Learning Objectives

At the end of this session, the learner will be able to:

1. List the ACGME core competencies
2. Describe 3 techniques for bedside evaluation
3. Discuss the pros and cons of bedside evaluation techniques
4. Describe which bedside evaluation techniques work best for EM residencies

Lecture Outline

1. Adult learning and evaluation theories
2. The core competencies
3. Bedside evaluation techniques
4. The core competencies applied to EM

Syllabus

Introduction
The ACGME has offered all residency programs the opportunity to make improvements. This opportunity is named the core competencies. Why is this an opportunity? Because the root cause is neither medicine nor education, but business. This is an opportunity to apply a bottom line, results oriented approach to medical education.

The core competency movement is a paradigm shift for residency programs, from demonstrating compliance with requirements to showing the ability to evaluate competence in several domains. It is also a revolutionary change for the ACGME, from one of proscribing behavior based on rigid, well defined standards to one where program initiative and creativity will be encouraged then judged against an as yet to be defined standard.

The core competencies include patient care, medical knowledge, professionalism, systems-based practice, practice-based learning and improvement and communication and interpersonal skills. They are supposed to increase resident education and accreditation effectiveness by emphasizing outcomes [Swing]. By July 2006 every residency program must demonstrate compliance.
The core competency movement once again shows that Emergency Medicine is a leader in medical education. In March 2002, CORD sponsored a conference "The ACGME CORE Competencies: Getting Ahead of the Curve" which brought together EM educators to define the core competencies for our specialty. Participants came from residencies, medical schools, the ACGME, ABEM, EMRA, SEAM, AEM and the RRC-EM. This conference offered the specialty a proactive approach to the core competencies – a chance us to define what is important for our specialty. The results of this conference are summarized in the November 2002 special consensus issue of AEM [Volume 9, Number 11].

Teaching and Evaluation
The most important concept is that teaching and evaluation are inexorably linked. You teach and evaluate to the same end – the terminal objectives of your educational program. This is true for learners at all levels and includes curricula ranging from 30 minute seminars to entire residency programs.

There are many ways to categorize traditional teaching approaches and types of teachers. The master crafts person teaches by modeling exemplary behavior. In contract, the Socratic teacher encourages thinking in the learners by the use of probing questions. The "pimp" also asks questions but usually manages to embarrass the learner. Finally there is the coach whose supportive manner in both questioning and supervision encourages the learner to take the risks that are necessary when learning new skills.

Several concepts have emerged for improving teaching in adult learners. The most important is for the teacher to be available. Showing interest and enthusiasm and support for the adult learner will go a long way toward achieving a positive result. The instructor should be very clear about his or her expectations for the learner and clarify those expectations as needed. The successful performance should be rewarded. [Epstein]

One medical educator [Irby, 1994] studied the educators at his institution that received the most praise for their teaching. Several themes emerged. They: 1. Actively involve learners. 2. Capture attention and have fun. 3. Connect the case to broader concepts. 4. Go to the bedside. 5. Meet individual needs. 6. Be practical and relevant. 7. Be selective and realistic. 8. Provide feedback and evaluation.

But to be effective in the core competency era, we must demonstrate the outcome of our teaching. The first step is to define the outcome. This is well described in the November 2002 issue of AEM. The next step is to assess whether the learner has met the objective. This is the Holy Grail of education.

Any evaluation tool must be reliable and valid. The closer the assessment technique resembles the real situation, the more likely it will be to predict future performance. Assessments that predict future performance exhibit predictive
reliability. [Swing] Well defined scoring criteria, training evaluators to use these criteria and assessment of specific tasks rather than a subjective global appraisal all improve the reliability of the evaluation. [Swing]

Evaluation tools include: global assessment, checklists, 360 degree evaluations, structured oral exams or cases, simulators, standardized patients, direct observation and portfolios.

Global assessment: This is the most common assessment tool in use today. It consists of a scoring sheet that is completed based on the overall impression of the evaluator. There are usually criteria set out, sometimes defined, and space for free form comments. The reliability and validity of this tool varies.

Checklists: This tool may be used for any complex task that can be divided into component parts. This works best when the performance of each part is necessary to competently perform complete task. Procedures are well suited to this type of evaluation.

360 degree assessment: This tool involves an assessment being performed by all the individual that a learner interacts with, presumably demonstrating a variety of relationships, each thought to be relevant to the overall outcome.

Structured oral exams or cases: These are reliable and valid tools where the evaluator creates and controls content so as to assess specific areas. These can include standardized patients, role playing or other stimuli.

Simulators: This tool can include models, mannequins or computer generated material that can be used as a substitute for a patient or clinical scenario. Like structured cases, content can be controlled by the evaluator.

Standardized patients (SP): This tool is becoming more available as it is embraced by the USMLE and ECFMG. The use of SP’s has a long history and there are many studies showing the reliability and validity of their use.

Direct observation: This tool places the evaluator and the learner at the bedside together where actual desired performance is witnessed by an evaluator skilled in the area being demonstrated by the observer.

Portfolios: This tool is similar to what artists have used for centuries – show your work product. It can also be a case log or a collection of reports about different educational opportunities that the learner has experienced.

Summary
Teaching and evaluation are linked. Define your educational end point and teach and evaluate to that end. The paradigm shift to the core competencies represents a paradigm shift in medical education – and therefore an opportunity.
Emergency Medicine is on the cutting edge – yet again! – of this shift. It’s all summarized in the November 2002 issue of AEM. And the best is yet to come.

References


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