COMPETENCIES

THE GEISEL SCHOOL OF MEDICINE AT DARTMOUTH

For Geisel School of Medicine students today and physician graduates of tomorrow

2012

(Approved by the Medical Education Committee of the Geisel School of Medicine, 2012)
INTRODUCTION

What are the learning objectives of the educational program at The Geisel School of Medicine at Dartmouth? What knowledge, skills, attitudes and behaviors – what competencies – must all students acquire with an appropriate level of mastery in order to be ready for an internship or residency position? How will the faculty assess each student's progress in learning these important competencies, and make sure that each student is ready for the next step of medical education?

In 2003, when the Medical Education Committee voted that the curriculum preparing students for the MD degree should be based on six broad areas of competency, it was with the intent of addressing the three important questions outlined above. We chose as our six core competency domains the same six that had been selected five years earlier by the ACGME (American Council of Graduate Medical Education), with a few changes to make them more appropriate for medical students, and adjusted to a different level of mastery.

In 2005, the Liaison Committee on Medical Education (LCME) required that all medical schools develop their own competency-based medical curricula. The Geisel School of Medicine at Dartmouth (then DMS) was required to meet this standard during our 2005 LCME site visit and accreditation review. By 2009, LCME requirements in this area had become even more detailed and rigorous. They included all of the following features (abstracted from LCME Standards, July 2009):

- The medical school faculty must define the objectives of its educational program. These specific competencies must be those that the profession and the public expect of a well-trained physician.
- These objectives of the educational program must be stated in outcome-based terms that allow assessment of each student's progress.
- The central curriculum committee (in our case, the Medical Education Committee) must develop these competencies through its central oversight role, and these fundamental competency goals must be formally adopted by the medical school's faculty.
- These objectives of our educational program (our competencies) must be made known to all medical students and to all faculty, residents, and others with direct responsibilities for medical student education.
- The central curriculum committee must make sure that each course or clerkship not only teaches the appropriate competency items, but also develops a system to assure that each student has indeed achieved a level of mastery appropriate for that stage of training.
- The medical faculty must design a curriculum, with specific learning objectives, that provides a general professional education for each student, and that prepares each student for entry into graduate medical education.

In response to these new and more rigorous standards, the Medical Education Committee spent much of the 2009-10 academic year soliciting input from many sources, and developing a new set of more specific and more detailed required core competencies. Useful suggestions were contributed by many faculty and students; course directors, clerkship directors, and department chairs; the LCME through its requirements; the AAMC through its MSOP reports; and the Carnegie Foundation through its draft white paper on improving medical education. Once developed, these Geisel School of Medicine Competencies were then approved by the Dean's Academic Board, and eventually by vote of the General Faculty in March, 2010. Subsequently, these have been reviewed and modified by the Medical Education Committee, most recently in 2012.

The Medical Education Committee hopes that this pamphlet will help each Geisel School of Medicine at Dartmouth applicant and medical student, resident, faculty member, course or clerkship director, and the public at large understand what the broad objectives are of a rigorous medical education at The Geisel School of Medicine. These are the competencies that our Faculty promises to teach, that we expect our students to learn, and that we will evaluate in each student to make certain that every student has attained an appropriate level of mastery prior to graduation, and prior to moving on to assuming increased responsibility for direct patient care in a residency training program.

MEDICAL KNOWLEDGE ABOUT ESTABLISHED AND EVOLVING BIOMEDICAL, CLINICAL, AND COGNATE (E.G. EPIDEMIOLOGICAL AND SOCIAL-BEHAVIORAL) SCIENCES, AND THE APPLICATION OF THIS KNOWLEDGE TO PATIENT CARE.

By graduation, each Geisel School of Medicine student must have consistently demonstrated the ability to:

a. IDENTIFY, EXPLAIN and APPLY useful knowledge of current “core basic sciences” regarding normal structure and function, health, and the pathophysiology of disease, particularly as it impacts human health and disease and patient care. Subjects must include anatomy/histology/embryology, microbiology/immunology, physiology, biochemistry/genetics, metabolism/nutrition, pathophysiology, pharmacology, and pathophysiology.

b. IDENTIFY, EXPLAIN and APPLY useful knowledge regarding the discovery and validation of new biomedical information. Subjects and experiences must include biostatistics, epidemiology, basic science research, clinical research, translational research, hands-on or simulated laboratory experiments, and the critical analysis of data from experiments or from the literature.

c. IDENTIFY, EXPLAIN and APPLY useful knowledge of the current “core clinical sciences,” in both inpatient and outpatient settings as appropriate, with sufficient and appropriate exposure to primary care experiences. Required rotations in medicine, geniatrics, surgery and its related disciplines, pediatrics, obstetrics and gynecology, psychiatry, family medicine, and neurology should serve as the foundation for the clinical training of the undifferentiated, generalist physician.

d. IDENTIFY, EXPLAIN and APPLY useful knowledge of some newer “bridge disciplines” or “themes” that have become necessary to deliver excellent patient care. These subjects include (but are not limited to) clinical pharmacology, imaging, nutrition, clinical genetics, molecular diagnostics, neonatology, medical informatics, health care delivery science, evidence-based practice, public health, and the global burden of disease.

e. IDENTIFY, EXPLAIN and APPLY knowledge in several additional areas that have become important in delivering excellent healthcare to patients, including disease prevention, risk factor modification, end-of-life and palliative care, substance abuse, pain management, medical ethics, and medical-legal issues.

f. IDENTIFY, EXPLAIN and APPLY knowledge in the disciplines that describe the impact of social, economic, cultural, and personal factors upon the health of the individual, the manner in which people perceive health and illness, and the health of groups of individuals. It is essential that each student demonstrate cultural competency – the ability to engage effectively with patients from different cultures, when cultural background informs the patient's view of health, disease, and treatment options.
By graduation, each Geisel School of Medicine student must have consistently demonstrated the ability to:

a. BUILD A STRONG RAPPORT with patients and their families, establishing a respectful basis for the doctor-patient relationship.

b. LISTEN EFFECTIVELY TO PATIENTS AND FAMILIES, in order to obtain essential and often sensitive information from the patient and the patient's family as well.

c. COMMUNICATE EFFECTIVELY WITH PATIENTS AND FAMILIES, especially when special barriers to communication exist (e.g., patients who require an interpreter, who have cognitive deficits, who have different levels of understanding, or who have different cultural backgrounds that affect their understanding of disease and its treatment).

d. ASSIST PATIENTS APPROPRIATELY IN UNDERSTANDING THEIR TREATMENT OPTIONS for their own care, especially in situations where multiple treatment options are available. Develop interview skills to motivate patients when behavioral change, promotion of a healthy lifestyle, or close adherence to treatments are necessary.

e. COMMUNICATE EFFECTIVELY WITH PHYSICIAN COLLEAGUES both verbally (e.g. short and complete oral case presentations, sign-outs, handoffs, etc.), and in writing (e.g., brief SOAP notes, longer admission notes, daily progress notes, consultation notes, essays, term papers, case reports, and other scholarly written formats, etc.).

f. COMMUNICATE WITH ALL MEMBERS of the health-care team in a manner that facilitates patient care through succinct and accurate communication and cooperation between team members from different disciplines.

g. COMMUNICATE AND INTERACT WITH COLLEAGUES COLLEGIALLY, including teaching and helping to evaluate peers.

h. COMMUNICATE EFFECTIVELY WITHIN AN ELECTRONIC MEDICAL RECORD, observing proper protocols for protecting patient confidentiality, clearly identifying the author of each note, avoiding promulgation of misinformation, and maintaining the professional content of this important repository of patient information.
By graduation, each Geisel School of Medicine student must have consistently demonstrated the ability to:

a. **BEHAVE RESPECTFULLY AND RESPONSIBLY** towards patients, families, colleagues, and all members of the health-care team at all times.

b. **MEET PROFESSIONAL RESPONSIBILITIES FULLY**, including being punctual, present, and engaged in appointments, meetings and other activities, and being reliable in commitments to tasks.

c. **SUBORDINATE** one's own self-interest appropriately, in order to consistently place the patient's interests first. Avoid real and perceived conflicts of interest. Recognize how one's own personal opinions and biases can interfere with one's ability to deliver quality care to every patient.

d. **ADHERE** to high ethical and moral standards, demonstrating honesty and integrity in all activities.

e. **EMPATHIZE** with patient concerns, and be respectful of each patient's concerns, points of view, and cultural traditions.

f. **ACCEPT RESPONSIBILITY** for his/her own actions. Receive constructive criticism and feedback well. Demonstrate the desire to learn and improve.

g. **RESPECT** each patient's confidentiality.

h. **TAKE RESPONSIBILITY FOR HIS OR HER OWN MEDICAL EDUCATION**, and take the initiative in optimizing his/her personal education plan.

i. **TAKE RESPONSIBILITY FOR HISHER OWN MENTAL AND PHYSICAL HEALTH**, and to enhance the provision of excellent patient care.

j. **DEVELOP THE HABITS OF MINDFULNESS AND REFLECTION**, and apply them to improving one's own care for patients. Increase awareness of potential conflicts between personal values, patient preferences, and usual practice.

k. **RECOGNIZE and DESCRIBE HOW ACCESS TO BASIC HEALTH SERVICES IS ESSENTIAL TO MAINTAINING PERSONAL HEALTH** for people everywhere, but especially for those without insurance or financial resources, and those living in medically underserved areas.

l. **HELP COLLEAGUES BY CONTRIBUTING CONSTRUCTIVE SUGGESTIONS DURING PEER REVIEW**, and by reporting impaired colleagues and helping them to receive care and counseling.

**FORMATION OF A MATURE, RESPONSIBLE, AND ETHICAL PROFESSIONAL IDENTITY, AS MANIFESTED THROUGH A COMMITMENT TO CARRYING OUT ALL PROFESSIONAL RESPONSIBILITIES IN A TIMELY MANNER, ADHERENCE TO ETHICAL PRINCIPLES, AND UNDERSTANDING THE SOCIAL CONTRACT BETWEEN SOCIETY AND THE PROFESSION OF MEDICINE.**

By graduation, each Geisel School of Medicine student must have consistently demonstrated the ability to:

a. **SEARCH EFFICIENTLY FOR and OBTAIN** recent, high quality, relevant medical information and scientific literature about important clinical topics and questions.

b. **READ CRITICALLY**, understand, evaluate, and assess medical information and scientific literature about important clinical topics and questions.

c. **EVALUATE and ASSESS** clinical care processes and outcomes in the practice environment in which they participate, and understand how this measurement relates to the improvement of care for groups of patients.

d. **EXPLAIN and BE ABLE TO APPLY** the concepts of improving quality of care, patient safety, and value of care in one's own clinical environment.

e. **DEVELOP THE HABIT OF, AND STRONG COMMITMENT TO**, continuous inquiry and lifelong learning, utilizing both self-reflection and external sources of feedback. Learn and adopt a structured approach to lifelong updating of knowledge and skills.

f. **MAKE ONE'S OWN CLINICAL ENVIRONMENT A LEARNING ENVIRONMENT**, committed to daily improvements in safety, efficiency, and patient satisfaction.

g. **DEVELOP THE HABIT OF INQUIRY INTO AND IMPROVEMENT OF ONE'S OWN PERSONAL PRACTICE, BY REFLECTING UPON AND EVALUATING THE STUDENT'S OWN DIRECT PATIENT CARE, AND ACCESSING THE BEST INFORMATION AND PRACTICES AVAILABLE.**

**FORMATION OF A MATURE, RESPONSIBLE, AND ETHICAL PROFESSIONAL IDENTITY, AS MANIFESTED THROUGH A COMMITMENT TO CARRYING OUT ALL PROFESSIONAL RESPONSIBILITIES IN A TIMELY MANNER, ADHERENCE TO ETHICAL PRINCIPLES, AND UNDERSTANDING THE SOCIAL CONTRACT BETWEEN SOCIETY AND THE PROFESSION OF MEDICINE.**

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By graduation, each Geisel School of Medicine student must have consistently demonstrated the ability to:

a. **IDENTIFY** and **UTILIZE** appropriate clinical resources in the hospital, clinic, and the community to support patient care.

b. **UNDERSTAND THEIR ROLES, AND COLLABORATE EFFECTIVELY WITH** all members of the inter-professional team (e.g. nurses, pharmacists, health administrators, others) involved in healthcare to assure optimal, comprehensive patient care.

c. **FIND, ANALYZE** and **APPLY** evidence-based, cost-conscious strategies in the care of patients and populations.

d. **DESCRIBE** how operations and processes that occur within a complex healthcare organization or system have an impact on cost and quality of care.

e. **DESCRIBE THE LARGER ENVIRONMENT IN WHICH HEALTHCARE OCCURS** (e.g. payment, regulatory, legal, and educational systems), and how physician advocacy can improve each aspect of this environment, and lead to a more just system for delivering health care.

f. **DESCRIBE HOW HEALTHCARE IS CURRENTLY ORGANIZED, FINANCED, AND DELIVERED**, and how various proposals to change the healthcare system would alter the financing, delivery, and fairness of the healthcare system, and potentially benefit vulnerable and underserved populations.


h. **UTILIZE THE RESULTS OF OUTCOME STUDIES TO IMPROVE PATIENT CARE**, sometimes at lower overall cost.

i. **IDENTIFY THE ROLE OF THE PHYSICIAN** in addressing the medical consequences of common social and public health factors (such as racial, socioeconomic, and cultural factors that affect access to and quality of care) that contribute to the burden of disease (such as malnutrition, obesity, violence, and abuse).

j. **ADVOCATE FOR OPTIMAL CARE FOR EACH PATIENT** (safe, effective, patient-centered, timely, efficient, and consistent with patient preferences), and optimal and cost-effective health care for the population.