

MD Program Learning Outcomes (Objectives)

Learning Skills/Competencies to be acquired with successful program completion

Many medical schools have and are embracing the Accreditation Council for Graduate Medical Education's (ACGME) six (6) core competencies for resident education as the building blocks necessary for shaping the student to become a competent licensed physician.

CalMed, in consonance with many other medical schools, has structured its educational approach to an integrated model in which students demonstrate incremental acquisition and mastery of all competencies as they progress through medical school. The following represents CalMed's MD Program Learning Outcomes in harmony with the six core competencies proposed by the ACGME. The objective of the MD program is for students to achieve the MD Program Learning Outcomes.

1. Medical Knowledge

Students must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care. Students are expected to apply:

- a. knowledge of molecular, cellular, biochemical, nutritional, and system-level mechanisms that maintain homeostasis and knowledge of the dysregulation of these mechanisms in the prevention, diagnosis, and management of disease
- b. major principles of the basic sciences to explain:
 - i. normal biology
 - ii. the pathobiology of significant diseases
 - iii. the mechanism of action of important technologies used in the prevention, diagnosis, and treatment of disease
- c. the principles of genetic transmission, molecular biology of the human genome, and population genetics in order to:
 - i. obtain and interpret family history and ancestry data
 - ii. infer and calculate risk of disease
 - iii. order genetic tests, to guide therapeutic decision making, and to assess patient risk
 - iv. institute an action plan to mitigate this risk
- d. the principles of the cellular and molecular basis of immune and non-immune host defense mechanisms in health and disease to:
 - i. determine the etiology of disease
 - ii. identify preventive measures
 - iii. predict response to therapeutic interventions
- e. the mechanisms of those processes which are responsible for the maintenance of health and the causation of disease to the prevention, diagnosis, management, and prognosis of important human disorders
- f. principles of the biology of microorganisms in normal physiological and diseased states to:
 - i. explain the etiopathogenesis of disease
 - ii. identify treatment and preventive measures

- g. the principles of pharmacology to evaluate options for safe, rational, and optimally beneficial therapeutic interventions
- h. quantitative and qualitative knowledge and reasoning and informatics tools to diagnostic and therapeutic clinical decision making

2. Patient Care

Students must be able to provide patient care that is compassionate, appropriate, and effective for the promotion of health and the treatment of health-related problems. Students are expected to:

- a. accurately perform and document both complete and focused histories that are based on the pathophysiology of presenting complaints and that address relevant psychosocial and family issues
- b. accurately perform and document both complete and focused physical examinations that are based on the pathophysiology of presenting complaints
- c. prioritize patients' problems, formulate appropriate differential diagnoses and develop appropriate plans for the diagnosis and/or management (including initial appropriate therapy for pain, if applicable)
- d. appropriately select, justify, and interpret clinical tests
- e. perform basic clinical procedures safely and effectively while respecting patients' needs, and concerns
- f. explain the principles of various therapeutic modalities as well as their relative advantages and disadvantages
- g. formulate measures for the care of patients and communities that rely on the interrelations with different healthcare professionals and use available epidemiological principles and data
- h. develop and implement individualized risk reduction plans based on a culturally-sensitive assessment of important medical and social conditions (including interpersonal violence, substance abuse and sexually transmitted diseases)

3. Professionalism

Students must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Students are expected to demonstrate:

- a. compassion, integrity, and respect for others
- b. respect for patient privacy and autonomy
- c. responsiveness to patient needs that supersedes self-interest
- d. accountability to patients, society, and the profession
- e. awareness of biases, sensitivity, and responsiveness to diverse populations (patients, colleagues, instructors, staff, self, etc.), including but not limited to diversity in age, sex, culture, race, religion, disabilities, and sexual orientation

4. Interpersonal Communication

Students must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. Students are expected to:

- a. communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds

- b. communicate effectively with physicians, other health professionals, and health related agencies
- c. work effectively as a member or leader of a healthcare team or other professional groups
- d. act in a consultative role to other health professionals
- e. maintain comprehensive, timely, accurate, and legible medical records (if applicable)

5. Personal Improvement (Practice-based Learning)

Students must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and lifelong learning. Students are expected to develop skills and habits to be able to meet the following goals:

- a. identify strengths, deficiencies, and limits in one's knowledge and expertise (self-assessment and reflection)
- b. set learning and improvement goals
- c. identify and perform appropriate learning activities
- d. systematically analyze own practice using quality improvement (QI) methods, and implement changes with the goal of continuous improvement
- e. incorporate "formative" evaluation feedback into daily practice
- f. locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems (evidence-based medicine)
- g. use information technology to optimize learning
- h. participate in the education of patients, families, colleagues, residents and other health professionals

6. System improvement (System-based Practice)

Students must demonstrate an awareness of and responsiveness to the larger context and system of healthcare, as well as the ability to call effectively on other resources in the systems available to provide optimal healthcare. Students are expected to:

- a. work effectively in various healthcare delivery settings and systems relevant to their clinical specialty
- b. coordinate patient care within the healthcare system relevant to their clinical specialty rotation
- c. incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate
- d. identify and apply preventive, curative, and palliative measures that appropriately utilize health care resources
- e. advocate for quality patient care and optimal patient care systems
- f. work in inter-professional teams to enhance patient safety and improve patient care quality
- g. participate in identifying system errors and implementing potential system solutions