Competence in Medical Knowledge

Background

Residency training in internal medicine should provide a fundamental educational curriculum and a set of training experiences that are common to all internists, independent of their ultimate scope of practice. All graduating residents in internal medicine should have achieved competence in the knowledge base and clinical skills associated with each of these "core content" areas, and all practicing internists should maintain competency in these areas throughout the course of their career, independent of practice setting and independent of whether they are generalists or subspecialists. Of course, the knowledge base and experiences of each resident will go far beyond these "core content" areas, depending upon the specific program in which the resident has trained and depending upon the resident's particular areas of interest and ultimate career plans. Similarly, each practicing physician will have a knowledge base and experiences beyond these topics, again depending upon the type and location of the physician's clinical practice.

Also implicit in the identification of core knowledge content and skills are several additional principles:

- Because the application of scientific knowledge to patient care is central to the specialty of internal medicine, an understanding of scientific principles—including relevant basic science, pathophysiology, and emerging areas like genetics—is an important component of the internist's competence relating to these content areas.
- Because the core knowledge base is continually evolving, all internists must maintain a commitment to lifelong learning.
- The internist must be committed to the continuous incorporation of scientific evidence into practice.

Overview of Knowledge Topics

There is a consensus among internal medicine stakeholders that, when confronted with a patient presenting with a clinical problem, all internists should be able to make a preliminary diagnosis and estimate the level of acuity for action. Incorporating this principle as well as other important areas of knowledge and skills for internists, the eight broad categories below define the general areas of knowledge and clinical skills that comprise the corpus of "core content," and all internists should achieve and maintain competency in each of these areas (as further specified below):

- 1. Evaluation of the patient with an undiagnosed and undifferentiated presentation, leading to development of a preliminary differential diagnosis for a symptom or set of symptoms.
- 2. Treatment of medical conditions commonly managed by internists, particularly chronic medical conditions, including the use of standards and clinical guidelines when they exist.
- 3. Basic preventive care.
- 4. Interpretation of basic clinical tests and images.

- 5. Recognition and initial management of emergency medical problems.
- 6. Use of common pharmacotherapy.
- 7. Knowledge and skills related to relevant non-clinical topics.
- 8. Appropriate use and performance of diagnostic and therapeutic procedures.

Because it is more difficult to achieve consensus about the specific topics within each category, this document describes the principles that led to the selection of individual topics within each broad area. The task force also recognize that creating such a document requires a number of compromises—between comprehensiveness and practical length, between limiting versus expanding the scope of those topics common to all internists. The task force's intent with this document is to provide a reasonable balance and maintain a perspective that is in the best interests of patients, the discipline of internal medicine, and its assortment of physician practitioners.

Specific "Medical Knowledge" Topics

1. Evaluation of the Patient with an Undiagnosed and Undifferentiated Presentation

Principle: All internists should be competent in the initial evaluation of the adult patient with common but undiagnosed and undifferentiated modes of presentation, followed by development of a preliminary differential diagnosis. These modes of presentation include:

- a. Presentations with general, non-specific symptoms (e.g., fever, weight loss, fatigue)
- b. Presentations with pain (e.g., chest pain, abdominal pain, headache, back pain, joint pain)
- c. Presentations with selected organ system symptoms or problems. Examples include:
 - 1) Respiratory (dyspnea, cough, pleural effusion)
 - 2) Gastrointestinal (GI bleeding, abnormal liver enzymes, nausea and vomiting, diarrhea, constipation, ascites)
 - 3) Neurologic (change in mental status, focal findings suggestive of stroke, sleep-related complaints)
 - 4) Cardiovascular (hypotension, palpitations, syncope)
 - 5) Hematologic (anemia, coagulopathy)
 - 6) Oncologic (common presentations of neoplastic disease)
 - 7) Renal (dysuria, hematuria, acute renal failure, abnormal fluid and electrolytes)
 - 8) Rheumatologic (monoarticular joint pain and/or swelling, polyarticular joint pain and/or swelling)
 - 9) Dermatologic (rash, common skin lesions)
- d. Presentations related to specific patient populations
 - 1) Women's health issues (breast mass, pelvic pain, abnormal vaginal bleeding, amenorrhea, galactorrhea, vaginal discharge)
 - 2) Men's health issues (complaints related to prostatic disease, erectile dysfunction)
 - 3) Geriatric issues (elder abuse or neglect, mental status changes, falls, urinary incontinence, failure to thrive)
 - 4) Patients with substance addiction (symptoms of alcohol or drug addiction, symptoms of withdrawal)
- e. Presentations with multisystem clinical problems

2. Treatment of Medical Conditions Commonly Managed by Internists

Principle: All internists should be competent in the fundamental principles of management of the common, important disorders of internal medicine and the subspecialties. These include common chronic illnesses, particularly those that affect an aging population and are common co-morbid conditions in patients receiving their care from either general internists or subspecialists. The priority diseases defined by the Institute of Medicine are included in this list.

- a. Cardiovascular
 - 1) Common cardiac arrhythmias
 - 2) Congestive heart failure
 - 3) Coronary artery disease
- b. Endocrine
 - 1) Type 2 diabetes
 - 2) Osteoporosis
 - 3) Thyroid disorders (primarily hypothyroidism)
 - 4) Adrenal insufficiency
- c. Gastrointestinal
 - 1) Acid peptic disease
 - 2) Functional bowel disease
 - 3) Chronic liver disease and initial management of its complications
- d. General Medical
 - 1) Hypertension
 - 2) Lipid disorders
 - 3) Obesity
 - 4) Urinary tract infection
 - 5) Pneumonia
 - 6) Medical care in pregnancy
- e. Hematologic/Oncologic
 - 1) Venous thrombosis
 - 2) Common anemias
- f. Infectious
 - 1) Immune compromise (treatment-induced or disease-induced, including HIV)
 - 2) Nosocomial infection
 - 3) Sepsis
 - 4) Common sexually transmitted diseases
- g. Neurologic
 - 1) Radiculopathy
 - 2) Stroke
 - 3) Dementia
- h. Psychiatric
 - 1) Anxiety
 - 2) Depression
 - 3) Substance abuse (alcohol, tobacco, drugs)
- i. Pulmonary

- 1) Asthma
- 2) Chronic obstructive pulmonary disease
- j. Renal
 - 1) Mild renal insufficiency
 - 2) Nephrolithiasis
 - 3) Acid-base and electrolyte disorders
- k. Rheumatologic
 - 1) Gout
 - 2) Osteoarthritis
 - 3) Inflammatory arthritis
 - 4) Regional periarticular pain syndromes (bursitis, tendonitis)
- 1. Allergic
 - 1) Allergic rhinitis
 - 2) Drug allergy
- m. Genitourinary
 - 1) Benign prostatic hypertrophy
 - 2) Urinary incontinence

3. Basic Preventive Care

Principle: All internists should be knowledgeable about screening and preventive care that applies to large segments of the population and across the adult age spectrum. This includes the recommendations of the United States Preventive Services Task Force.

- a. Cancer screening recommendations
- b. Non-cancer screening recommendations (e.g., bone density)
- c. Vaccination
- d. Risk factor reduction (e.g., smoking, alcohol, weight)
- e. Chemoprevention (e.g., aspirin, calcium)
- f. Screening for common problems among older patients (e.g., cognitive impairment, depression, functional impairment, falls/gait instability, incontinence)

4. Interpretation of Basic Clinical Tests and Images

Principle: All internists should be competent in the interpretation of common, standard clinical laboratory tests and imaging studies that are obtained as part of the diagnostic evaluation and management of patients with the undifferentiated presentations listed under 1 and the common medical conditions listed under 2.

- a. Basic principles of probability, test performance characteristics, accuracy, and reliability
- b. Standard laboratory results from commonly requested blood studies (e.g., CBC, coagulation profile, chemistries)
- c. Electrocardiogram
- d. Pulmonary function tests
- e. Arterial blood gases
- f. Body fluid analysis (e.g., urine, pleural fluid, ascitic fluid, joint fluid, CSF)
- g. Basic image interpretation (e.g., common patterns on chest radiograph, KUB, and CT scan)

- h. Microbiologic data
- i. Pelvic examination data (e.g., KOH/wet prep of vaginal secretions, Pap smear reports)

5. Recognition and Initial Management of Emergency Medical Problems

Principle: All internists should be able to recognize and initiate management for serious and/or potentially life-threatening medical emergencies.

- a. Serious acid-base and electrolyte problems
- b. Acute allergic reactions
- c. Acute coronary syndromes
- d. Arrhythmias
- e. Cardiopulmonary arrest
- f. Meningitis
- g. Sepsis
- h. Other infections requiring emergent treatment (e.g., septic arthritis)
- i. Acute gastrointestinal bleeding
- j. Hypotension and shock
- k. Stroke
- 1. Seizures
- m. Diabetic ketoacidosis and hyperosmolality
- n. Pulmonary embolism
- o. Hypoxemia or acute respiratory distress
- p. Stupor or coma
- q. Acute abdomen
- r. Spinal cord compression
- s. Drug overdose or complications of illicit drug use

6. Use of Common Pharmacotherapy

Principle: Since many patients have more than one medical problem and are on multiple medications, all internists should have a working knowledge of the common types of medications used for management of those common medical conditions listed under category 2 and the important interactions among these medications and these diseases.

- a. Basic principles of pharmacology
- b. Corticosteroids and NSAIDs
- c. Anticoagulants
- d. Anti-infective agents
- e. Analgesics/pain management
- f. Other symptom control
- g. Anti-secretory drugs
- h. Hormonal therapy (insulin and oral anti-hyperglyemic agents, thyroid and adrenal hormone replacement, hormonal contraceptive agents, hormone replacement therapy)
- i. Anti-hypertensives
- j. Lipid-lowering agents
- k. Diuretics
- l. Anti-seizure medication

- m. Common psychotropic medications (including sedative-hypnotics and issues relating to drug withdrawal)
- n. Commonly used anti-arrhythmic agents
- o. Bronchodilators and inhaled corticosteroids
- p. Immunomodulatory drugs
- q. Newer biological therapies
- r. Drug interactions (including interactions with commonly used alternative medicine agents)
- s. Common drug-disease interactions
- t. Effect of age on use of medications and patient safety, including problems associated with polypharmacy

7. Knowledge and Skills Related to Relevant Non-Clinical Topics

Principle: All internists should understand the principles and knowledge base relevant to clinical decision-making and to the ACGME "core competencies" that extend beyond medical knowledge and patient care. They should also be competent in those skills that are neither discipline- nor practice-specific, but are necessary for lifelong learning and continued competence of the physician.

- a. Quality science, process improvement, and patient safety
- b. Evidence-based medicine
- c. Advance directives and end-of-life care
- d. Healthcare economics
- e. Healthcare disparities
- f. Medical informatics
- g. Cultural competence
- h. Literature interpretation
- i. Serving as a medical consultant

8. Appropriate Use and Performance of Diagnostic and Therapeutic Procedures Principles:

- 1. There are some procedures in which all residents in internal medicine should be proficient by the completion of residency training.
- 2. There are other procedures performed by internists depending upon their scope of practice or the setting in which they work. The needs of a particular resident to learn these procedures will depend upon the resident's interests, potential area of specialization, practice setting, geographic locale, and the availability of other physicians who do the procedures.
- 3. Many procedures can be done either by general internists or by subspecialists, with the primary determinant being the experience and proficiency of the physician doing the procedure, not the presence or absence of subspecialty training.
- 4. Because it is appropriate for physicians to learn new skills as their interests or scopes of practice changes, or as new procedures become available, opportunities must be available for physicians in practice to learn new procedures, retrain in procedures they have not been performing, and improve their skills with procedures they have been performing.

- 5. For all types of procedures performed, performance of the procedure must be accompanied by knowledge and understanding of the indications and contraindications for the procedure, patient preparation methods, sterile technique (when relevant), pain management, recognition and management of procedure complications, and proper technique for handling specimens (when relevant).
- 6. There is also a broad spectrum of procedures that residents may not necessarily perform themselves but for which all internists must understand the indications, contraindications, complications, and post-procedure management. All procedures listed under the "recommended" and "appropriate" headings fall in this category.
- 7. For all procedures done before a trainee has established proficiency, it is essential that appropriate supervision be provided by a physician (a higher-level resident, a subspecialty fellow, or a staff physician) already experienced and proficient in the procedure.

The following schema lists different broad groups of procedures, and establishes 4 categories within each group:

- a. Procedures that should be performed by all internal medicine residents; these required procedures have been defined by ABIM.
- b. Procedures that are recommended but not required for internal medicine residents.
- c. Procedures that are appropriate for internal medicine residents, who should be able to learn these procedures on an elective basis.
- d. Specialized procedures that should be supervised by an appropriate subspecialist. Performance of these specialized procedures involves not only specific technical skills but also the ability to interpret a wide array of findings. Because proficiency in these procedures requires substantial experience, training in these procedures should be made available on a more limited basis to residents who are able and willing to devote the time to get sufficient experience.

The broad groups of procedures are:

- 1. Percutaneous needle-related skills and performance of a range of percutaneous procedures
 - a. Required for all residents (per ABIM): venipuncture, arterial puncture, peripheral intravenous line placement
 - b. Recommended for all residents: needle procedures for sampling of diagnostic fluid (abdominal paracentesis, thoracentesis, lumbar puncture, and arthrocentesis), injection (intradermal, subcutaneous, and intramuscular)
 - c. Appropriate for internal medicine residents: central venous catheter placement, pulmonary artery catheter placement, bone marrow aspiration and biopsy, arterial catheter placement, joint and other related soft tissue injection (e.g., tendon, bursa), skin biopsy, incision and drainage of an abscess, skin tag removal, simple suturing
- 2. Skills and procedures related to entry of a body orifice
 - a. Required for all residents: performance of a Pap smear
 - b. Recommended for all residents: placement of a nasogastric tube

- c. Appropriate for internal medicine residents: endotracheal intubation, urethral catheterization, flexible sigmoidoscopy
- 3. Non-invasive diagnostic testing
 - a. Recommended for all residents: electrocardiography
 - b. Appropriate for internal medicine residents: exercise testing, spirometry, ankle brachial index
 - c. Specialized procedures available on a limited basis: echocardiography, handheld ultrasonography
- 4. Resuscitative skills
 - a. Required for all residents: advanced cardiac life support
 - b. Appropriate for internal medicine residents: advanced trauma life support

Competence in Patient Care

Competence in patient care depends upon competence in the other five areas. For example, competence in patient care requires compassion (a professionalism quality) and effectiveness in the promotion of health, prevention of disease, treatment of illness, and palliation of physical and emotional distress (communication and interpersonal skills in motivating and engaging patients in their own care and expressing empathy to relieve emotional suffering). It requires the ability to gather and analyze clinical information to properly diagnose the patient's condition (medical knowledge and cognitive skill). Patient care requires skill in the appropriate use of diagnostics and the treatment and management of disease. Relationship building with patients and their families is an important element (professionalism and communication and interpersonal skills). Understanding the importance of information technology as a critical tool in patient care and possessing the ability to work in multidisciplinary teams to ensure the highest level of care (systems-based practice) are other major elements.

Patients cared for by internists are adults requiring expertise in all aspects of health care. Patients with chronic conditions or complex diseases need comprehensive and longitudinal care. The care provided must be evidence-based and founded on a breadth and depth of knowledge required to diagnose and treat the patient's condition. The core elements of competence in patient care follow.

Information gathering

- 1. Gather comprehensive patient information from all sources, including the patient, the patient's family, prior medical records, and previous diagnostic testing.
- 2. Perform a comprehensive physical examination as well as an examination appropriately customized for the clinical needs of the patient and the context of care.

Problem (Diagnosis) Synthesis

- 1. Synthesize the available clinical information into a cohesive assessment and prioritized differential diagnosis.
- 2. Utilize pattern recognition and specific knowledge structures for routine decision making.
- 3. For complex cases where the diagnosis is not apparent, use other evaluative strategies, including hypothesis-driven evaluation, likelihood ratios, and Bayes' theorem.
- 4. Generate diagnostic strategies with appropriate laboratory testing and imaging.
- 5. Utilize data from diagnostic testing to refine the differential diagnosis and generate a plan for further management.
- 6. Deal with the uncertainty that is inherent in clinical medicine.
- 7. Recognize interactions between disease and psychosocial factors and their importance in patient evaluation and management.

Treatment Planning and Execution

- 1. Develop treatment plans based on the diagnosis and the severity of illness as well as the risks, benefits, and costs of the proposed therapies.
- 2. Engage patients in making a shared decision about the treatment plan to include solid clinical judgment, scientific evidence, and patient preference.
- 3. Assess patients' prognosis, and share it with them and their families.

- 4. Set clear goals with patients for the management of their illness. Identify barriers to selfparticipation in disease management, and provide counseling to enhance adherence and improve symptom control.
- 5. Review over time the effectiveness of the treatment plan.

Information Technology to Support Patient Care

- 1. Use technologic resources to support patient care.
- 2. Include computer-assisted databases as aids for diagnosis and clinical decision-making.
- 3. Use computer-based formularies as sources of information on pharmaceuticals, side effect of medications, and drug interactions.
- 4. Use computer-based algorithms for chronic disease management.
- 5. Use computer-generated patient care data to improve clinical practice.

Communication and Relationships

- 1. Build relationships and effective communication links with patients and their families.
- 2. Educate patients on recommended behaviors and lifestyles to prevent or modify disease.

Systems of Care

- 1. Recommend appropriate screening examinations based on gender and age.
- 2. Demonstrate sensitivity and responsiveness to patients' age, culture, gender, and disabilities.
- 3. Work with other health care professionals, including those from other disciplines, to provide comprehensive patient-focused care in multidisciplinary teams. Care teams are essential for effective and comprehensive care for patients with complex chronic illnesses and for the elderly.
- 4. Recognize that health care is practiced in a larger social context.
- 5. Be knowledgeable about the problem of access to health care and serve as an advocate for health care for all.
- 6. Assist patients and their families in the transition from active treatment of disease to the relief of suffering and end-of-life care.

Competencies in Systems-Based Practice and Practice-Based Learning and Improvement

The ACGME/ABMS Core Competencies include two that are new: systems-based practice (SBP) and practice-based earning and improvement (PBLI). This paper describes each of these and demonstrates how they are closely interwoven.

SBP acknowledges that medical care is delivered through the integration of the knowledge and skill of individual physicians and the coordinated effort of other professionals and staff working in teams and using standardized methods and technology. The coordinated work of people and technology to achieve a common aim is called a system.

PBLI acknowledges that physicians learn from their individual experiences and improve quality of care through affecting change in their own practices and in the microsystems in which they work. Skill in PBLI involves applying the scientific methods of measurement, process re-design, root-cause analysis, and iterative rapid-cycle tests of change.

Together these competencies describe essential capabilities of individual physicians that are necessary to work in, learn from, and continually improve the systems of people and technology that deliver care to patients. Like other core competencies, these require specific knowledge, attitudes, and skills that must be learned, practiced, and ultimately mastered to become a competent internist.

Systems-Based Practice

Knowledge—A specific taxonomy and set of concepts about SBP must be learned and can be tested on examinations of knowledge. These terms and concepts come largely from the industrial engineering field and are new to medicine. Some of the basic concepts include:

- Microsystems—the front-line people, patients, methods, and technology that are working toward a common goal of providing high quality care to the patients they serve.
- Systems—networks of microsystems tied together by common purpose.
- Reliable and safe care requires deliberate design to standardize processes of care, prevent variability within and between microsystems, and eliminate waste and errors.
- Safety and reliability are built into the design of work processes and depend partly, but not solely, on individual physician qualities.

Attitude—SBP fundamentally shifts the traditional attitudes about physician autonomy and responsibility for the processes and outcomes of medical care. SBP posits that physicians have an essential but incomplete role in providing highly reliable, quality care. The system produces the quality of medical care arising from the coordinated work of many people with their own roles, responsibilities, and specific training. SBP values responsible teamwork and leadership for system change and improvement.

Skills—SBP skills include:

• Maintaining effective relationships through communication and interpersonal skill.

- Using health information technology to feedback and feed-forward throughout the system the transfer of information needed to do the clinical work.
- Developing and agreeing on the evidence-based protocols that will be used to standardize workflow in the processes of care.
- Organizing the transfer of clinical information throughout the system.
- Developing and maintaining networks of consultants and clinical services.
- Managing back-up processes.
- Organizing, giving, and receiving feedback on performance of processes within the system.
- Standardizing hand-offs from one process to another.
- Designing systems with redundancy and fail-safe methods and technology.
- Diagramming, at least at a high level, the processes of clinical workflow, and applying new technological tools and methods for care delivered in internal medicine settings (e.g., for a patient admitted through the emergency department with acute coronary syndrome or for an ambulatory patient with labile blood pressure).

Practice-Based Learning and Improvement

Competence in PBLI involves two components: 1) personally acquiring new facts and concepts, honing clinical skills, employing new technology, and refining professional attitudes and values; and 2) developing new knowledge through testing changes in the processes that form systems of care.

Knowledge—At the individual level, PBLI involves knowledge about how new medical information develops and how new information, skills, and technology are organized and disseminated.

At the systems level, PBLI requires knowledge about quality science, including, but not limited to, statistics, measurement of clinical care, use of diagrams of clinical workflow processes, design of rapid-cycle tests of change, and implementing effective changes into clinical care processes. Quality science skills depend on growing knowledge about medical science and the availability of information databases for individual professional growth.

Attitude—PBLI relies on physicians sharing responsibility for seeking reliable assessment of the medical knowledge and skills needed to practice and for seeking performance measurements that will provide the feedback needed to improve their teamwork and systems of care. Personal self-improvement becomes a responsibility for all physicians, and some physicians take more responsibility for organizing and implementing systematic quality improvement.

Applying PBLI at the systems level, physicians embrace the values embodied in the scientific method. These values include respect for the veracity of data, application of statistical methods to understand the meaning of data, and careful attention to details in conducting experiments (whether used to test theories of science in clinical trials or test theories of practice used to improve processes of care).

Skills—For personal knowledge and skills development, PBLI involves skills in using assessments of personal knowledge, developing questions that lead to effective search for information, and critically analyzing the applicability of the information to the question. Such information finding requires the capability to use electronic informational resources to answer clinical questions at the point of care.

At the systems level, PBLI skills include the ability to use statistics applied to process and outcome measurement, to apply root-cause analysis to a quality problem, to use failure mode analysis to refine a change idea, to design and execute rapid-cycle tests of change, to implement successful change ideas, and to train others for specific roles and tasks in a processes.

Competence in Communication and Interpersonal Skills

Background

A common misconception is that "those who speak, communicate." However, a vast gulf exists between *providing* information and *communicating* with other parties. In the medical setting, superb communication skills are likely to improve patient satisfaction, identify and decrease barriers to self-care, improve adherence, and improve health outcomes for patients. Physicians who are master communicators are better equipped to handle challenging patient situations with grace.

Master communicators thoroughly elicit the details of a patient's illness experience, including fears, theories, and treatment preferences. Master communicators listen closely to conversational subtext to elicit biases and problems that may interfere with the patient's health. The master communicator understands when to provide recommendations for care and when to engage the patient in shared decision-making. These physicians are able to switch consciously and comfortably between decision-making styles and engagement strategies.

Physicians who have superb communication skills are poised to be leaders in clinical care and outstanding teachers of both patients and medical learners. While providing patient-centered care, master communicators simultaneously teach in a learner-centered manner. They elicit team viewpoints, empower teams to make good decisions, delegate, negotiate, and allow each team member to contribute to the best of his or her ability. Behaviors that distinguish the master communicator from the novice include the ability to listen actively, understand subtext and biases, be fully present during interactions, achieve consensus, negotiate and persuade, and identify missing content of discussed information.

Know and Expand Personal Communication Skills

- Recognize and acknowledge personal factors that affect interactions with patients, colleagues, and the health system.
- Know and develop the elements of effective communication for standard and challenging interactions.
- Understand and articulate a range of decision-making styles and how they may be adapted for different health care settings and health needs.
- Seek to assess and improve communication skills continually.
- Know the elements of active listening, and practice active listening.
- Use current and emerging technology to aid in communication.

Doctor-Patient Relationship

- Know patients as people; demonstrate respect for patients' dignity, uniqueness, and integrity.
- Customize interactions with every patient, including those from diverse racial, ethnic, economic, cultural, religious, and sexual backgrounds as well as those of all age groups.
- Anticipate and prepare for patients' responses to interview, diagnosis, treatment plan, prognosis, and disease course.
- Perform patient-centered interviews that elicit relevant appropriate biomedical, psychological, and social information.

- Tailor interview methods by skillfully transitioning between providing and gathering information and using closed and open-ended questions appropriately.
- Elicit factors that affect patients' interactions, decisions, and participation in their own health care (e.g., life experience, family, culture, preferences, and expectations).
- Recognize and respond empathically to patient affect and body language.
- Address patient biases and expectations directly, when appropriate.
- Understand what medical information is relevant to a patient's decision-making.
- Provide understandable information about prognosis, treatment, and disease course; explain epidemiologic information in non-medical language.
- Obtain informed consent for key decisions.
- Provide written material and offer patient-oriented classes for complicated information.
- Conduct effective family meetings, when indicated, to discuss complex issues, including changes in care plan, complications of treatment, and end-of-life decision making.
- Communicate diagnostic and therapeutic plans to patients or their family/advocates in non-technical language and confirm their understanding.
- Ensure rapid access to yourself or covering physicians between visits for management of urgent developments and response to developing questions.
- Communicate about medical errors appropriately.
- Communicate bad news.
- Communicate about end-of-life issues.
- Inquire, when appropriate, about sexuality, spirituality, family violence, and suicidality.

Negotiation and Conflict Management

- Understand potential sources of conflict in health care settings (interpersonal, resources, time, funding).
- Anticipate and plan to manage key conflicts, including interpersonal conflicts.
- Anticipate how to advocate for use of limited resources for team and patients.
- Identify areas of cross-collaboration that may reduce conflict and improve negotiation.
- Understand formal and informal methods to resolve disputes within the institution.
- When authority is abused, report abuse, and provide support to those who report abuse.

Inter-professional Communications Skills

- Provide thorough yet succinct oral presentations regarding patient care.
- Provide thorough, complete, legible, and timely written or electronic documentation of patient care.
- Listen actively to team members, health care associates, consultants, and others.
- Provide feedback on consulting services rendered and about patient health outcomes in a respectful, professional manner.
- Recognize and respond to impairment in a colleague.

Communication in Teams

- Understand team members' roles and their expectations in working with the team.
- Where appropriate, re-negotiate team members' roles to achieve different goals, and ensure appropriate back-up/reinforcement for role division/overlap.

- Be sensitive to power differentials within teams, and ensure that all team members are respectful of each other.
- Demonstrate and value openness to others' ideas, humility, mutual trust, empathy, support, and capacity for grace.
- Speak up against authority gradients and support those who do.

Self-Awareness and Self-Reflection

- Understand and plan to manage personal biases and reactions that may influence professional interactions.
- Reflect and analyze interaction during the interaction (reflection in action) and after interaction is complete (reflection upon action).
- Solicit and reflect upon feedback systematically and consistently.
- Modify behavior based on reflection and feedback, through creation of action plans.

Teaching

- Be learner-centered.
- Be aware of learning styles and your learner's capabilities.
- Understand the learner's stage of professional development and tailor activities to broaden his or her skills sets in a stage-appropriate manner.
- Have learners demonstrate understanding through observing their performance and discussing their decision-making with them at the appropriate time.
- Provide timely constructive feedback to learners.

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