3.1 CARE OF THE OLDER PATIENT

Persons aged 65 years or older represent only 14% of the US population, yet account for more than 34% of hospital discharges.[1-4] The population aged 65 years and older is growing at a faster rate than the total population, and the number of persons in this group is projected to double by 2050.[1-4] Because of decreased physiologic reserves, changes in pharmacokinetics of medications, and decreased functional capacity of organ systems, the hospitalized older patient is at risk for many poor outcomes. Such outcomes include cognitive and functional decline, prolonged length of stay, higher rates of readmission, and increased risk of death. Because of clinically significant functional decline experienced during hospitalization, more than 28% of older patients are discharged to nursing care facilities rather than home.[1] These outcomes have profound medical, psychosocial, and economic effects on individual patients, families, and society. In addition to disease-based management, care of the older inpatient must be approached within a specific psychosocial and functional context. Hospitalists must engage in a collaborative, interprofessional approach to optimize care provided to older patients, beginning at the time of hospital admission and continuing through all care transitions. Hospitalists should lead initiatives that improve the care of older patients.

KNOWLEDGE

Hospitalists should be able to:

- Describe common complications related to hospitalization in older patients.
- Describe physiologic changes with aging that create increased vulnerability to adverse events during hospitalization.
- Describe patient-specific, environmental, and iatrogenic risk factors for complications in hospitalized older patients.
- Describe the high-risk medication classes that lead to most unplanned emergency department visits and emergency hospitalizations in older patients.
- Describe the medical, psychosocial, and economic impact of hospitalization on older patients and their families.
- Describe interventions shown to improve outcomes in hospitalized older patients.
- Describe postacute care options that can enable older patients to regain functional capacity.
- Identify all forms of delirium.
- Describe the impact of delirium on patients' functional and cognitive recovery from the acute illness.
- Recognize that agitation is a symptom of a disease, often delirium, and that the underlying cause must be addressed to ensure adequate care.
- Appreciate the risks and complications associated with restraint use.
- Summarize the costs and implications of the intersection between healthcare finance and obtaining resources to compensate for functional deficits in older patients.

SKILLS

Hospitalists should be able to:

- Elicit a thorough medical history and perform a physical examination to identify patient-specific risk factors for complications during hospitalization.
- Perform a focused cognitive and functional assessment of older patients.
- Formulate multidisciplinary care plans for the prevention of delirium, falls, and functional decline.
- Investigate and appropriately address underlying contributors to delirium.
- Provide nonpharmacologic alternatives (for example, behavioral plans) for the management of agitation and insomnia while minimizing exposure to potentially inappropriate medications.
- Avoid prescribing, whenever possible, medications associated with low benefit and/or increased risk of adverse drug reactions in older patients.
- Assess the complications and potential adverse effects associated with polypharmacy and work to avoid unnecessary medication exposure.
- Incorporate unique characteristics of older patients into the development and communication of therapeutic plans.
- Perform a social assessment of the patient's living conditions and support systems and tailor the healthcare plan to each patient's unique needs.
- Formulate and communicate safe multidisciplinary plans for care transitions for older patients with complex discharge needs.
- Connect elderly patients with social services early in the hospital course to provide institutional support, which may include referral for insurance and medication benefits, transportation, mental health services, and substance abuse services.
- Communicate effectively with primary care physicians and other postacute care providers to promote safe, coordinated care transitions.
- Educate patients and families about individual measures and community resources that can reduce potential complications after discharge.
- Recognize signs of potential elder abuse and use designated mechanisms to report suspected abuse or neglect.
- Lead, coordinate, and/or participate in multidisciplinary patient safety initiatives to reduce common complications experienced by older patients during hospitalization.
- Lead, coordinate, and/or participate in hospital initiatives to improve care transitions and reduce postacute care complications in older patients.

ATTITUDES

- *Hospitalists should be able to:*
- Promote a team approach to the care of the hospitalized

older patient, which may include physicians, geriatricians, psychiatrists, nurses, pharmacists, social workers, and rehabilitation services.
- Establish and maintain an open dialogue with patients and families regarding care goals and limitations, palliative care, end-of-life concerns, and advance care plans.

References

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3. United States Census Bureau. QuickFacts Data. Available at http://www.census.gov/quickfacts/table/PST045214/00. Accessed May 2015.
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3.2 CARE OF VULNERABLE POPULATIONS

Health disparities are differences in health outcomes that reflect social inequalities among groups. Vulnerable populations are defined as groups that are at increased risk of experiencing a disparity in medical care on the basis of characteristics such as age, sex, race, ethnicity, sexual orientation, spirituality, disability status, or socioeconomic or insurance status. When compared with patients from nonvulnerable populations, patients from vulnerable populations are prone to lower rates of health literacy, higher rates of preventable hospitalizations, higher rates of hospital patient safety events, and higher death rates from typically low-mortality diseases.[1] More than 30% of direct medical care expenditures for African American, Asian, and Hispanic patients are excess costs due to health disparities.[2] Hospitalists may have an important role in influencing the health status, healthcare access, and healthcare delivery to vulnerable populations given higher rates of hospital use and reduced access to outpatient care. In fact, hospitalists often serve as initial points of contact for the healthcare of these groups. Core competencies in communication, advocacy, and comprehension of the healthcare needs of vulnerable populations may influence healthcare expenditures, morbidity, and mortality. Hospitalists have the opportunity to lead initiatives that promote equity of healthcare provision.

KNOWLEDGE

Hospitalists should be able to:

- Explain key factors leading to disparities in health status among specific vulnerable populations.
- Explain disease processes that disproportionately affect vulnerable populations.
- Describe key factors leading to disparities in the quality of care provided to vulnerable groups.
- List services in local healthcare systems designed to ameliorate barriers to care provision.
- Name local and institutional resources available to patients needing financial assistance.
- Identify key elements of discharge planning for uninsured, underinsured, and disabled patients.

SKILLS

Hospitalists should be able to:

- Elicit a thorough and relevant medical history and perform a physical examination to detect illnesses for which vulnerable populations may have increased risk.
- Elicit a social history to assess patient habits, identify patients at risk for breaks in transitions of care, and clarify patient values regarding treatment options.
- Facilitate communication between vulnerable patient groups and consultants.
- Select appropriate educational resources to inform vulnerable patients with low health literacy using terminology commensurate with the patient's level of understanding.
- Provide education and systems interventions to minimize medication errors in patients with low health literacy.
- Secure medical interpreters to assist with interviewing, physical examination, and medical decision-making.
- Tailor the therapeutic plan, which includes the discharge plan and outpatient resources.
- Connect vulnerable patients with social services early in the hospital course to provide institutional support, which may include referral for insurance and drug benefits, transportation, mental health services, and substance abuse services.
- Target vulnerable groups for indicated vaccinations and preventive care services or referrals.
- Identify vulnerable patients whose outpatient environment might benefit from additional community resources.
- Coordinate adequate transitions of care from the inpatient to outpatient setting, including communication with outpatient providers.

ATTITUDES

Hospitalists should be able to:

- Communicate openly to facilitate trust in patient-physician interactions.
- Actively involve patients and families in the design of care plans.
- Provide leadership to foster attitudes and systems improvements that promote quality healthcare provision to vulnerable populations.

References

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3.3 COMMUNICATION

Communication refers to the transfer of information among individuals, groups, or organizations. Hospitalists communicate in multiple modalities with patients, families, other healthcare providers, and administrators. Patient-centered care requires that physicians and members of multidisciplinary teams effectively inform, educate, reassure, and empower patients and families to participate in the creation of a care plan. An estimated 80% of serious medical errors are due to failures in communication.[1] Preventable adverse events are a leading cause of death and injury in the United States.[2] Therefore, effective communication is central to the role of the hospitalist to promote efficient, safe, and high-quality care and to minimize discontinuity of care. Hospitalists can lead initiatives to improve communication among team members, patients, families, primary care physicians, and receiving physicians within the hospital and at extended-care facilities beginning at admission and through all care transitions.

KNOWLEDGE

Hospitalists should be able to:

- Describe key elements in a message.
- Describe the advantages and disadvantages of various communication modalities such as verbal, written, nonverbal, and listening approaches.
- Describe techniques of providing and eliciting feedback.
- Distinguish between formative and summative feedback.
- Define the role of effective communication in risk management.

SKILLS

Hospitalists should be able to:

- Communicate medical information in accordance with the recipient's preferred style with language understandable to patients, family members, and other care providers.
- Effectively use various communication methods, including nonverbal communication, in patient and family interactions.
- Identify and incorporate the use of appropriate multimedia resources to improve effective communication of the message.
- Use a medical interpreter when communicating with patients and families speaking a different language.
- Lead, coordinate, and/or participate in hospital initiatives to ensure adequate interpreter services and cross-cultural sensitivity.
- Identify potentially problematic family and team dynamics and explore their effects on the patient.
- Use advance care planning skills to identify the patient's choice of a surrogate decision maker.
- Ensure that input from surrogate decision makers accurately reflects the patient's interests, with a minimum of personal bias.
- Facilitate family meetings when necessary, collaborating with nurses and other team members to identify goals for the meeting, summarize conclusions reached, and use support staff as needed.
- Identify and provide a suitable and comfortable setting for family meetings.
- Counsel patients and families objectively when considering various treatment options.
- Communicate with nursing staff and consultants on a regular basis to convey critical information.

ATTITUDES

Hospitalists should be able to:

- Appreciate the positive impact that subtle changes in body language, such as sitting and appropriate touching, have on patient and family perceptions of an interaction.
- Demonstrate empathy for patient and family concerns.
- Demonstrate cultural sensitivity in all interactions with patients and families.
- Recognize the importance of allowing patients and families to have questions answered in a straightforward and timely manner.
- Discuss the patient's illness realistically without negating hope.
- Appreciate the importance of active and reflective listening.
- Acknowledge and remain comfortable with uncertainty in issues of prognosis.
- Remain available to the patient and family for follow-up questions through all care transitions.

References

1. Joint Commission on Accreditation of Healthcare Organizations. Joint Commission Perspectives: Joint Commission Center for Transforming Healthcare Releases Targeted Solutions Tool for Hand-Off Communications. Vol 32(8), 2012.
2. Kohn LT, Corrigan JM, Donaldson MS, eds; Committee on Quality of Health Care in America, Institute of Medicine. *To Err is Human: Building a Safer Health System*. Washington, DC. National Academy Press, 1999.

3.4 DIAGNOSTIC DECISION-MAKING

Diagnostic decision-making refers to the process of evaluating a patient complaint to develop a differential diagnosis, design a diagnostic evaluation, and arrive at a final diagnosis. Hospitalists frequently care for acutely ill patients with undifferentiated symptoms such as shortness of breath or chest pain. Establishing a correct diagnosis in these situations allows for timely therapeutic interventions and eliminates unnecessary diagnostic evaluation. Diagnostic errors account for more than 15% of all adverse events, and cognitive errors—resulting from faulty data gathering, flawed reasoning, or faulty verification—have a large role in most of these cases.[1-3] Hospitalists assess disease prevalence, pretest probability, and posttest probability to make a diagnostic decision while avoiding cognitive bias. By engaging in efficient and timely diagnostic decision-making, hospitalists can positively influence the quality and cost of medical care.

KNOWLEDGE

Hospitalists should be able to:

- Describe the prevalence of common disease states in the local patient population.
- Define and differentiate problem-solving strategies, including hypothesis testing and pattern recognition.
- Define and differentiate prevalence, pretest probability, test characteristics (including sensitivity, specificity, negative predictive value, positive predictive value, likelihood ratios), and posttest probability.
- Describe the relevance of sensitivity and specificity in interpreting diagnostic findings.
- Describe the sensitivity and specificity of key clinical features and diagnostic findings for common clinical syndromes.
- Describe the concepts that underlie Bayes' theorem and explain how it is used in diagnostic decision-making.
- Describe the factors that account for excessive or indiscriminate testing.
- Describe types of cognitive biases that can influence decision-making.

SKILLS

Hospitalists should be able to:

- Elicit a targeted medical history and perform a physical examination to detect symptoms and data that help refine the diagnostic hypothesis.
- Access resources that contain relevant information such as prevalence and incidence rates of disease states.
- Analyze the value of each diagnostic test, especially testing procedures that carry clinically significant patient discomfort or risk.
- Formulate a pretest probability using initial history, physical examination, and preliminary diagnostic information when available.
- Calculate posttest probabilities of disease using pretest probabilities and likelihood ratios.
- Communicate with patients and families to explain the differential diagnosis and evaluation of the patient's presenting symptoms.
- Communicate with patients and families to explain how testing will change the scope of diagnostic possibilities.
- Communicate with other physicians, trainees, and healthcare providers to explain the rationale for use of diagnostic tests.
- Anticipate, identify, and avoid cognitive biases when making diagnostic decisions.
- Incorporate the principles of evidence-based medicine, healthcare costs, and individual patient characteristics and preferences into each patient's diagnostic evaluation.
- Determine when sufficient evaluation has occurred in the absence of diagnostic certainty.
- Lead, coordinate, and/or participate in the development of clinical care pathways designed to simplify and/or improve the diagnostic process for a particular clinical condition.

ATTITUDES

Hospitalists should be able to:

- Recognize that each test should be preceded by a conscious decision to change or maintain the clinical care or initiate further diagnostic evaluation as indicated on the basis of test results.
- Appreciate that all tests have false-positive and false-negative results and rigorously scrutinize or repeat the test when the result is in question.

References

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3. Shojania KG, Burton EC, McDonald KM, Goldman L. Changes in rates of autopsy-detected diagnostic errors over time: a systematic review. *JAMA.* 2003;289(21):2849-2856.

3.5 DRUG SAFETY, PHARMACOECONOMICS, AND PHARMACOEPIDEMIOLOGY

The availability and use of pharmaceutical agents has widely expanded in healthcare, as have concerns about adverse drug events (ADEs). When prescribing medications, hospitalists should strive to use evidence-based therapies and must evaluate the benefits, harms, and financial costs of drug therapy for individual patients. Annually in the United States, 380,000 to 450,000 preventable ADEs occur in hospitalized patients.[1] Notably, 82% of American adults take at least 1 medication and 29% take 5 or more, and drug-drug interactions account for 3% to 5% of ADEs.[2,3] The occurrence of ADEs is associated with increased mortality, morbidity, prolonged hospitalization, and higher costs of care.[4] In clinical practice, hospitalists should promote and lead multidisciplinary teams to develop and implement protocols, guidelines, and clinical pathways that recommend preferred drug therapies. In addition, hospitalists should have familiarity in interpreting outcomes measurement (pharmacoepidemiology) and economic analyses (pharmacoeconomics).

KNOWLEDGE

Hospitalists should be able to:

- Describe principles of evaluating clinical efficacy, pharmacokinetics, dosing, drug and food interactions, and adverse effects that can affect the choice of agent, dosing frequency, and route of administration.
- Explain the evidence-based rationale for prophylactic drug therapies, comparing the costs, risks, and benefits of competing strategies.
- Explain how pharmacodynamics may change with age, liver disease, and renal insufficiency.
- Describe the incidence of various types of ADEs in hospitalized patients, which may include adverse effects, interactions, and errors.
- Recognize the risk of ADEs during care transitions.
- Explain the role of polypharmacy in the development of delirium, ADEs, and noncompliance.
- Describe how the overuse of antibiotics promotes antibiotic resistance.
- Describe potential complications associated with administration of blood products.
- Describe key principles for interpreting pharmacoeconomic analyses, including inflation rate, discounting rate, incremental analysis, sensitivity analysis, and inherent bias.
- Describe the clinical efficacy, safety profile, pharmacokinetics, dosing, drug and food interactions, and costs of commonly prescribed medications and biological agents (eg, blood products).

SKILLS

Hospitalists should be able to:

- Adjust prescribing strategies for patients according to conditions that may influence pharmacokinetics, such as age or comorbidities.
- Apply treatment guidelines to individual patients to use antibiotics judiciously to reduce cost and the emergence of antibiotic resistance.
- Integrate knowledge of benefits and risks of drug therapies into medical decision-making for individual patients and routinely reassess decisions.
- Minimize ADEs by following best practice models of medication ordering and administration.
- Document medications accurately and legibly, taking into account approved abbreviations, and indicate start and stop dates for short-term medications.
- Arrange appropriate follow-up for therapies that require outpatient monitoring, dosage adjustment, and education (eg, anticoagulants, antibiotics).
- Balance the benefits, risks, and cost of prophylactic therapies, which may include venous thromboembolism and stress ulcer prophylaxis.
- Convert intravenous medications to the oral route when indicated to promote patient safety, satisfaction, and reduce cost.
- Follow standard practices for transfusion of blood products.
- Educate patients and families regarding the indications, benefits, potential adverse effects, alternatives, and directions for use of the prescribed medications.
- Educate patients and families about the importance of acquiring medication information and communicating medication history to clinicians at each transition of care.
- Reconcile outpatient medications with inpatient medications at the time of admission and discharge.
- Critically assess and apply results of outcome studies to improve drug treatment and safety for individual patients.
- Lead, coordinate, and/or participate in the development, use, and dissemination of local, regional, and national practice guidelines and patient safety alerts pertaining to the prevention of complications.
- Apply principles of pharmacoepidemiology and pharmacoeconomics to implement practice guidelines and protocols for a hospital.

ATTITUDES

Hospitalists should be able to:

- Appreciate that ADEs must be monitored and that steps must be taken to reduce their incidence.
- Exemplify safe medication prescribing and administration practices.
- Engage collaboratively with multidisciplinary teams, which may include pharmacy, nursing service, social work, case management, long-term care facilities, and outpatient care teams, to improve drug safety for individual patients and reduce costs.

References

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3.6 EQUITABLE ALLOCATION OF RESOURCES

Healthcare expenditures in the United States (totaling almost 18% of the gross domestic product on an annual basis) continue to rise, with hospital spending accounting for the largest portion.[1] According to the Congressional Budget Office, up to 5% of the gross domestic product each year ($700 billion) is spent on tests and procedures that do not improve health outcomes.[2] Efficient and equitable distribution of healthcare resources is critical for overall population health, as the uninsured and underinsured, the poor, and members of certain minority groups often have inadequate healthcare access and substandard health outcomes.[3,4] Hospitals are under constant pressure to provide more efficient care with limited resources, with hospitalists acting as coordinators of care and resource use. In addition, hospitalists are positioned to identify healthcare disparities, optimize care for all patients, and advocate for equitable and cost-effective allocation of hospital resources.

KNOWLEDGE

Hospitalists should be able to:

- Define the concepts of equity and cost-effectiveness.
- Identify patient populations at risk for healthcare disparities.
- Identify health resources that are prone to inequitable allocations.
- Differentiate among decision analysis, cost-effectiveness analysis, and cost-benefit analysis.
- Explain how cost-effectiveness may conflict with equity in healthcare policies.
- Describe patient factors that affect the allocation of healthcare resources.
- Explain how equity in healthcare is cost effective.
- Explain the relationship between healthcare disparities and healthcare quality.

SKILLS

Hospitalists should be able to:

- Measure patient access to healthcare resources.
- Incorporate equity concerns into cost-effectiveness analysis.
- Triage patients to appropriate hospital resources.
- Construct cost-effective care pathways that allocate resources equitably.
- Practice evidence-based, cost-effective care for all patients.
- Use cost-effectiveness analysis, cost-benefit analysis, evidence-based medicine, and measurements of healthcare equity to shape hospital policy on the allocation of its resources.
- Lead, coordinate, and/or participate in multidisciplinary teams, which may include radiology, pharmacy, nursing, and social services, to decrease hospital costs and provide evidence-based, cost-effective care.
- Lead, coordinate, and/or participate in quality improvement initiatives to improve resource allocation.
- Lead, coordinate, and/or participate in multidisciplinary hospital and community efforts to ensure proper access to care for all individuals.

ATTITUDES

Hospitalists should be able to:

- Actively listen to the concerns of all patients.
- Advocate for every patient's healthcare needs.
- Recognize that overuse of resources, including excessive test ordering, may not improve patient safety, patient satisfaction, or quality of care.
- Engage collaboratively with information technologists and healthcare economists to track resource use and outcomes.
- Advocate for cross-cultural education and interpreter services in hospital systems to decrease barriers to equitable healthcare allocation.

References

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3.7 EVIDENCE-BASED MEDICINE

Evidence-based medicine (EBM) uses a systematic approach to medical decision-making and patient care, combining the highest available level of scientific evidence with practitioner clinical judgment and patient values and preferences. For hospitalists facing multiple critical medical choices daily, using an EBM approach helps them collaborate with patients to make the best possible individualized decisions. In the current environment, in which hospitalists have immediate access to vast amounts of information, knowledge management skills are critical so hospitalists can find, synthesize, and organize the best available information. Hospitalists also use their EBM skills to find current scientific evidence to develop quality improvement projects, including protocols and clinical pathways that improve the efficiency and quality of care within their organizations. Additionally, hospitalists lead and participate in educational efforts that foster the adoption of a rigorous evidence-based approach among medical trainees, hospital staff, and physician colleagues.

KNOWLEDGE

Hospitalists should be able to:

- Identify peer-reviewed databases and other resources to search for scientific evidence to answer clinical and systems questions.
- Distinguish between filtered and nonfiltered resources by providing examples and describing their advantages and disadvantages.
- Describe major study types, including therapy, diagnosis, prognosis, harm, meta-analysis (systematic review), economic analysis, and decision analysis.
- Describe and differentiate the salient features of the following study designs: randomized controlled trials, meta-analyses, cohort studies, case-control studies, case series, cost-effectiveness studies, and clinical decision analysis studies.
- Explain the core components and core statistical concepts used in therapy studies, including relative risk, relative risk reduction, absolute risk reduction, number needed to treat, and intention-to-treat analysis.
- Explain the core components and core statistical concepts used in diagnosis studies, including Bayes' theorem, sensitivity, specificity, and likelihood ratios.

SKILLS

Hospitalists should be able to:

- Formulate a well-designed clinical question using the Patient Intervention Comparison Outcome (PICO) approach.
- Seek the best available evidence to support clinical decisions and process improvements at the individual and institutional level.
- Identify the most appropriate study design(s) for any given clinical- or systems-based question.
- Search filtered and nonfiltered information resources efficiently to find answers to clinical questions.
- Critically appraise the validity of individual study methodology and reporting.
- Evaluate and interpret study results, including useful point estimates and precision analysis.
- Apply relevant results of validated studies to individual patient care or systems improvement projects.
- Develop a process for the ongoing incorporation of new information into existing clinical practice and system improvement projects.
- Lead, coordinate, and/or participate in educational initiatives aimed at teaching and practicing EBM.
- Lead, coordinate, and/or participate in evidence-based systems interventions to improve care quality and efficiency.

ATTITUDES

Hospitalists should be able to:

- Reflect upon individual practice patterns to identify new questions.
- Serve as a role model for evidence-based point-of-care practice.
- Advocate for institutional access to high-quality point-of-care EBM information resources.

3.8 HOSPITALIST AS EDUCATOR

Hospitalists serve as educators and role models for all members of the multidisciplinary care team, including student learners, fellow physicians, allied health professionals, and hospital administrators. "Hospitalist as educator" refers to specific interactions with these team members to educate them about a wide range of knowledge and clinical skills such as patient care plans, treatment protocols, aspects of patient safety, and evidence-based problem-solving exercises. In this role as educators, hospitalists facilitate team building. They instruct students in an optimal learning environment, provide feedback, and promote independent thinking. They model efficient clinical decision-making and communication skills during physician-patient encounters. Hospitalists must attend to the learning needs of a generation of medical trainees that has an affinity for technology, interaction, and group-based learning, while also operating in an environment of restricted resident work hours. The hospitalist as educator core competency is essential to effecting organizational excellence.

KNOWLEDGE

Hospitalists should be able to:

- Explain the role of the hospitalist as an educator.
- Describe adult education principles.
- Explain factors that may facilitate or inhibit learning.
- Define the concept of a teachable moment.
- Describe the benefits and limitations of various teaching modalities.
- Identify resources for training materials.
- Describe the process of developing a formal educational session, including performing a needs assessment, determining teaching goals and objectives, developing teaching materials and activities, and evaluating a learner's comprehension of the target material.
- Describe practical steps for delivering dynamic presentations for multiple venues, including bedside teaching to trainees, small group discussions with coworkers or managers, academic detailing for new initiatives, and didactic lectures at national meetings.
- Describe models for clinical teaching (eg, the "microskills" model).
- Explain the process of applying competencies to curricular development.

SKILLS

Hospitalists should be able to:

- Establish a comfortable and safe learning environment.
- Establish expectations for each teaching session and clearly articulate the objectives.
- Determine the information needs of the intended recipient and tailor messages to the needs, abilities, and preferences of the intended recipient.
- Effectively assess learners' progress towards the goals of the teaching session.
- Frame educational interventions in a manner that sets up trainees for success.
- Provide prompt, explicit, and action-oriented feedback in a manner conducive to self-improvement.
- Facilitate learners' self-assessment of comprehension of target information and development of plans for further self-education.
- Promote evaluation standards that are fair and facilitate personal and professional development.
- Instruct at the level of learners' experience and knowledge and accommodate for learners at different levels.
- Seek feedback on the effectiveness of instruction methods, modalities, and materials.
- Encourage and provide tools for lifelong, self-directed learning and clinical problem-solving.
- Structure the timing and delivery of information and learning experiences to maximize comprehension.
- Use adult learning principles in the development or selection of educational programs, methods, and materials.
- Promote the effective use of the "teachable moment" in the education of patients, students, and healthcare professionals.
- Use explicit and accessible language to explain clinical decision-making to learners.
- Make the clinical reasoning process understandable, explicit, and relevant to learners.
- Promote efficient, up-to-date clinical problem-solving during every patient encounter.
- Model the integration of quality initiatives and patient feedback into clinical decision-making.
- Provide bedside teaching that is informative and comfortable for patients, trainees, and members of the multidisciplinary care team.
- Demonstrate effective mentoring, including role modeling and active feedback techniques.
- Demonstrate procedures by explaining indications and contraindications, equipment, each sequential step in the performance of the procedure, and necessary follow-up.
- Lead, coordinate, and/or participate in efforts to formulate a needs assessment program for hospitalists' continued professional development.
- Lead, coordinate, and/or participate in educational scholarship.

ATTITUDES

Hospitalists should be able to:

- Project enthusiasm for the teaching role.
- Respect learners from all backgrounds, knowledge, and skill levels.
- Promote an atmosphere of cooperation among patients, trainees, and multidisciplinary team members.
- Advocate the importance of lifelong learning and mentorship.
- Advocate the dual role of all healthcare professionals as

simultaneous educators and students.
- Balance patient care and teaching regarding relevant time constraints.
- Promote an organizational environment in which knowledge deficiencies are identified and targeted.
- Establish a trusting relationship with patients and families, medical trainees, and the multidisciplinary team.
- Admit the limitations of one's knowledge and respond appropriately to mistakes.
- Reflect on teaching moments to identify opportunities for improvement.
- Promote evidence-based information acquisition and clinical decision-making.
- Use the role of the "hospitalist as educator" to lead, coordinate, and/or participate in performance improvement initiatives.

3.9 INFORMATION MANAGEMENT

Information management refers to the acquisition and use of patient data for key hospital activities that include but are not limited to direct patient care. Optimal care of hospitalized patients and optimal workflow require basic clinical information systems. Advanced clinical information systems also provide decision support, which may include computerized provider order entry (CPOE), event monitoring, electronic charting, and bar coding. Successful information management may have positive effects on quality of care, including patient safety, effectiveness, and efficiency. For example, CPOE has been shown to reduce prescribing errors by 48%, and an electronic health record combined with clinical decision support tools reduces the ordering of redundant tests.[1-4] Hospitalists use local systems to acquire data and information that support optimal medical decision-making at the point of care. Hospitalists can lead or coordinate efforts within their institution to develop, use, and update clinical information systems to improve patient outcomes, reduce costs, and increase satisfaction among providers.

KNOWLEDGE

Hospitalists should be able to:

- Describe the use of hospital information systems by different departments to manage patient registration and financial data, process clinical results, and schedule appointments and tests.
- Identify and describe the process to access available sources of reference information, which may include literature search engines, online textbooks, electronic calculators, and practice guidelines to support optimal patient care.
- Describe information systems that can facilitate the practice of evidence-based medical decision-making.
- Explain the impact of CPOE with decision support on patient safety in the hospital setting.
- Explain potential pitfalls of the use of CPOE.
- Recognize the influence of individual patient factors in the interpretation of available information.
- Describe potential advantages and disadvantages of written and electronic patient records.
- Explain the limitations of different forms of data and data systems available to clinicians and how information systems can facilitate timely and accurate clinician submissions of bills.
- Explain Health Insurance Portability and Accountability Act (HIPAA) regulations and their impact on management of patient information.

SKILLS

Hospitalists should be able to:

- Efficiently retrieve and interpret data, images, and other information from available clinical information systems.
- Interpret data from digital devices, which may include cardiac or bedside monitors, glucometers, and pulse oximeters.
- Access and interpret information from internet-based clinical information systems when available.
- Interpret results incorporating statistical principles of probability and uncertainty.
- Recognize the limitations of acquisition devices or equipment and use clinical judgment to interpret results that fall either within or outside the expected ranges.
- Lead, coordinate, and/or participate in multidisciplinary initiatives to adopt hospital information systems that improve efficiency and optimize patient care.
- Lead, coordinate, and/or participate in multidisciplinary initiatives to continuously improve hospital information systems and physician practice patterns by providing constructive feedback and advice in system development.
- Advocate for order entry systems that promote patient safety and ease of use.
- Identify issues, provide feedback, and resolve conflicts within an information systems framework.

ATTITUDES

Hospitalists should be able to:

- Adhere to principles of data integrity, security, and confidentiality.
- Adhere to principles of professionalism and avoid "cut and paste" plagiarism within one's own electronic medical documentation.
- Advocate for information decision support to facilitate efficient and optimal medical management.

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3.10 LEADERSHIP

Hospitalists assume formal and informal leadership roles in the hospital system and community. In their individual institutions, hospitalists are responsible for the management and coordination of patient care. This role requires advocating for patients, building consensus, and balancing the needs of individual patients with the resources available to the hospital. On a daily basis, hospitalists must work in teams and exemplify essential leadership behaviors. Hospitalists lead efforts to identify, assess, and improve patient outcomes, resource use, cost-effectiveness, and quality of inpatient medical care. In the larger community, hospitalists lead innovations in hospital medicine research and education and the delivery of healthcare.

KNOWLEDGE

Hospitalists should be able to:

- Distinguish between management and leadership.
- Describe hospitalist responsibilities and opportunities to provide active leadership.
- Explain the attributes and effects of modeling positive and negative behaviors.
- Explain the importance of finding mentor(s) and serving as a mentor.
- Discuss how mentor relationships affect the development and advancement of the field of hospital medicine.
- Describe the key elements of a message.
- Name the key elements of strategic planning processes.
- Explain factors that predict the success or failure of strategic plans.
- Describe styles of leadership.
- Explain the attributes of effective leadership.
- Articulate the business and financial motivators that affect decision-making.
- Explain the specific factors that effect positive change.
- Explain effective negotiation and conflict resolution techniques.

SKILLS

Hospitalists should be able to:

- Tailor messages to specific target audiences.
- Develop effective communication skills using multiple modalities.
- Plan and conduct an effective meeting.
- Construct program mission and vision statements.
- Develop personal, team, and program goals and identify indicators of achievement.
- Establish, measure, and report key performance metrics.
- Use established metrics to assess progress and set new goals for performance and outcomes.
- Analyze personal leadership style.
- Demonstrate the ability to effectively work with colleagues who have various leadership styles.
- Develop budgets to support goals using accepted financial principles.
- Translate performance into measurable financial outcomes.
- Assess the barriers and facilitating factors to effect change and incorporate those factors into a strategic approach.
- Demonstrate effective and creative problem-solving techniques.
- Resolve conflicts with specific negotiation techniques.
- Provide leadership in teaching, educational scholarship, quality improvement, and other areas that serve to improve patient outcomes and advance the field of hospital medicine.
- Advocate for financial and other resources needed to support goals and initiatives.

ATTITUDES

Hospitalists should be able to:

- Lead by example.
- Practice active listening techniques.
- Provide and seek timely, constructive feedback from peers, subordinates, and supervisors on opportunities for performance improvement.
- Recognize the importance and influence of positive role modeling.
- Assess and address personal leadership strengths and weaknesses.
- Seek and participate in opportunities for professional development.
- Exemplify professionalism.
- Accept responsibility and accountability for management decisions.
- Build consensus in support of key decisions.

3.11 MANAGEMENT PRACTICES

Management practice in hospital medicine refers to program/medical group development and growth, contract negotiation, performance measurement, and financial analysis. Hospitalists require fundamental management skills to enhance their individual success and to facilitate growth and stability of their hospital medicine groups and institutions in which they practice. Hospitals increasingly need physician leaders with management skills to improve operational efficiency and meet other institutional needs. Hospitalists must acquire and maintain management skills that allow them to define their role and value, create a strategic plan for practice growth, anticipate and respond to change, and achieve financial success.

KNOWLEDGE

Hospitalists should be able to:

- Describe different models of physician compensation and incentives.
- Explain the impact of third-party payer contracts on hospital reimbursement.
- Describe key features of healthcare reform and discuss the potential effect of high-impact areas such as value-based purchasing, care transitions, and hospital-acquired conditions on patient care and expectations for individual hospitalists and hospital medicine groups.
- Describe the impact of medication formularies, utilization review requirements, third-party payer contracts, and other policies affecting patient care.
- Describe required system improvements needed to meet new healthcare legislation or public health guidelines.
- Describe the basics of human resource management, particularly regarding managing diversity, basic employment law, recruitment and retention, and the tools used to manage personnel.
- Describe federal statutory restrictions on physicians contracting with hospitals, third-party payers, and group practices.
- Define the role and value of hospitalists and hospital medicine programs.
- Explain advantages and disadvantages of using physician extenders in a hospital medicine practice.
- Describe the necessary elements for effective and compliant billing, coding, and revenue capture.
- Define commonly used hospital financial terminology, including, but not limited to, procedure codes, relative value units, direct and indirect costs, average length of stay, and case mix index.
- Define the components of a useful financial report.

SKILLS

Hospitalists should be able to:

- Apply basic accounting practices to track financial performance and develop a practice budget.
- Implement financially sustainable changes in staffing, skill mix, and care delivery models to optimize performance.
- Develop effective strategies to market the hospital medicine program.
- Develop job descriptions for physician and nonphysician employees to facilitate accountability and professional development.
- Develop effective strategies for recruiting and retaining hospitalists.
- Conduct or participate in performance reviews for physician and nonphysician staff.
- Negotiate effectively with physicians, medical practices, hospitals, and third-party payers.
- Interpret hospital-generated reports on individual and group performance.
- Assess satisfaction of community physicians, patients, nurses, and other user groups.
- Develop strategic planning processes to meet individual and group goals and establish accountability.
- Develop effective strategies for aligning hospitalist incentives with organization- and system-level goals.
- Develop business plans to facilitate growth of the practice.
- Prepare an annual review of program performance for the hospital executive team.
- Demonstrate teamwork, organization, and leadership skills.
- Achieve greater clinical integration between hospitalists and other healthcare providers across the care continuum.

ATTITUDES

Hospitalists should be able to:

- Lead by example.
- Value the importance of routine critical analysis of all aspects of practice operations to optimize efficiency, quality, and effectiveness.
- Prioritize meeting or exceeding customer and colleague expectations.
- Value the importance of best management practice.
- Value the importance of marketing and public relations to foster sustainable practice growth.

3.12 MEDICAL CONSULTATION AND COMANAGEMENT

As consultants, hospitalists provide expert medical opinion regarding the care of patients scheduled for surgery or who may be admitted to other medical and surgical services. Additionally, hospitalists may also be asked to participate in active comanagement of such patients, especially those with multiple or serious medical comorbidities. Comanagement of surgical patients between surgeons and hospitalists reduces hospital costs and improves healthcare professionals' perceptions of care quality.[1] Effective and frequent communication between the hospitalist and the requesting clinical service ensures safe and quality care.

KNOWLEDGE

Hospitalists should be able to:

- Define the role of a consultant.
- Describe the principles of effective consultation.
- Describe factors influencing compliance with consultant recommendations.
- Recognize the importance of arranging appropriate follow-up.

SKILLS

Hospitalists should be able to:

- Determine their scope as a consultant or a partner participating in comanagement.
- Assess the urgency of the consultation and the nature of the question posed by the requesting physician.
- Obtain an independent relevant history, perform a physical examination, and review the medical record to inform clinical impression.
- Provide concise and specific evidence-based recommendations for risk assessment and management.
- Use a patient-centered approach when making recommendations.
- Communicate recommendations in an expedient and efficient manner.
- Transmit written communication legibly and include contact information.
- Communicate effectively with patients and families to convey recommendations and treatment plans.
- Provide timely and appropriate follow-up, including review of pertinent findings and laboratory data, and ensure that critical recommendations have been followed.
- Anticipate potential complications and provide recommendations to prevent complications.
- Lead, coordinate, and/or participate in multidisciplinary initiatives to promote patient safety, improve care quality, and optimize resource use for all medical and surgical patients.

ATTITUDES

Hospitalists should be able to:

- Respond promptly to the requesting physician's need for consultation.
- Lead by example by performing consultations in a collegial, professional, and nonconfrontational manner.
- Acknowledge when the role as a consultant in the patient's care is complete, document final recommendations, and maintain availability.

References

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3.13 NUTRITION AND THE HOSPITALIZED PATIENT

Optimal nutrition in the hospital can facilitate better patient outcomes. Malnutrition in hospitalized patients can lead to poor wound healing, impaired immune function resulting in infectious complications, increased hospital length of stay, increased risk of readmission, and overall increased morbidity and mortality.[1,2] Malnutrition is reported in up to 50% of hospitalized patients. Although early screening for nutritional risk allows for appropriate intervention in the hospital setting as well as planning for appropriate home services and follow-up for outpatient nutritional care, malnutrition is underrecognized and undertreated.[3] In malnourished patients, nutritional intervention has been shown to reduce clinical complications, length of stay, readmission rates, and mortality.[4] Hospitalists use a multidisciplinary approach to evaluate and address the nutritional needs of hospitalized patients. Hospitalists lead, coordinate, or participate in multidisciplinary initiatives to improve the nutritional status of hospitalized patients.

KNOWLEDGE

Hospitalists should be able to:

- Describe methods of screening for malnutrition.
- Describe the consequences of malnutrition on bodily function, illness, and outcomes.
- Explain when a nutrition evaluation by a registered dietitian is required.
- Differentiate among various modified diets and nutritional supplements and explain the indications for each.
- Explain the indications and contraindications for enteral nutrition.
- Describe the indications for parenteral nutrition.
- Describe potential complications associated with enteral and parenteral nutrition.
- Recognize that specialized nutritional supplementation may be required in certain patient populations, which include patients with extensive wounds or increased catabolic needs.
- Explain the risk factors for and the clinical features of the refeeding syndrome.

SKILLS

Hospitalists should be able to:

- Use objective criteria, including history, physical examination findings, and laboratory results, to diagnose and categorize the severity of malnutrition and identify patients who are at increased risk.
- Identify the symptoms or signs of medical conditions that are associated with or secondary to malnutrition and formulate an evidence-based treatment plan.
- Implement individualized modified diets and/or nutritional supplements, which may include total parenteral nutrition, on the basis of the patient's medical condition.
- Treat electrolyte abnormalities associated with the refeeding syndrome.
- Monitor electrolytes as indicated in the setting of enteral and/or parenteral nutritional support.
- Consult a nutrition specialist for a comprehensive nutritional evaluation when indicated.
- Coordinate follow-up nutrition care as part of discharge plans for those patients requiring nutritional support.
- Lead, coordinate, and/or participate in initiatives to improve awareness and documentation efforts that appropriately categorize the patient with malnutrition and determine the impact this may have on risk-adjusted mortality and value-based purchasing.
- Lead, coordinate, and/or participate in multidisciplinary initiatives to optimize resource use.
- Lead, coordinate, and/or participate in the development of care pathways for patients requiring enteral or parenteral nutrition.
- Lead, coordinate, and/or participate in efforts to develop strategies to minimize institution complication rates.

ATTITUDES

Hospitalists should be able to:

- Recognize the importance of adequate nutrition in hospitalized patients.
- Work collaboratively with clinical nutrition staff, which may include nursing, pharmacists, and dieticians, to implement the nutrition care plan.
- Engage in a team approach for early discharge planning for patients requiring home parenteral or enteral nutrition.

References

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3.14 PALLIATIVE CARE

Palliative care refers to the comprehensive care of patients and families who are living with serious illness. It focuses on providing patients with relief from the symptoms and stress of serious illness. The goal is to improve the quality of life for both the patient and the family. Palliative care is appropriate at any stage of illness and should be provided simultaneously with other medical treatments, including disease-modifying and life-prolonging therapies. Palliative care is provided by interprofessional teams, including physicians, nurse practitioners, physician assistants, nurses, social workers, case managers, and chaplains.

Seriously ill patients are frequently hospitalized, and thus all hospitalists—as frontline physicians who coordinate care for these patients—are key members of the interprofessional team who provide primary or generalist palliative care. In addition, in hospitals where palliative care consultation services are available, hospitalists are optimally positioned to refer to and collaborate with these specialty palliative care consultants. In hospitals where no or limited specialty palliative care services are available, hospitalists have an even more central role in providing palliative care. Hospitalists also have a key role in leading and contributing to systems and quality improvement efforts related to palliative care.

Key roles for hospitalists involved in palliative care are (1) leading discussions of goals of care and advance care planning, including completing appropriate documentation of patients' wishes; (2) screening and implementing treatment for common physical symptoms, including pain, nausea and vomiting, dyspnea, anxiety, depression, confusion and delirium, and constipation; and (3) referring patients to community services to provide support around serious illness after hospital discharge, including hospice and community palliative care services when available. A complete list of core competencies for hospitalists in palliative care follows.

KNOWLEDGE

Hospitalists should be able to:

- Define palliative care, including primary (or generalist) and specialty palliative care, and explain effective strategies for describing the benefits of palliative care to colleagues, specialists, patients, and families.
- Explain the role of palliative care throughout the course of illness, how it can be provided alongside all other appropriate medical treatments, and appropriate referral to local resources that provide palliative care in the hospital and community.
- Recognize when specialty palliative care consultation, when it is available, should be sought for refractory or complex patient or family palliative care needs.
- Identify the factors that contribute to prognosis in common serious illnesses (eg, cancer, congestive heart failure, chronic obstructive pulmonary disease, end stage renal disease, dementia, and multimorbidity), including how to identify patients who may benefit from palliative care and how to broadly estimate prognosis (eg, months to years, weeks to months, days to weeks, hours to days).
- Describe signs and symptoms of the last 24 hours of life and how to discuss these observations with families.
- Describe data on efficacy and burdens of life support interventions in seriously ill patients, such as tube feeding in advanced dementia and cardiopulmonary resuscitation.
- Explain the ethical principles involved with caring for patients at the end of life, including the right of competent patients or their surrogates to refuse medical treatments, including life-sustaining therapies, and the principle of "double effect."
- Describe specific legal considerations related to surrogate decision-making and advance planning in the state in which the hospitalist practices.
- Describe the purpose and mechanics of advance directives, including physician or medical orders for life-sustaining treatment (POLST/MOLST) forms available in the state in which the hospitalist practices, durable medical power of attorney forms, and other declarations of patient wishes and treatment preferences.
- Describe the basic tenets of hospice care and the Medicare hospice benefit and explain the process of initiating direct referrals to these programs in various settings (ie, home, skilled nursing facility, inpatient).
- Describe the role of the hospitalist after a patient dies in the hospital, including pronouncing of death, completing the death certificate, requesting an autopsy, notifying the family and primary care physician, contacting the organ donor network, and providing the family with hospital contact information for questions and bereavement resources.

SKILLS

Hospitalists should be able to:

- Perform a comprehensive patient assessment to screen patients for palliative care needs, including (1) pain and other common symptoms (eg, nausea and vomiting, dyspnea, anxiety, depression, confusion and delirium, constipation); (2) psychosocial and spiritual support of the patient and family; (3) advance care planning communication about prognosis and goals of care; and (4) needs for support on hospital discharge or bereavement.
- Work in interdisciplinary teams, including nursing, social work, case management, therapy, and spiritual care, to formulate specific patient-centered palliative care plans to address identified patient and family needs.
- Build therapeutic relationships with seriously ill patients and their families as a basis of support for coping and creating collaborative patient- and family-centered care plans.
- In seriously ill and/or actively dying patients, provide first-line treatment for common symptoms such as nausea and

vomiting, dyspnea, anxiety, depression, confusion and delirium, and constipation.
- Provide counseling on advance care planning, advance care directives, POLST/MOLST forms, and code status, including the outcomes of cardiopulmonary resusitation and other life-sustaining interventions in seriously ill patients.
- Lead culturally sensitive communications about prognosis and goals of care among patients, families, and other members of the healthcare team, including family meetings and discussions in urgent situations to ensure that patients receive treatments that match their goals.
- Coordinate goals of care and treatment plan among the treatment team, including primary care physicians and inpatient and outpatient specialty consultants.
- Consult specialty palliative care and/or hospital ethics service when there is conflict among patients, families, and/or healthcare providers regarding the appropriate healthcare agent for decision-making and provision of life-sustaining interventions.
- Identify when hospice may be the appropriate care model given a patient's prognosis and goals of care, and describe the hospice care philosophy and care model to a patient and family.
- Implement protocols and multidisciplinary care plans to ensure patient comfort and adequate family support when life-prolonging measures such as mechanical ventilation, vasopressor support, or other intensive care measures are withdrawn or withheld.
- Ensure that the hospital palliative care plan is honored upon discharge, including communicating this plan with primary care and other outpatient providers and establishing home supportive services if needed.
- Implement best practices for self-care and coping with the stress of caring for the seriously ill.

ATTITUDES

Hospitalists should be able to:

- Appreciate that palliative care is appropriate at any stage of a serious illness and that it should be provided to all seriously ill patients.
- Appreciate that hospitalists have a key role in ensuring that the palliative care needs of seriously ill patients are addressed.
- Recognize the importance of empathic communication, building a therapeutic relationship with patients and families, and developing patient- and family-centered treatment plans.
- Recognize the impact that social, cultural, and spiritual factors have on preferences for care in the setting of serious illness.
- Appreciate the roles of, and collaboration with, other members of the healthcare team, including nursing and social services, pharmacy, psychology, and spiritual care, in providing palliative care.
- Lead, coordinate, and/or participate in quality improvement initiatives to improve the care of seriously ill patients, such as symptom identification and management systems and improved advance care planning and goals of care approaches.
- Lead, coordinate, and/or participate in efforts to establish or support existing multidisciplinary palliative care teams.

3.15 PATIENT EDUCATION

The Institute of Medicine has defined patient-centered care as 1 of the 6 aims for healthcare improvements in the 21st century. Patient-centered care requires that physicians and members of multidisciplinary teams effectively inform, educate, reassure, and empower patients and families to participate in the creation and implementation of a care plan. Patient safety initiatives focus on the role of patient education in improving the quality of care from the perspective of both patients and clinicians. Self-management education has been shown to improve patient outcomes in chronic disease. For example, disease-specific patient education improves Health-Related Quality of Life scores in patients with chronic obstructive pulmonary disease, reduces glycosylated hemoglobin levels and blood pressure in patients with diabetes mellitus, and decreases the number of attacks in patients with asthma.[1,2] Hospitalists can develop and promote strategies to improve patient education initiatives and foster greater patient and family involvement in healthcare decisions and management.

KNOWLEDGE

Hospitalists should be able to:

- Describe the guiding principles for patient education.
- Identify institutional resources for patient education materials and programs.
- Summarize the evidence for the primacy of patient education as a means to improve the quality of healthcare.
- Discuss the contextual factors that influence a patient's readiness to learn new information.
- Describe the role of patient education in the management of chronic diseases, which may include diabetes mellitus, congestive heart failure, and asthma.
- Explain the effect of the patient's sociocultural background on his or her health beliefs and behavior.
- Describe different methods of delivering patient education.
- Describe patient characteristics that influence the utility and appropriateness of patient education materials, which may include culture, literacy, cognitive ability, age, native language, and visual or other sensory impairments.
- Recognize the importance of early identification of barriers to patient education such as low health literacy and language fluency.

SKILLS

Hospitalists should be able to:

- Deliver effective patient education in a manner best suited to the patient's level of literacy and understanding.
- Identify and assist patients and families who require additional education about their medical illnesses.
- Use and/or develop methods and materials to fully inform patients and families.
- Communicate effectively with patients from diverse backgrounds.
- Determine patient and family understanding of illness severity, prognosis, and goals of care.
- Provide patients with safety tips at the time of transfer of care, which may include instructions about medications, tests, procedures, alert symptoms to initiate a physician call, and follow-up.
- Ensure that patients understand anticipated therapies, procedures, and/or surgery.
- Use methods that confirm the comprehension and retention of new information by patients and families, such as "Teach Back" and "Show Back."
- Advocate for the incorporation of patient wishes into care plans.
- Lead, coordinate, and/or participate in the development of team-based approaches to patient education.
- Lead, coordinate, and/or participate in the development of effective quality measures sensitive to the effects of patient education.

ATTITUDES

Hospitalists should be able to:

- Value the potential for patient education to improve the quality of healthcare.
- Encourage patients to ask questions, keep accurate medication lists, and obtain test results.
- Convey diagnosis, prognosis, treatment, and support options available for patients and families in a clear, concise, compassionate, culturally sensitive, and timely manner.
- Appreciate patient education as a tool to improve the experience of clinical care for both patients and families.

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3.16 PATIENT HANDOFF

Patient handoff (also known as handover or sign-out) refers to the specific interaction, communication, and planning required to achieve seamless transitions of care from one clinician to another. Poor handoffs are associated with high rates of self-reported medical errors and adverse events.[1-3] Effective and timely handoffs are essential to maintain high-quality medical care, reduce medical errors and redundancy, and prevent loss of information. Hospitalists are involved in the transfer of patient care on a daily basis and can lead institutional initiatives that promote optimal transfer of information between healthcare providers.

KNOWLEDGE

Hospitalists should be able to:

- Describe the key elements of a high-quality patient handoff (shift change or service change).
- Explain the components and strategies that are critical for successful communication during handoffs.
- List barriers to effective handoff and strategies to mitigate them to improve patient safety.
- Describe the factors that influence handoff detail, components, and strategies.
- Explain the strengths and limitations of various handoff communication strategies and procedures.

SKILLS

Hospitalists should be able to:

- Communicate effectively and efficiently during patient handoff and use appropriate verbal and/or written modalities.
- Demonstrate the use of read-back when communicating tasks.
- Construct standardized patient summaries for oral and written delivery that permit customization by incorporating the unique characteristics of the patient and his/her diagnosis and treatment plan, healthcare provider, and timing of the handoff.
- Evaluate all medications for accuracy regarding indication, dosing, and planned duration before handoff.
- Use "if-then" statements for outstanding critical tasks, anticipated events, and any potential complications.
- Synthesize clinical information efficiently and request clarification if necessary at the time of handoff receipt.
- Update written and verbal handoffs with the most recent clinical information needed for effective transfer of care.
- Limit interruptions during handoffs.
- Identify the sickest patients and prioritize those for discussion during verbal handoff.
- Communicate with patients and families to explain the handoff process and provide advance notification of the change in clinical care team members assuming care for the patient.
- Engage stakeholders in institutional initiatives to streamline the incorporation of patient handoffs within clinical workflows and continuously assess the quality of handoffs.
- Lead, coordinate, and/or participate in initiatives to develop and implement new protocols to improve and optimize handoffs.
- Lead, coordinate, and/or participate in evaluation of new strategies or information systems designed to improve handoffs.

ATTITUDES

Hospitalists should be able to:

- Recognize the importance and impact of handoff quality on patient safety.
- Appreciate the value of real-time interactive dialogue between clinicians during handoffs.
- Endorse handoffs as a priority at which time the focus is on transfer of patient care.
- Develop and maintain a culture of continued clinician availability should questions arise after the patient handoff.
- Adopt an attitude of professional responsibility for all patients who have been received during a handoff.

References

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3.17 PATIENT SAFETY

The National Patient Safety Foundation defines safety as the avoidance, prevention, and amelioration of adverse outcomes or injuries stemming from the processes of healthcare. Hospitalized patients are at risk for a variety of adverse events. Hospitalists anticipate complications from medical assessment and treatment and take steps to reduce their incidence or severity. Application of individual and system failure analysis can improve patient safety. Hospitalists lead and participate in multidisciplinary interventions to mitigate system and process failures and to assess the effects of recommended interventions across the continuum of care.

KNOWLEDGE

Hospitalists should be able to:

- Define and differentiate medical errors, adverse events, and preventable adverse events.
- Identify the most common safety problems and their causes in different hospitalized patient populations.
- Explain the role of human factors in device, procedure, and technology-related errors.
- Explain how redundant systems may reduce the likelihood of medical errors.
- Specify clinical practices and interventions that improve the safe use of high-alert medications.
- Summarize methods of system and process evaluation of patient safety.
- Describe the elements of well-functioning patient safety-focused teams.
- Distinguish retrospective and prospective methods of evaluating medical errors.
- Describe the components of Root Cause Analysis (RCA) and Failure Mode and Effects Analysis (FMEA).
- Describe principles of medical error disclosure.
- Discuss the significance of sentinel events and "near misses" and their relationship to voluntary and mandatory reporting regulations.
- Describe the risk management issues of patient safety efforts.
- Judge the effect of patient volume on the quality, efficiency, and safety of healthcare services.

SKILLS

Hospitalists should be able to:

- Prevent iatrogenic complications and proactively reduce risks of hospitalization.
- Formulate age- and disease-specific safety practices, which may include but are not limited to reduction of incidence and severity of falls, decubitus ulcers, delirium, hospital-acquired infections, venous thromboembolism, malnutrition, and medication adverse events.
- Develop, implement, and evaluate practice guidelines and care pathways as part of an interdisciplinary quality improvement initiative.
- Gather, record, and transfer patient information by adhering to timely, accurate, and confidential mechanisms.
- Prioritize patient safety evaluation and improvement efforts on the basis of the impact, improvability, and general applicability of the proposed evaluations and interventions.
- Develop systems that promote patient safety and reduce the likelihood of adverse events.
- Contribute to and interpret retrospective RCA and prospective healthcare FMEA multidisciplinary risk evaluations.
- Appropriately engage in standardized communication practices such as Situation-Background-Assessment-Recommendation (SBAR).
- Facilitate practices that reduce the likelihood of hospital-acquired infection.
- Use evaluation methods and resources to define problems and recommend interventions.
- Employ continuous quality improvement techniques to identify, construct, implement, and evaluate patient safety issues.
- Lead, coordinate, and/or participate in multidisciplinary teams to improve the delivery of safe patient care.
- Lead, coordinate, and/or participate in the development, use, and dissemination of local, regional, or national clinical practice guidelines and patient safety alerts pertaining to the prevention of complications in hospitalized patients.
- Lead, coordinate, and/or participate in efforts to advance the culture of patient safety in the hospital.

ATTITUDES

Hospitalists should be able to:

- Appreciate that adverse drug events must be monitored and that steps must be taken to reduce their incidence.
- Exemplify safe medication prescribing and administration practices.
- Advocate for and foster a nonpunitive error-reporting environment.
- Internalize and promote behaviors that minimize workforce fatigue, occupational illness, and burnout.
- Use evidence-based evaluation methods and resources when defining problems and designing interventions to lead efforts to reduce recurrent error.

3.18 PRACTICE-BASED LEARNING AND IMPROVEMENT

Practice-based learning and improvement (PBLI) is a means of evaluating individual and system practice patterns and incorporating the best available evidence to improve patient care. PBLI is recognized as a critical skill for all clinicians by the Accreditation Council for Graduate Medical Education (ACGME), the American Board of Internal Medicine (ABIM), the American Board of Pediatrics (ABP), and the American Academy of Family Physicians (AAFP). As the practice of hospital medicine rapidly evolves, hospitalists apply the most up-to-date knowledge to their care of inpatients. Hospitalists use a PBLI approach to lead, coordinate, and participate in initiatives to improve hospital processes and clinical care.

KNOWLEDGE

Hospitalists should be able to:

- Describe systematic methods of analyzing practice experience.
- Explain key concepts of practice-based improvement methodology, which include the plan-do-study-act (PDSA) model.
- Define the role of multidisciplinary teams and team leaders in improving patient care.
- Describe how the critical appraisal and assimilation of scientific evidence applies to PBLI.
- Describe how information technology can be used to identify opportunities to improve patient care.

SKILLS

Hospitalists should be able to:

- Translate information about a general population into management of subpopulations or individual patients.
- Critically assess individual and system practice patterns and experience to identify areas for improvement and minimize heterogeneity of practice.
- Design practice interventions to improve quality, efficiency, and consistency of patient care using standard PBLI methodology and tools.
- Critically assess medical information to support self-directed learning.
- Critically appraise and apply the reports of new medical evidence.
- Identify and use high-quality, evidence-based information resources to inform clinical decisions.
- Use health information systems efficiently to manage and improve care at the individual and system levels.

ATTITUDES

Hospitalists should be able to:

- Advocate for the use of PBLI in clinical practice and in system improvement projects.
- Create an environment conducive to self-evaluation and improvement and seek to incorporate formative feedback into daily practice.
- Advocate for investment in information technology that can harness up-to-date clinical resources.
- Facilitate and encourage self-directed learning among healthcare professionals and trainees.
- Promote self-improvement and care standardization using best evidence and practice.

3.19 PREVENTION OF HEALTHCARE-ASSOCIATED INFECTIONS AND ANTIMICROBIAL RESISTANCE

Healthcare-associated infections (HAIs) impose a significant burden on the healthcare system in the Unites States, both economically and in terms of patient outcomes. On any given day, approximately 1 in 25 patients in US acute care hospitals has at least 1 HAI, and more than 700,000 HAIs occur annually in hospitalized patients.[1] More than half of HAIs occur outside the intensive care unit.[1] HAIs are among the leading causes of preventable death. These infections often lead to increases in length of hospitalization and excess direct and indirect hospital costs. The overall annual direct medical cost of HAIs to US hospitals is $28 to $45 billon.[2] The central aim of infection control is to prevent HAIs and the emergence of resistant organisms. Hospitalists work in concert with other members of the healthcare organization to reduce HAIs, develop institutional initiatives for prevention, and promote and implement evidence-based infection control measures.

KNOWLEDGE

Hospitalists should be able to:

- Describe acceptable methods of hand hygiene technique and timing in relationship to patient contact in various circumstances.
- Describe the prophylactic measures required for all types of isolation precautions, which include standard, contact, droplet, and airborne precautions, and list the indications for implementing each type of precaution.
- List common types of HAI and describe the risk factors associated with urinary tract infections, surgical site infections, hospital-acquired pneumonia, and blood stream infections.
- Identify major resources for infection control information, including hospital infection control staff, hospital infection control policies and procedures, local and state public health departments, and Centers for Disease Control guidelines.
- Describe the indicated prevention measures necessary to perform hospital-based procedures in a sterile fashion.
- Appreciate that specific infection control practices and engineering controls are required to protect very high-risk patient populations, which may include hematopoietic stem cell transplant and solid organ transplant recipients, from HAIs.

SKILLS

Hospitalists should be able to:

- Perform consistent and optimal hand hygiene techniques at all indicated points of care.
- Identify and implement indicated isolation precautions for patients with high-risk transmissible diseases or highly resistant infections.
- Identify and use local hospital resources, including antibiograms and infection control officers.
- Perform indicated infection control and prevention technique during all procedures.
- Implement precautions and infection control practices to protect patients from acquiring HAIs.
- Implement antibiotic de-escalation when possible on the basis of microbiologic culture results.
- Adopt the use of care bundles when shown to reduce the incidence of HAIs.
- Avoid devices that are more likely to cause HAIs if alternatives are safe, effective, and available.
- Encourage removal of invasive devices, especially central venous catheters and urinary catheters, early during the hospital stay and as soon as is clinically safe to do so.
- Communicate effectively the rationale and importance of infection control practices to patients, families, visitors, other healthcare providers, and hospital staff.
- Communicate appropriate patient information to infection control staff regarding potentially transmissible diseases.
- Lead, coordinate, and/or participate in efforts to educate other healthcare personnel and hospital staff about necessary infection control prevention measures.
- Lead, coordinate, and/or participate in multidisciplinary teams that organize, implement, and study infection control protocols, guidelines, or pathways using evidence-based systematic methods.
- Lead, coordinate, and/or participate in multidisciplinary efforts to develop antibiotic stewardship programs.

ATTITUDES

Hospitalists should be able to:

- Serve as a role model in adherence to recommended hand hygiene and infection control practices.
- Engage collaboratively with multidisciplinary teams, which may include infection control, nursing service, and infectious disease consultants, to rapidly implement and maintain isolation precautions.
- Engage collaboratively with multidisciplinary teams, which may include infection control, nursing service, care coordination, long-term care facilities, home healthcare staff, and public health personnel, to plan for hospital discharge of patients with transmissible infectious diseases.

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3.20 PROFESSIONALISM AND MEDICAL ETHICS

Professionalism refers to attitudes, behaviors, and skills for physicians to serve the interests of the patient above his or her self-interest. This denotes a commitment to the highest standards of excellence in the practice of medicine and to the generation and dissemination of knowledge to sustain the interests and welfare of patients. Within the practice of hospital medicine, professionalism also includes a commitment to be responsive to the health needs of society and a commitment to ethical principles.

KNOWLEDGE

Hospitalists should be able to:

- Define and differentiate ethical principles, which may include beneficence and nonmaleficence, justice, patient autonomy, truth-telling, informed consent, and confidentiality.
- Describe the concept of double effect.
- Define and distinguish competency and decision-making capacity.
- Explain the utility of power of attorney and advance directives in medical care.
- Describe the key elements of informed consent.
- Explain determination of decision-making capacity and steps required for surrogate decision-making.
- Describe local laws and regulations relevant to the practice of hospital medicine.
- Explain medical futility.
- Recognize when consultation from others who have expertise in psychiatry and ethics will promote optimal care for patients and help resolve ethical dilemmas.
- Recognize the obligation to report fraud, professional misconduct, impairment, incompetence, or abandonment of patients.
- Recognize potential conflicts of interest in accepting gifts and/or travel from commercial sources.
- Recognize potential individual and institutional conflicts of interest with incentive-based contractual agreements with pharmaceutical companies and other funding agents.

SKILLS

Hospitalists should be able to:

- Observe doctor-patient confidentiality and identify family members or surrogates to whom information can be released.
- Communicate with patients and family members on a regular basis and develop a therapeutic relationship in both routine and challenging situations.
- Recommend treatment options that prioritize patient preference, optimize patient care, include consideration of resource use, and are formulated without regard to financial incentives or other conflicts of interest.
- Evaluate patients for medical decision-making capacity.
- Obtain informed consent when indicated and ensure patient understanding.
- Review power of attorney and advance directives with patients and family members.
- Adhere to ethical principles and behaviors, including honesty, integrity, and professional responsibility.
- Respect patient autonomy.

ATTITUDES

Hospitalists should be able to:

- Commit to lifelong self-learning, maintenance of skills, and clinical excellence.
- Promote access to medical care for the community, especially in underserved areas.
- Demonstrate empathy for hospitalized patients.
- Provide compassionate and relevant care for patients, including those whose beliefs diverge from those of the treating physician or from accepted medical advice.
- Remain sensitive to differences in patients' sex, age, race, culture, religion, and sexual orientation.
- Appreciate that informed adults with decision-making capacity may refuse recommended medical treatment.
- Appreciate that physicians are not required to provide care that is medically futile.
- Endorse that physicians have an obligation not to discriminate against any patient or group of patients.
- Recognize and observe appropriate boundaries of the physician-patient relationship.
- Follow a systematic approach to risks, benefits, and conflicts of interest in human subject research.
- Serve as a role model for professional and ethical conduct to house staff, medical students, and other members of the multidisciplinary team.

3.21 QUALITY IMPROVEMENT

Quality improvement (QI) is the process of continually evaluating existing processes of care and implementing/disseminating best practice. QI is influenced by objective data and focuses on systems change to optimize institutional performance and appropriate resource use. Since the Institute of Medicine released its report "To Err is Human" in 1999, the then fledgling field of hospital medicine and the QI movement have simultaneously evolved and worked synergistically. Hospitalists are uniquely positioned to improve the quality of inpatient care. Hospitalists should strive to lead or participate in QI efforts to optimize management of common inpatient conditions and improve clinical outcomes on the basis of standardized evidence-based practices.

KNOWLEDGE

Hospitalists should be able to:

- Describe the roles of quality and peer review committees in facilitating continuous QI processes.
- Identify structure, process, and outcome measures appropriate for specific QI projects.
- List the characteristics of high-reliability organizations and learning healthcare systems.
- Describe the elements of effective teams and teamwork.
- Describe the relationships among value, quality, and cost.
- Explain different philosophies and techniques for thorough analysis of complex systems, such as root cause analysis, failure mode and effects analysis, Lean, Six-Sigma, Plan-Do-Study-Act, etc.
- Identify and categorize adverse outcomes including sentinel events, medical errors, and near-misses.
- Describe QI outcome measurements currently used by stakeholders and regulatory agencies.
- Identify guidelines and protocols supported by outcomes data to shape and standardize clinical practice.
- Identify the relative strengths and limitations of proposed interventions to address hospital-based QI concerns.
- Identify appropriate institutional systems used to report medical errors, patient safety events, and near-misses.

SKILLS

Hospitalists should be able to:

- Use quality data to inform hospitalist practice and improve patient care at the individual and system levels.
- Distinguish outcome measurements from process measurements.
- Interpret patient satisfaction metrics.
- Incorporate patient preference and satisfaction into the optimization of healthcare quality.
- Identify key stakeholders within individual institutions and work collaboratively in QI endeavors.
- Use common methods to understand, describe, and analyze QI initiatives such as the fishbone diagram and the 5 why's.
- Apply the results of validated outcome studies to improve the quality of inpatient practice.
- Structure QI initiatives that reflect evidence-based literature and high-quality outcomes data.

ATTITUDES

Hospitalists should be able to:

- Practice patient-centered care and recognize its value in improving patient safety and satisfaction.
- Promote the adoption of new practices, guidelines, and technology as supported by best available evidence.
- Engage in a collaborative multidisciplinary team approach to lead, coordinate, and/or participate in the design and implementation of QI initiatives at individual, practice, and system levels.
- Appreciate the importance and need to align quality goals with institutional and system goals.
- Advocate for and foster a Just Culture around patient safety and QI.

3.22 RISK MANAGEMENT

Risk management seeks to reduce hazards to patients through a process of identification, evaluation, and analysis of potential or actual adverse events. Hospitalists should strive to comply with applicable laws and regulations, avoid conflicts of interest, and conduct the practice of medicine with integrity and ethics. Hospitalists should also take a collaborative and proactive role in risk management to improve safety and satisfaction in the hospital setting.

KNOWLEDGE

Hospitalists should be able to:

- Explain the legal definition of negligence and the concept of standard of care.
- Describe the components of informed consent.
- Describe Health Insurance Portability and Accountability Act (HIPAA) regulations related to patient confidentiality.
- Explain requirements for billing compliance.
- Describe laws and regulations relevant to the practice of hospital medicine, including the Emergency Medical Treatment and Active Labor Act (EMTALA), the Patient Safety and Quality Improvement Act, and credentialing and licensing.
- Explain how ethical principles can be applied to risk management.

SKILLS

Hospitalists should be able to:

- Ensure patient confidentiality and comply with HIPAA regulations in day-to-day practice.
- Conduct medical practice and complete chart documentation to meet patient care needs and billing compliance.
- Reduce risks through effective communication with all involved parties on the healthcare team.
- Elicit and appropriately document informed consent from patients or surrogates for treatment plans and procedures when indicated.
- Provide adequate supervision of members of the patient care team, which may include physician assistants, fellows, residents, or medical students.
- Apply guidelines of clinical ethics to patient care and risk management.
- Compare and minimize hazards of diagnostic and treatment management strategies for the individual patient.
- Use appropriate systems to identify and report potential areas of risk to patients, families, or healthcare providers.

ATTITUDES

Hospitalists should be able to:

- Apply ethical principles, which may include autonomy, beneficence, nonmaleficence, and justice, to promote patient-centered care.
- Recognize the importance of prompt, honest, and open discussions with patients and families regarding medical errors or harm.
- Respect patient wishes for treatment decisions and plans, including those that may not resonate with personal beliefs.
- Respect patient confidentiality.
- Collaborate with risk management specialists to review and/or address adverse events.

3.23 TEAM APPROACH AND MULTIDSCIPLINARY CARE

Multidisciplinary care refers to active collaboration among various members of the healthcare team to develop and deliver optimal care plans for hospitalized patients. In an era of healthcare delivery reform, team-based care delivery is an integral strategy for enhancing care quality, improving patient safety, decreasing length of stay, lowering costs, and improving health outcomes.[1,2] It is well documented that communication and teamwork failures are the root cause of many preventable adverse events.[3-5] In addition, patients' rating of nurse-physician coordination correlates with their perception of the quality of care they have received.[6,7] Hospitalists often lead multidisciplinary teams to coordinate complex inpatient medical care to address these and other issues and to improve care processes.

KNOWLEDGE

Hospitalists should be able to:

- Describe the important elements of teamwork including mutual respect, effective communication techniques, establishing common goals and plans, and individual and team accountability.
- List behaviors and skills that contribute to effective and ineffective interactions, which may also influence team performance.
- Describe factors within an institution, including its local organizational culture, that may influence the structure and function of multidisciplinary teams.
- Recognize the complexity of healthcare systems and the myriad factors involved in patient care.

SKILLS

Hospitalists should be able to:

- Determine an effective team composition and work collaboratively to designate individual responsibilities within the group.
- Demonstrate skills necessary to lead a team, including effective communication, negotiation, conflict resolution, delegation, and time management.
- Assess individual team member abilities to identify areas of strength and improvement such that each member is incorporated effectively and productively into the team.
- Assess and reassess group dynamics as needed and make necessary changes to optimize team function.
- Use active listening techniques during interactions with team members and engage team participation.
- Communicate effectively with all members of the multidisciplinary team.
- Conduct effective multidisciplinary team rounds, which may include patients and their families.
- Appropriately integrate and balance the assessments and recommendations from all contributing team members into a cohesive care plan.
- Assess performance of all team members, including self-assessment, and identify opportunities for improvement.
- Provide meaningful, behavior-based feedback to improve individual performance.

ATTITUDES

Hospitalists should be able to:

- Emphasize the importance of mutual respect among team members.
- Role model in professional conflict resolution and discussion of disagreements.
- Within appropriate scopes of practice, share decision-making responsibilities with care team members.
- Create an environment of shared responsibility with patients and caregivers and provide opportunities for patients and/or caregivers to participate in medical decision-making.
- Encourage interactive education among team members.
- Encourage team members to educate patients and families using effective techniques.

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3.24 TRANSITIONS OF CARE

The term "transitions of care" refers to specific interactions, communication, and planning required for patients to safely move from one care setting to another. These transitions apply not only to transfers of care between the inpatient and outpatient settings but also to handoffs that occur within facilities (eg, service to service) and communities (eg, inpatient to subacute rehabilitation). Ineffective transitions of care are associated with adverse events, and nearly 20% of patients experience adverse events (many of which are preventable) within 3 weeks of hospital discharge.[1,2] Hospitalists should promote efficient, safe transitions of care to ensure patient safety, reduce loss of information, and maintain the continuum of high-quality care.

KNOWLEDGE

Hospitalists should be able to:

- Describe the relevant parts of the medical record that should be retrieved and communicated during each care transition to ensure patient safety and maintain the continuum of care.
- Describe the importance and limitations of patient transition processes.
- Describe ancillary services that are available to facilitate patient transitions.
- Compare postacute care options for patients.
- Explain the strengths and limitations of different communication modalities and their role in patient transitions.
- Explain elements of a high-quality patient handoff.
- Recognize the value of real-time interactive dialogue among clinicians during care transitions.
- Describe the characteristics of a high-quality discharge summary document.
- Recognize the impact of care transitions on patient outcomes and satisfaction.

SKILLS

Hospitalists should be able to:

- Use the most efficient, effective, reliable, and expeditious communication modalities appropriate for a patient's care transition.
- Communicate and synthesize relevant medical information to and from referring healthcare providers into a cohesive care plan.
- Develop a care plan early during hospitalization that anticipates care needs beyond the inpatient care setting.
- Prepare patients and families early in the hospitalization for anticipated care transitions.
- Access available ancillary services that can facilitate patient transitions.
- Expeditiously inform the primary care provider about significant changes in patient clinical status.
- Inform receiving healthcare providers of pending tests and determine responsibility for the follow-up of pending results.
- Select an appropriate level of postacute care that is best suited to the patient's needs.
- Incorporate patient preferences and use shared decision-making in the selection of postacute care.
- Anticipate and address language and/or literacy barriers to patient education.
- Communicate with patients and families to explain the patient's condition, ongoing medical regimens and therapies, follow-up care, and available support services.
- Communicate with patients and families to explain clinical symptomatology that may require medical attention before scheduled follow-up.
- Coordinate multidisciplinary teams early during hospitalization to facilitate patient education, optimize patient function, and improve discharge planning.
- Lead, coordinate, and/or participate in initiatives to develop and implement new protocols to improve or optimize transitions of care.
- Lead, coordinate, and/or participate in the evaluation of new strategies or information systems designed to improve care transitions.

ATTITUDES

Hospitalists should be able to:

- Engage in a multidisciplinary approach to care transitions, including nursing, rehabilitation, nutrition, pharmaceutical, and social services.
- Engage stakeholders in hospital initiatives to continuously assess the quality of care transitions.
- Maintain availability to discharged patients for questions during discharge and between discharge and the follow-up visit with the receiving physician.

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