

Graduate Medical Education

Graduate medical education (GME) comprises the second phase of the formal educational process that prepares doctors for medical practice. All medical school graduates who seek full medical licensure and board certification in a medical specialty or subspecialty must complete a period of residency training. Residency programs vary in length depending on specialty but generally last three to five years for initial board certification (**Table 2**). Subspecialty training may extend the period to as long as 11 years following the award of the M.D. degree. Residency as a component of medical education began at Johns Hopkins Hospital in the 1890s, modeled on the “assistantships” prevalent at the time in Germany. Residents were called “house officers” because they literally lived in the hospital. Even today, residents are sometimes referred to as “house officers” or “house staff.”

The Educational Program of GME

To most patients, residents may be indistinguishable from attending physicians: they have earned the M.D. degree, they perform diagnoses and procedures, and they participate fully in the spectrum of treatment and care. Yet residents are still doctors-in-training—the educational program, in fact, defines the essence of residency. Although residents are medical school graduates, they are insufficiently experienced to independently practice their intended specialty or subspecialty.

Residents assume responsibility for patients under supervision of physician faculty. In doing so, they learn how to practice their specialty and recognize when and under what circumstances to seek assistance from colleagues. Their clinical experiences are organized as a series of rotations that may include assignments to inpatient services, hospital outpatient clinics, and sites in the community such as community health centers and physician offices. Each rotation has a set of defined educational objectives for which the resident is evaluated. Residents also participate in conferences, seminars, and other non-patient learning experiences as well as independent, self-directed learning, and scholarly activities.

This phase of medical education is, of necessity, conducted primarily in clinical settings and requires residents to participate in patient diagnoses and treatment. Technological advances in health care delivery and financial constraints inherent in the modern health care system—for example, shortened length of hospital stays, increased use of ambulatory settings for all but the most complex cases, and reductions in overall staff—have created challenges for graduate medical education programs to maintain a proper balance between resident education experiences and patient care activities.

Table 2: Selected GME Training Requirements for Specialty Board Certification

Specialty	Years of GME Required
Anesthesiology	4
Emergency Medicine	3
Family Practice	3
Internal Medicine	3
Obstetrics/Gynecology	4
Pathology	4
Pediatrics	3
Psychiatry	4
Radiology	4
Surgery	5

Source: ACGME