

Defining New Competencies: Systems-Based Practice and Practice-Based Learning and Improvement

As noted in Tufts Health Care Institute's July-August 2002 Topic of the Month, the Accreditation Council for Graduate Medical Education (ACGME) is now requiring programs to train and assess residents in six competencies. The two competency categories of Systems-Based Practice and Practice-Based Learning and Improvement comprise knowledge, skills, and attitudes that complement physicians' clinical responsibilities. Mastery in these areas can improve performance at multiple levels: systems of care, physician practices, patient panels, and single episodes of care.

The descriptions of learning objectives and assessment standards issued and developed by the ACGME, academic organizations, and individual programs help to clarify the content of training in these two competencies. Below are some phrases used by these sources.

Systems-Based Practice

The overall goal of Systems-Based Practice, as defined by the ACGME, is that "residents must demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value." Topics that contribute to this goal include the systems context of care, delivery and financing systems, cost-effective care and medical management, patient advocacy, and collaborative and multidisciplinary care.

Systems Context Of Care

- apply knowledge of systems to reduce errors and improve patient care
- elicit system resources to provide care of optimal value
- understand, access, and utilize the multidisciplinary resources, providers and systems necessary to provide optimal care
- understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice
- understand the reciprocal impact of personal professional practice, health care teams, and the health care organization on the community/society
- understand interaction of their practices with the larger system
- recognize resource limitations within the health care system
- identify ways in which the physician may interact with health-care professionals, health administrators, and community groups to positively impact the health and well being of one's community
- gather information about the community in which one works (e.g., demographics, and sociocultural beliefs and practices that affect health and disease)
- identify the natural history and

epidemiology of major health problems in the community being served (e.g., discussing the literature on incidence, prevalence and expected course of common conditions encountered in the discipline)

- identify factors that contribute to rising health care costs and strives to lessen where appropriate

Delivery and Financing Systems

- know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources
- understand the limitations and opportunities inherent in various practice types and delivery systems, and develop strategies to optimize care for the individual patient
- understand principles of managed care
- evaluate health benefits
- differentiate between various medical practices, including hospital and community-based models, PPO, and HMO health care delivery systems
- describe the methods by which individuals or hospitals can be reimbursed, including fee-for-service, capitation, hospital drgs, etc.
- become familiar with documentation criteria for different levels of care

Cost-Effective Care and Medical Management

- practice cost-effective health care and resource allocation that does not compromise quality of care
- demonstrates commitment to the practice of cost-effective medical care
- considers cost/benefit analysis in providing clinical care
- apply systematic, evidence-based, cost-conscious and cost-effective strategies to prevention, diagnosis and treatment in a way that does not compromise quality of care
- contains costs and conserves resources, allocating them using a lean, thoughtful practice style without compromising quality
- use fiscal and human resources efficiently
- minimize redundant or unnecessary care
- use clinical practice guidelines when available and appropriate
- provide attention to discharge planning beginning at admission
- utilize hospital, community, and clinic resources for appropriate and successful patient care
- understand coordination of current inpatient and subsequent outpatient care
- admit patients (when appropriate) to correct level of patient care / acuity
- appropriately order radiographs, laboratory studies, other studies (e.g., EKG, etc.)

- practice cost-effective inpatient medicine, with appropriate utilization of subacute care facilities and home care services
- understand the full range of living options for elderly persons and the cognitive and functional abilities required for successful living in these various settings

Patient Advocacy

- advocate for quality patient care and assist patients in dealing with system complexities
- negotiate the system to ensure optimal patient care; patient advocacy
- help patients through health care system complexities
- collaborate with payers to ensure that patients receive required care
- refer patients who need financial assistance
- recognize potential conflicts of interest between the individual patients and their health care organizations

Collaborative and Multidisciplinary Care

- know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance
- collaborate with other members of the health care team to assist patients in dealing effectively with complex systems and to improve systematic processes of care

- use medical and surgical specialists as consultants appropriately
- delineate relationships between the consulting service and the primary service
- work effectively with nursing staff and ancillary health care personnel
- work with case managers, discharge coordinators, utilization review personnel, social workers, and others to assess, coordinate, and improve patient care
- function as the coordinator of a health-care team to manage complex patient issues

Practice-Based Learning and Improvement

The overall goal of Practice-Based Learning and Improvement, as defined by the ACGME, is that “residents must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices.” Topics that contribute to this goal include evidence-based medicine, information technology, quality improvement, and educating one’s self and others.

Evidence-Based Medicine and Scientific Methods

- understand and use an evidence-based approach in providing patient care
- locate, retrieve, appraise, assimilate and apply evidence from scientific studies related to their patients’ health problems
- apply knowledge of study designs and statistical methods to the appraisal of

clinical studies and other information on diagnostic and therapeutic effectiveness

- use scientific evidence and methods to investigate, evaluate, and improve patient care practices.
- discuss and research relevant literature to support decision-making processes
- obtain and use information about their own population of patients and the larger population from which their patients are drawn

Quality Improvement

- analyze practice experience and perform practice-based improvement activities using a systematic methodology
- identify, acknowledge, and fill gaps in personal knowledge and skills in the care of patients
- develop real-time strategies for filling knowledge gaps that will benefit patients
- learn from prior mistakes and do what is needed to improve practice
- admit to and seek help in remedying errors
- seek and incorporate formative feedback on performance
- keep a log of unique cases, to self-assess performance patterns
- use self-assessments of knowledge, skills and attitudes to develop plans for addressing areas for improvement
- participate actively in quality improvement practices pertaining to patient care

- suggest data-driven modification of protocols
- follow up on admitted and discharged patients

Information Technology

- use information technology to manage information, access on-line medical information; and support their own education
- access appropriate reference material for current patients
- use information technology to support patient care decisions and enhance both patient and physician education
- use technology to manage information for patient care and self-improvement

Educating Other Professionals

- facilitate the learning of students and other health care professionals
- use interactions with nursing staff and other professionals as two-way educational opportunities
- teach junior colleagues or peers at the level of research and preparation expected by the program
- involved in teaching, with skills highly regarded by others
- active and positive participant in educational experiences
- participate in journal club

All residency programs must now be developing and implementing learning

experiences and assessment tools in these content areas. Tufts Health Care Institute has been creating related courseware and training applications; information is available on the website, www.thci.org.

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