1. HISTORICAL CONTEXT
   a. 1981 ACGME founded
   “The Accreditation Council for Graduate Medical Education is a private, nonprofit council that evaluates and accredits residency programs in the United States. The ACGME was established from a consensus in the academic medical community for an independent accrediting organization. Its forerunner was the Liaison Committee for Graduate Medical Education, established in 1972. The mission of the ACGME is to improve health care by assessing and advancing the quality of resident physicians’ education through exemplary accreditation.”
   www.acgme.org
   b. 1986 COGME formed by public law 92-463
   “The Council on Graduate Medical Education (COGME) provides an ongoing assessment of physician workforce trends, training issues and financing policies, and recommends appropriate federal and private sector efforts on these issues. COGME advises and makes recommendations to the Secretary of the U.S. Department of Health and Human Services (HHS) and to the Senate Committee on Health, Education, Labor and Pensions, and the House of Representatives Committee on Energy and Commerce”
   c. 1986 Hubert and Stuart Dreyfus publish Mind over Machine. They describe five levels of skill acquisition: Novice, beginner, competent, proficient, expert. Skill acquisition associated with autonomy, coping with complexity, and perception of context.
   http://www.sld.demon.co.uk/dreyfus.pdf
   d. 1990s reports recommend change in current state of GME (COGME, Pew Health Professions Commission, AAMC, Federated Council of Internal Medicine, Association of Program Directors of Surgery, Royal College of Physicians and Surgeons of Canada).
   e. 1994 ACGME internal review of GME process. Move to outcomes process.
   f. 1999 ACGME board approves 6 core competencies
h. 2012 ACGME Next Accreditation System (NAS). Consists of milestones (5 levels (Dreyfus and Dreyfus), resident and faculty surveys.


2. COMPETENCY-BASED MEDICAL EDUCATION (CBME)

Valid and reliable assessment tools such as direct observation, formative feedback, learner self-directed assessment; involvement of learner in educational process; faculty development focused on curricular design and competency assessment.

Table 1: A comparison of the elements of structure- and process-based versus competency-based educational programs:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Structure- and process-based</th>
<th>Competency-based</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driving forces for curriculum</td>
<td>Content—knowledge acquisition</td>
<td>Outcome—knowledge acquisition</td>
</tr>
<tr>
<td>Driving forces for process</td>
<td>Teacher</td>
<td>Learner</td>
</tr>
<tr>
<td>Path of learning</td>
<td>Hierarchical (teacher ↔ student)</td>
<td>Non-hierarchical (teacher ↔ student)</td>
</tr>
<tr>
<td>Responsibility for content</td>
<td>Teacher</td>
<td>Student and teacher</td>
</tr>
<tr>
<td>Goal of educational encounter</td>
<td>Knowledge acquisition</td>
<td>Knowledge application</td>
</tr>
<tr>
<td>Typical assessment tool</td>
<td>Single subjective measure</td>
<td>Multiple objective measures (“evaluation portfolio”)</td>
</tr>
<tr>
<td>Assessment tool</td>
<td>Proxy</td>
<td>Authentic (mirrors real life)</td>
</tr>
<tr>
<td>Setting for evaluation</td>
<td>Removed (gestalt)</td>
<td>“In the trenches” (Direct observation)</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Norm-referenced</td>
<td>Criterion-referenced</td>
</tr>
<tr>
<td>Timing of assessment</td>
<td>Emphasis on summative</td>
<td>Emphasis on formative</td>
</tr>
<tr>
<td>Program completion</td>
<td>Fixed time</td>
<td>Variable time</td>
</tr>
</tbody>
</table>


3. Assessment

Measurable and observable performance expectations; level-based with expected time frame for achievement. Includes assessment of Skills, Knowledge and Attitudes (KSA), some specialty-specific, others universal to physicians in training. Narrative anchors of behavior that demonstrate progress toward achievement of the identified benchmarks.

Assessment is continuous; reporting occurs twice a year. Most residents should meet expectations in advance of the “deadline.” Failure to meet expectations triggers further assessment and possible remediation.

Pediatrics: “commitment to engage in personal and professional development” (e.g., self-awareness, flexibility, trustworthiness, leadership, self-confidence, healthy response to stressors)

Optimally done with, rather than to, the resident. Balance between deconstruction (analysis of microtasks) and reconstruction (integrated, complex performance)


REFERENCES


