switching to

comfort-focused treatments along with transfer to a nearby inpatient hospice. He would like to continue antibiotic therapy at discharge because this has given him relief of fever, chills, and abdominal pain.

Which one of the following antibiotics would be the best choice to continue while in the inpatient hospice facility?

A. Ertapenem 1 g IV q 12 hours.
B. Meropenem 1 g IV q 8 hours.
C. Cephalexin 500 mg PO QID.
D. Levaquin 500 mg PO q 48 hours.
E. Azithromycin 500 mg PO q day.

Correct Answer: D

This is appropriately dosed for ESRD and could be continued with minimal pill burden for the next few days to manage his symptoms of sepsis. This antibiotic is clearly palliative and should be covered by the hospice agency.

Ertapenem (choice A) and meropenem (choice B) are incorrect because the suggested dose is higher than recommended and because IV formulations are expensive and more difficult to obtain in hospice. Choice C is incorrect because the cephalexin dose is too high for CKD. Choice E is incorrect because azithromycin is not indicated for gastrointestinal infections.

Annotation

Munar MY, Singh H. Drug dosing adjustments in patients with chronic kidney disease. Am Fam Physician 2007;75(10):1487–1496, Table 6.

Podder V, Patel P, Sadiq NM. Levofloxacin. StatPearls. March 1, 2024. https://www.ncbi.nlm.nih.gov/books/NBK545180/. Accessed August 15, 2024.

Anticoagulation

18. A 60-year-old female with pancreatic adenocarcinoma is admitted into the ICU with newly diagnosed endocarditis and a left lower extremity deep vein thrombosis (DVT). Labs indicate a platelet count of 98K, marked increase in D-dimer at 1,000 ng/ml, and prothrombin time (PT) prolonged to 18 seconds. The patient is started on low–molecular weight heparin (LMWH) for her blood clot.

What is the next best step in the acute management of this patient?

A. Start antifibrinolytics.
B. Repeat complete blood count (CBC).
C. Transfuse platelets.
D. Monitor for active bleeding.
E. Begin chemotherapy.

Correct Answer: D

This patient has chronic disseminated intravascular coagulation (DIC) given endocarditis, solid tumor malignancy, and DVT along with indicated abnormal labs. LMWH is given for thrombosis. Platelet count is not low enough to start platelet transfusions. Recommendation is to transfuse if platelets are less than 50K and if there are signs of bleeding. There is no indication that this patient is currently, actively bleeding. Antifibrinolytics are not indicated. Chemotherapy would not be recommended in this acute situation. If the patient was getting transfusions, then monitoring transfusion therapy through serial labs (CBC) would be indicated. Although chronic DIC has a higher rate of thrombosis versus bleeding, this is something we would need to continue to monitor given labs and LMWH therapy.

Annotation

Lemmink GA, Conhaim J. Disseminated intravascular coagulation. Abd-Elsayed A (ed). In: Advanced Anesthesia Review. Oxford University Press; 2023:456–458.

Mannucci PM, Lettino M. Bleeding and haemostasis disorders. Tubaro M, et al. (eds). In: The ESC Textbook of Intensive and Acute Cardiovascular Care, 3rd edition. European Society of Cardiology Series. Oxford University Press; 2021:926–937. https://doi.org/10.1093/med/9780198849346.003.0069_update_001. Accessed April 24, 2024.

Vishnu P, Ailawadhi S. Disseminated intravascular coagulation: clinical diagnosis and management. Wijdicks EFM (ed). In: Mayo Clinic Critical and Neurocritical Care Board Review. Oxford University Press; 2019:337–344.

19. An 88-year-old man with multi-infarct dementia is mute, akinetic, and bed-bound, with a stage III trochanteric pressure wound and two recent hospitalizations for delirium and dehydration. His weight has dropped from 162 to 152 pounds over 2 months. The nursing home PA finds no potentially reversible conditions and decides to address the potential placement of a percutaneous endoscopic gastrostomy (PEG) tube.

Which one of the following is the most appropriate next step?

A. Arrange for a family meeting to review the risks and benefits of PEG placement.
B. Prescribe megestrol acetate (Megace) to stimulate the appetite.
C. Transfer the patient to the hospital for further diagnostic evaluation.
D. Write an order for the nurse to obtain consent from the family for PEG placement.

Correct Answer: A

This patient has end-stage dementia and is probably hospice-eligible. After performing a reasonable evaluation to rule out reversible causes of weight loss (yeast stomatitis, adverse drug effect, uncontrolled pain, etc.), the next step is to talk with the family about the possibility of long-term artificial hydration and nutrition via PEG. (Choice A is correct.) The literature does not support placing PEGs in patients with end-stage dementia, and PAs should feel comfortable in recommending against it.

There is no evidence that choice B is effective, and reviewing goals of care should happen first. Choice C is unnecessary at this time, but acute decompensation is inevitable. Choice D avoids the necessary step of speaking with the family—this job belongs to the clinician, not the nurse. And if the nurse calls a family member and says something like "The doctor knows you don't want your mother to starve to death, so we need you to sign the consent," the outcome has largely been chosen in advance.

Annotation

American Geriatrics Society Ethics Committee and Clinical Practice and Models of Care Committee. American Geriatrics Society feeding tubes in advanced dementia practice statement. J Am Geriatr Soc 2014;62:1590–1593. DOI: 10.1111/jgs.12924

Ko D, Evans-Barns H, Blinderman C. Withholding and withdrawing life-sustaining treatment (including artificial nutrition and hydration). Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:1170–1180.

Teno JM, Gozalo PL, Mitchell SL, et al. Does feeding tube insertion and its timing improve survival? J Am Geriatr Soc 2012;60:1918–1921. DOI: 10.1111/j.1532-5415.2012.04148.x

20. A 76-year-old woman with stage IV ovarian cancer is currently on hospice in her home. In the last week or so, she has experienced significant weight loss and decreased oral intake despite multiple attempts at providing nutritional support. For the past 12 hours, she has been delirious and is having trouble chewing and swallowing, taking only small sips of water and jello. Her daughter, who is her healthcare proxy, asks if the patient should be started on artificial nutrition. When she had been alert, the patient had expressed that her desire is to focus on comfort rather than potentially life-prolonging measures, even those that are minimally invasive.

What is the most appropriate next step in managing this patient?

A. Place a nasogastric tube and then begin enteral nutrition.
B. Start an IV in order to initiate total parenteral nutrition (TPN).
C. Start the patient on Ensure shakes.
D. Focus on continuing to ensure comfort by offering small amounts of liquids or soft foods.

Correct Answer: D

The patient previously let the team know in some detail what her goals and preferences were, including that she did not want procedures to prolong the dying process. This would include artificial hydration and nutrition through either IV or enteral routes. Choices A and B are incorrect because they do not honor her wishes. Choice C would likely be harmful because providing more than small amounts of thickened liquids to dying patients is likely to cause aspiration.

Dying patients who are still somewhat alert can receive comfort feeding, in which small amounts of preferred liquids (or thickened liquids such as jello or pudding) are offered but not forced. As the patient becomes comatose, comfort feeding naturally stops. Ensure that symptoms including dry mouth are adequately treated.

Counsel the patient's daughter on what happens in dying patients. Be open and sensitive to her concerns; let her know that starvation and thirst do not happen in this circumstance. Suggest other ways she can show love and care for her mother, such as reading scripture, playing music, or helping with a bed bath.

Annotation

Ijaopo EO, Zaw KM, Ijaopo RO, Khawand-Azoulai M. A review of clinical signs and symptoms of imminent end-of-life in individuals with advanced illness. Gerontol Geriatr Med 2023;9:23337214231183243. https://doi.org/10.1177/23337214231183243

Strothers HS, Patel D. Older adult population. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:320–344.

21. The family of a 92-year-old woman with advanced dementia is distraught at her progressive anorexia and weight loss. The patient lives with one daughter, and several other children regularly assist with her care. An evaluation reveals no reversible causes of the anorexia.

Which one of the following is the best advice to the family?

A. Use preferred foods and other interventions to create an environment for optimal oral intake.
B. Order an abdominal computed tomography (CT) scan and gastrointestinal (GI) endoscopy.
C. Recommend a PEG feeding tube.
D. Transfer the patient to a nursing home for improved oral feeding.

Correct Answer: A

This patient has reached the end stage of dementia and predictably has anorexia and weight loss. The two major choices are continued hand feeding or PEG feeding. Several expert groups recommend against tube feeding in this circumstance due to lack of effectiveness and increase in restraints, agitation, and other adverse consequences. After further counseling, the best approach is likely to be choice A, which devises an individual plan to manage oral intake. This may include stopping non-essential medications that may be interfering with cognition or swallowing (such as sedatives or bisphosphonates), as well as using preferred foods, finger foods, supplements, and enhanced assistance with eating.

Further workup with imaging or endoscopy is unlikely to find a potentially reversible cause in this frail patient at the end of life (choice B is incorrect). Continued hand feeding, even though it rarely maintains weight, is an acceptable and desirable alternative. A thoughtful plan of hand feeding in no way implies abuse or neglect (choice C is incorrect). Choice D is also incorrect because the patient is living in a supportive environment, and there is no reason to believe transfer to a nursing home would help.

Annotation

American Geriatrics Society Ethics Committee and Clinical Practice and Models of Care Committee. American Geriatrics Society feeding tubes in advanced dementia practice statement. J Am Geriatr Soc 2014;62:1590–1593. DOI: 10.1111/jgs.12924

Ko D, Evans-Barns H, Blinderman C. Withholding and withdrawing life-sustaining treatment (including artificial nutrition and hydration). Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:1170–1180.
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9

Medication Management

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Addressing Substance Misuse

1. An 82-year-old man with advanced chronic obstructive pulmonary disease, heart failure with reduced ejection fraction, moderate Alzheimer's dementia, and hormone-refractory prostate cancer metastatic to bone has been on home hospice for 3 months. Over the last several days, he has become less responsive and is now unable to eat or drink.

His current oral medications include MS Contin 30 mg twice daily, with morphine immediate-release 10 mg every 3 hours PRN pain, senna two tablets QHS, lorazepam 0.5 mg twice daily, dexamethasone 4 mg every morning, furosemide 40 mg daily, lisinopril 20 mg daily, and carvedilol 6.25 mg twice daily.

His family is motivated to keep him at home because they had promised that to him and because one daughter and one son are nurses. The hospice physician suggests that many of his medications can be successfully given by the subcutaneous (SC) route.

Which of his medications can be administered by the SC route?

A. All of them except for the long-acting morphine and senna.
B. Immediate-release morphine, dexamethasone, lorazepam, and furosemide.
C. Immediate-release morphine and lorazepam.
D. Only the immediate-release morphine.

Correct Answer: B

When patients reach the last few days of life, most will lose the oral route for medications. Review all medications, discontinue many, and explore non-oral routes for others. Discontinue lipid-lowering drugs (these should have been stopped weeks earlier), taper off antihypertensives, and individualize medications for heart failure/angina/diabetes. Maintain anticonvulsants unless they were not for seizures. Sometimes the anticonvulsants can be switched to something more convenient in a comatose patient, such as SC or intravenous (IV) lorazepam. In this vignette, it would be appropriate to discontinue the senna, long-acting morphine, lisinopril, and carvedilol; and one could use judgment each day whether furosemide was indicated.

Many palliative medications can be given SC (see Table 9.1).

From the vignette, four of his drugs can be safely given by the SC route—morphine (although not the long-acting product), lorazepam, dexamethasone, and furosemide. Choice B is correct, and choices A, C, and D are incorrect.

Annotation

Bartz L, Klein C, Seifert A, Herget I, Ostgathe C, Stiel S. Subcutaneous administration of drugs in palliative care: results of a systematic observational study. J Pain Symptom Manage 2014;48:540–547.

Wernli U, Durr F, Jean-Petit-Matile S, Kobleder A, Meyer-Massetti C. Subcutaneous drugs and off-label use in hospice and palliative care: a scoping review. J Pain Symptom Manage 2022;64:250–259.

Table 9.1 Commonly used palliative medications available by the subcutaneous route

Opioids—morphine, hydromorphone, fentanyl
Benzodiazepines—lorazepam, midazolam
Haloperidol
Phenobarbital
Dexamethasone
Furosemide
Octreotide

2. An 80-year-old woman with advanced Alzheimer's disease, peripheral vascular disease, type 2 diabetes, low–ejection fraction heart failure, and chronic kidney disease lives with her eldest daughter. The patient can speak in two- to three-word sentences and follow simple directions. She can feed herself, although all other activities of daily living are dependent. Her weight is stable, she has no pressure sores, and she has had no recent hospitalizations. Her life expectancy is estimated to be 1–2 years. Her daughter decides to pursue a comfort-based approach, avoiding hospitalization or tube feeding. The patient's major problem is persistent urinary incontinence, thought to be due to her dementia. Her medication list:

aspirin 81 mg PO daily
furosemide 40 mg PO daily
calcium/vitamin D supplement
lisinopril 20 mg PO daily
carvedilol 6.25 mg PO twice daily
long-acting insulin 15 units SC at night
donepezil 10 mg PO daily

Which one of her medications is most likely contributing to the urinary incontinence and could be discontinued with little chance of worsening her overall condition?

A. Carvedilol.
B. Donepezil.
C. Furosemide.
D. Lisinopril.

Correct Answer: B

The bladder is innervated by parasympathetic nerves, with acetylcholine as the neurotransmitter, so drugs that are cholinergic contract the bladder, while anticholinergic drugs inhibit bladder contraction. The bladder sphincter, on the other hand, is sympathetic, and alpha agonists constrict the sphincter, while alpha blockers relax it.

The major cause of urinary incontinence in patients with advanced dementia is the loss of frontal lobe inhibition, which allows the pontine micturition center to switch from bladder filling (relax the bladder and constrict the urethral sphincter) to emptying (contract the bladder and relax the sphincter). The problem in dementia is thus detrusor or bladder hyperactivity.

Carvedilol has not been associated with incontinence (choice A is incorrect). Donepezil, a cholinesterase inhibitor, increases acetylcholine and increases bladder hyperactivity, which can lead to incontinence (choice B is correct). Although furosemide can increase urine flow, over time, the patient usually adapts to this problem (choice C is incorrect). Further, it is likely that the diuretic is essential to manage her volume status with low-ejection heart failure. Lisinopril, an angiotensin-converting enzyme (ACE) inhibitor, does have a weak association with urinary incontinence; but it does not have a direct mechanism that worsens this symptom (choice D is incorrect), and it is also likely essential for evidence-based management of her heart failure.

Annotation

Goode PS, Burgio KL, Richter HE, Markland AD. Incontinence in older women. JAMA 2010;303:2172–2181. DOI: 10.1001/jama.2010.749

Habib MH, Arnold RM. Fast Facts and Concepts #425. Urinary Incontinence in Palliative Care Settings—Part 1: Etiology, and Work-Up. November 2023. Available at: https://www.mypcnow.org/fast-fact/urinary-incontinence-in-palliative-care-settings-part-1-etiology-and-work-up/. Accessed October 10, 2024.

McMillan I, Hill L, McCarthy R, Haas-Eckersley R, Russell M, Wood J, Doxford-Hook L, Fu Y, McGowan L, Iles-Smith H. Urinary incontinence in women 55 years and older: a scoping review to understand prevalence, incidence, and mortality of urinary incontinence during secondary care admission. Women's Health 2023;19:17455057231179061. https://doi.org/10.1177/17455057231179061

Nygaard I. Clinical practice. Idiopathic urgency urinary incontinence. N Engl J Med 2010;363:1156–1162. DOI: 10.1056/NEJMcp1003849

3. An 84-year-old man with combined vascular and Alzheimer's dementia progresses to the point where he refuses to eat and has trouble swallowing food, although he can still swallow medications crushed and placed into applesauce. He can assist with transfers and spends several hours per day in a geri-chair. He has lost several pounds, and at a family meeting in the primary care office, his daughter decides to change the focus to comfort care, with a strong desire to avoid future hospitalizations. The physician assistant estimates his life expectancy to be 1–2 years.

His medications include a calcium/vitamin D supplement for treatment of symptomatic osteoporosis, benazepril for hypertension, donepezil for dementia, and metoprolol for coronary artery disease.

Which one of the following medications should be discontinued?

A. Calcium and vitamin D.
B. Benazepril.
C. Donepezil.
D. Metoprolol.

Correct Answer: C

None of the medications for dementia have been tested in patients with end-stage Alzheimer's disease. These drugs cause gastrointestinal side effects such as nausea, vomiting, diarrhea, and anorexia in 30%–40% of patients. In a non-verbal demented patient, anorexia may present as weight loss. When a patient has advanced dementia and starts to lose weight, consider discontinuing these drugs (choice C is correct).

Prevention of future osteoporotic fractures and falls is palliative even in this patient and should be continued (choice A is incorrect). Reasonable treatment of hypertension is also acceptable (choice B is incorrect). Beta blockers for heart failure or symptomatic coronary disease should generally be continued until the patient cannot tolerate them any longer as they are palliative (choice D is incorrect).

Annotation

American Geriatrics Society Ethics Committee and Clinical Practice and Models of Care Committee. American Geriatrics Society feeding tubes in advanced dementia practice statement. J Am Geriatr Soc 2014;62:1590–1593. https://doi.org/10.1111/jgs.12924

Mitchell SL. A 93-year-old man with advanced dementia and eating problems. JAMA 2007;298:2527–2536. DOI: 10.1001/jama.298.17.jrr70001

Reeve E, Farrell B, Thompson W, Herrmann N, et al. Deprescribing cholinesterase inhibitors and memantine in dementia: guideline summary. Med J Aust 2019;210:174–179. DOI: 10.5694/mja2.50015

4. You are the home hospice physician associate (PA) visiting an 88-year-old woman with advanced dementia and chronic

obstructive lung disease. She has been on home hospice for 4 months, and her daughters are her primary caregivers. Her medications include the following: Duo-Neb inhalers four times daily, dexamethasone 4 mg PO daily, MS Contin 15 mg PO twice daily with morphine immediate-release 5 mg every 3 hours as needed (given as 0.25 ml of the 20 mg/ml oral morphine concentrate), senna, multivitamins, lorazepam 0.5 mg PO daily.

Over several days she has stopped eating and drinking. Her vital signs are normal, with pulse oximetry of 90% on room air, and your physical examination reveals normal heart sounds and mild expiratory wheezing consistent with previous examinations. There is no obvious sign of acute illness. However, she can no longer swallow her oral medications. The family does not want any workup and is committed to keeping her at home.

In order to manage her medications, which of the following can be given rectally?

A. Dexamethasone and senna.
B. Morphine and multivitamins.
C. Lorazepam and morphine.
D. Dexamethasone, morphine, and lorazepam.

Correct Answer: D

There are several options for home hospice patients who can no longer swallow pills. First, many medications come in liquid form, with flavoring added to make them more palatable. Highly concentrated formulations exist for morphine, oxycodone, methadone, dexamethasone, lorazepam, and haloperidol (Intensol products). Up to 1 ml of these solutions can be placed into each buccal space at a time. Although these medications are probably not absorbed across the mucosa, enough trickles down the throat for adequate absorption.

Another option for patients who have trouble swallowing is rectal administration, although some patients and families may balk at the suggestion. In most cases, oral and rectal dosing are equivalent. Some medications can simply be placed in the rectum (such as a MS Contin tablet), and in other cases, there are commercially available medication suppositories—as for diazepam, acetaminophen, morphine, and hydromorphone. Table 9.2 lists drugs commonly used in hospice that may be given rectally.

Table 9.2 Commonly used drugs in hospice and palliative medicine that may be given rectally (drugs with * are commercially available as a suppository or enema)

Anticonvulsants—carbamazepine, lamotrigine, pentobarbital, phenobarbital, phenytoin, valproic acid
Anti-nausea medicines—chlorpromazine, metoclopramide, ondansetron, prochlorperazine,* promethazine*
Benzodiazepines—clonazepam, lorazepam, diazepam,* midazolam
Corticosteroids—dexamethasone, hydrocortisone, prednisolone
Laxatives—bisacodyl,* docusate,* glycerin,* mineral oil,* sodium phosphate*
NSAIDs—acetaminophen,* aspirin, diclofenac, ibuprofen, indomethacin,* naproxen
Opioids—codeine, hydromorphone,* methadone, morphine,* oxycodone, tramadol

Source: Adapted from Samala and Davis (2023).

In the vignette, all of her oral medications can be given rectally, so the correct answer is D, while choices A through C are incorrect. MS Contin can be given rectally, or the patient could be converted to more frequent immediate-release morphine suppositories.

Annotation

Hua S. Physiological and pharmaceutical considerations for rectal drug formulations. Front Pharmacol 2019;10:1196. https://doi.org/10.3389/fphar.2019.01196

Samala RV, Davis M. Fast Facts and Concepts #257. Palliative Care Per Rectum. November 2023. Available at: https://www.mypcnow.org/fast-fact/palliative-care-per-rectum/. Accessed October 10, 2024.

5. A 62-year-old female patient with breast cancer metastatic to the bone has been stable on her current immunotherapy for the last 4 months. Her pain is controlled by morphine sulfate extended release 15 mg q 12. Her outpatient palliative care follow-up is every 3 months, secondary to transportation limitations.

What is the best solution for safely prescribing her medication?

A. Write for two refills on her prescription for morphine.
B. Call the patient each month for a pain assessment, and then fax the prescription to the pharmacy at monthly intervals.
C. If your state allows, arrange for video visits in between her face-to-face visits, and e-prescribe refills.
D. Check the prescriber's database, and then write for 180 tablets instead of 60 tablets on the current prescription.

Correct Answer: C

A is incorrect as refills are not allowed for Schedule II opioids, and refills should not be for longer than 30 days or, in this case, 60 pills. Additionally, faxing prescriptions of Schedule II opioids is not allowed in most states unless the patient lives in a skilled nursing facility. The correct answer is C as video visits are effective and efficient and present a significant cost savings for patients. They are allowed for Schedule II opioids with proper counseling and intermittent face-to-face visits.

Annotation

Drug Enforcement Administration, Office of Diversion Control. General Questions and Answers. Available at: https://www.deadiversion.usdoj.gov/faq/faq.html. Accessed August 22, 2024.

Patel KB, Turner K, Alishahi Tabriz A, et al. Estimated indirect cost savings of using telehealth among nonelderly patients with cancer. JAMA Netw Open 2023;6(1):e2250211. DOI: 10.1001/jamanetworkopen.2022.50211

US Food and Drug Administration. Chapter II–Drug Enforcement Administration, Department of Justice, Part 1306: Prescriptions. Available at: https://deadiversion.usdoj.gov/faq/faq.html. Accessed August 22, 2024.

6. You share care for a 52-year-old female patient with a local primary care practitioner (PCP) who has just completed radiation for her head and neck cancer. She has required opioids during treatment for severe mucositis, but you have initiated weaning these down as her symptoms have almost resolved. You have an appointment with the patient today and check the online controlled prescription database to make sure she

has not had any additional controlled substances prescribed to her. To your surprise, her PCP refilled her opioid prescription early.

What is the next best step?

A. Call the patient and tell her not to come to her appointment as she has violated her prescribing contract.
B. Send an email to the PCP and their manager that you must report them for inappropriate prescribing.
C. Refuse to fill further opioids for the patient as her PCP has taken over prescribing.
D. Call the PCP to understand their rationale for prescribing the opioids, and discuss a plan moving forward.

Correct Answer: D

Core tenets of palliative care include collaboration and communication. This includes communication with both the patient and other professionals involved in the care of the patient. While time-consuming, the first step would be to talk to the PCP to see if they were checking the prescription monitoring program (PMP) prior to prescribing and create a plan moving forward as to who will fill prescriptions for controlled substances. This will facilitate collaboration and shared learning, avoid potential harm, and streamline prescribing. A, B, and C all jump to conclusions without understanding the full situation. This leads to a difficult working relationship and risks patient abandonment.

Annotation

Doctor JN, Kelley MA, Goldstein NJ, Lucas J, Knight T, Stewart EP. A randomized trial looking at planning prompts to reduce opioid prescribing. Nat Commun 2024;15(1):263. DOI: 10.1038/s41467-023-44573-5

Doctor JN, Nguyen A, Lev R, et al. Opioid prescribing decreases after learning of a patient's fatal overdose. Science 2018;361(6402):588–590. DOI: 10.1126/science.aat4595

7. A 45-year-old woman with metastatic breast cancer and a history of opioid use disorder (OUD) presents to the palliative care clinic with severe cancer-related pain, which she rates as 8/10. Her pain is poorly controlled with her current regimen of non-opioid analgesics and low-dose opioids due to concerns about her OUD. The patient expresses a strong desire to manage her pain effectively while minimizing the risk of relapse into opioid misuse.

Which one of the following is the most appropriate management strategy for the patient's cancer-related pain?

A. Increase the dose of her current opioids while closely monitoring for signs of misuse.
B. Switch to a long-acting opioid formulation for better pain control.
C. Start buprenorphine/naloxone for pain management and OUD.
D. Add a non-opioid adjuvant analgesic, such as gabapentin, to her regimen.
E. Refer to a pain specialist for consideration of a nerve block or other interventional pain management technique.

Correct Answer: C

Choice C is correct. Buprenorphine is a partial opioid agonist that provides effective pain relief while having a ceiling effect on respiratory depression, making it safer in patients with a history of OUD. It also has a lower potential for misuse compared to full agonist opioids. Buprenorphine/naloxone can be used to manage both cancer-related pain and OUD, providing a balanced approach to pain control and reducing the risk of relapse. Further, according to Moryl et al., "using [current opioid misuse measure] in a cancer population may significantly overestimate the risk of opioid misuse . . . [and] can create an additional barrier to cancer pain management, such as limiting appropriate opioid use."

Option A is incorrect because simply increasing the dose of opioids without addressing the risk of misuse and relapse is not a safe strategy for a patient with OUD.

Option B, switching to a long-acting opioid, might improve pain control but carries a high risk of misuse in a patient with a history of OUD.

Option D, adding a non-opioid adjuvant analgesic such as gabapentin may help with certain types of pain but is unlikely to be sufficient for severe cancer-related pain.

Option E, referring to a pain specialist for interventional techniques, can be part of a comprehensive pain management plan but may not provide immediate and adequate pain relief, nor does it address the complexity of managing pain in a patient with OUD.

Annotation

Fitzgerald Jones K, Khodyakov D, Arnold R, et al. Consensus-based guidance on opioid management in individuals with advanced cancer-related pain and opioid misuse or use disorder. JAMA Oncol 2022;8(8):1107–1114. DOI: 10.1001/jamaoncol.2022.2191

Moryl N, Mendoza TR, Horn SD, Eustaquio JC, Cleeland CS, Inturrisi C. Should we use COMM (current opioid misuse measure) to screen for opioid abuse in patients with cancer pain? J Natl Compr Cancer Netw 2023;21(11):1132–1140.e3. DOI: 10.6004/jnccn.2023.7054

8. A 72-year-old man with metastatic pancreatic cancer is admitted with a pain crisis due to his cancer. He has a history of OUD and is on a stable dose of methadone maintenance treatment every 12 hours at a methadone clinic. The patient is hesitant to take any opioids, yet his pain is so severe he is open to a safe and structured approach to protect him while controlling his pain

What is the next best step while continuing the methadone as scheduled?

A. Start a patient-controlled analgesia (PCA) device.
B. Give non-opioids for pain.
C. Give only give low doses of opioids as needed.
D. Add a full mu-agonist medication as needed.

Correct Answer: C

With the patient's advanced disease and suffering, treating the pain crisis is paramount, even with a history of OUD. Choice A, start a PCA, is incorrect as one can anticipate he will have high opioid dose needs, and the risk of increased pain through the dose-finding phase is high.

Choice B, only give non-opioids for pain, is incorrect as his pain is severe and he needs more opioids, not less. He will probably need higher doses given his tolerance, so limiting to a low dose risks untreated pain. Choice D is incorrect because the risk of addiction is highest with pure mu agonists.

Annotation

Merlin JS, Khodyakov D, Arnold R, et al. Expert panel consensus on management of advanced cancer–related pain in individuals with

opioid use disorder. JAMA Netw Open 2021;4(12):e2139968. DOI: 10.1001/jamanetworkopen.2021.39968

9. You are asked to see a 43-year-old woman with locally advanced pancreatic cancer in an outpatient palliative care clinic. She is receiving chemotherapy in the oncology clinic, which she tolerates well. Her life expectancy is estimated at 12–18 months as long as she remains compliant with cancer treatment. The patient has a history of OUD and has been in recovery for a year. She now faces the challenge of managing cancer pain without relapsing into chronic opioid addiction.

She rates her central abdominal pain as usually 5–7/10, occasionally as high as 8, and sometimes as low as 3. She has tried over-the-counter acetaminophen and ibuprofen, but she has not used an opioid, mainly because she is afraid of addiction relapse. Several urine drug screens have been negative for opioids. You explore pharmacologic and non-pharmacologic methods to enhance her comfort.

Which of the following strategies is best for managing her pain?

A. Initiate and titrate opioids in the usual manner.
B. Utilize a multimodal pain management approach.
C. Avoid all opioids, regardless of pain severity.
D. Implement a strictly non-pharmacological approach.
E. Focus solely on psychological counseling.

Correct Answer: B

Given the patient's history of OUD, employing a multimodal pain management approach is crucial. This approach involves combining various strategies, including non-opioid medications, interventional procedures, physical therapy, and psychological interventions, to effectively manage pain while minimizing the risk of opioid relapse. It allows the healthcare team to address the patient's pain comprehensively and tailor treatment to her individual needs, enhancing her comfort and quality of life during palliative care.

Patients with OUD are often reluctant to take opioids, even for severe pain, for fear of relapse. Be sensitive to their concerns, and start a pain management regimen that does not include opioids but does include a multimodal approach (choice B is correct). In these patients, reserve opioids for severe pain that does not respond to non-opioids (choice A is incorrect). However, as these patients develop progressive terminal illness, they should have access to appropriately monitored chronic opioid therapy, even though risk of relapse into aberrant opioid use is common (choice C is incorrect).

In patients with progressive malignancy like pancreatic cancer, using non-pharmacologic therapy alone almost never is effective (choices D and E are incorrect), although incorporating these modalities as part of a multimodal analgesic plan may be useful.

Annotation

Bruera E, Hui D. Integrating supportive and palliative care in the trajectory of cancer: establishing goals and models of care. J Clin Oncol 2018;36(25):2512–2517. DOI: 10.1200/JCO.2018.78.9346

Weissman DE, Rosielle DA. Fast Facts and Concepts #68. Is It Pain or Addiction? November 2023. Available at: https://www.mypcnow.org/fast-fact/is-it-pain-or-addiction/. Accessed October 10, 2024.

Woodall H. Patients with substance use disorder. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:351–364.

Toxicities, Adverse Effects, and Reactions

10. You are seeing a 74-year-old woman with metastatic breast cancer regularly in the palliative care clinic. She presents today with diarrhea. She notes 3 days of liquid stool and worsening diffuse abdominal pain. She has mild nausea but denies vomiting, fever, or bloody stools. She has been off of disease-directed treatment for a month following an episode of recurrent urinary tract infections and *Clostridium difficile* diarrhea. One week ago she went to the emergency room with left-sided chest pain, and imaging showed tumor invasion into her left chest wall. The doctor called you, and you recommended starting decadron 4 mg per day and increasing her oxycodone dose by 15%. Her pain has improved, but she is anorexic. Prior to the diarrhea she was more constipated and had gone 3 days without a stool. She has not been taking her laxative regimen other than a softener.

Which of the following is the mostly likely cause of her diarrhea?

A. *C. difficile* infection.
B. Chemotherapy side effect.
C. Constipation with impaction.
D. Bacterial gastroenteritis.

Correct Answer: C

Disruption of normal bowel function is common in patients with serious illness. This patient has gone from having *C. difficile* diarrhea to now constipation and likely impaction. The patient's recent increased opioid dose combined with her decreased fluid intake put her at significant risk for constipation. When a patient is severely constipated and develops an impaction, they may present with overflow diarrhea (correct answer C) with liquid stool passing around the area of impaction. A recurrence of *C. difficile* infection is possible and should be ruled out, but the onset of diarrhea after an increase in opiate dose makes constipation more likely. Chemotherapy-induced diarrhea is less likely as it was a month since her last chemotherapy infusion. Gastroenteritis is also possible but less likely given the lack of other signs and symptoms of infection.

Annotation

Hussain ZH, Whitehead DA, Lacy BE. Fecal impaction. Curr Gastroenterol Rep 2014;16(9):404. DOI: 10.1007/s11894-014-0404-2

Rothschild JG, Canvasser NE, Meyers FJ, Evans CP. Dysuria, frequency, and bladder spasm. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:680.

11. A 78-year-old woman with advanced Alzheimer's disease, chronic rate-controlled atrial fibrillation, and low–ejection fraction heart failure has lived in a nursing home for 8 months. She has had abnormal behaviors, manifest by constant pacing, walking into the nursing station or other patients' rooms, and rubbing her legs. Her medications:

lisinopril 20 mg PO daily
donepezil 10 mg PO daily
furosemide 20 mg PO daily
quetiapine 25 mg PO twice daily
metoprolol extended release 50 mg/day
calcium–vitamin D supplement
warfarin 3 mg PO daily

A limited workup is normal, including blood counts, chemistry profile, and international normalized ratio (INR). The

nurses note that the behavior has not improved and ask if the quetiapine can be increased or another drug added.

Which one of the following is the most appropriate recommendation?

A. Add memantine 5 mg PO in the morning, and gradually titrate up to 10 mg PO twice daily.
B. Increase the donepezil to 23 mg PO daily.
C. Increase the quetiapine to 50 mg PO twice daily.
D. Discontinue the quetiapine.
E. Prescribe carbidopa–levodopa (12.5 mg/50 mg) taken at night.

Correct Answer: D

This patient is likely suffering from akathisia, a syndrome of motor restlessness caused by the dopamine blocker quetiapine. A patient with normal cognition may say they just cannot sit still or that there is a motor inside of them. Other symptoms include a continuous need for repositioning, pacing, shifting, rubbing legs, or dissatisfaction with the room and surroundings. In cognitively impaired patients, akathisia presents as increased motor agitation and is easy to miss.

When a demented patient may have akathisia, it is prudent to discontinue dopamine-blocking drugs (choice D is correct). Choice E is incorrect but a common trap to fall into—the demented patient has abnormal behaviors, and the antipsychotic is increased in response, which fuels the fire.

Choice A is incorrect because the problem is a drug side effect, not the underlying dementia itself. Choice B is incorrect for the same reason, but further, the 23-mg dose of donepezil has little, if any, detectable enhanced effectiveness compared with the 10-mg dose but a substantial increase in adverse effects.

Choice E is related to intermittent symptoms of restless leg syndrome which is characterized by (a) an urge to move the legs, (b) temporary relief with movement, (c) onset or worsening of symptoms with rest or inactivity, and (d) worsening or onset of symptoms in the evening or night. In this case the symptoms are persistent and could risk augmentation with the addition of carbidopa-levodopa.

Annotation

Durkin E, Probolus JA, Kayden C. Fast Facts and Concepts #282. Akathisia. November 2023. Available at: https://www.mypcnow.org/fast-fact/akathesia/. Accessed October 10, 2024.

Johnson J, Downer K, Arnold RM. Fast Facts and Concepts #217. Restless Leg Syndrome. December 2023. Available at: https://www.mypcnow.org/fast-fact/restless-leg-syndrome/. Accessed October 10, 2024.

12. A 68-year-old patient with a partial bowel obstruction and emesis has a nasogastric tube placed for decompression. She has complaints of pain and says she is allergic to morphine; it makes her nauseated.

What is the best management option?

A. Start with low dose of IV fentanyl 25 mcg as needed and reassess.
B. Tell her it is not an allergy, and utilize morphine 5 mg IV PRN.
C. Inform her that receiving the medications IV will prevent nausea.
D. Start with low-dose hydromorphone IV at 0.2 mg as needed and reassess.

Correct Answer: D

Anaphylaxis or anaphylactoid reactions to opioids are typically associated with itching, urticaria, and bronchospasm. These reactions, fortunately, are rare but can occur with any route of administration. This is not a true allergic reaction, but simply telling her and using the medication anyway will not build trust. She has to consent to the treatment and can refuse the medication. Nausea could still occur with the IV route (C is incorrect) Using fentanyl may be effective; however, the analgesic effect of intermittent fentanyl is often brief without a continuous infusion (choice A is incorrect). Starting with low-dose hydromorphone will not have the same adverse reactions as morphine and will have a longer duration of action than fentanyl, so dose-finding and adjustment are more reasonable.

Annotations

Gilbar PJ, Ridge AM. Inappropriate labeling of patients as opioid allergic. J Oncol Pharm Pract 2004;10:177–182. DOI: 10.1191/1078155204jp132oa

Portenoy RK, Ahmed E, Krom C. Assessment and management of pain. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:237.

Smith HS, Laufer A. Opioid induced nausea and vomiting. Eur J Pharmacol 2014;722:67–78. DOI: 10.1016/j.ejphar.2013.09.074

13. You are consulted on a 72-year-old female with breast cancer with metastases to the spine. She is struggling to move in the bed without severe pain and says her pain is a 9/10. You suggest starting an opiate at low dose and she agrees. You schedule short-acting oral hydromorphone 2 mg q 4 hours PRN. The next day you review her medication utilization and see that she took three doses in 24 hours and then stopped. She tells her nurse that she was nauseous and that she is "allergic to that medicine." You come to her room to see her.

What is the next best step?

A. Tell the patient that you are sorry she got nauseous and that you can rotate the hydromorphone to morphine.
B. Tell the patient that she is not allergic and that this is a normal side effect.
C. Discuss the side effect profile of opiates and offer antinausea medication while continuing the medication.
D. Stop the opiate, and offer a lidocaine patch.

Correct Answer: C

Many patients will say they are allergic to a medication when they experience an adverse reaction. It is important to assess what symptoms occurred and, in this case, reassure the patient that this is a normal side effect and see if she is willing to continue a little longer before changing to a different opiate. Anaphylaxis or anaphylactoid reactions to opioids are extremely rare and would be associated with itching, urticaria, and bronchospasm. Opioids can be associated with a histamine release and itching with initial dosing. This does not reflect a true allergy. Because this is not a true allergic reaction (choice A), rotating to a different opioid in either the same class or a different class may be premature. When starting opiates in opiate-naive patients it is important to describe some of the common side effects that can occur and how the body will tolerate to them. Nausea and vomiting can occur in 30% of patients starting opiates. Transient sedation and confusion are also common. The main side effect that patients will never

develop tolerance to is constipation, and that must be treated with laxatives, not softener.

Annotation

Portenoy RK, Ahmed E, Krom C. Assessment and management of pain. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:237–238.

14. You are following a 52-year-old woman with metastatic colon cancer in clinic who was recently started on a pain regimen of extended-release (ER) morphine 15 mg q 12 hours with an occasional 5 mg of Norco PRN for breakthrough pain. It is very effective; however, she calls you to report she has developed some diffuse itching; there are no other environmental or medical reasons for her to have pruritus. You believe this is related to her opiates.

Which of the following is contraindicated in the pharmacologic treatment for opioid-induced pruritus?

A. Aspirin.
B. Methylnaltrexone.
C. Hydroxyzine.
D. Ondansetron.

Correct Answer: A

Aspirin has no positive effect in decreasing it, and aspirin-induced pruritus can mimic opioid-induced pruritus. All the other choices are recognized therapies to palliate opioid-induced pruritus with varying degrees of evidence to support their use.

Annotation

Daly BM, Shuster S. Effect of aspirin on pruritus. Br Med J (Clin Res Ed) 1986;293(6552):907. DOI: 10.1136/bmj.293.6552.907

Desanti-Siska L, Fellows S, Polito N. Constitutional symptoms. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:125–160.

Koju RB, Gurung BS, Dongol Y. Prophylactic administration of ondansetron in prevention of intrathecal morphine-induced pruritus and post-operative nausea and vomiting in patients undergoing caesarean section. BMC Anesthesiol 2015;15:18. DOI: 10.1186/1471-2253-15-18

15. You are asked to see a 49-year-old woman with stage IV ovarian cancer, who was admitted with malignant biliary obstruction, elevated liver function tests, and acute kidney injury. Her overall functional status has significantly declined in the last months, with significant weight loss and failure to thrive. Her chronic cancer pain had been well controlled outpatient on a stable dose of fentanyl transdermal patch at 150 mcg/hour q 72 hours with minimal use of immediate-release hydromorphone oral rescue. Upon your visit you find her lethargic and confused. Her vital signs are: temperature 101°F/38.3°C, pulse 104, blood pressure (BP) 96/54, respiratory rate (RR) 8, and pulse oximetry 93% on room air. Her skin is moist. She answers simple questions appropriately but is inattentive, requires frequent redirection, and closes her eyes frequently during your assessment. She denies having any pain currently and had been using a heating pad for mild right upper quadrant (RUQ) and right flank discomfort overnight. She mentions having had hallucinatory dreams overnight. A fentanyl transdermal patch is observed to be on the skin of her abdomen in the RUQ, last replaced 24 hours ago.

Which of the following in this patient's history and exam would explain unintentional opioid toxicity from use of a fentanyl transdermal system?

A. Liver dysfunction.
B. Fever.
C. Cachexia.
D. Renal dysfunction.
E. External heat.

Correct Answer: E

There are a few situations to be aware of which can rapidly increase the absorption rate of fentanyl transdermal patches. These situations have the potential to cause adverse effects associated with too much fentanyl being absorbed too quickly, which can result in oversedation and opioid toxicity. Even though fentanyl has been shown to be a relatively safer opioid to use in patients with liver and kidney dysfunction, caution should still be used. A patient who had previously been on stable fentanyl doses who has an acute decline in liver or renal function may develop impaired opioid metabolism, which can reduce clearance and therefore cause higher blood levels of the drug and its metabolites. Fevers, diaphoresis, and application of heat over a transdermal patch can speed up drug absorption through the skin significantly. Due to the lipophilic properties of fentanyl, cachexia and poor nutrition have been shown to reduce the absorption rate of transdermal fentanyl, which may require a higher dose adjustment in some patients.

Annotation

Heiskanen T, Mätzke S, Haakana S, Gergov M, Vuori E, Kalso E. Transdermal fentanyl in cachectic cancer patients. Pain 2009;144(1–2):218–222. DOI: 10.1016/j.pain.2009.04.012

Oto Y, Momo K, Nagata T, Tsuge E, Kobayashi K, Shimada K, Tanaka K, Sasaki T. Severe drowsiness with fever induced by transdermal fentanyl administration. J Palliat Med 2020;23(8):1006–1008. DOI: 10.1089/jpm.2020.0113

Shomaker TS. The assessment of the impact of heat on the systemic delivery of fentanyl through the transdermal fentanyl delivery system. Pain Med 2000;1(2):193–194, https://doi.org/10.1046/j.1526-4637.2000.000024-17.x

16. A 34-year-old woman with advanced cervical cancer is opioid-naive. In the initial treatment of her severe abdominal pain, she receives 5 mg of immediate-release oral morphine, and within minutes she experiences itching. This is self-limited and not accompanied by urticaria, bronchospasm, stridor, or hypotension.

This adverse effect of morphine indicates which of the following?

A. It demonstrates an immunoglobulin E (IgE)–mediated allergic reaction.
B. It is due to non-immune release of preformed histamine.
C. The opioids should be avoided.
D. The effect is not blocked with diphenhydramine.

Correct Answer: B

True allergic IgE-mediated reactions to morphine are rare (choice A is incorrect). However, many patients taking morphine complain of itching. This is generally due to a non-immune release by morphine of preformed histamine (choice B is correct). This can be blocked or treated with diphenhydramine or another antihistamine (choice D is not correct). The non-immune itching caused by morphine is an anaphylactoid reaction (not

anaphylaxis) and can even include urticaria, bronchospasm, and hypotension.

However, if bronchospasm or evidence of a systemic symptom such as hypotension occurs, the opioid should be discontinued. For patients who are fearful of morphine because of past experience with itching, give small amounts of the drug under direct observation. And for true opioid allergy, choose an opioid from another chemical class (see Table 9.3). Choice C is incorrect because there is no need to avoid morphine or any other opioid for an anaphylactoid reaction.

Annotation

Cherny NI, Fallon MT. Opioid therapy: optimizing analgesic outcomes. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:404.

Harris JD. Management of expected and unexpected opioid-related side effects. Clin J Pain 2008;24:S8–S13. DOI: 10.1097/AJP.0b013e31816b58eb

Woodall HE, Chiu A, Weissman DE. Fast Facts and Concepts #175. Opioid Allergic Reactions. November 2023. Available at https://www.mypcnow.org/fast-fact/opioid-allergic-reactions/. Accessed October 10, 2024.

Table 9.3 Opioids divided by their chemical classes

Opioid class	*Examples*
Phenanthrenes	Codeine, hydrocodone, hydromorphone, levorphanol, morphine, oxycodone, oxymorphone
Phenylpiperadines	Fentanyl, meperidine, remfentanyl, sufentanil
Diphenylheptanes	Methadone

Source: Adapted from Woodall et al. (2023).

17. A 92-year-old woman with advanced endometrial cancer presents with persistent nausea and vomiting due to heavy tumor burden and peritoneal carcinomatosis but without current evidence of bowel obstruction. She is no longer a candidate for cancer-directed therapy, and her nausea improves dramatically after several doses of haloperidol 1 mg IV. However, she describes the acute onset of a sensation of motor restlessness, feeling that she must move and cannot get comfortable, "like I have a motor inside of me."

Which one of the following interventions is most likely to help?

A. Discontinue the haloperidol because it is causing akathisia.
B. Discontinue the haloperidol because it is causing tardive dyskinesia.
C. Prescribe lorazepam to suppress the symptom.
D. Prescribe an opioid to suppress the symptom.

Correct Answer: A

Haloperidol is the most potent dopamine (D2) blocker, and it is widely used in palliative for nausea and vomiting as well as for delirium. However, it has several extrapyramidal side (EPS) effects. First is acute dystonia, which presents as sudden torticollis or other muscle spasm. This side effect is uncommon in the very old; it is usually observed in young schizophrenics when they start an antipsychotic. Second is akathisia, a sensation of motor restlessness—cognitively intact patients often complain that they cannot stop moving (choice A is correct). This EPS effect is easy to miss in demented patients, who may simply ramp up their abnormal behavior. The correct response is to discontinue the offending drug, not prescribe another drug to suppress the adverse effect (answers C and D are not correct).

Third is Parkinsonism, with its prominent bradykinesia and rigidity, which creep up gradually over time. Fourth is tardive dyskinesia, a highly disabling movement disorder characterized by abnormal buccal and lingual movements, which unfortunately may not abate when the drug is discontinued (choice B is incorrect). And fifth is neuroleptic malignant syndrome, which presents with fever, delirium, and rhabdomyolysis.

Annotation

McPherson ML. Demystifying Opioid Conversion Calculations: A Guide for Effective Dosing, 2nd edition. ASHP; 2018.

Rahman S, Marwaha R. Haloperidol. StatPearls. September 1, 2023. Available at: https://www.ncbi.nlm.nih.gov/books/NBK560892/. Accessed August 22, 2024.

Zaporowska-Stachowiak I, Stachowiak-Szymczak K, Oduah M-T, Sopata M. Haloperidol in palliative care: indications and risks. Biomed Pharmacother 2020;132:110772. https://doi.org/10.1016/j.biopha.2020.110772

18. A vigorous 72-year-old man develops locally advanced head and neck cancer and undergoes external beam radiation therapy. The radiation oncologist warns him about common acute toxicities of radiation therapy.

Which one of the following acute toxicities is most likely to limit the total dose of radiation?

A. Radiation pneumonitis.
B. Oral mucositis.
C. Skin erythema and desquamation.
D. Sterile cystitis.

Correct Answer: B

Acute radiation toxicity may start during the treatment course of external beam radiation therapy, and it usually lasts for several weeks. All four of the choices are well-described symptoms of acute radiation toxicity, but oral mucositis is most likely to be dose-limiting (choice B is correct, and choices A, C, and D are incorrect). The risk of mucositis is related to the total dose of radiation, the fraction size, the volume of normal tissue in the radiated field, and the concurrent use of some kinds of chemotherapy. Mucositis is graded from 1 (minimal redness and pain) to 5 (severe enough to cause death).

For example, in patients with head and neck cancer who are treated with curative radiation therapy, 100% will get mucositis. Forty percent will get at least grade 3 (confluent fibrinous mucositis, with severe pain requiring opioids) if radiation therapy is combined with chemotherapy, and 20% will get at least grade 3 if radiation therapy is offered alone.

Annotation

Berkey FJ. Managing the adverse effects of radiation therapy. Am Fam Physician 2010;82:381–388.

Cherny NI, Acute cancer pain syndromes. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:337–338.

Maria OM, Eliopoulos N, Muanza T. Radiation-induced oral mucositis. Front Oncol 2017;7:89. DOI: 10.3389/fonc.2017.00089

19. You regularly care for a 45-year-old man with advanced pancreatic cancer in your palliative care clinic. He has had recent progression of disease and is discussing with his oncologist

another option for treatment. His abdominal pain had been well controlled with sustained-release oral oxycodone until the development of a partial malignant small bowel obstruction. You admit him urgently to begin parenteral opioid therapy; pain management is rapidly restored with morphine continuous IV. However, he develops myoclonus that awakens him from sleep and disrupts his comfort when awake. He wonders if he is having seizures. He is alert and has no orthostatic changes of vital signs. He is awake and alert, walks independently, and is eager to be home again with his family. His Eastern Cooperative Oncology Group (ECOG) performance status is 3.

What is your next best step?

A. Rotate his morphine to another opioid.
B. Admit to hospice care.
C. Arrange for a venting gastrostomy tube to be placed.
D. Add clonazepam.

Correct Answer: D

Opioid rotation for adverse effects is the best approach to toxic side effects in pain control with opioids. B is incorrect because although he has far advanced disease, he is still exploring disease-directed treatment options and in discussion with his oncologist. C is incorrect as the development of myoclonus is related to his opioid, not to the bowel obstruction.

Annotation

DeMonaco N, Arnold RM. Fast Facts and Concepts #114. Myoclonus. November 30, 2023. Available at https://www.mypcnow.org/fast-fact/myoclonus/. Accessed August 5, 2024.

McNicol E, Horowicz-Mehler N, Fisk RA, Bennett K, Gialeli-Goudas M, Chew PW, Lau J, Carr D; American Pain Society. Management of opioid side effects in cancer-related and chronic noncancer pain: a systematic review. J Pain 2003;4(5):231–256. DOI: 10.1016/s1526-5900(03)00556-x

Mercadante S. Opioid-induced neurotoxicity in patients with cancer pain. Curr Treat Options Oncol 2023;24(10):1367–1377. DOI: 10.1007/s11864-023-01117-9

20. An 82-year-old woman with severe osteoporosis suffers a painful T7 vertebral compression fracture. Magnetic resonance imaging (MRI) confirms a single non-malignant fracture without involvement of the spinal cord. She is treated with kyphoplasty and experiences prompt complete analgesia, with immediate improvement in her mobility and quality of life.

What is the most common complication she is likely to experience following this palliative procedure?

A. Pyogenic spondylitis.
B. Cement extravasation and embolism.
C. Fracture adjacent to the treated vertebra.
D. Myocardial infarction.

Correct Answer: C

Vertebral compression fractures (VCFs) are usually due to osteoporosis and occur in up to 20% of patients over the age of 50 years. VCFs can also be malignant, most commonly arising from metastatic myeloma and lymphomas, and are seen in 30% of cancer patients who have bony metastases. The usual approach to malignant VCFs is non-steroidal anti-inflammatory drugs (NSAIDs) or opioids, sometimes with radiotherapy; but these do not correct the fracture, completely relieve pain, or prevent tumor progression and may allow the tumor to damage the spinal cord. Open surgery is rarely considered. Ideal patients for a non-invasive procedure include those with midline non-radiating back pain that increases with weight-bearing or manual palpation of the spinous process and that decreases with lying down or sitting.

Two non-invasive percutaneous vertebral augmentation methods have been described to treat not only malignant fractures but also intractable metastatic vertebral pain not associated with fracture. In vertebroplasty, the collapsed vertebral body is filled with cement, while in kyphoplasty, there is an additional step of a balloon tamp that restores the original shape of the vertebral body, which is then filled with cement. Significant analgesia occurs in more than 70% of vertebral malignancies and more than 90% of osteoporotic fractures, often within 24 hours of the procedure. Pain relief in several case series has been dramatic, with an average drop of 5 points on the 10-point pain visual analog scale. Many patients experience an improvement in mobility and quality of life.

Following either vertebroplasty or kyphoplasty, major acute complications occur in up to 5% of patients with malignancy, compared with less than 1% for osteoporotic fractures. A fracture adjacent (either above or below) to the treated vertebra occurs in 7%–20% within 1 year, but some of these are probably due to underlying disease and not the procedure (choice C is correct). Other complications include infection and cement extravasation and even embolization. Choices A, B, and D are incorrect because these complications are much less common than an adjacent fracture.

Annotation

Alsoof D, Anderson G, McDonald CL, Basques B, Kuris E, Daniels AH. Diagnosis and management of vertebral compression fracture. Am J Med 2022;135(7):815–821. DOI: 10.1016/j.amjmed.2022.02.035

Brogan S, Junkins S. Interventional therapies for the management of cancer pain. J Supp Oncol 2010;8:52–59.

Chwistek M, Mehta R. Fast Facts and Concepts #202. Vertebroplasty and Kyphoplasty for Vertebral Compression Fractures. November 30, 2023. Available at https://www.mypcnow.org/fast-fact/vertebroplasty-and-kyphoplasty-for-vertebral-compression-fractures/. Accessed August 21, 2024.

21. An 83-year-old male has been under hospice care for 2 months with a primary diagnosis of vascular dementia. Upon hospice admission he also had a diagnosis of stage III chronic kidney disease (CKD). Home medications include levetiracetam, apixaban, sennosides, and levothyroxine. His dementia is continuing to progress. It is becoming more difficult to get him to take his medications, and his family is asking his hospice team if there is a way to decrease his pill burden. His ambulatory status is diminished.

Of the following, which medication is the most appropriate to deprescribe?

A. Levetiracetam.
B. Apixaban.
C. Melatonin
D. Sennosides.
E. Levothyroxine.

Correct Answer: B

Anticoagulants are one of the most common classes of medications to deprescribe, especially in this case where a patient with dementia is progressing. The benefit of discontinuing this medication outweighs the harm. This patient is a fall risk and therefore at risk for a major bleeding event. He also has CKD, and non-vitamin K antagonist (VKA) anticoagulants should be cautioned and monitored with CKD. The other options listed are appropriate to assist with comfort and symptom management at

this time. The most common classes of medications where there is often a great opportunity to "deprescribe" in the palliative setting with a high likelihood that the benefit (including just reducing the pill "burden" and reducing cost of care) outweighs the harm include (1) dementia medications (anticholinesterase inhibitors and memantine); (2) statins; (3) anticoagulants and aspirin; (4) antihypertensives; (5) insulin and oral hypoglycemics; and (6) vitamins, iron supplements, and calcium.

Annotation

Huisman BA, Geijteman EC, Arevalo JJ. et al. Use of antithrombotics at the end of life: an in-depth chart review study. BMC Palliat Care 2021;20:110. https://doi.org/10.1186/s12904-021-00786-3

Strothers HS, Patel D. Older adult population. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:320–344.

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Section 3

Care Transitions Including End of Life

10

Death and the Death Event

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Withdrawal of Life-Sustaining Therapies

1. The neonatal intensive care unit (NICU) consults you as a member of the pediatric palliative care team to assist the treating team in managing a baby girl born at 28 weeks' gestation. She has been diagnosed with both trisomy 18 (Edward's syndrome) and hypoplastic left heart syndrome. This is the parents' second child. Your consult came as resuscitation efforts have restored a faint heartbeat, the infant has been intubated, and intensive cardiac support has begun. The NICU team feels the infant will code again soon and that at best she could live several hours. The infant's mother wants to continue aggressive medical management, while her father wants to withdraw life support and allow his daughter to die a peaceful death.

What would be least helpful in this situation?

- **A.** Educate the parents on the outcomes of patients with this diagnosis.
- **B.** Answer the parents' questions around what to expect in the plan of care.
- **C.** Suggest a time-limited trial of intensive care support, and meet the family again in 24 hours to reassess.
- **D.** Facilitate a conversation with the interdisciplinary team (IDT) around decision-making strategies and goals of care.
- **E.** As the baby is full code, continue resuscitative efforts.

Correct Answer: C

C is correct because there may not be 24 hours before the baby codes again. The team is already doing a time-limited trial because the baby is already in the NICU and receiving all medical support.

Parents often want to support the care team in caring for their child. Collaborative and patient- and family-centered care is crucial in this moment. Empowering parents, educating parents, and emphasizing clear language with parents in these moments provide a normalization to trust their judgment. The alternative of allowing parents complete autonomy can lead to an experience of abandonment. Clinical teams should emphasize clear communication that upholds the institution's commitment to honor their wishes while also providing the evidence-based facts. To achieve this, care teams should utilize "microethics" of language, which entail clarity of language, the perception of prognosis, and upholding a family's decision-making capabilities. As parents make decisions, and change their mind, approach these decisions with care, emphasizing their love for their child and the difficulty in making decisions.

Annotation

Church PT, Dahan M, Rule A, et al. NICU language, everyday ethics, and giving better news: optimizing discussions about disability with families. Children 2024;11(2):242. DOI: 10.3390/children11020242

Janvier A, Barrington KJ. Delayed withholding: disguising withdrawal of life sustaining interventions in extremely preterm infants. Am J Bioethics 2022;22(11):43–46. DOI: 10.1080/15265161.2022.2123986

Nelson KE, Janvier A, Nathanson PG, Feudtner C. Ethics and the importance of good clinical practices. Am J Bioethics 2020;20(1):67–70. DOI: 10.1080/15265161.2019.1688428

2. A 59-year-old man with advanced chronic obstructive lung disease has been hospitalized several times for exacerbations. During this hospitalization, he was intubated and transferred to a critical care unit, where he has not improved over 10 days. He also has moderate dementia, poorly controlled

diabetes, and a prior stroke. His family decides not to progress to tracheostomy and instead to withdraw life support, concentrating on aggressive symptom management. He has been on a short-acting paralytic agent for several days to prevent him from becoming agitated. There is no underlying renal or liver disease.

As part of the process of compassionate withdrawal of life support, how should the paralytic agent be managed?

A. Continue it at full dose, to make the patient appear more peaceful.
B. Reduce its dose, and use titrated doses of lorazepam in its place.
C. Discontinue it before proceeding to withdrawal of life support.
D. Discontinue it at the same time as the withdrawal of life support.

Correct Answer: C

Paralytic agents should always be discontinued before withdrawal of mechanical ventilation, and they should never be started as part of the withdrawal process, to make the patient appear more peaceful. As these drugs are generally neither sedating nor analgesic, they provide no benefit to the patient during the withdrawal process, and their presence makes it impossible to assess the comfort of the patient. Further, in rare cases, patients survive a supposed terminal wean, and if the patient were paralyzed, he would have no chance of breathing; use of paralytics in this situation is unethical.

In usual modern practice, short-acting paralytics are discontinued first, and 30–60 minutes later, they will be out of the circulation, allowing withdrawal of mechanical ventilation to proceed. In cases where older long-acting paralytic agents are used, especially in patients with liver or renal disease where their clearance is impaired, it may take hours or days for the drugs to clear the circulation. In these rare end-of-life cases, clinicians must decide if prolonged life support is indicated until neuromuscular function completely returns. Due to adverse effects, long-acting paralytic agents are used less often in critical care practice.

This information is best summarized by choice C, while choices A, B, and D are incorrect.

Annotation

Truog RD, Campbell ML, Curtis JR, et al. Recommendations for end-of-life care in the intensive care unit: a consensus statement by the American College [corrected] of Critical Care Medicine. Crit Care Med 2008;36:953–963. DOI: 10.1097/CCM.0B013E3181659096

Von Gunten CF, Weissman DE. Fast Facts and Concepts #34. Symptom Control for Ventilator Withdrawal in the Dying Patient. November 2023. Available at: https://www.mypcnow.org/fast-fact/symptom-control-for-ventilator-withdrawal-in-the-dying-patient/. Accessed October 10, 2023.

3. You are asked to see a 75-year-old retired teacher with end-stage chronic obstructive pulmonary disease (COPD) who has been on mechanical ventilation in the intensive care unit (ICU) for 3 weeks following a severe exacerbation. His medical history includes coronary artery disease, type 2 diabetes, and recurrent pneumonia. Despite maximal medical therapy, including broad-spectrum antibiotics, bronchodilators, and steroids, he shows no improvement in respiratory function. He remains fully ventilator-dependent, with no ability to breathe spontaneously.

Prior to this admission, the patient had multiple conversations with his family about his wishes, consistently expressing that he would not want to live long-term on a ventilator if there was little chance of recovery. He completed an advance directive reflecting these wishes, naming his daughter as his healthcare proxy.

Currently, the patient is sedated with propofol and fentanyl for ventilator synchrony and is unable to communicate. His daughter, after consulting with her siblings, approaches the ICU team requesting withdrawal of ventilator support. The ICU team notes that her father's condition is unlikely to improve, with a predicted mortality of >90% if ventilation is continued.

What is the most appropriate next step in this situation?

A. Discontinue mechanical ventilation based on the family's request.
B. Conduct a comprehensive family meeting to discuss the implications of ventilator withdrawal.
C. Consult the hospital ethics consultation service.
D. Gradually reduce sedation to assess if the patient can participate in decision-making.
E. Recommend a tracheostomy for long-term ventilator support.

Correct Answer: B

Choice B is correct. A family meeting allows for a thorough discussion of the patient's condition, prognosis, and wishes. It provides an opportunity to explain the process of ventilator withdrawal, discuss symptom management, and address any concerns or questions the family may have.

Choice A is incorrect. Immediate discontinuation without proper preparation and discussion could lead to patient distress and family trauma.

Choice C is incorrect. While an ethics consult can be helpful in complex cases, it is not necessary here given the clear prior wishes of the patient and the family's alignment with those wishes.

Choice D is incorrect. Attempting to wake the patient might cause unnecessary discomfort and delay the process, especially given his prior expressed wishes and current poor prognosis.

Choice E is incorrect. Continuing ventilation and recommending tracheostomy go against the patient's previously expressed wishes and the family's current request.

Annotation

Kon AA, Davidson JE, Morrison W, et al. Shared decision making in ICUs: an American College of Critical Care Medicine and American Thoracic Society policy statement. Crit Care Med 2016;44(1):188–201. DOI: 10.1097/CCM.0000000000001396

Glajchen M, Wilkins C. Enhanced communication skills. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:44–60.

4. You are seeing a 79-year-old man with diabetes and coronary artery disease who was admitted to the ICU following a cardiac arrest at home. He has been on mechanical ventilation for the past week, and multiple neurological assessments indicate severe, irreversible brain damage with no hope for meaningful recovery. He has an advance directive stating that he does not wish to receive life-sustaining treatment if he is in a persistent vegetative state or has no reasonable chance of recovery. His spouse and three adult children are at his bedside. The spouse agrees with withdrawing life support

per the advance directive, but the children are adamant about continuing all possible treatments.

Which one of the following is the most appropriate action for the healthcare team to take in this situation?

A. Continue all life-sustaining measures, respecting the children's wishes.
B. Withdraw life support, honoring the patient's advance directive and medical prognosis.
C. Hold a family meeting to mediate the disagreement between family members.
D. Seek a court order to enforce the advance directive.
E. Transfer the patient to a long-term care facility for continued life support.

Correct Answer: C

Choice C is correct. It is imperative to honor the patient's advance directive. However, this does not need to happen immediately. Palliative care sees the patient and family as a unit of care. To help this patient and family come to terms with what has happened acutely, a family meeting would be of significant benefit. Palliative care clinicians are comfortable with conflict and helping family members face difficult decisions.

Choice A is incorrect because it ignores the patient's advance directive and autonomy, which are fundamental principles in medical ethics.

Choice B is incorrect because withdrawal of life support need not happen immediately.

Choice D is incorrect as the advance directive provides clear instructions on the patient's wishes, and the family is available to make decision.

Choice E is incorrect because transferring the patient to another facility to continue life support violates his advance directive and is unethical.

Annotation

American Medical Association. Code of Medical Ethics. Opinion 5.2: Advance Directives. https://code-medical-ethics.ama-assn.org/ethics-opinions/advance-directives. Accessed August 16, 2024.

Back AL, Trinidad SB, Hopley EK, Edwards KA. Reframing the goals of care conversation: "we're in a different place." J Palliat Med 2014;17(9):1019–1024. DOI: 10.1089/jpm.2013.0651

5. A 93-year-old woman with mild dementia has been gradually declining over several months, when she abruptly develops pneumonia with septic shock and multi-organ failure. She had previously documented her wish to avoid aggressive medical interventions at the end of life. Due to imminent respiratory failure, she is treated with non-invasive ventilation and maximal doses of three vasopressors.

Her long-term physician associate (PA) is also her hospital attending and confirms the prognosis with her family, who agree with changing the focus to comfort care. After consultation with the palliative care team, a chaplain leads them in prayer, and the bilevel positive airway pressure (BiPAP) mask is replaced with nasal cannula oxygen. She receives small doses of morphine and lorazepam due to gentle moaning.

Which one of the following is the most appropriate next step?

A. Consult the ethics committee to ensure that all appropriate state laws and hospital regulations have been followed.
B. Continue the vasopressors because stopping them would likely lead quickly to her death.
C. Discontinue the pressors and antibiotics but continue fluids because this intervention is likely to promote comfort.
D. Discontinue the antibiotics, pressors, fluids, and other support.

Correct Answer: D

This is a straightforward example of withdrawing life support. The patient left a clear advance directive, her family agrees with her advance directive, and the clinical situation is covered by her wishes. Choice A is incorrect because this is unnecessary—all the work has been done, and all that is left is withdrawal of the actual life-sustaining interventions. There is no need to consult the ethics committee in straightforward cases. Choice B is incorrect because vasopressors are clearly delaying her death, and stopping them honors her wishes. Choice C is incorrect, in that these interventions can and should be stopped in clinical situations like this. In some circumstances, the patient or family may want to continue hydration, but comfort will not be served in this patient with this intervention. Choice D is correct—proceed directly to stopping all these modalities, at once, with tapering.

Annotation

Lacey J, Cherny NI. Management of the actively dying patient. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:1104–1121.

6. You are seeing an 83-year-old man who has been receiving hemodialysis (HD) for 23 years. He is admitted to the hospital for the fifth time in 6 months. The current admission is due to sepsis secondary to cholecystitis, and he remains in the critical care unit due to septic shock. He has been managed conservatively as the surgical consult advised that cholecystectomy was too high-risk, and the patient declined cholecystostomy. He has not clinically improved since admission 8 days ago.

The nephrologist has recommended discontinuing HD since it leads to hemodynamic instability, muscle cramping, and severe fatigue. The patient has accepted this recommendation and wishes to stop all life-prolonging interventions (HD and antibiotics). He has elected do-not-resuscitate (DNR) and do-not-intubate (DNI) status, and instead he would like to redirect to comfort-focused treatments with hospice enrollment. Throughout the illness he has maintained decision-making capacity, confirmed by several members of the medical staff.

His grandson is distressed by this treatment plan and would like the medical team to continue all current interventions with escalation to full life support if needed. He feels his grandfather is committing suicide by not continuing life-prolonging interventions and has threatened to call his legal counsel.

Which one of the following is the best way to manage the emotional distress and request from the grandson?

A. Honor the grandson's wishes.
B. Consult psychiatry for capacity assessment of the patient.
C. Provide emotional support to the grandson.
D. Offer a time-limited trial of life-prolonging treatments for 3 more days.
E. Ask to resign from the case.

Correct Answer: C

Choice C is correct. A patient with decision-making capacity is allowed to make treatment decisions, even decisions with which the clinical staff or family disagree. In this case, the patient has made a rational decision to change the focus of care to comfort, and the grandson does not have the authority to countermand that decision. However, a skillful palliative care clinician can help to defuse the situation by sitting with the grandson, listening to his concerns, validating his viewpoint, and gently reinforcing the underlying principle that patients have autonomy to make their own medical decisions.

Choice A is incorrect because the patient possesses capacity and surrogate decision-making is not appropriate. Also, it is unclear from the limited information provided that this family member would be his legal next of kin. Choice B is incorrect as capacity was assessed by several clinicians, and no additional evaluation is necessary at this time. Choice D is incorrect because a time-limited trial violates the patient's clearly articulated values and preferences. Choice E should rarely be necessary; the patient is making an informed decision, one that is supported by members of the medical team. Stopping HD is a common cause of death in patients with chronic renal failure, and expert groups uniformly support the right of an autonomous patient to make this decision, with informed consent. In the unusual circumstance that a clinician thought this course of action was immoral, they could resign from the case, transferring care to another clinician. However, this is certainly not a first-line strategy in managing conflict in end-of-life situations.

Annotation

Luce JM. Physicians do not have a responsibility to provide futile or unreasonable care if a patient or family insists. Crit Care Med 1995;23(4):760–766. DOI: 10.1097/00003246-199504000-00027

Patel SS, Holley JL. Withholding and withdrawing dialysis in the intensive care unit: benefits derived from consulting the Renal Physicians Association/American Society of Nephrology clinical practice guideline, shared decision-making in the appropriate initiation of and withdrawal from dialysis. Clin J Am Soc Nephrol 2008;3(2):587–593. | DOI: 10.2215/CJN.04040907

7. A 38-year-old married woman has been suffering with amyotrophic lateral sclerosis (ALS) for a year and a half. She just recovered from a bout of pneumonia and has decided to not be hospitalized again. She accesses home hospice.

She has made it very clear to her family that she does not want to die in a hospital, utilize artificial hydration or nutrition, or be placed on a ventilator. She currently can feed herself. When her condition becomes very severe, she would like to stop eating and drinking. She has placed these views in her Physician Orders for Life-Sustaining Treatment (POLST), and her husband, though upset by the thought, is committed to following her wishes.

Which one of the following is true regarding voluntarily stopping eating and drinking (VSED) at the end of life?

A. If the provider has a moral objection to her wishes regarding artificial hydration and refusing to eat or drink, they can transfer her care to another provider.

B. If another family member objects to the patient's plans, it would be appropriate to sedate the patient and provide fluids and nutrition.

C. It is illegal to comply with her POLST.

D. If a patient with decision-making capacity decides to stop drinking and eating, the hospice may discharge her from hospice services.

Correct Answer: A

This item is not created in the standard format one would find on an exam. It is multiple true or false, but for the purposes of this subject, it is an important study question.

VSED is an active decision by a competent patient with advanced illness to stop eating and drinking as a mechanism to intentionally hasten their death. It requires both the patient's intent and resolve. Clinicians can assess the reason for the request, provide information on what to expect, and support the decision. VSED may take days or weeks to accomplish. This time can allow grieving, special time with family and friends, or even changing one's mind. Death from VSED is generally peaceful, and standard palliative medications can help with uncomfortable symptoms. VSED is legal in all states (choice C is incorrect), although individual clinicians may have a moral objection to the decisions. In this case, that clinician can transfer care to another provider (choice A is correct).

As the patient is likely to lose the ability to make her own decisions at the end of the process, it is important to involve the family so that the patient's wishes remain central. Another issue is that occasionally patients become delirious near the end of life and may forget their previous decisions.

Choice B is incorrect because clinicians should continue to follow the patient's clearly defined wishes, even when they lose decision-making capacity. Hospices should be comfortable discussing VSED with patients, and a patient's autonomous and informed decision to utilize this option cannot be grounds for discharge from hospice (choice D is incorrect).

Annotation

Macauley RC. The "right to die." In: Ethics in Palliative Care: A Complete Guide. Oxford University Press; 2018:152–155.

Quill TE, Ganzini L, Truog RD, Pope TM. Voluntarily stopping eating and drinking among patients with serious advanced illness—clinical, ethical and legal aspects. JAMA Intern Med 2018;178:123–127. DOI: 10.1001/jamainternmed.2017.6307

8. A 78-year old woman was diagnosed with myelofibrosis 18 months ago and has received red cell transfusions every 2–4 weeks. At first, these improved her stamina and relieved dyspnea; but recently she has noticed little or no improvement after the transfusion, and she wonders whether they are worth traveling to the infusion center to continue. After counseling with you, she decides to stop the transfusions, access hospice, and concentrate on aggressive symptom management and comfort. She asks you whether she should still consider cardiopulmonary resuscitation (CPR).

Which one of the following is the most appropriate response?

A. CPR involves pressing on your chest and inserting a breathing tube to try to get your heart and lungs restarted. In my opinion, that option has many risks and few benefits for you. I recommend against it.

B. We can massage your heart and slip in a small breathing tube to help your breathing. These are both elements of CPR. I will support whatever you decide.

C. CPR is too harsh for someone like you. The doctors have to press on your chest, possibly fracturing ribs, and forcefully push a tube down your throat. You do have that option.

D. You must be DNR to be on hospice. If you want to remain full code, you must revoke hospice.

Correct Answer: A

In helping patients make complex medical decisions, the most important issue is always the big-picture goal for the patient. In this case, the patient says her overarching goals are symptom management and comfort. After the primary goal is clear, discuss the proposed interventions. Discuss the benefits and burdens, individualizing them to the unique situation at hand. Honor the patient's values in thinking through options.

In this case, as the patient has clearly told you her goals of care, frame risks and benefits of CPR based upon her goal of comfort. Choice C is incorrect because you can help her look at CPR based on her overall goal of comfort, rather than simply asking her to choose. Choices B and D are incorrect (and rude) because both utilize emotionally charged language that appears to lead the patient to a "correct" choice. Choice A, on the other hand, uses more neutral language, and it includes your recommendation, framed by her goal of care. Choice D is incorrect because Medicare-certified hospices are prohibited by federal regulation from requiring a DNR status to access hospice services.

Annotation

Billings JA. The end-of-life family meeting in intensive care. Part I: indications, outcomes, and family needs. J Palliat Med 2011;14:1042–1050. DOI: 10.1089/jpm.2011.0038

Billings JA. Part II: family-centered decision making. J Palliat Med 2011;14:1051–1057. https://doi.org/10.1089/jpm.2011.0038-b

Billings JA, Block SD. Part III: a guide for structured discussions. J Palliat Med 2011;14:1058–1064. DOI: 10.1089/jpm.2011.0038-c

Ko D, Evans-Barns H, Blinderman C. Witholding and withdrawing life-sustaining treatment (including artificial nutrition and hydration). Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:1170–1180.

Manifestations of Impending Death

9. A 79-year-old female has just been admitted to your local hospice house for general inpatient hospice care. She has been on hospice service for 5 months. Her family has noticed that she has had decreasing oral intake, decreasing urine output, increasing agitation, and new hallucinations. On exam you also note decreased blood pressure and mottling and confirm severe agitation. The agitation and hallucinations are very distressing to the family.

After exhausting all non-pharmacological interventions, what is the next best pharmacological intervention?

A. Morphine 4 mg intravenously (IV) every 4 hours as needed.
B. Quetiapine 12.5 mg PO every 12 hours as needed.
C. Chlorpromazine 12.5 mg IV every 4 hours as needed.
D. Haloperidol 0.5 mg IV every 2 hours as needed.
E. Lorazepam 0.5 mg IV every 2 hours as needed.

Correct Answer: D

Haloperidol remains the gold standard for treating terminal delirium. Although chlorpromazine is an effective alternative, it tends to have more hypotensive side effects. Lorazepam can be used as a combination with haloperidol but is not recommended as first-line monotherapy. Quetiapine is another option, but in this case an oral intake option would not be recommended given that the patient appears to be actively dying.

Annotation

Manschreck C, Alici Y, Breitbart W. Delirium in the terminally ill. Breitbart W, Chochinov H (eds). In: Handbook of Psychiatry in Palliative Medicine, 3rd edition. Oxford University Press; 2022:77–99.

10. You are at the bedside of a 98-year-old woman in an inpatient hospice. She had been admitted to home hospice 10 weeks earlier with both end-stage dementia and advanced breast cancer. Her transfer to the inpatient setting was prompted by increasing pain and dyspnea, which improved with titrated IV doses of morphine. She has had no oral intake in 5 days and is actively dying. Her family is distressed by the increasing oral secretions and gurgling. She has a history of delirium from medications, although she tolerated the morphine doses. They ask you to do something to manage this upsetting symptom.

Which one of the following is the best option to manage her noisy secretions while minimizing the risk of delirium?

A. Glycopyrrolate.
B. Hyoscyamine.
C. Scopolamine.
D. Atropine 1% ophthalmic solution.
E. Oral suctioning as needed.

Correct Answer: A

Glycopyrrolate, hyoscyamine, atropine, and scopolamine are anticholinergic agents used to treat terminal secretions by blocking cholinergic receptors present in the exocrine glands and inhibiting salivary and bronchial secretions. Prescribing glycopyrrolate (choice A) is correct because unlike hyoscyamine, atropine, or scopolamine, it does not cross the blood–brain barrier.

Even low dosages of scopolamine (choice C), atropine (choice D), and hyoscyamine (choice B) have been associated with acute cognitive changes, probably because they all cross the blood–brain barrier.

Option E, suctioning a patient who is actively dying with excessive secretions, will likely not be beneficial. Although the patient has lost the gag reflex, the act of suctioning may be uncomfortable and invasive. In addition, the act of suctioning removes the secretions for a very short time and does not prevent further buildup of secretions.

One strategy to prevent this situation is to start an anticholinergic drug when the patient becomes stuporous or comatose, in end-of-life vigil. This strategy has been shown in a randomized trial to be much more effective than waiting until noisy secretions become problematic. The reason is probably that these drugs can inhibit the production of new secretions but do not remove secretions already present in the airways.

Annotation

Prommer E. Anticholinergics in palliative medicine: an update. Am J Hosp Palliat Med 2012;30:490–498. DOI: 10.1177/1049909112459366

Twycross RG, Wilcock A, Cox J, Mihalyo M, Charlesworth S. Hospice and Palliative Care Formulary USA. Nottingham, UK: palliativedrugs.com; 2006:3–8, 158–160, 375–377.

White C, McCann MA, Jackson N. First do no harm . . . terminal restlessness or drug-induced delirium. J Palliat Med 2007;10:345–351. DOI: 10.1089/jpm.2006.0112

11. An 82-year-old man with advanced chronic obstructive pulmonary disease, heart failure with reduced ejection fraction,

moderate Alzheimer's dementia, and hormone-refractory prostate cancer metastatic to bone has been on home hospice for 3 months. Over the last several days, he has become less responsive and is now unable to eat or drink.

His medications include fentanyl 50 mcg patch changed every 3 days, morphine immediate release 15 mg PO every 3 hours PRN pain, senna two tablets PO QHS, lorazepam 0.5 mg PO twice daily, dexamethasone 4 mg PO every morning, furosemide 40 mg PO daily, lisinopril 20 mg PO daily, and carvedilol 6.25 mg PO twice daily. He uses the morphine immediate-release three to four times per day.

He can no longer swallow the immediate-release morphine tablet. You estimate his life expectancy as hours to a few days; the family hopes that he can remain at home.

What is the next best step?

A. Leave the fentanyl patch on, and prescribe additional fentanyl patches.
B. Remove the fentanyl patch, and discontinue the oral immediate-release morphine, replacing them with a continuous morphine infusion at 1 mg/hour.
C. Remove the fentanyl patch, and discontinue the oral immediate-release morphine, replacing them with morphine 4 mg IV every 3 hours as needed for pain infusion.
D. Leave the fentanyl patch on, and provide morphine 20 mg (1 ml of the 20-mg/ml concentrate) in the buccal space every 2–3 hours as needed for breakthrough.

Correct Answer: D

In patients who are dying and cannot reliably swallow oral medications, convert opioids from long-acting products to immediate-release oral products or to IV or subcutaneous drips. For patients on a fentanyl patch, there are several options: (1) remove it and replace it with another opioid, probably via IV; (2) leave the patch on and titrate analgesia with another short-acting opioid; or (3) switch to a fentanyl infusion at the same or a slightly lower dose. The fentanyl patch takes several days to reach steady state, so it cannot be used alone for acute pain (choice A is incorrect).

Choice B is incorrect because not only is the opioid conversion miscalculated but the interventions are cumbersome for a patient who is imminently dying and risk smooth control of the pain management.

Choice C is also incorrect as this increases the complexity of care for the patient dying at home.

Choice D is correct given his limited prognosis and desire to be at home for end of life. Leave on the long-acting fentanyl patch, and change the morphine immediate-release tablet to a concentrated form of morphine that can be placed in the buccal space. Using as-needed morphine short-acting as death approaches is prudent to avoid overmedication as urine output diminishes.

Annotation

Weinstein E, Arnold RM, Weissman DE. Fast Facts and Concepts #54. Opioid Infusions in the Imminently Dying Patient. November 2023. Available at: https://www.mypcnow.org/fast-fact/opioid-infusions-in-the-imminently-dying-patient/. Accessed October 10, 2024.

Ferris FD, von Gunten CF, Emanuel LL. Competency in end-of-life care: last hours of life. J Palliat Med 2003;6:605–613. DOI: 10.1089/109662103768253713

Plonk WM, Arnold RM. Terminal care: the last weeks of life. J Palliat Med 2005;8:1042–1054. DOI: 10.1089/jpm.2005.8.1042

12. An 86-year-old male with end-stage dementia has been hospitalized three times over the last 6 months for either a urinary tract infection (UTI) or aspiration pneumonia. He is hospitalized again and just finished IV antibiotics for another UTI with no signs of improvement. He continues to decline, has become less and less interactive, and has not been eating. He has a DNR/DNI in place, and the nurse calls you to the bedside as the patient's daughter is concerned that he is no longer recognizing her or interacting and that there is a "rattling" sound coming from his mouth.

Which of the following agents is recommended for the symptoms displayed by this patient?

A. Sublingual atropine sulfate.
B. IV atropine sulfate.
C. Transdermal scopolamine patch.
D. IV glycopyrrolate.

Correct Answer: D

This patient is actively dying. Terminal secretions, or the "death rattle," occur in patients at the end of life because of pooling of oral or bronchial secretions. It is not shown to be distressing to the patients, but it can be very hard on families to witness. Anticholinergic agents are routinely used in clinical practice to manage these secretions commonly seen at the end of life. All the listed agents are reasonable choices to treat this symptom, but they also are known to cross the blood–brain barrier and thus can result in central nervous system (CNS) toxicity and worsened delirium. Choice D, glycopyrrolate, is the most appropriate choice as it is a quaternary amine which does not cross the blood–brain barrier and carries less risk of exacerbating delirium.

Annotation

van Esch HJ, van Zuylen L, Geijteman ECT, et al. Effect of prophylactic subcutaneous scopolamine butylbromide on death rattle in patients at the end of life. JAMA 2021;326: 1268–1276. DOI: 10.1001/jama.2021.14785

Heisler M, Hamilton G, Abbott A, et al. Randomized double-blind trial of sublingual atropine vs. placebo for the management of death rattle. J Pain Symptom Manage 2013;45:14–22. DOI: 10.1016/j.jpainsymman.2012.01.006

Management of the Death Event

13. Labor and delivery consults you as a member of the pediatric palliative care team to assist the treating team in helping the patient, a 24-year-old pregnant woman. She and her partner of 3 years are expecting their first child. Yesterday, she noticed vaginal bleeding and rushed to the hospital. Gestational age of the fetus was 33 weeks; unfortunately, ultrasound confirms an intrauterine fetal demise (IUFD). The parents are confused about next steps and how to make arrangements, while they also want to remember their baby and honor the baby's life.

What would be your next best step in this situation?

A. Provide a brochure with the hospital's next steps listed.
B. Have a conversation with the mother, father, and staff members.
C. Refer to the hospital's policy on final disposition of fetal remains documentation.
D. Ask the family for their preferred funeral home and make initial calls.

E. Request that the chaplain meet first with the family to discuss disposition and the need to grieve.

Correct Answer: B

Choice B is correct. The death of any child is difficult, and fetal demise representing a child whom the parents did not meet compounds grief. Families often sense a powerlessness and lack of control in moments of grief and bereavement. These young parents need clear communication, deep listening, and education of what is next. A conversation with a decedent affairs coordinator, a chaplain, a social worker, or whomever is tasked with this role can give the family voice in what happens next (with respect to legal stipulations in various jurisdictions). In this space, a family is able to name what is important to them and important in making meaning of this baby's life.

Choice A is cold and impersonal; it does not adequately address the emotions of the young parents. Choices C and D are practical issues that may be important, but they are not the first step. Choice E is wrong because the best choice would include the complete team.

Annotation

Meaney S, Corcoran P, Spillane N, O'Donoghue K. Experience of miscarriage: an interpretative phenomenological analysis. BMJ Open 2017;7:e011382. https://doi.org/10.1136/bmjopen-2016-011382

Nuzum DR. Experience of spiritual distress in an acute setting: living with perinatal loss. Kelly E, Swinton J (eds). In: Chaplaincy and the Soul of Health and Social Care: Fostering Spiritual Wellbeing in Emerging Paradigms of Care. Jessica Kingsley Publications; 2020:38–49.

14. The pediatric ICU (PICU) consults you as a member of the pediatric palliative care team to assist with the next steps for an 8-year-old girl pronounced dead by neurologic criteria after a second brain death exam. The patient suffered an anoxic brain injury after drowning 2 weeks ago. She has not progressed clinically, and no cerebral blood flow on nuclear medicine study was confirmed. PICU intensivists conducted two brain death examinations, 24 hours apart. Each test confirmed brain death. After the second exam, as the doctor declared "time of death 1507," the patient's mother refused to believe the news and stated that "as long as her heart is beating, my daughter is alive."

What would be your next best step in this situation?

A. Refer to the hospital's ethics committee.
B. Inform mom that her daughter is dead, and end all care treatments.
C. Leave the patient on all life-sustaining machines indefinitely per the mother's wishes.
D. Refuse to talk to the mother as the declaration of death has been made.
E. Consult with the palliative care team to allow the mother to grieve and move forward.

Correct Answer: E

Each hospital should have policies for clear communication and expectations around death by neurological criteria (brain death). Normalizing for families that although it looks as though their loved one is breathing, the machines they are hooked up to are providing the support. Similarly, although they are warm to the touch, this is also from the support they are receiving. At each moment, the medical team should inform the family why they are discontinuing certain medications or machines.

Choice E is correct. First, best practice includes the medical team using clear language ("your daughter has died"). Second, as the medical team continually builds trust with a family, they constantly balance supporting the patient's and family's spiritual/religious beliefs with the needs of the institution. Finally, collaborate with the pediatric palliative care team to address multiple biopsychosocial/spiritual aspects of the family's holistic care.

Choice A is not correct. Although referral to a bioethics committee may become advisable, a palliative care team should be able to initially address this scenario. Choice B is incorrect because it is abrupt and does not acknowledge the mother's distress. Choice C is incorrect because the criteria for brain death have been met; in most cases like this, counseling will ease the concerns of the family. Choice D is incorrect because it is inappropriate and unprofessional; a situation like this requires more communication, not less.

Annotation

Eisenberg LR. Disputes over diagnosing death: is it ethical to test for death by neurologic criteria over parental objection? Am J Bioethics 2023;23(1):86–87. DOI: 10.1080/15265161.2023.2146408

Fatehi Hassanabad A, Kidd WT, Novick RJ, Warshawski F, Kromm JA. Brain death post cardiac surgery: a modified apnea test to confirm death by neurologic criteria for a patient on extracorporeal membrane oxygenation. J Card Surg 2022;37(6):1764–1769. DOI: 10.1111/jocs.16428

Kitamura EA, Lewis A. A thematic analysis of a survey of hospital chaplains on death by neurologic criteria. J Health Care Chaplain 2023;29(1):105–113. DOI: 10.1080/08854726.2022.2040893

15. A 70-year-old man with metastatic pancreatic cancer is receiving hospice care at home. He has become increasingly weak and lethargic over the past week, with a significant decline in oral intake. His family worries that the patient is dehydrated. His daughter, who lives two states away, is planning to come next week and is wondering if she needs to come sooner. On assessment, the patient appears drowsy and is experiencing periods of unresponsiveness. His respiration is slow and regular. His pulse is rapid, and his radial arterial pulse is palpable. His urine output has been decreasing, and he has developed audible secretions in the upper airway. The patient has orders for as-needed immediate-release morphine, lorazepam, haloperidol, acetaminophen, bisacodyl, and glycopyrrolate.

As the PA caring for the patient, what is the most appropriate next step in the management of this patient?

A. Administer IV fluids to reverse the patient's current dehydration.
B. Initiate discussions with the patient (if able) and family about advance care planning.
C. Encourage his daughter to come since the patient is actively dying.
D. Administer Narcan (naloxone) as the patient is likely experiencing opioid side effects.
E. Aggressively suction the upper airway as the patient has aspirated.

Correct Answer: C

The terminal phase occurs when a patient experiences irreversible decline before death. It can last from hours to days, sometimes weeks. Recognizing this phase is crucial for end-of-life care. Most patients die peacefully, transitioning from sleepiness to coma; but some experience restlessness, confusion, and

even seizures. Near death, vital signs like blood pressure and heart rate often change, but no combination of vital signs reliably predicts death. In the last days, signs like urine output dropping to less than 100 ml per 12 hours, apnea periods, respiration with mandibular movement, death rattle, and pulselessness of the radial artery are significant indicators of a prognosis measured at 3 days or less.

Of note, there are two types of death rattle. Type I, or true death rattle, likely results from saliva pooling in the upper airways due to weakened swallowing and coughing reflexes. Type II more commonly involves bronchial secretions from various causes like infections or pulmonary issues and is less responsive to anticholinergic medications. Studies show no significant link between hydration status and death rattle development. True death rattle is a strong predictor of death, with most patients dying within around 48 hours of its onset.

The patient in the vignette has many of the signs of impending death, so the PA should advise the daughter to come now to visit her father (choice C is correct).

Excessive hydration can worsen symptoms like edema, especially in patients with low albumin. Trials of fluids are sometimes indicated, depending on the wishes of the patient and families, but are rarely useful so close to death (choice A is incorrect). In the vignette, the patient will likely die within the coming days and is enrolled in hospice care, so starting discussions around advance care planning will not likely benefit the situation (choice B is incorrect). Recognizing the signs of impending death would be key to distinguishing from opiate or benzodiazepine overdose. Administration of Narcan could cause discomfort (choice D is incorrect). Lastly, given the death rattle is a natural part of the dying process, aggressive suctioning would not help the patient, would increase the risk of bleeding, and could distress the caregivers (choice E is incorrect).

Annotation

Ackermann R. Last days and hours of life. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:409–416.

Lacey J, Cherny NI. Management of the actively dying patient. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:1104–1121.

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11

Grief, Loss, and Bereavement

ELIZABETH FRICKLAS, JOSHUA T. MORRIS, COURTNEY MOSLEY, SARAH BLAKE, MEGAN HIRSCHEL, AND REBEKAH HALPERN

Anticipatory Grief

1. A 60-year-old man recently diagnosed with amyotrophic lateral sclerosis (ALS) is experiencing a rapid decline in his physical abilities. He also expresses feelings of profound sadness and anxiety and a sense of impending loss regarding his future and the impact on his family. His spouse also reports feeling overwhelmed and fearful about the progression of his disease and the anticipated loss. They both seek support from the healthcare team to cope with these emotions.

What is the most appropriate intervention to help the patient and his spouse manage these emotions?

A. Prescribe antidepressants to manage his sadness.
B. Refer him and his wife to a support group for patients and families dealing with ALS.
C. Encourage him and his wife to focus on positive aspects and avoid discussing the disease.
D. Recommend cognitive behavioral therapy (CBT) to address their anxiety and emotional distress.
E. Suggest that he and his wife create a detailed advance care plan to address future medical decisions.

Correct Answer: B

Choice B is correct. Support groups provide a space for patients and families to share experiences, gain emotional support, and learn coping strategies from others facing similar challenges. This can be particularly beneficial in managing anticipatory grief by fostering a sense of community and understanding. It helps both the patient and his wife to not feel isolated in their experience and to learn from others who are in similar situations.

Choice A, prescribing antidepressants, may be appropriate if the patient is clinically depressed, but it does not directly address the anticipatory grief that both he and his wife are experiencing.

Choice C, encouraging the couple to focus on positive aspects and avoid discussing the disease, may lead to avoidance and does not provide a healthy outlet for processing their emotions.

Option D, recommending CBT, can be beneficial for managing anxiety and emotional distress, but support groups specifically tailored to ALS may provide more targeted support for anticipatory grief.

Option E, suggesting the creation of a detailed advance care plan, is important for future medical decisions but does not directly address the emotional and psychological aspects of anticipatory grief. Recommending this in isolation may add to his hopelessness. However, of note, there is a real difference noted in advance care planning (ACP) with the caregivers: when cancer decedents were engaged in ACP as a whole, more positive impacts on caregiver perceptions of the end-of-life experience occurred, compared to cancer decedents who had engaged in only some of its parts. Thus, uneven engagement in ACP serves as an important clinically modifiable target that has the potential to improve the end-of-life care experience among cancer patients and the perceptions of those experiences among bereaved caregivers.

Annotation

Byock IR. The nature of suffering and the nature of opportunity at the end of life. Clin Geriatr Med. 1996;12(2):237–252.

Wright AA, Zhang B, Ray A, Mack JW, Trice E, Balboni T, Mitchell SL, Jackson VA, Block SD, Maciejewski PK, Prigerson HG. Associations between end-of-life discussions, patient mental health, medical care near death, and caregiver bereavement adjustment. JAMA. 2008;300(14):1665–1673. doi: 10.1001/jama.300.14.1665

2. You are consulted as a member of the pediatric palliative care team to assist a 10-year-old girl who is admitted with a pontine glioma. She knows the prognosis is not good and asks you if she is dying. When you inquire if she has talked to her family about this, she says, "No, they won't tell me anything."

As you explore more, the patient notes that she believes she is going to heaven to be with her maternal grandmother. In addition, she has other ideas of how she wants her admission to go, but the patient is frustrated and has difficulty expressing her thoughts.

What would be your next best step in this situation?

A. Emphasize what her parents are going through.
B. Agree that the patient should tell her parents how she feels.
C. Encourage a family meeting with the patient, her parents, and the clinical team.
D. Inform the patient, without her parents present, that she is dying.

Correct Answer: C

The palliative care team should emphasize the patient's grief and her autonomy during her terminal illness, in the context of her family. A family meeting could offer a safe space to facilitate a discussion around grief, bereavement, and loss for each member of the family. Choice C is correct.

Choice A is incorrect because, at least during the first visit, the focus should be on the patient, allowing her as much autonomy as is realistic and listening to her concerns. Choice B may eventually be useful, but the palliative clinician needs to learn much more before being so direct. A family meeting can provide a platform for the patient to feel supported while openly discussing her feelings. Choice D is not appropriate because the parents have not provided their consent for providing this information.

Annotation

Bratt J. Pastoral aesthetics for pediatric bioethics. Pastor Psychol. 2021;70(6):607–615. doi: 10.1007/s11089-021-00973-2

Glasner BG, Strauss AL. Awareness of Dying: A Study of Social Interaction. Aldine; 1965.

Renaud S, Engarhos P, Schleifer M, Talwar V. Talking to children about death: parental use of religious and biological explanations. J Psychol Christianity. 2013;32(3):180–191.

Grief and Bereavement Patterns

3. The neonatal intensive care unit (NICU) consults you as a member of the pediatric palliative care team for a 26-week gestational age baby boy, who requires respiratory support. This is the family's first child. The mother is still recovering from emergency C-section secondary to preeclampsia, the father is crying in the NICU, and the bedside nurse is requesting support for the father who is feeling helpless.

What should happen immediately in this situation?

A. Educate the parents on the rules and norms of the NICU.
B. Answer the parents' questions around what to expect in the plan of care.
C. Normalize the father's emotions.
D. Speak with the chaplain and social worker about coping strategies.
E. Inform the parents that their emotions make it difficult for other families to be present.

Correct Answer: C

The birth of a child is a joyous occasion. When infants are born pre-term, however, the caregivers can experience this NICU admission with anxiety, shame, distress, and spiritual distress. Research shows that fathers' coping strategies are impacted as well relating to measures of worry, loss, and grief around role confusion. Coping strategies can be life-enhancing or life-limiting. The staff can support the psychospiritual and emotional needs of families by understanding coping strategies. Coping is how individuals handle a stressor. The best choice is C, to normalize the father's emotions, and this will allow the nurse to focus on patient care. Then there would be time to consult experts such as chaplain or social workers about coping strategies (choice D is incorrect).

Choice A is incorrect because with acute severe stress, the most important first strategy is to comfort the parents, not inform them of unit rules. Choice B is incorrect because it is not the first item of business, and technical information like that probably best comes from the NICU staff. Choice E is incorrect because it discounts valid emotions and may be perceived as hostile or antagonistic.

Later strategies to help families to cope include normalizing and emphasizing that the parents did nothing "wrong" to cause their premature infant to be born early. Encourage families that their love for and "protection" over their child are the same as for any parent. Introduce opportunities for families to cope. One example could be allowing families to participate in skin-to-skin time as well as assisting the medical team in tasks such as "touch times" or clustered care times for premature babies (changing diapers, oral hygiene, etc.).

Annotation

Ambuel B. FastFact 29: Responding to Patient Emotion. January 29, 2019. https://www.mypcnow.org/fast-fact/responding-to-patient-emotion/. Accessed August 19, 2024.

Beachy J. Foundational guidance in grief and bereavement. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:89–104.

Brelsford GM, Sastry A, Doheny KK. Mothers' and fathers' coping and psychological outcomes post neonatal intensive care unit (NICU) discharge: the role of religious and spiritual coping. Pastor Psychol. 2024;73(2):163–178. doi: 10.1007/s11089-023-01098-4

Doehring C. The Practice of Pastoral Care: A Postmodern Approach, 2nd edition. Westminster John Knox Press; 2015.

Nuzum DR. Experience of spiritual distress in an acute setting: living with perinatal loss. Kelly E, Swinton J (eds). In: Chaplaincy and the Soul of Health and Social Care: Fostering Spiritual Wellbeing in Emerging Paradigms of Care. Jessica Kingsley Publications; 2020:38–49.

4. The emergency department consults you as a member of the pediatric palliative care team to assist the family of the patient, a 10-year-old boy. He has been pronounced dead after trauma caused by a car accident. The staff is consulting you as they are unsure how to handle mom's grief. His mother is screaming in the room, is wailing in the hallway, and appears combative.

What would be your next best step in this situation?

A. Call security to tell the mother she needs to stop screaming or will need to leave the hospital.

B. Inform the mother that her son is dead, and she needs to get her emotions under control.
C. Allow the mother to grieve however she deems necessary.
D. With the emergency department staff, create a plan that allows the mother to grieve while also upholding the needs of the unit.
E. Inform the mother that in accordance with hospital policy, she has 2 hours at bedside to grieve.

Correct Answer: D

No two families grieve the same. For example, assuming that all Roman Catholic families will require a priest for the sacrament of the sick or assuming all families from a certain cultural background will grieve in a particular way is unhelpful and insensitive. Instead, try to provide holistic care that avoids stereotypes (whether based on religion, race, ethnicity, gender, etc.).

In this vignette, the care team is supporting two competing interests: a grieving mother and the rest of the unit. Be aware that healthy grief is a process of normalization. The staff can normalize and emphasize the grief of the mother by recognizing unique cultural issues that are always bound up with trauma. Validate mom in her grief, and explore rituals that might be healing in the moment. Further, setting boundaries around grief and the unit is appropriate. Offering a safer space on the unit to grieve in authentic ways can alleviate additional stress for the unit. This is best encapsulated by choice D, the correct answer.

Alerting security of a possible issue may be wise, but choice A is incorrect because it is too abrupt and does not validate the grief of a young mother who has just lost a child. Choice B is unhelpful; in a time of crisis, you cannot tell people that their emotions are inappropriate; you need to find a way to help her process what has happened. On the other hand, choice C is incorrect because this interaction occurs in a busy department with other patients and families, and one has to strike a balance between the needs of both. Choice E is incorrect because it seems abrupt and may not be consistent with the mother's needs.

Annotation

Coble R, Springer M. Interpersonal competence in contextualizing power dynamics in socially just spiritual care. Cadge W, Rambo S (eds). In: Chaplaincy and Spiritual Care in the Twenty-First Century: An Introduction. University of North Carolina Press; 2022:171–189.

Lamba S, Bryczowski S, Tyrie L, Weissman DE, Mosenthal AC. Fast Facts and Concepts #305. Death Disclosure and Delivery of Difficult News in Trauma. April 2024. Available at: https://www.mypcnow.org/fast-fact/death-disclosure-and-delivery-of-difficult-news-in-trauma/. Accessed October 10, 2024.

McClintock KA. Trauma-Informed Pastoral Care: How to Respond When Things Fall Apart. Fortress Press; 2022.

5. You are seeing a 54-year-old man with end-stage renal disease due to childhood-onset type 1 diabetes. He has new painful lesions on his toes and legs that are biopsy-confirmed calciphylaxis. He was referred to your clinic to aid in symptom management. He was previously counseled about the high mortality associated with calciphylaxis and is working with his attorney to get his affairs in order. He admits the pain is significant but is struggling with severe depression and anxiety when he thinks about leaving his wife and four children. The depression is so severe that he is not getting out of bed, is eating one small meal a day, and cannot sleep at night due to anxiety. You prescribe oxycodone 5 mg by mouth every 4 hours as needed for pain and will see him weekly until you find the most appropriate dose.

What is the next best step to address his symptoms?

A. Refer him to a counselor for therapy.
B. Wait to address his mood at subsequent visits since you were consulted for pain management.
C. Reassure him that his feelings are normal and provide therapeutic listening.
D. Initiate a renally dosed antidepressant.
E. Recommend local support groups for his family.

Correct Answer: D

Choice D is correct as he is displaying severe symptoms of depression. Given he is on hemodialysis, you will need to factor in renal impairment when selecting an antidepressant. Combining CBT with medications would likely be beneficial, but with his severe symptoms you would not wait to start an antidepressant.

A is incorrect as counseling is helpful for depression and anxiety; however, he has severe somatic symptoms, and you should not delay initiating an antidepressant.

B is incorrect as his symptoms are severe and fall under the purview of palliative medicine. You should address his emotional well-being as well as his physical well-being since one can affect the other.

C is incorrect; although you can provide therapeutic listening, his symptoms are affecting his ability to eat, sleep, and engage with life and should not be dismissed as a normal response to his situation.

E is incorrect; although his family might benefit from the support groups, his immediate needs are your focus. This can be a tertiary recommendation behind an antidepressant and therapy.

Annotation

Kissane DW. Depression, demoralization, and suicidality. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:747–756.

Semple D, Smyth R. Depressive illness. Semple D, Smyth R (eds). In: Oxford Handbook of Psychiatry, 4th edition. Oxford University Press; 2019:241–313.

6. Ronaldo recently lost his long-term partner, Carlos, after he was battling chronic liver disease. Ronaldo has no living relatives, and although Carlos' children were cordial with Ronaldo, they did not approve of the relationship. The children are not including Ronaldo in the planning of the funeral services and are very dismissive anytime Ronaldo tries to bring up suggestions or conversations that he and Carlos had previously. Ronaldo feels he has no one who understands his loss.

Ronaldo is most likely experiencing an example of what kind of grief?

A. Anticipatory.
B. Ambiguous.
C. Complicated.
D. Disenfranchised.
E. Traumatic.

Correct Answer: D

In this case, Carlos' children were not accepting of the same-sex relationship he had with Ronaldo, and they are not recognizing or allowing him to express his emotions as he needs to. This is an example of disenfranchised grief. His death has already occurred; therefore, anticipatory grief wound not be an appropriate answer. The death was not described as traumatic. If Ronaldo is unable to grieve as needed, this could lead to complicated grief.

Annotation

Beachy J. Foundational guidance in grief and bereavement. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:89–104.

Cheung KC, Chan KY, Yap DY. Disenfranchised grief after the death of a palliative care colleague. J Palliat Med. 2016;19(9):905. doi: 10.1089/jpm.2016.0164

7. You are seeing an 85-year-old woman at her daughter's home on hospice with a diagnosis of metastatic lung cancer with painful bony metastatic lesions. She cries out in pain periodically, especially when she attempts to ambulate or is moved. She also cries out during the day at seemingly random intervals. When asked where her pain is, she will point to her hip where a known bony lesion is, although other times she will complain of generalized pain. She will also call out that she cannot see her father and looks frantically around the room for him. Her daughter notes that her father died suddenly when the patient was in her 30s; they were very close. Her daughter shares that her mom never was able to say goodbye and has expressed regret and yearning for closure in the past. You adjust her opioids to help her bony pain. The dose increase seems to help the pain as she no longer complains of hip pain. She does persist in complaining of generalized pain. Although she seems more physically comfortable, she still appears anxious and periodically in distress.

With which team should you start as an effective resource to assess and help with her distress?

A. Social work.
B. Pharmacist.
C. Music therapist.
D. Chaplain.

Correct Answer: D

The patient is demonstrating aspects of a prolonged grief disorder and existential suffering from the sudden loss of her father. Further skilled assessment by spiritual care and interventions aligned to address spiritual distress should be initiated first. The other members will be helpful, and their assessments will add to a better understanding of how to help the patient.

While all of these can be helpful, the loss of her father and her lack of closure and constant feeling of pain are more in alignment with spiritual distress than anxiety alone. All the other answers would be helpful if she was experiencing anxiety alone or showing overt signs of delirium.

Annotation

García-Navarro EB, Medina-Ortega A, García Navarro S. Spirituality in patients at the end of life-is it necessary? A qualitative approach to the protagonists. Int J Environ Res Public Health. 2021;19(1):227. doi: 10.3390/ijerph19010227

Rego F, Nunes R. The interface between psychology and spirituality in palliative care. J Health Psychol. 2019;24(3):279–287. doi: 10.1177/1359105316664138

8. Annie has been the primary caregiver for her 89-year-old father, who was diagnosed with dementia 4 years ago. As his disease has progressed, he has been hallucinating at night, falling more, and in general needs significantly more support from Annie. Annie promised to never put her father in a facility, but she has been getting very minimal support from her husband. She has given up her weekly pickleball and missed out on family events with her children and grandchildren to care for her father. When Annie's father passes away, she feels guilty as she feels sad but also feels relieved. She feels confused by her grief reaction.

This is an example of what kind of grief?

A. Anticipatory.
B. Ambiguous.
C. Complicated.
D. Disenfranchised.
E. Traumatic.

Correct Answer: B

In this case, Annie is confused by her feelings. She has spent years caring for her father, whom she loved, but had to sacrifice sleep, family, and personal interests to do so. Her feelings are mixed. This situation could lead to complicated grief in the future; however, complicated grief is typically associated with a prolonged, debilitating grief that lasts >1 year following the loss.

Choice A is incorrect because she did not feel the escalated distress, pain, and medical complications associated with anticipatory grief.

Choice C is not correct because "complicated grief differs from normal and uncomplicated grief, not in terms of the nature of the grief reaction, but in terms of the distress and disability caused by these reactions and their persistence and pervasiveness" (PDQ Supportive and Palliative Care Editorial Board 2002). When the griever cannot openly acknowledge their grief, they can feel disenfranchised. However, in this case she openly acknowledges her confusion. (Choice D is not correct.) It is not traumatic grief because there was no violence or assault or natural disaster associated with the grief, and it was not sudden. (Choice E is incorrect.)

Annotation

Beachy J. Foundational guidance in grief and bereavement. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:89–104.

Adelstein K, Archer-Nanda E. Grief and bereavement. Dahlin C, Coyne P (eds). In: Advanced Practice Palliative Nursing, 2nd edition. Oxford University Press; 2021:468–478.

Nathanson A, Rogers M. When ambiguous loss becomes ambiguous grief: clinical work with bereaved dementia caregivers. Health Soc Work. 2021;45:268–275. doi: 10.1093/hsw/hlaa026

PDQ Supportive and Palliative Care Editorial Board. Grief, Bereavement, and Coping with Loss (PDQ®): Health Professional Version. National Cancer Institute; 2002. Available at: https://www.ncbi.nlm.nih.gov/books/NBK66052/

9. A father in his late 30s asked for a consult after learning of his 10-year-old daughter's incurable brain tumor, a diffuse intrinsic pontine glioma (DIPG). After consulting with the medical team and the palliative care team, it was determined that the father and his partner should communicate the prognosis to their daughter to not only assist in the grieving process but also ascertain her wishes for end-of-life care. The father wants to be open with his daughter; but he is not sure how to communicate what is next for her, and he is fearful of how she will take it. Further, during your last visit with the patient, she asked you if she is dying.

What would be your next best step in this situation?

A. Educate him on age-appropriate words for death.
B. Facilitate a conversation with the family and the team around explanations for death.

C. Remind him that his daughter is curious about her prognosis.

D. Inform him that you and the interdisciplinary team (IDT) will communicate his daughter's prognosis.

Correct Answer: B

The correct answer is B. Talking about death with a 10-year-old requires subtlety and input from a variety of disciplines. Pediatric palliative care teams are staffed with subspecialists whose expertise is communicating across a continuum with the child. This includes team psychologists, art therapists, child life specialists, and others. The issues are normally difficult for parents to address within the initial discussion. Acknowledging the feelings that they are having is supportive and conducive to healthy IDT practice. The initial discussions are only the beginning of the process, while reminding them of their daughter's curiosity is seen in a larger context or discussion. (Choice C is not correct.) Also, more information that includes the age-appropriate words will be part of the IDT process. The IDT cannot communicate with the child without the parents' explicit permission. The parents are considered part of the team model, so this communication would not happen in a vacuum. (Choice D is incorrect.)

Annotation

Bratt J. Pastoral aesthetics for pediatric bioethics. Pastor Psychol. 2021;70(6):607–615. doi: 10.1007/s11089-021-00973-2

Ragsdale L, October T, Scanlon C. Practical aspects of palliative care communication. Wolfe J, Hinds PS, Sourkes BM (eds). In: Interdisciplinary Pediatric Palliative Care, 2nd edition. Oxford University Press; 2021:165–176.

Renaud S, Engarhos P, Schleifer M, Talwar V. Talking to children about death: parental use of religious and biological explanations. J Psychol Christianity. 2013;32(3):180–191.

Needs of Bereaved Minor Children

10. The palliative care team has been following a patient in the pediatric intensive care unit who was admitted for a traumatic brain injury. The patient progressed to death by neurological criteria, and the family decided to proceed with organ donation. The parents come to you to ask for advice about how to talk about the death of their son to his siblings. One of the siblings has repeatedly asked when his brother will be coming home. He also continues to ask if his brother became injured because he told him the morning of the accident that he was "mean" and yelled "I hope you die."

What is the range of the ages of the siblings?

A. Infant to 2 years.

B. 3–6 years.

C. 7–12 years.

D. >12 years.

Correct Answer: B

A child's conception of illness and death changes over time and was initially explored by Jean Piaget within the realm of cognitive development. There are typically four stages:

0–2 years (sensorimotor stage): This age group probably has no concept of death. Separation anxiety may cause grief and stress based on loss of attachment to an individual. Grief may be expressed as difficulty attaching to other adults and increased agitation/crying.

3–5 years (preoperational stage): This age group at about age 3 recognizes death as a changed state but does not recognize the meaning of severe illness or the permanence of death. Tantrums and acting out are usually signs of stress or strong emotion. Children in this age group have very concrete thinking and may attribute death to magical causes or believe they caused it from their actions, which is an egocentric perspective: "I had a fight with my brother and said 'I hope you die' . . . and then he died." They may not be able to process what they are seeing (e.g., if there is an open casket and they view the body, they may ask when the person is going to wake up). Children in this age group recognize the sadness of others around them and then are off and playing within seconds. Parents may be needed to be guided through this behavior and what to expect from children in this age group. These children need to feel supported and close in the moment when they are aware of the changed state. This provides reassurance for the entire family.

6–11 years (late preoperational to concrete operational stage): In this stage children can understand serious illness and the finality of death. They begin to develop identity and to explore autonomy, competence, and empathy. They begin understanding the impact their emotions have on others and will often not express their concerns because they do not want to worry their parents. They may intellectualize and compartmentalize their feelings.

12 years and older (formal operations): In this stage adolescents understand mortality and the finality of death. They can express a myriad of emotions, including disdain and anger, and then want to participate in complicated discussions and request details but act unphased by what is said. They may be protective toward family members. They may not share their fears with friends, relying on family members for in-depth discussions. The most important aspects of communication in this age group is to deeply listen to their goals, to try to understand their perspective, and to be supportive.

Annotation

Goldstein NE, Woodrell CD, Morrison RS. Chapter 34: What are the special communication issues involved in caring for pediatric patients? and Chapter 55: What are special considerations for pediatric palliative care? Goldstein NE, et al. (eds). In: Evidence-Based Practice of Palliative Medicine, 2nd edition. Elsevier; 2023:477–488.

Himelstein BP, Hilden JM, Boldt AM, Weissman D. Pediatric palliative care. N Engl J Med. 2004;350(17):1752–1762. doi: 10.1056/NEJMra030334

Piaget J. The Child's Conception of the World. Littlefield Adams; 1951:37–60.

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Section 4

Practice Essentials

12

Hospice Essentials

MARTHA L. TWADDLE, REBEKAH HALPERN, RICHARD J. ACKERMANN, AND CHARLES F. VON GUNTEN

History

Hospices have existed since the Middle Ages as "places of safety" for travelers; later, they became organized by religious orders and developed into early hospitals. Dame Cicely Saunders of Great Britain is considered the founder of the modern hospice concept, beginning with her work in post–World War II Britain. She was the first to apply scientific approaches to care of the dying, particularly in symptom management. She utilized St. Christopher's Hospice in London as an academic center to learn about and further develop hospice care. Dr. Saunders collaborated with Florence Wald, PhD, dean of the Yale New Haven School of Nursing, in the early 1970s to introduce the concept of hospice to the United States. Interestingly, this project rapidly changed to a home-based delivery model rather than the inpatient cancer-based model of the United Kingdom. This collaboration led to the congressionally approved demonstration project for hospice in 1982 and then the signing into law of the Medicare Hospice Benefit (MHB) in 1986 (https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/Hospice/Downloads/1983-Final-Rule.pdf).

The MHB is a federally regulated insurance benefit and the first capitated insurance program. The requirements of the benefit are codified within the Code of Federal Regulations. The hospice regulations are included under Title 42, Chapter 4, part 418 (https://www.ecfr.gov/current/title-42/chapter-IV/subchapter-B/part-418). They are referred to as the Conditions of Participation (COPs) for hospice care. As of January 1, 2019, physician associates (PAs) are permitted to provide and manage care for hospice patients and be reimbursed by Medicare for these activities. A PA may serve as the attending of record (AOR) for a hospice patient; however, only physicians can provide the certification of the terminal illness (CTI). PAs should have good understanding of the MHB, specifically around eligibility for patients to utilize their benefit to support a palliative plan of care. Knowing what the law says about hospice care by reading the source document is invaluable in providing care in hospice. (Note: references are provided in this chapter with hyperlinks to source documents.) Most commercial insurance and Medicaid programs mirror the MHB—although with variations in coverage based on commercial insurance being able to enact their own policies and procedures.

The study questions below are not written as practice questions in a style of an exam but rather as study questions to encourage thoughtful exploration of the topics in the Practice Essentials of Hospice Care for the Physician Assistant. We encourage all who read this chapter to locate, read, and save the source documents so that their knowledge is evidence-based.

Eligibility

1. An 85-year-old woman who has congestive heart failure with symptoms of fatigue and dyspnea at rest is referred for hospice care following a hospital admission. She also has diabetes mellitus (type 2) and hypertension. She currently takes lisinopril, furosemide, and glyburide. She lives in her home with her 68-year-old daughter, and she has an extended family that lives nearby. The hospice admission nurse calls you to say the patient does not want to give up curative therapy and wants to return to the hospital. The patient's attending physician suggests you see the patient.

Which of the following is the best approach to discuss the situation with the patient?

A. She must give up future hospitalization to enroll in hospice care.

B. She can receive hospice care at home until she dies or improves and is no longer considered terminally ill.
C. She must discontinue the cardiac medications to receive hospice care.
D. She can receive hospice care at home, but she must agree to a do-not-resuscitate (DNR) order.

Correct Answer: B
She can receive hospice care at home until she dies or improves and she no longer considered terminally ill.

Discussion

A patient must be certified as eligible to use their hospice benefit at the time of admission and for each benefit period thereafter. For Medicare patients, the benefit periods are unlimited. The patient's eligibility to elect their hospice benefit to support a palliative plan of care requires that two physicians certify the patient as terminally ill, those being the hospice medical director and the patient's attending physician if they have one. Eligibility to use the MHB is fairly straightforward: the patient must have Part A Medicare and be certified as terminally ill. A terminal illness as defined by Medicare is one with a life expectancy of 6 months or less if the illness runs its normal course. The 6-month definition arose from the financial modeling of the benefit, not from medical evidence. However, it has been adopted widely as the definition of the terminal illness. Remember as well, the statement says the patient is more likely to die than not within 6 months or less, if the disease behaves as it normally does. The statement is not that they will die. Our ability to prognosticate is not that precise, and we are making a probability statement versus a declaration of certainty.

It is unfortunately common to hear misinformation as to who is eligible to use their MHB and additional stipulations for eligibility to be imposed upon patients and families. These barriers are typically to benefit the hospice agency and are not supported by the regulations. This would amount to denying patients their entitlement benefits under Medicare, which is illegal. And this is why becoming familiar with the source documents and the regulatory language is essential to one's professional education! A patient does not need to have a DNR order to be admitted, nor do they have to agree to forego hospitalization. They do not have to stop medications that are likely helping manage the symptoms of their disease, though some deprescribing may be beneficial. The goal is that, through hospice care, the patient would no longer *need* to go to the hospital for issues related to their hospice diagnosis. The intent is, through the delivery of good hospice care, the patient and family would eventually come to terms with what is unfolding to agree to avoid non-beneficial interventions such as cardiopulmonary resuscitation. A patient may be hospitalized if care cannot be safely managed in any other setting. A patient may be hospitalized if the reason is unrelated to their hospice diagnosis. If the hospice does not have a contract with the hospital for inpatient care, the patient may be discharged from hospice and have to re-enroll at discharge; however, this reflects poorly on the agency providing hospice care. Although they may need one, the patient is not required to have a live-in caregiver to qualify for hospice care.

Annotation

Code of Federal Regulations, Title 42 Chapter IV, Subchapter B, Part 418, Subpart B. § 418.22 Certification of terminal illness (updated September 24, 2024). https://www.ecfr.gov/current/title-42/section-418.22. Accessed September 27, 2024.

Code of Federal Regulations, Title 42 Chapter IV, Subchapter B, Part 418, Subpart B. § 418.24 Election of hospice care (updated September 24, 2024). https://www.ecfr.gov/current/title-42/section-418.24. Accessed September 27, 2024.

Code of Federal Regulations, Title 42 Chapter IV, Subchapter B, Part 418, Subpart B. § 418.20 Eligibility requirements (updated September 24, 2024). https://www.ecfr.gov/current/title-42/section-418.20. Accessed September 27, 2024.

Core and Non-core Services

2. An 84-year-old man is admitted for home hospice care with a primary diagnosis of lung cancer metastatic to liver and bone refractory to treatment. He lives with his 82-year-old wife. He has three children; none live with them or live close by. His wife wants to know what to expect of the hospice team.

Which of the following is NOT a core hospice service for care in the home.

A. Nursing.
B. Social work.
C. Spiritual care.
D. Nurse aide.
E. Personal caregiver.

Correct Answer: E

Discussion

The COPs for hospice state that the hospice agency must designate an interdisciplinary group or groups composed of individuals who work together to meet the physical, medical, psychosocial, emotional, and spiritual needs of the hospice patients and their designated family facing terminal illness and bereavement. The delivery model for home-base hospice care is that these core services of the hospice are all *intermittent* services. An underlying assumption of the MHB in the United States is that the family, biologic or chosen, is able and willing to provide the ongoing custodial/personal care of the patient, including bathing, feeding, and medication administration on a frequent basis. Custodial or personal care is not covered by the hospice benefit, and if a patient/family needs additional services, these are self-pay. While around-the-clock nursing care may be provided under the continuous care level of hospice care, that exists for short-term emergency situations of clinical instability.

Annotation

Code of Federal Regulations, Title 42 Chapter IV, Subchapter B, Part 418, Subpart C. § 418.64 Condition of participation: Core services (updated September 24, 2025). https://www.ecfr.gov/current/title-42/section-418.64. Accessed September 27, 2024.

Non-core but Required Hospice Services

3. A 73-year-old woman was discovered at her home, having acutely collapsed; and she was taken to the hospital by emergency medical services. Clinical evaluation and imaging revealed an acute right middle cerebral artery occlusive stroke. After a 6-day hospital stay, she has regained consciousness and is able to eat small amounts of soft food.

Sometimes, however, she chokes on both liquid and solid food, and she cannot take in enough to nutritionally maintain herself. She now requires full assistance for all activities of daily living (ADLs), and the overall goals of care are for comfort. She is discharged home with hospice care with her spouse as the caregiver. Once home, her spouse asks that she be seen by speech therapy in order to evaluate her swallowing ability and to advise how to manage the feedings.

Which of the following is possible now that she has enrolled in hospice care?

A. Evaluation by speech therapy is not possible as it is not a core service of hospice.
B. There is no role for speech therapy when someone enrolls in hospice care.
C. If the husband wants this service for his wife, he must arrange for it and pay privately.
D. Speech therapy is a non-core service; however, it is available and covered through hospice care to assess and teach effective techniques for safe swallowing.

Correct Answer: D

Discussion

The COPs state very succinctly that a hospice agency must provide hospice care that optimizes comfort and dignity and meets the goals and needs of the patient and family. According to the COPs, physical, occupational, and speech therapy are considered non-core services but must be available and offered in a manner consistent with accepted standards of practice. As per the COPs, physical therapy, occupational therapy, and speech–language pathology are to be provided for purposes of symptom control or to enable the patient to maintain ADLs and basic functional skills. The individuals providing these services must be trained professionals. Non-core services require that the hospice contract with professionals if they do not have an employed individual who is credentialed to provide the service. There is no specific language in the COPs regarding respiratory therapy.

Annotation

Code of Federal Regulations, Title 42 Chapter IV, Subchapter B, Part 418, Subpart D. § 418.100 Condition of participation: Organization and administration of services (updated September 24, 2024). https://www.ecfr.gov/current/title-42/section-418.100. Accessed September 27, 2024.

Code of Federal Regulations, Title 42 Chapter IV, Subchapter B, Part 418, Subpart C. § 418.72 Condition of participation: Physical therapy, occupational therapy, and speech-language pathology (updated September 24, 2024). https://www.ecfr.gov/current/title-42/section-418.72. Accessed September 27, 2024.

Code of Federal Regulations, Title 42 Chapter IV, Subchapter B, Part 418, Subpart D. § 418.114 Condition of participation: Personnel qualifications (updated September 24, 2024). https://www.ecfr.gov/current/title-42/section-418.114. Accessed September 27, 2024.

Code of Federal Regulations, Title 42 Chapter IV, Subchapter B, Part 418, Subpart F. § 418.202 Covered services (updated September 24, 2024). https://www.ecfr.gov/current/title-42/section-418.202. Accessed September 27, 2024.

Attending of Record

4. You work for a hospice program. A 52-year-old woman is enrolled in home hospice care for breast cancer metastatic to liver, lung, lymph nodes, and brain. Her oncologist is her attending physician and has been prescribing all of the patient's medication. The patient's pain is well controlled with morphine extended-release 60 mg twice daily. Her oncologist is out of town, thus the hospice nurse requests a new prescription from you because the patient has less than a week of medication left.

What is the next best step?

A. Refill the medication.
B. Wait for the oncologist's return.
C. Refer the refill to the physician covering for the oncologist.
D. Prescribe a non-opioid analgesic to bridge.

Correct Answer: A

Discussion

The *attending physician* means the individual who at the time the patient elects to receive hospice care is identified as having the most significant role in the determination and delivery of the individual's medical care. An attending, or the AOR, is *chosen* by the patient and family at the time of the election of the benefit and is documented in the election. An attending is not assigned by the hospice agency. The primary care physician or treating specialist may serve as the AOR; however, other than the initial certification, they do not provide recertifications nor fulfill the face-to-face visit requirement. A PA may serve as the AOR. Federal law has not been updated with the designation of the title of PA; hence, the older designation remains.*

An attending physician or AOR can be a:

- Doctor of medicine or osteopathy who is legally authorized to practice medicine and surgery by the state in which they perform that function or action.
- Nurse practitioner who meets the training, education, and experience requirements as described in the Code of Federal Regulations, 410.75 Nurse practitioners' services (https://www.ecfr.gov/current/title-42/section-410.75).
- *PA who meets the requirements of the Code of Federal Regulations, 410.74 Physician assistants' services (https://www.ecfr.gov/current/title-42/part-410/section-410.74#p-410.74(c)).

The hospice medical director, hospice nurse practitioner, or hospice PA must meet the medical needs for the patient when the attending is not available (https://www.ecfr.gov/current/title-42/section-418.64).

Annotation

Code of Federal Regulations, Title 42 Chapter IV, Subchapter B, Part 418, Subpart C. § 418.64 Condition of participation: Core services (updated September 24, 2024). Accessed September 27, 2024.

Code of Federal Regulations, Title 42 Chapter IV, Subchapter B, Part 418, Subpart B. § 410.75 Nurse practitioners' services (updated September 24, 2024). Accessed September 27, 2024.

Code of Federal Regulations, Title 42 Chapter IV, Subchapter B, Part 418, Subpart B. § 410.74 Physician assistants' services (updated September 24, 2024). Accessed September 27, 2024.

Face-to-Face Requirements

Part I

6. You are the AOR for a 74-year-old woman with glioblastoma multiforme who is enrolled in hospice care. She is approaching 90 days in the hospice program, within 3 weeks of completing her first benefit period. The team visit scheduler asks if you can make a home visit and whether it could serve as a face-to-face visit.

How should you best respond about the request for a hospice face-to-face visit?

A. The visit is required for the second benefit period.
B. The face-to-face is only required after the initial two certification periods are completed.
C. The face-to-face visit is required after 180 days of hospice care.
D. A face-to-face visit is required prior to recertification for the third benefit period.

Correct Answer: D

Part II

How do you respond to the request for you to provide the face-to-face visit?

A. You will plan to submit your clinical note from the home visit to serve as the face-to-face documentation.
B. You can provide the visit, but the hospice nurse must be with you to make it officially a face-to face visit.
C. Only a hospice physician or nurse practitioner can provide the hospice face-to-face visit.
D. You could provide the hospice face-to-face visit as telehealth.

Correct Answer: C

Part III

Your patient is admitted to hospice but chooses to pursue further disease-directed treatment and revokes the benefit after 2 weeks. When does hospice care resume in terms of allocated days and benefit periods if she re-elects the benefit in the future?

A. A patient cannot be readmitted to hospice care if they revoke their benefit.
B. She would resume where she left off, essentially week 3 of the first benefit period.
C. She would be admitted into her second benefit period of 90 days.
D. She would require a face-to-face visit to be readmitted.

Correct Answer: C

Discussion

A PA may serve as the AOR and will provide important documentation as to hospice eligibility in their clinical assessments. This documentation is vitally important to support the hospice medical director's narrative that is part of the admission and recertification processes. The PA is currently not recognized by the law to provide the formal CTI. The PA, whether as the AOR or a hospice-employed PA, cannot provide the face-to-face visit in person or via telehealth; currently, these can only be provided by a hospice physician or a hospice nurse practitioner.

This study question also highlights the concept of the hospice benefit periods (BPs). The MHB is administered first as a 90-day benefit period. If the patient remains eligible, they are recertified into the second benefit period, which is also 90 days. If a patient is discharged or revokes their hospice coverage during a benefit period for any reason, they lose the remaining days of that BP and, if readmitted, enter a new benefit period. Subsequent benefit periods following the first two are of 60 days' duration, and if the patient has Medicare Part A, the BPs are unlimited. For the third benefit period and beyond, a face-to-face visit is required for recertification and must be completed within 30 days of the end of the period. Documentation must be completed within 2 weeks of the end of the benefit period.

Annotation

Code of Federal Regulations, Title 42 Chapter IV, Subchapter B, Part 418, Subpart B. § 418.28 Revoking the election of hospice care (updated September 24, 2024). https://www.ecfr.gov/current/title-42/section-418.28. Accessed September 27, 2024.

Medicare Benefit Policy Manual. https://www.cms.gov/regulations-and-guidance/guidance/manuals/downloads/bp102c09.pdf. Accessed July 27, 2024.

Levels of Hospice Care

7. A 75-year-old man enrolled in home hospice care has treatment-refractory lung cancer and recurrent *Clostridium difficile* infections. He has developed severe dyspnea, abdominal pain, nausea, and vomiting. A small bowel obstruction is suspected. His 72-year-old spouse is his caregiver. He has previously expressed the desire not to return to the hospital. He is now lethargic but awake, requiring frequent reassessments and medication adjustments as his symptoms are poorly controlled. His symptom control can no longer be managed via the oral route.

Which level of hospice care would best meet his current needs?

A. General inpatient.
B. Respite care.
C. Continuous care.
D. Emergency room.

Correct Answer: C

Discussion

A Medicare-certified hospice must provide all four levels of hospice care:

Routine home care (RHC): Routine scheduled visits are provided in the home by the members of the hospice team, most often including a nurse case manager, social worker, chaplain and volunteers. Home is defined by the patient and their family—it may be a private residence, assisted living, or a nursing facility. More than 90% of hospice services in the United States are provided as RHC. Bereavement services are also available in the home or in groups.

General inpatient (GIP) care: The GIP level of care was established to address the short-term needs of hospice patients when an acute condition precluded the safe delivery of care in any other setting. Under this portion of the benefit, the hospice patient could be hospitalized for acute symptom exacerbations or physical, psychological, or existential issues around dying that could not be safely or effectively managed in another setting. The goal of GIP is to stabilize or resolve the issue(s) that led to inpatient care and return the patient to a less acute setting. No more than 20% of the hospice's overall patient days can be at the GIP level of care. The COPs indicate that inpatient care must be available for pain control, symptom management, and respite purposes and must be provided in a participating Medicare or Medicaid facility. Hospices may provide GIP care directly or contract to provide the care in another Medicare-certified facility such as a hospital or skilled nursing facility.

Continuous care (continuous home care, crisis care): Continuous care is available to address high-acuity needs during periods of crisis. According to the COPs, nursing care may be covered on a continuous basis for as much as 24 hours a day during periods of crisis as necessary to maintain an individual at home. A period of crisis is a period in which the individual requires continuous care to achieve palliation and management of acute medical symptoms. The hospice must provide a minimum of 8 hours of nursing, hospice aide, and/or homemaker care during a 24-hour day, which begins and ends at midnight. This care need not be continuous (e.g., 4 hours could be provided in the morning and another 4 hours in the evening). In addition to the 8-hour minimum, the services provided must be predominantly nursing care, provided by either a registered nurse (RN), a licensed practical nurse (LPN), or a licensed vocational nurse (LVN).

Respite care: Respite care is short-term inpatient care provided to the patient when necessary to relieve the family members or other persons caring for the individual at home. Respite care may only be provided in a Medicare participating hospital or hospice inpatient facility or a Medicare or Medicaid participating nursing facility and is limited to no more than 5 consecutive days at a time during any 90-day hospice period.

Annotation

Code of Federal Regulations, Title 42 Chapter IV, Subchapter B, Part 418, Subpart D. § 418.108 Condition of participation: Short-term inpatient care (updated September 24, 2024). https://www.ecfr.gov/current/title-42/section-418.108. Accessed September 27, 2024.

Medicare Benefit Policy Manual, pages 31, 62. https://www.cms.gov/regulations-and-guidance/guidance/manuals/downloads/bp102c09.pdf. Accessed July 27, 2024.

National Hospice and Palliative Care Organization. NHPCO Facts and Figures: 2023 Edition. https://www.nhpco.org/wp-content/uploads/NHPCO-Facts-Figures-2023.pdf. Accessed September 14, 2024.

8. A 78-year-old man with advanced chronic obstructive pulmonary disease (COPD) on home hospice for 4 weeks develops increasing dyspnea and agitation that cannot be managed by adjustment of medications and oxygen at home. His family life is chaotic, and he does not always receive treatments on time. He is transferred to GIP hospice in a free-standing facility, where intravenous morphine and lorazepam are titrated to better manage his symptoms. After 5 days, these symptoms are reasonably controlled on oral medications, but his family has been evicted and is moving to another apartment, which will not be ready for the patient for another 3 days. Meanwhile, the family has moved into one room in a hotel.

Which one of the following is the most appropriate next step?

A. Continue the patient on inpatient hospice until the apartment is ready.
B. Switch him to routine home hospice care in the inpatient facility.
C. Send him home now with continuous care.
D. Discharge the patient from hospice due to unstable family support.
E. Switch him to respite care in the inpatient facility.
F. Have the patient revoke his benefit, and send to the emergency department.

Correct Answer: E

Discussion

Every day of GIP hospice must be justified, which means that the hospice medical director (HMD), nurse practitioner (NP), or physician associate (PA) should visit nearly every day and document that symptoms require frequent skilled reassessments with the need for dosage adjustments and changes to the medical plan of care. In the vignette, the patient has reached a new baseline with oral medications for 5 days and has a predictable plan of care, thus is no longer eligible for the GIP level of hospice care. However, there is no safe place for the patient to live for several days. Choice A is incorrect as the level of care is not medically necessary.

Another option might be to keep the patient in the inpatient facility, while billing using the routine home hospice rate. This is a possible approach, yet in many hospice facilities, this would likely prompt the family to be responsible for room and board unless there is a charitable fund to underwrite the cost. Sending the patient "home" is currently a single hotel room, and that is not a reasonable or safe discharge plan. The hospice social worker could assist the family in preparing the home for his return; there is yet no home, and he does not currently meet the medical necessity for continuous care, so C is not correct.

Discharge from a hospice can occur as a result of the beneficiary

- deciding to revoke their hospice benefit
- transferring to another hospice
- dying
- moving out of the geographic area that the hospice defines in its policies as its service area
- receiving treatment for a condition unrelated to the terminal illness or related conditions in a facility with which the hospice does not have a contract, and the hospice is unable to access the patient to provide hospice services (the hospice must document reasonable effort)
- improves such that they are no longer considered terminally ill (in this situation, the hospice will be unable to recertify the patient)

Another reason is "discharge for cause." According to the Medicare Hospice Policy Manual, there may be extraordinary circumstances in which a hospice would be unable to continue to provide hospice care to a patient. These situations would

include issues where patient safety or hospice staff safety is compromised: "when a hospice determines, under a policy set by the hospice for the purpose of addressing discharge for cause, that the patient's (or other persons in the patient's home) behavior is disruptive, abusive, or uncooperative to the extent that delivery of care to the patient or the ability of the hospice to operate" is affected. The patient cannot be discharged for cause if the issue is that the family is impoverished. Choice D is incorrect.

Choice E is correct because the respite hospice benefit is designed to give the family a break from caring for their loved one. In this scenario, the family cannot effectively care for their loved one in the present circumstances, and using the respite level for a few days could be justified. Choice F is incorrect as, according to the Hospice Benefit Policy Manual,

> Once a hospice chooses to admit a Medicare beneficiary, it may not automatically or routinely discharge the beneficiary at its discretion, even if the care promises to be costly or inconvenient, or the State allows for discharge under State requirements. The election of the hospice benefit is the beneficiary's choice rather than the hospice's choice, and the hospice cannot revoke the beneficiary's election. Neither should the hospice request or demand that the patient revoke his/her election.

Annotation

Medicare Benefit Policy Manual, pages 19 and 62. https://www.cms.gov/regulations-and-guidance/guidance/manuals/downloads/bp102c09.pdf. Accessed July 27, 2024.

National Hospice and Palliative Care Organization. Facts and Figures: Hospice Care in America. NHPCO; 2023. https://www.nhpco.org/2023-nhpco-facts-and-figures-report-now-available/.

Ongoing Eligibility and Recertifications

9. You are the AOR for an 85-year-old woman who resides at home with far advanced heart failure. Her function is limited to mostly bed to chair, and she is dyspneic on oxygen with ambulation of 10 feet or less. You notice that she no longer comes to the door to greet you but remains in her chair. She tells you that she no longer wants to go to the hospital and wants to be at home. She has secondary conditions of edema, hypoxia, fatigue, and impaired ADLs from her heart failure along with comorbidities of atrial fibrillation, coronary artery disease, and type 2 diabetes mellitus. You have asked the local hospice to evaluate her for admission, and your documentation will help support her eligibility.

Your visit note should particularly reference and highlight which of the following:

A. Her goals of care to avoid hospitalization.
B. The pertinent local coverage determination (LCD) criteria for heart failure.
C. Measures of decline in her functional status condition.
D. Her oxygen saturation.
E. All of the above.

Correct Answer: E

Discussion

All of these are important aspects to highlight in your visit documentation and will help the hospice medical director create a narrative that will support the patient's eligibility to use her MHB.

The Centers for Medicare & Medicaid Services (CMS) subcontracts to Medicare administrative contractors (MACs) to administer the MHB. The MAC is a private healthcare insurer that has been awarded a geographic jurisdiction to process Medicare Part A and Part B (A/B) medical claims or durable medical equipment (DME) claims for Medicare fee-for-service (FFS) beneficiaries. There are four MACs that review and process Medicare claims for hospice care. The MACs publish LCD guidelines (https://www.cms.gov/medicare/coverage/determination-process/local) that help to expedite the payment of claims. If a patient's diagnosis and condition match an LCD, the care is thus reasonable and necessary, and the claim will be paid. If a clinical scenario does not meet an LCD or an LCD does not exist for a particular diagnosis, the patient may still be eligible. The language of the law is that eligibility is based on the opinion of a physician that the patient is terminally ill. The hospice medical director supports this decision with written documentation presented as a narrative that is submitted with each certification. This succinct but detailed narrative explanation of the clinical findings supports a life expectancy of 6 months or less as part of the certification and recertification forms. The medical director reviews clinical information for each hospice patient and provides written certification that it is anticipated that the patient's life expectancy is 6 months or less if the illness runs its normal course. The physician must consider the following when making this determination:

1. The primary terminal condition.
2. Related diagnosis(es), if any.
3. Current subjective and objective medical findings.
4. Current medication and treatment orders.
5. Information about the medical management of any of the patient's conditions unrelated to the terminal illness.

The written assessment by a PA at admission or in the roles of the AOR may provide the necessary information and data for the hospice medical director to create their narrative. It is not sufficient for the physician to only provide an opinion; they must provide "evidence" to support their opinion.

With the inception of the MHB came analysis of its utilization. Historically, most patients use their MHB for far less than 6 months, and a large percentage utilize it for less than 1 month. There has also been a persistent 18%–20% of patients admitted to hospice care who outlive their expected prognosis of 6 months or less. This percentage has not changed much in the past nearly 40 years. The difference in this era is the overall growth of Medicare with the aging of America's population; thus, extended utilization now reflects a sizeable expense of Medicare dollars. This percentage of long length of stay is mostly comprised of women, predominantly with non-cancer diagnoses and mostly dementia. The model of hospice care is based on the cancer trajectory and financially was also designed to align with this, yet only 30% of patients in hospice have a primary diagnosis of cancer.

Even as early as the 1990s a group of hospice medical directors began to work on a research study that would lead to the development of tools and algorithms to help facilitate the ability to prognosticate in non-cancer diagnoses. They were aggregating many different measures and organizing them by diseases. Unfortunately, the then National Hospice Organization

published their preliminary work as "guidelines" before the research could be done and before the aggregated tools were validated as effective in prognosticating. In that period of time, there were multiple insurers that served as fiscal intermediaries to administrate Medicare payments. They quickly adopted these "guidelines" as criteria for payment and published them as the LCD. Today the fiscal intermediaries have been consolidated into only four MACs, and they each publish LCDs to expedite payment. Unfortunately, the LCDs may differ and are frequently misunderstood as validated prognostic tools. The LCDs are published on the internet, and each contains language that a patient may be eligible to utilize their hospice benefit and yet not meet an LCD.

Annotation

Centers for Medicare & Medicaid Services. What's a MAC. Updated September 10, 2024. https://www.cms.gov/medicare/coding-billing/medicare-administrative-contractors-macs/whats-mac#:~:text=and%20Functional%20Contractors-,What's%20a%20MAC%20and%20what%20do%20they%20do%3F,%2DService%20(FFS)%20beneficiaries. Accessed September 27, 2024.

Code of Federal Regulations, Title 42 Chapter IV, Subchapter B, Part 418, Subpart B. § 418.22 Certification of terminal illness (updated September 24, 2024). https://www.ecfr.gov/current/title-42/part-418/subpart-B#p-418.22(b). Accessed September 27, 2024.

Code of Federal Regulations, Title 42 Chapter IV, Subchapter B, Part 418, Subpart D. § 418.102 Condition of participation: Medical director (updated September 24, 2024). https://www.ecfr.gov/current/title-42/part-418/section-418.102#p-418.102(b). Accessed September 27, 2024.

10. You are seeing a 67-year-old woman with advanced endometrial cancer for symptom management. She is deciding to elect hospice care for further management of her condition. She has persistent abdominal pain and required bilateral nephrostomy tube placement for hydronephrosis. She has struggled with constipation related to the opioids she takes for pain as well as the abdominal carcinomatosis. She has symptomatic COPD requiring inhaler therapy and oxygen, controlled hypertension, and type 2 diabetes mellitus, as well as hypothyroidism.

Her hospice diagnosis is endometrial cancer. Which of the following are comorbidities?

A. Hypertension.
B. Hypothyroidism.
C. COPD.
D. Constipation.

Correct Answer: C

Discussion

A comorbidity is a condition, distinct from the hospice diagnosis, of such severity that it adds to the burden of illness and contributes to a prognosis of 6 months or less. In this case, the patient has advanced lung disease severe enough that she requires oxygen therapy. Treated or managed hypothyroidism and hypertension would not be considered comorbidities. Untreated hypothyroidism would.

Secondary conditions or related conditions are structural and functional impairments that result from the primary hospice diagnosis, such as shortness of breath in COPD or pain related to bone metastases of advanced cancer. Other secondary conditions might include fatigue, anorexia, unintended weight loss, sarcopenia, impairment of ADLs, constipation, etc. These are listed, and the list may lengthen during a person's time on hospice. The hospice is expected to address symptom relief (palliation) for secondary conditions and comorbidities within the hospice plan of care.

Recertifications for Hospice Care

11. An 88-year-old woman with COPD developed acute COVID pneumonia and recovered after a 10-day hospital stay. However, her functional status did not recover, and she developed chronic interstitial fibrosis as a long-term sequela of the COVID infection. She required increasing home oxygen and became bed-bound. She decided to access hospice services. You are her attending and submit documentation to support her hospice admission.

Six months later at the weekly interdisciplinary team meeting, the home hospice team reviews her eligibility for continued enrollment in her hospice benefit. The nurse case manager describes her functional decline from a Palliative Performance Scale (PPS) of 50% to 40%, increasing her need for help with all ADLs because of shortness of breath and severe dyspnea, even with conversation. A nurse practitioner had completed a face-to-face examination at the patient's home and expresses concern that she is not showing decline in that her weight has increased. The hospice social worker and chaplain have completed dual visits and say the patient has made her funeral arrangements and talks more openly about a sense that she is dying. The hospice medical director considers all this input.

Which one of the following is required for the hospice medical director to recertify this patient for her next hospice period?

A. Decline in weight or function.
B. Worsening hypoxia.
C. Uncontrolled symptoms.
D. Completion of a narrative summary.

Correct Answer: D

Discussion

For recertifications, the hospice medical director considers input from the interdisciplinary team and utilizes that input to create a narrative that supports the physician's opinion that the patient remains terminally ill. Decline is expected in hospice care, but it is not required during or between benefit periods for a patient to remain eligible. To the contrary, CMS has stated: "We also acknowledge that at recertification, not all patients may show measurable decline" (74 Fed. Reg. 39384, 39399, Aug. 6, 2009). Consistent with the uncertainty of prognostication, Congress provided by statute that each beneficiary is entitled to an unlimited number of 60-day benefit periods. As explained by CMS: "[B]ecause of the scientific difficulty in making a prognosis of 6 months or less," Congress eliminated the previous 210-day limit on the hospice benefit (70 Fed. Reg. 70532, 70533, Nov. 22, 2005) and restructured the hospice benefit to include "up to two periods of 90 days each and an unlimited number of subsequent periods of 60 days each" (42 U.S.C. § 1395d[a][4]). According to CMS, the fact that a patient has not declined, or in fact has improved, is not a basis to deny coverage unless the physician determines that,

based on improvement or stability believed by the physician to be "sufficient over time," the patient is no longer likely to die in the next 6 months or less if the illness follows its normal course. (See 70 Fed. Reg. at 70540; 74 Fed. Reg. at 39399.)

There is certainly no requirement for patients to earn hospice support by suffering uncontrolled symptoms or having a frequently changing plan of care as this reactive approach is indeed the antithesis of what hospice does—managing symptoms and proactively managing the care plan to avoid suffering and distress of the individual and their caregivers. There are also no specific "criteria" that a patient must meet to be eligible. In a published statement concerning the hospice regulations, CMS set forth its position as follows: "We have removed the term criteria in order to remove any implication that there are specific CMS clinical benchmarks in this rule that must be met in order to certify terminal illness" (73 Fed. Reg. 32088, 32138, Jun. 5, 2008).

Rather than any requirement of criteria relating to comorbid and secondary conditions, the hospice medical director is required by the regulations to review the clinical information for the patient and holistically consider the primary terminal condition, any related diagnoses, current subjective and objective medical findings, medication and treatment orders, and information about any conditions unrelated to the terminal illness when providing the initial certification and with each recertification. CMS provides no direction as to how the certifying physician should consider and weigh any comorbid or secondary condition, or the other above-referenced factors in the regulations, in combination with the primary diagnosis, when determining a prognosis. That is left by CMS to the clinical judgment of the certifying physician, having recognized that the physician is in the best position to make that determination.

Annotation

Department of Health and Human Services. Centers for Medicare & Medicaid Services. 42 CFR Part 418. Document citation: 73 FR 32088. Document number: 08-1305. https://www.federalregister.gov/documents/2008/06/05/08-1305/medicare-and-medicaid-programs-hospice-conditions-of-participation. Accessed September 27, 2024.

Billing for Hospice Care

12. A 67-year-old with metastatic pancreatic cancer is enrolled in hospice care. Their pain is currently well controlled. With pancreatic enzymes they are able to eat and enjoy some foods without diarrhea or abdominal discomfort. The patient and their family note progressive hopelessness and helplessness, frequent tearfulness, disturbed sleep, and rumination that they have failed their life partner by allowing themselves to become sick. All members of the interdisciplinary team believe the patient is clinically depressed. Significant debate emerges about the benefit versus burden of beginning antidepressant therapy in someone who has a prognosis of weeks to short months to live. You are the AOR as you have seen the patient in your palliative care clinic for several months before they entered hospice care. The patient comes to see you in the office with members of their family.

What rules impact practitioner billing under Medicare for this visit?

A. It is billable to Medicare and should be submitted by the hospice to Part A Medicare.

B. The visit is not separately billable to Medicare because it has already been covered by the global per diem payment for home hospice care.

C. The visit is not billable because you are not employed by the hospice agency.

D. It is billable to Medicare and should be submitted to Part B with a GV modifier.

Correct Answer: D

Discussion

Because you are serving as the AOR and are not under contract or employment with the hospice agency, you can continue to provide care and be reimbursed by Medicare under Part B using the GV modifier. The GV modifier indicates that you are not employed by the hospice agency, and you are seeing the patient for issues related to the terminal (hospice) diagnosis. The GW modifier is used when you see the patient and provide care for issues unrelated to their terminal (hospice) diagnosis. If you were employed by the hospice, a PA cannot serve as the AOR, and the bill for the clinical visit would be reimbursed via Part A Medicare under the capitated rate. PAs are reimbursed at 85% of the approved physician reimbursement.

Annotation

CMS Manual System, Pub 100-02. Medicare Benefit Policy. Department of Health and Human Services, Centers for Medicare & Medicaid Services, pages 15 and 25. https://www.cms.gov/regulations-and-guidance/guidance/transmittals/2018downloads/r246bp.pdf. Accessed September 27, 2024.

Concurrent Care

13. A 10-year-old boy has refractory acute myelogenous leukemia. The overall goals of care for the child are to live as long as possible, and as well as possible, but without further hospital admissions. He is enrolled in hospice care concurrently with his leukemia care. He has Medicaid insurance. He reports, and his parents confirm, his pain is controlled when he is in bed or lying on the couch watching TV or playing electronic games. However, he feels "achy" when he needs to walk for any reason. The child life associate recommends continuing to integrate music and art therapy for pain management strategies. His medications include oral chemotherapy to suppress the leukemia, methadone 5 mg orally q 8 hours, hydromorphone 2 mg q 2 hours PRN breakthrough pain. The social worker on the team asks who is paying for the oral chemotherapy.

Which of the following is the best response?

A. The state Medicaid agency pays for the chemotherapy since the patient is enrolled in concurrent care.

B. The family pays privately since chemotherapy is never provided by a hospice.

C. Philanthropy pays for the chemotherapy since Medicaid does not pay for chemotherapy in hospice care.

D. The hospice provides the chemotherapy at a financial loss since no one pays for it.

Correct Answer: A

National legislation provided for the provision of "curative care" along with hospice care for pediatrics. Therefore, A is correct. B is not correct since the chemotherapy is covered by Medicaid. C is not correct because there is no requirement that

donated money be used for care under concurrent care. D is not correct because concurrent care provides payment for chemotherapy such as in this case, while the child is enrolled in hospice care. However, there will be state-by-state variation despite the fact that it is a federally legislated mandate, a Medicaid agency.

Discussion

Prior to the Affordable Care Act that was signed into law by President Obama on March 23, 2010, both pediatric patients and adult patients were required to have a 6-month prognosis and forego life-prolonging/curative treatment to enroll in hospice. The Affordable Care Act with its new provision "Concurrent Care for Children" requires that Medicaid programs pay for both curative and life-prolonging treatment as well as hospice services for children under the age of 21. A review article looking at the published literature on concurrent care examines the outcomes as well as complexities and billing issues inherent in the dual modality of reimbursement. The review examined 14 articles dealing with concurrent care and ultimately concluded that the science of pediatric concurrent care was outdated. There are new adult studies that are examining the effects of concurrent care on outcomes. There is little written on the implementation of concurrent care. This is important because the model is being examined for possible use in adult hospice. Concurrent care can introduce complexities in delivery of care and when considering it as the model. Reimbursement issues and care delivery by families in light of dual purposes (hospice and concurrent care) must be evaluated. Care plans, communication strategies, and coordination, as well as standardization in support and delivery of services, will be important to facilitate workflow and care delivery in this joint model.

Annotation and Resources

Public Law 111-148. Patient Protection and Affordable Care Act. Section 2302: Concurrent care for children. https://www.congress.gov/111/plaws/publ148/PLAW-111publ148.pdf. Accessed August 12, 2024.

Lindley LC, Keim-Malpass J, Svynarenko R, Cozad MJ, Mack JW, Hinds PS. Pediatric concurrent hospice care: a scoping review and directions for future nursing research. J Hosp Palliat Nurs 2020;22(3):238–245. DOI: 10.1097/NJH.0000000000000648

National Hospice and Palliative Care Organization. Pediatric Concurrent Care. 2025. https://www.nhpco.org/palliativecare/pediatrics/pediatric-concurrent-care/.

National Hospice and Palliative Care Organization. (2020). Determination of Hospice Medication Coverage in CHILDREN. October 2020. Version 1.0. https://www.nhpco.org/wp-content/uploads/Medication_Flow_Chart.pdf. Accessed October 10, 2024.

National Hospice and Palliative Care Organization. Concurrent Care for Children Requirement: Implementation Toolkit. https://www.nhpco.org/wp-content/uploads/ConcurrentCare_Children_Toolkit.pdf. Accessed October 10, 2024.

Ernecoff N, Anhang Price, R. Concurrent care as the next frontier in end-of-life-care. JAMA Health Forum. 2023;4(8):e232603. DOI: 10.1001/jamahealthforum.2023.2603

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13

Communication Essentials

RICHARD J. ACKERMANN AND REBEKAH HALPERN

The foundational approach of allopathic medicine is the biomedical model. Guidelines are created specific to diagnoses, and the recommended treatment plans arise from an evidence base of research. Individual characteristics and preferences may impact care delivery or modify the approach, but these are often incidental findings and may be discovered late in the care trajectory when conflicts arise versus proactively explored.

Palliative medicine is based on the foundational approach of the biomedical–psychosocial–spiritual model. This approach starts with exploring and appreciating the multifaceted aspects of who is the patient, who do they consider family, how do they make healthcare decisions, how much information sharing is helpful, how do they define quality of life, what is suffering, etc. In the context of the person, the impact of the diagnosis(es) is explored, and a treatment plan is established that is patient-centric and value/goal-driven. Conflicts may be proactively anticipated and planned for versus reacted to. Palliative care anticipates the needs of the seriously ill patient and their identified family based on comprehensive interdisciplinary assessments.

Comprehensive assessments and explorations of a person's preferences and fears require expert communication skills. The most important tool of the palliative care clinician is enhanced communication skills; this art and its practice, particularly in the context of a family meeting, is often cited as the "procedure" of palliative care. Many in the field will then question why communication skills are represented by such a small percentage on our certification exam blueprints. The most effective way to learn communication skills is in the actual practice, first with standardized patients and repeated practice; later, in work with an interdisciplinary team (IDT). The most effective way to assess competency and expertise in communication is with mentored observation and skills practice. Knowledge and skills in diagnosis and treatment can be assessed effectively in a multiple-choice exam; proficiency and effectiveness in communication skills cannot.

In this section, a few study questions will be presented as representation of the area of communication and communication skills. Links will also be provided to identify and facilitate access to study and training. Learners are encouraged to participate in skills training programs as a vital part of their preparation for practicing in palliative medicine and hospice care.

Family Meetings (Adult and Pediatric)

1. An 84-year-old man has been in the intensive care unit (ICU) for 6 days with septic shock from bacterial pneumonia, which required mechanical ventilation, vasopressor support, and continuous dialysis. He remains on ventilatory support, and spontaneous breathing trials have been poorly tolerated. His wife and children are struggling with whether to continue intensive support because his advance directive indicates that he would prefer not using aggressive medical interventions in the event of poor prognosis. They had never discussed a situation like this. The ICU team asks palliative care to help facilitate the complex medical decisions, particularly whether to proceed with tracheostomy and placement of a percutaneous endoscopic gastrostomy (PEG) tube.

In facilitating a family meeting, which one of the following tasks should happen first?

A. Ask the family what they understand about the illness, and ensure that everyone present understands the diagnoses, prognosis, and treatment options.

Table 13.1 An eight-step protocol for discussing whether to withhold or withdraw potentially life-sustaining treatments

1. Be familiar with state laws and institutional policies.
2. Choose a private place for the discussion, such as a counseling room in the hospital.
3. Ask the patient or family what they understand about the illness. Ensure that everyone present understands the diagnoses, prognosis, and treatment options. If physician consultants disagree, be honest about that uncertainty.
4. Discuss the patient's general goals of care and values. Try to find what the guiding principle should be in making decisions—for example, saving every second of life, living until a graduation, getting out of the hospital, or relief of dyspnea.
5. Establish context for the discussion. For example, "Your mother's infection hasn't gotten better over the last 2 weeks, and we need to decide whether to proceed with an artificial airway and a feeding tube (trach/PEG) to allow more time for healing, or whether to move toward a more comfort-based treatment plan."
6. Discuss the specific treatment preferences. Review the options that are realistic, and make a recommendation that is consistent with the patient's goals of care.
7. Respond to emotions, which may be intense.
8. If possible, establish and implement a plan. Sometimes, agreement is not yet possible, and the decision will be made to continue current support and talk again in a few days. Focus on what you are doing for the patient, not on what you are withdrawing.

B. Discuss the patient's general goals of care and values, to discover the guiding principle that should govern decision-making, such as quantity or quality of life.
C. Establish a context for the discussion, such as whether to proceed with trach and PEG.
D. Discuss treatment preferences, making a recommendation that is consistent with the patient's goals of care.

Correct Answer: A

The family meeting is the cornerstone of palliative medicine, its "procedure." As such, there are steps to the procedure, and Table 13.1 suggests a logical order. After finding a private place for discussion, the first task is to ensure that everyone has a reasonable understanding of the illness and what has transpired leading up to the present time. Ensuring the family's understanding of the patient's conditions is essential to the next steps of the conversation. Without this level setting, the decision maker(s) may be making incorrect assumptions, particularly around the possibility of meaningful recovery. This process also allows for the expression of emotion and alignment with the family such that they experience companionship in decision-making versus an imposed agenda or expectation of choice. Family meetings are often not a one-and-done event but need to happen repeatedly over time. Item A is the first step, with the other options in sequential order.

The next step, before launching into the options for treatment or potential interventions, is to understand the patient-centered goals of care. Exploring first with a family what brought the person joy and what defined quality of life for them is essential (PC: "Tell me more about [name] . . ."). Discussing this first often leads to further exploration as to what are realistic expectations in recovery and prognosis and how do they reflect or contrast with what would be considered meaningful recovery. (Family: "My dad loved to fish and be outdoors with the grandkids. That was his favorite activity." PC: "I so wish he could be back on the pier with his rod and reel. I worry that it is highly unlikely he'll be able to come off of the breathing machine.") In this vignette, the patient has not responded well to critical care interventions and will likely spend a protracted time requiring mechanical ventilation, thus requiring further facility-based care. He is highly likely to experience additional complications and not be able to wean off ventilatory support. Using active listening techniques ("What I'm hearing you say is . . ."; "What it sounds like [name] values is . . ."), the family may be better equipped to make compassionate, patient-centered decisions. Sometimes small steps and "a plan for the day" must happen first so that trust and rapport may be established.

Annotations

Billings JA. The end-of-life family meeting in intensive care. Part I: indications, outcomes, and family needs. J Palliat Med 2011;14:1042–50. doi: 10.1089/jpm.2011.0038
Billings JA. Part II: family-centered decision making. J Palliat Med 2011;14:1051–7. doi: 10.1089/jpm.2011.0038-b
Billings JA, Block SD. Part III: a guide for structured discussions. J Palliat Med 2011;14:1058–64. doi: 10.1089/jpm.2011.0038-c
LeBlanc TW, Tulsky J. Communication with the patient and family. Cherny NI, et al. (eds). In: Oxford Textbook of Palliative Medicine, 6th edition. Oxford University Press; 2021:267–76.

Exploring Goals of Care

2. You are asked to see a 68-year-old woman in the ICU who has suffered a large middle cerebral artery infarction complicated by aspiration pneumonia and sepsis. Anticoagulation is complicated by hemorrhagic transformation and a gastrointestinal bleed. She remains unresponsive and dependent on the ventilator despite intensive treatments, now nearing 2 weeks. The day prior she experienced acute hypoxia and was found to have thrown multiple pulmonary emboli. The ICU team has recommended vena cava filter placement. Her 45-year-old daughter is continually present. She has no siblings, and her father died just 4 months prior from a sudden cardiac event. Her aunt, the patient's sister, does also visit. The daughter informs you she wants everything done for her mother.

After receiving consent that it is OK with the daughter to talk to her about her mother and remain in the room to do so, what is your next best response?

A. Tell me what everything looks like.
B. Tell me more about your mother.
C. I wish your mother could recover; I worry that she cannot.
D. Are you the healthcare power of attorney?

Correct Answer: B

The exploration of goals of care has to be first and foremost "hearing the voice" of the patient. The daughter is the surrogate decision maker unless a healthcare power of attorney exists that identifies the sister in that role. That does need to be clarified but not necessarily as the preamble, rather as part of the discussion. The goal is to follow the wishes of the patient, and the first step is to better appreciate who they are beyond an ill person in the ICU, what they valued and enjoyed, and whether they had expressed

preferences or directives in the past. Encouraging the daughter to talk about her mother often gives insights into their relationship. Hearing also from the sister, if possible, can add further dimension and understanding. Appreciating that the daughter has also just lost her father and what other factors may influence or drive her decision-making is essential. This starts with listening deeply.

The next steps include a better understanding of what the daughter means by "everything." With some insights into the who the patient is, trade-offs can be better addressed. Assure the daughter that your intention is to do "everything that is helpful" for her mother and ideally to avoid inflicting upon her mother treatments or procedures that would be perceived as nonbeneficial. Stating that "I want to do everything that is helpful for your mother" helps align with the daughter as to shared goals. Even physically standing or sitting next to her versus across from her can help communicate a shared approach versus opposition or transaction.

Going too quickly to the "I wish"/"I worry" can risk prompting defensiveness in the daughter. Stated early in the interaction may communicate you have already established an opinion and recommendation, and the family may perceive this as pre-judgment versus informed judgment. An openness to listen communicates respect, facilitating trust and rapport. The process is as much the outcome as the decisions made. Allowing the daughter to be heard deeply facilitates her healing in the midst of loss.

Additional References

Bernacki RE, Block SD; American College of Physicians High Value Care Task Force. Communication about serious illness care goals: a review and synthesis of best practices. JAMA Intern Med 2014;174(12):1994–2003. doi: 10.1001/jamainternmed.2014.5271

Egnew TR. The meaning of healing: transcending suffering. Ann Fam Med 2005;3(3):255–62. doi: 10.1370/afm.313

Egnew TR. A narrative approach to healing chronic illness. Ann Fam Med 2018;16(2):160–5. doi: 10.1370/afm.2182

Palliative Pain & Symptom Management Consultation Program. Accessed September 27, 2024. https://palliativecareswo.ca/

Serious Illness Conversation Guide. Ariadne Labs. Updated May 2023. Accessed September 27, 2024. https://www.ariadnelabs.org/wp-content/uploads/2023/05/Serious-Illness-Conversation-Guide.2023-05-18.pdf

VITALtalk. Accessed September 27, 2024. https://www.vitaltalk.org/

Yim H, Hashmi SS, Dewar B, Dyason C, Kyeremanteng K, Lamb S, Shamy M. "Everything has been tried and his heart can't recover . . .": a descriptive review of "do everything!" in the archive of Ontario Consent and Capacity Board. BMC Med Ethics 2022;23(1):66. doi: 10.1186/s12910-022-00796-7

3. You are meeting a 59-year-old woman in the outpatient palliative care clinic for the first time. She has a new diagnosis of diffuse large B-cell lymphoma. After introductions, you explain what palliative care is and how you can support her moving forward. She says, "I guess I'm in bad shape."

Which statement is the most appropriate response?

- **A.** You're not! Things will be fine. We have a lot of treatments.
- **B.** It sounds like they didn't explain what is happening.
- **C.** Tell me more.
- **D.** This is hard. I'm here to support you.

Correct Answer: C

Discussing serious news is again one of the most important skills in palliative medicine. It is recommended to always start with a review of the patient's/family's understanding of the illness and any treatments to date. Asking permission to discuss serious news is also an important step in communication as this allows you to ensure that the patient is "ready" and can be prepared to hear what comes next. For example, "Is it OK if I share with you what I learned from your healthcare team members?" Exploring how much information is helpful is the next step to see how and what they wish to discuss. It conveys respect to ask this and then to abide by the parameters. It also gives patients and their chosen families some sense of control and can provide insight into their social and cultural context. How patients face serious illness is unique to them as an individual and strongly influenced by culture and family systems. Some like to hear all the details, and others prefer less or for you to speak with someone else like a close friend or family member. It is vitally important to ask what their preference is in information sharing and to convey that to other members of the team. To not respect these parameters violates patient safety and can cause harm.

In this clinical vignette, "tell me more" opens the door as to the patient's concerns in an open-ended way. Answers A and B are dismissive of the patient and can shut the conversation down. Answer D is a good support statement that can be used to move the conversation forward after sharing difficult news yet applied too early can actually close down the conversation.

4. You are asked to see a 68-year-old Spanish-speaking man who has been brought to the hospital by his family after months of steady health deterioration at home. The 45-year-old son intercepts you at the door of the hospital room and identifies himself as the family spokesperson. He insists that you not disclose any medical information to his father and that you speak only with him. There are multiple people in attendance in the room, and many side conversations in Spanish are occurring.

What is your next best step?

- **A.** Talk with the family in front of the patient as he does not speak or understand English.
- **B.** Have the family provide interpretation to adjust what is said to what they want him to hear.
- **C.** Using an interpreter, ask the patient how much information he prefers to receive about his condition.
- **D.** Reschedule the meeting to include the son and family members without the patient.

Correct Answer: C

Title VI of the Civil Rights Act provides the legal right for an interpreter in medical settings. Although simple interactions may not require a medically trained interpreter, this is certainly necessary with serious illness and end-of-life discussions. Research shows that even with an expert translator, communication in family meetings has limitations. Exchanges that are translated are often shorter, have fewer supportive statements, and often contain interpretation errors.

Expert recommendations discourage the use of family interpreters in these settings. Studies suggest that family members often misinterpret words or censor sensitive topics. The translating mistakes made by family members can be clinically meaningful. Translating serious news to a family member may also be traumatic and have lasting emotional and psychological impact. However, the solution should not be to ban all family translation. Medically trained interpreters are usually better at literal translation, but they may be less skillful in cultural context.

Large hospitals may have full-time interpreters available, and almost all have access to telephone interpretation services. Clinical staff who are fluent in the language may serve as translators; however, their language competency needs to be sophisticated.

In this clinical vignette, asking the patient's permission about information sharing will clarify the son's assertion or refute it. It is essential to find out from the patient first how they prefer to make decisions regarding their health and how much information is helpful. The son can be reassured and witness that such a question does not divulge medical information but is ethically required and respectful of his father's autonomy. A person with decision-making capacity can delegate their healthcare decisions to another.

This clinical vignette also alludes to the challenge of facilitating a family meeting when there are multiple people in attendance, with perhaps whispering and side conversations also occurring. Unspoken communication can also be a powerful tool, and using body position to organize and facilitate group conversations can be an effective tool. If maintaining focus and group attention is necessary, placing oneself slightly higher than others can help organize the structure of the interaction. In situations where patients are reticent to share, sitting lower than they are positioned can be helpful. Standing often communicates authority and direction and should be avoided unless it is required or unavoidable.

Additional References

Glajchen M, Wilkins C. Enhanced communication skills. Dimitrov N, Kemle K (eds). In: Palliative and Serious Illness Patient Management for Physician Assistants. Oxford University Press; 2021:44–60.

Howard S. Fast Facts and Concepts #154. Use of Interpreters in Palliative Care. July 26, 2024. Accessed September 27, 2024. https://www.mypcnow.org/fast-fact/use-of-interpreters-in-palliative-care/

Paladino J, Sanders JJ, Fromme EK, Block S, Jacobsen JC, Jackson VA, Ritchie CS, Mitchell S. Improving serious illness communication: a qualitative study of clinical culture. BMC Palliat Care 2023;22(1):104. doi: 10.1186/s12904-023-01229-x

Tulsky J, Arnold R, Back A. Mastering Communication with Seriously Ill Patients. Cambridge University Press; 2009:22–38.

Additional Considerations in the Pediatric Population

Communication Strategies and Difficult Conversations in Pediatric Palliative Care

Communication in pediatric palliative care requires particular expertise as the patients themselves cover a continuum of developmental stages, and communication strategies need to evolve and change with these transitions. In addition, pediatric communication must include communicating with parents, siblings, extended family, and communities. The similarities are also striking. Fostering intentional, mindful, and honest communication is central to the practice of all palliative care. Adult palliative care has learned from pediatrics and expanded its model to also include chosen family and caregivers as integral to the unit of care. This requires skill, practice, and premeeting critical strategizing and reflection of the topics to be discussed. Premeeting discussions with co-workers and subspecialists should occur prior to family meetings to foster cohesive messaging from the medical side of the team. Barriers to communication strategies should be addressed with the entire team in an honest, thoughtful, and respectful manner. Mindful listening should be part of the scaffolding that supports the structure of excellent communication. Lastly, pediatric patients are not always able to communicate with words secondary to age, development, or medical conditions. For this reason, mindful observation of pediatric patients is a crucial pillar in building trust with patients and families, and time must be allotted to do this. This is true in adult palliative care as well—often in advanced age but also increasingly with adults who live with progressive chronic illnesses or neurologic conditions even from childhood.

Again, the following vignettes do not reflect a typical exam question. These vignettes are to encourage study and additional topic exploration.

Clinical Vignette

You are seeing Juan, a 12-year-old boy with Duchenne's muscular dystrophy diagnosed at age 2. He has been followed by the palliative care team since that time. He lives with his parents and five sisters, ages 24–39. His parents speak one of the Mixteco dialects. The family has much support from local extended family and is very faith-based. The father works outside the home. The mother has been the primary caregiver for the entire family, but as she has gotten older the sisters now also help to care for Juan. They are very close and supportive of their brother.

The certified physician associate (PA-C), as part of the palliative care team, has been a primary contact for Juan and his parents. His parents have continued to have regular meetings with the IDT addressing concerns about Juan's disease trajectory. Now that Juan has gotten older, he is more curious about his disease and is asking more questions. He has a younger cousin who also has the same diagnosis. Juan has an active social life both at school and online with other peers who have muscular dystrophy.

In the past the IDT has always met with Mom and Dad only, and now Juan is requesting that he and his sisters be allowed to participate in the meetings. Step by step, the team has been honest with Juan's parents about what to anticipate, and his parents express their belief that it is in God's hands. They remain hopeful that Juan will not continue to worsen even though he is now requiring a wheelchair to enhance his mobility. No one from the medical team has spoken directly to the possibility of Juan's death with the parents given their focus and preferences.

Communication in pediatrics differs from that in the adult world in that the parent(s) needs to have information to make decisions for a seriously ill child, and the child may or may not weigh in on care preferences. Another significant difference is that clinicians must obtain consent from parents *prior* to speaking with the patient. And when there is direct communication, the communication style or level must match the child's age and capacity. It is the parents who are most often making decisions for their child, and this "third-party system" is true for an extended period of time. This does not mean that children are not granted a voice or preference in decision-making. However, families tend to involve their children in this process to varying degrees, almost always wanting to protect them.

As is always central to communication and decision-making, there needs to be development of trust between healthcare

professionals (HCPs) and families. This foundation serves as the scaffolding for future communication and decision-making. Once families develop trust and feel supported, they can feel secure in the decisions they have made and those they are facing.

The family's dynamics often play a role in who receives information and then how it is relayed to extended family. HCPs must consider cultural and religious aspects of the family to facilitate successful communication. The palliative care team must be careful to not make assumptions about family preferences because they are from a particular cultural or religious group. Instead, the HCP must approach the family with genuine curiosity and openness, receiving information while recognizing any personal bias that may affect honest two-way communication or trust-building.

The goals of the family meeting or even bedside check-ins are not just to deliver information but to better appreciate family values as well as goals of care for a patient and their family. These meetings facilitate weaving together the patient's/family's goals of care with recommendations from the medical team. The use of open-ended questions helps to facilitate getting to know the child and family, their understanding of their child's illness, their hopes and fears, their goals for their child now and in the future, and what their definition of "quality of life" means in relation to their child. These conversations also give insight into spiritual and cultural preferences and social systems that impact care delivery.

Goals-of-care conversations take place frequently and may change often within the continuum of illness and time trajectories. These changes are inevitable and should be honestly discussed when medical management for a child changes. In pediatrics especially, changes can occur quickly. Recommendations from the medical team should be shared and expressed knowing the family's goals of care and preferences for information sharing. The family always has the option to accept or reject those recommendations.

Case Strategy and Models for Communication

Considering the above vignette, a discussion should take place with the parents first to let them know Juan has been asking more questions about his illness. He has access to information through his online community. Juan has suggested that he may want to try a few new things. It is required to ask the parents if it would be OK to have a family meeting including Juan and his siblings.

Another tool for a successful family meeting is the platform with *prepare*, *consensus*, *delivery*, *pause*, and *follow-up*. This can be utilized in both adult and pediatric scenarios. Here are the steps involved:

1. *Prepare* for breaking significant news. Select the room, participants, and what you are going to say: participants include family members and supporting team members, including spiritual care and child life, social services, as well as subspecialists. Allow enough time for the meeting and a large enough space.
2. *Consensus*: Make sure the messaging has been discussed prior to the meeting between the palliative care IDT and the medical team. Understand the goals of the meeting. Agree on the topics to be covered, and address any disagreements on the team before having the meeting with the parents. Unclear information or team disagreements risk leaving parents confused and unable to make choices.
3. *Delivery*: Find out how much the child and family want to know. Have a clear agenda, and tell the family why they are there. Ask if the family wants to discuss any additional issues. Use the *ask–tell–ask* phrasing to guide discussions. Break the news using the *warn–pause–check* (WPC) approach. This involves warning that you have bad news to share, pausing to give the listener(s) time to prepare to hear the news, and then providing the information in small pieces at a time. Make sure the information is delivered clearly, and check to make sure they have correctly understood what you have said.
4. *Pause*: Allow time for silence and emotional transitions. Listen empathetically, pausing and just being silent once the news is delivered. This gives all people present time to sort through what has been said and to process some of the emotional response to the information. Sometimes meetings end here because family members may not be able to continue discussions. That is respectful and caring.
5. *Follow-up*: Ensure that the family knows you will follow up with them once they have had time to digest all of the information presented. Make a concrete plan for follow-up. Decisions most often do not need to be made immediately. Convey to the family a time frame and any urgency. Arrange for support for the family as needed.

In this case of Juan, having a large enough space for the meeting would be important. There needs to be a Mixteco interpreter who speaks the same dialect as the parents. Arrangements for other specialists, bedside care teams, and therapists to attend should be considered. Information ideally needs to be delivered without medical jargon so that all there can be understood.

Juan is 12, and delivering or explaining information to him may need to be done in a different format. HCPs should be familiar with the developmental stages of cognition and language in children to facilitate age-appropriate strategies.

The parents may want to deliver information to Juan that is culturally sensitive to their family system. This affects how much information they prefer to share with the child about the incurable nature of the illness. In some conservative cultures parents may not even reveal the true nature of the child's diagnosis. Parents believe that this may cause the child to lose hope and cause more suffering or hasten death.

Helping parents find the right words to express themselves may need to be done premeeting. There are many specialists on pediatric IDTs: these include psychologists, child life, spiritual care providers, social workers, and art therapists. Each of these specialists can help parents talk to children while remaining cognizant of their developmental stages and how they may process information. Asking Juan's parents how they want information delivered to Juan is important. Allowing Juan to have a voice in the meeting if he is asking to is also important. Research has shown that adolescents desire clear communication and increasing autonomy in decision-making. Asking open-ended questions is paramount to facilitating conversations with children and not cutting them off. Many providers discuss with parents that if a child asks them a direct question, they will not lie to the child. Rephrasing the question to understand what the child is asking can be helpful. For example, if a young sibling asks if their sibling (your patient) "got sick because we had a fight," a correct response might be "Have you been worried that it was someone's fault that your brother got sick?"

Neonatal Communication

Models of communication have been developed for neonatal-specific information delivery. Communication strategies differ in the neonatal ICU (NICU) in that they often begin prenatally and then can extend through the life of the child. In the pediatric realm that may mean until the age of 21. Reasons these strategies may differ are that prognostication is often uncertain. Communicating this clearly and with intention can be difficult. Parental coping mechanisms may lean toward hopefulness, and their concept of normal (especially of they have never had children) becomes very skewed. NICU stays can be months and, in some cases, up to a year. If communication strategies are not discussed and taught to all staff, the result can be angry, weary parents who do not trust the medical team. Communication strategies with premature infants can also be very different and involve quiet, warm, tucked, and contained swaddling, dark environments with minimal interruptions.

Case Vignette

Twin boy B is a now 36-week-old infant born at 23 weeks and 6 days to a 37-year-old G1 now P2 mother. He has required respiratory support via nasal canula. He has been diagnosed with bilateral grade II interventricular hemorrhages and retinopathy of prematurity (ROP). He is being transferred to your institution for evaluation and treatment for ROP. His grade II bleeds have almost resolved and are not causing any acute issues.

Upon arrival from the transferring institution, he is found to be in respiratory distress. He has an echocardiogram and is seen to have pulmonary hypertension. His respiratory support is escalated, he is intubated, and he is started on inhaled nitric oxide. He is started on antibiotics after he is pan-cultured.

Prior to the delivery there was no time for a perinatal consultation. The family was updated after delivery by Spanish interpreters. Both parents work as migrant farmworkers. They have a strong faith background. Family support system in the United States consists of other migrant farm families.

Lead-in Question: What Strategies Can be Used to Address Goals of Care?

One of the biggest barriers to effective communication in the NICU remains difficulty in prognosticating outcomes and trajectories for patients who are born preterm or with complex medical issues. These infants may develop worsening conditions despite maximizing medical therapy. They may be literally fine one day and take a turn for the worse unexpectedly the next day. Unfortunately, if the frail and unpredictable nature of these infants is not addressed with parents initially, it can lead to missed communication and lack of trust in the medical team. This case is viewed from the parents' perspective: their baby was sent to a new hospital with a promise of fixing his eye problem; now he has a breathing tube and high pressure in his lungs.

A family meeting at this juncture is challenging and important on many levels, especially for any future discussions. Assessment of what the family understands about their child is important as well as their goals of care at this juncture in the case. A formal introduction to the NICU team and structure of care as well as meeting any subspecialist and bedside caregivers is helpful in making this transition of care.

Finale:

Just as in adult medicine and palliative and hospice care, family meetings are helpful, especially as they incorporate excellent communication processes that include being respectfully curious and listening deeply to all parties involved, consideration of ways to support the family and address their hopes and concerns, and early and frequent communication with the family. These are all vital, as is the careful documentation of the process.

References and Resources

ELNEC (End of Life Nursing Education Consortium)
EPEC Pediatrics (Education in Palliative and End-of-Life Care)
Pediatric Serious Illness Communication Program (PediSICP)
Podcast through the National Coalition of Hospice and Palliative Care, Pediatric Division
Video tools through the National Institutes of Health
Vital Talk
Amery J. A Really Practical Handbook of Children's Palliative Care. Lulu Publishing; 2016.
Stein A, Dalton L, Rapa E, et al. Communication with children and adolescents about the diagnosis of their own life-threatening condition. Lancet 2019;393(10176):1150–63. doi: 10.1016/S0140-6736(18)33201-X

Additional Communication Skills

5. A 62-year-old woman with end-stage heart failure with reduced ejection fraction (HFrEF) is considering enrollment in hospice. She takes an angiotensin-converting enzyme (ACE) inhibitor, beta blocker, loop diuretic, and spironolactone. She has an implanted pacer/defibrillator. After a palliative consultation, she decides to deactivate the defibrillator. Her dyspnea is severe, although she is usually asymptomatic at rest on oxygen and is able to sleep through the night with continuous positive airway pressure (CPAP). Her major conflict with the concept of hospice is that it seems to her she must give up hope to enroll. Although she accepts her shortened life expectancy, she wants to live and live well, not just think about dying or be forced to talk about it.

Which one of the following is the best approach to help facilitate a decision consistent with her goals and preferences?

A. Encourage her to remain with her regular healthcare team until she is ready to accept that she is dying.
B. Explore what hope means to her.
C. Affirm that she can remain hopeful while in hospice.
D. Suggest that she use hospice for the enhanced nursing services only and revoke if she wants to go back to the hospital.

Correct Answer: B

When faced with life-threatening illness, many patients and clinicians feel they must choose between two extremes, either hoping for disease remission or preparing for death. But these two positions are not mutually exclusive (choice C is incorrect). One strategy is to encourage the patient to hope for the best while at the same time to prepare for the worst.

Hope means different things to different people, and its meaning changes as one moves through the trajectory of illness. Close to death, patients often focus away from long-term goals and toward short-term or spiritual goals, such as a day free of pain or dyspnea, security, love, reconciliation with their children,

or participating in a special event. Choice B is correct—find out what hope means to the patient today, and find a way to align the care plan with that hope. It is likely that hospice can help her meet her goals.

Choice A is incorrect because it maintains her reliance on the hospital and emergency medical services (EMS) to meet acute needs and will negatively impact her life expectancy. Especially with heart failure, patients who access hospice actually live longer than those who do not use the support.

Choice D likewise is incorrect because it avoids talking about the elephant in the room. Hospice is a comprehensive approach to care of the dying, not just a service provided to chronically ill patients in-between hospitalizations for disease decompensation.

Annotation

Back AL, Arnold RM, Quill TE. Hope for the best, and prepare for the worst. Ann Intern Med 2003;138:439–43. doi: 10.7326/0003-4819-138-5-200303040-00028

Cross SH, Kamal AH, Taylor DH Jr, Warraich HJ. Hospice use among patients with heart failure. Card Fail Rev 2019;5(2):93–8. https://doi.org/10.15420/cfr.2019.2.2

Warm E, Weissman DE. Fast Facts and Concepts #21. Hope and Truth Telling. February 19, 2024. Accessed September 27, 2024. https://www.mypcnow.org/fast-fact/hope-and-truth-telling/

Conflict Resolution

6. As a PA employed by a hospice, you are making an urgent home visit to a 76-year-old man with multiple myeloma enrolled in home hospice care. He has renal failure related to the multiple myeloma, and dialysis was stopped 2 days ago. His daughter has called, reporting a significant and abrupt change in his condition. You notice immediately that he is confused and somewhat agitated. His 45-year-old daughter is at home when you arrive. She appears upset and promptly begins to complain about how "incompetent" the hospice team is because they have not prevented his deterioration in mentation or offered continuous nursing care. She expresses angrily that her father is now in bed all the time and is incontinent of stool and urine.

Which one of the following is your best response to the daughter?

A. Inform the daughter it is not your job to schedule nurses.
B. Explain to the daughter that confusion is normal when dialysis is stopped.
C. Suggest that she disenroll her father from hospice and call EMS.
D. Acknowledge her frustration and affirm her caring.
E. Ask her for a list of the patient's medications and vital signs.

Correct Answer: D

The key to complaint resolution and service recovery is to listen deeply about the situation. While there might be service delivery problems, the most likely cause of this woman's distress is the clinical deterioration of her father, over which she has no control. Perhaps she is also feeling uncomfortable or even fearful in providing his personal care. First and foremost, we must be present with the expressed emotion and acknowledge the situation. Until that occurs, the daughter will not be able to participate fully in discussions, and establishing rapport will be greatly challenged. If possible, affirming the daughter's caring for her father may also be helpful. It is best to avoid responding to an angry patient or family member by "telling" first or by mirroring their anger. This can be difficult as anger can prompt our defenses. It is helpful to recognize that anger is often a secondary emotion to fear, and we are perhaps conveniently the recipient but not necessarily the intended target. The daughter's emotions and upset present an opportunity to better understand what the needs are for the patient and for her as part of the unit of care. Even thanking her for her candor can be disarming and helpful to align better with meeting their needs. Pivoting to tasks such as medication lists represents an avoidance technique and distraction from the issue at hand. It may be perceived as dismissing the daughter's concern.

Additional Resources

Gray R. 7 Tips for Handling an Angry Patient. HCP Live. June 17, 2016. Accessed September 27, 2024. https://www.hcplive.com/view/7-tips-for-handling-an-angry-patient

Hopeck P, Harrison TR. Reframing, refocusing, referring, reconciling, and reflecting: exploring conflict resolution strategies in end-of-life situations. Health Commun 2017;32(2):240–6. doi: 10.1080/10410236.2015.1099509

Tan A, Manca D. Finding common ground to achieve a "good death": family physicians working with substitute decision-makers of dying patients. A qualitative grounded theory study. BMC Fam Pract 2013;14:14. doi: 10.1186/1471-2296-14-14

Wilson T, Haut C, Akintade B. Improving health care provider communication in end-of-life decision-making. AACN Adv Crit Care 2017;28(2):124–32. doi: 10.4037/aacnacc2017302

7. A 62-year-old woman with end-stage HFrEF is considering enrollment in hospice. She takes an ACE inhibitor, beta blocker, loop diuretic, and spironolactone. She has an implanted pacer/defibrillator. After a palliative consultation, she decides to deactivate the defibrillator. Her dyspnea is severe, although she is usually asymptomatic at rest on oxygen and is able to sleep through the night with CPAP. Her major conflict with the concept of hospice is that it seems to her she must give up hope to enroll. Although she accepts her shortened life expectancy, she wants to live and live well, not just think about dying or be forced to talk about it.

Which one of the following is the best approach to help facilitate a decision consistent with her goals and preferences?

A. Encourage her to remain with her regular healthcare team until she is ready to accept that she is dying.
B. Explore what hope means her.
C. Tell her she can remain hopeful while in hospice.
D. Suggest that she use hospice for the enhanced nursing services only.

Correct Answer: B

This case discussion also represents a form of conflict resolution—in this case the patient has internal conflict. You may be of help in facilitating its resolution. Like the case above, listening intently to what is said and even unsaid will likely give insights into who the person is, their fears and hopes, and how you might be helpful. Such a scenario lends itself well to the palliative care phrase "tell me more . . ."—in this case, "Tell me more about what hope means to you."

Patients and their clinicians are asked to make many decisions and sometimes feel under pressure to do so quickly. They may feel they must choose between extremes, either hoping for "cure" or disease remission or "giving up" and preparing for death. They may not realize that palliative care in particular is helpful for the

in-between—hoping for the best while preparing for the rest. Restating and reframing the binary as this versus "the worse" can also be helpful along with discussing and reframing goals as to what are meaningful outcomes. As clinicians, we observe often that people can hold two opposing views at the same time; some people are very comfortable with ambiguity or "shades of gray." Some people are not—a binary decision may seem to them to reflect more control. Some people do not want to talk about what is to come and use denial to cope. It is important not to undermine a person's coping mechanism while trying to fortify or grow other ways of coping. In time, their denial may be replaced with acceptance and even open discussion. Sometimes they will never address that they are dying yet will allow hospice care. It is only through listening and asking open, non-judgmental questions that we can better understand and meet them where they are without an agenda to make them acknowledge or talk about dying. Culturally, such discussions may not be normative. Being comfortable with shades of gray is as important for the caregivers, professional and lay, as it is for the patient.

Hope means different things to different people, and its meaning changes as one moves through the trajectory of illness. Close to death, patients often focus more on short-term or spiritual goals, such as a day free of pain or dyspnea, expressions of love, reconciliation with their children, or participating in a special event. The care goal is to find out what hope means to the patient "today" and ways to align the care plan with that hope.

The other choices reflect avoidance. Maintaining her reliance on the hospital and EMS to meet acute needs will negatively impact her life expectancy and her quality of life. Especially with heart failure, patients who access hospice typically live longer with more days at home than those who do not use the support. As discussed above, conflict is not resolved through "telling" as that risks shutting down communication and expression of worry and fear that need relief.

Much energy can be put into not talking about the proverbial elephant in the room. Yet the timing of this needs to be thoughtfully and carefully managed. Hospice is a comprehensive approach to care of the dying, not just a service provided to chronically ill patients in-between hospitalizations for disease decompensation. Some patients and family never overtly acknowledge death yet permit hospice care. Always asking and giving space for the conversations, yet at the same time not requiring that they happen, is vitally important.

Additional Readings

Back AL, Arnold RM, Quill TE. Hope for the best, and prepare for the worst. Ann Intern Med 2003;138:439–43. doi: 10.7326/0003-4819-138-5-200303040-00028

Cross SH, Kamal AH, Taylor DH Jr, Warraich HJ. Hospice use among patients with heart failure. Card Fail Rev 2019;5(2):93–8. https://doi.org/10.15420/cfr.2019.2.2

Kimball J. Hope for the best plan for the rest: 7 keys for navigating a life-changing diagnosis. J Palliat Med 2023;26(9):1307–8. doi: 10.1089/jpm.2023.0414

Marterre B, Clayville K. Navigating the murky waters of hope, fear, and spiritual suffering: an expert co-captain's guide. Surg Clin North Am 2019;99(5):991–1018. doi: 10.1016/j.suc.2019.06.013

8. You are asked to see a 70-year-old with chronic obstructive pulmonary disease (COPD) on long-term steroids with several recent hospitalizations for dyspnea, including one requiring ventilatory support. He is readmitted now for another COPD exacerbation, and he appears very thin and weak, with a weight loss of over 5 lb in the last 3 weeks. You assess his symptoms and acknowledge how hard things have been for him lately.

He responds, "I know I'm nearing the end. Every time I go to the hospital, they tell me there's nothing more they can do for me. Just getting out of the house takes all my energy from me. I just don't know how to tell my daughter. She's not ready."

What is the best way to respond?

A. Tell me more about what worries you.
B. Most people think it is best to just tell the truth.
C. Would you like me to talk to her?
D. You're OK. Things will be fine. We still have a lot of treatments.

Correct Answer: A

The correct answer is A. Again, acknowledging emotions in conversations about serious illness can help build trust, provide comfort and support, facilitate communication, and improve outcomes. "Tell me more" is a powerful phrase that can be used to encourage someone to share additional information or insights. The value of the "tell me more" phrase lies in its ability to facilitate communication, deepen understanding, and build relationships. In this case, the "tell me more" is very open-ended. He verbalizes that he does not know how to "tell his daughter," yet that may be a representative statement of something much larger. You could ask him specifically about his concerns for his daughter or simply say "tell me more" to prompt even further disclosure of his concerns. Options B and D are known as empathic terminators. These phrases often shut the conversation down. Exploring the patient's values helps to better understand who they are and tailor the care provided to them. Examples of exploring questions are as follows: What gives you strength? What brings you joy? What is most important to you given what you know about your illness?

Additional References

Arnold RM, Back AL, Carey EC, Tulsky JA, Wood GJ, Yang HB. Navigating Communication with Seriously Ill Patients: Balancing Honesty with Empathy and Hope, 2nd edition. Cambridge University Press; 2024. https://doi.org/10.1017/9781108921107

Smith A. Communication of Prognosis in Palliative Care. UpToDate. 2024. Accessed September 27, 2024. https://sso.uptodate.com/contents/communication-of-prognosis-in-palliative-care

9. A 78-year-old male, current smoker, presents to the emergency department (ED) with acute respiratory failure. Unfortunately, there is no advance directive on file, and the patient does not have capacity for any decisions given his condition. He is intubated and sedated. A computed tomography (CT) scan shows airway obstruction above the vocal cords from a mass most consistent with a malignancy. He is admitted to the ICU, and the ICU team asks you to meet with his daughter. She is very upset as the patient had always said he never wanted to be connected to a ventilator after seeing his brother die that way. She states angrily "What have you done to him!?"

What is the best next response?

A. You will need to talk with the oncologist about treatment options.
B. We will disconnect him immediately given this was his stated directive.

C. This must be very hard to witness. Would you tell me more about your father?

D. It's likely your father has cancer. We must get more medical information and do what is best for your father.

Correct Answer: C

The patient presented in distress without an advance directive to guide treatment; thus, the responses of the emergency department and ICU were very appropriate. This scenario is an airway obstruction that was life-threatening, and to save the patient's life, the patient required emergent intubation. It appears that he has a malignant growth in his airway which may or may not be amendable to treatment. Further workup is indicated; however, there must be consent. The patient may be able to communicate non-verbally as his condition stabilizes. The daughter is understandably expressing emotions, and her anger may be secondary to fear and anxiety. There are still a lot of unanswered questions regarding a likely oncologic prognosis and treatment options, and even before that information is obtained, a further conversation about goals of care will be needed. If the patient is unable to participate, his daughter will need a supportive environment and trust to facilitate complex medical decision-making. Option C is the best answer as, first, it is essential to acknowledge the emotions being expressed and to build rapport so as to have more understanding of the patient, his daughter, and their relationship and to facilitate patient- and family-centered decision-making. If he had a tracheostomy to maintain his ability to breathe and a biopsy, potential cancer treatments may be available However, even the biopsy and certainly cancer treatments are his choice. Although the medical team may have strong opinions as to what is feasible and best, the patient or his surrogate has the right to refuse life-sustaining treatments. Option A is incorrect as treatment decisions are premature without more information. Option B is also hasty and reactive without further information and exploring the patient's/daughter's understanding of the situation and options. Option D is a harsh and abrupt way to introduce further life-altering information, and obtaining more information about the mass can only be done with consent.

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Index

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