

DEPARTMENT OF MEDICINE
University of Massachusetts Medical School

**FACULTY GUIDE TO TEACHING
SUBSPECIALTY FELLOWS
(Module 1)**

MODULE 1

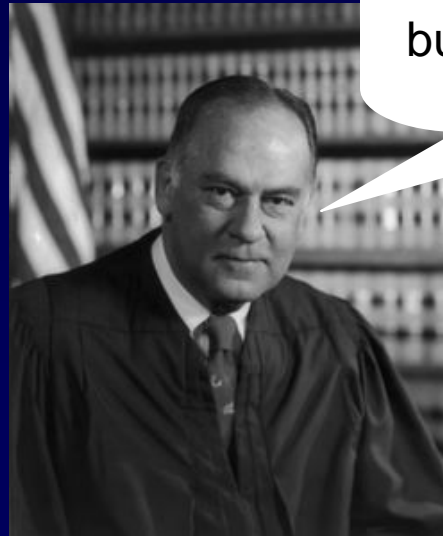
- **Background**
- **Evaluations, Outcomes and Measurements**

BACKGROUND

- **The past two decades have been marked by sweeping changes in graduate medical education. Most notably, these include:**
 - **The understanding that working conditions for residents and fellows must be supportive of an optimal learning experience. The promulgation of strict work-hours restrictions by the American Council of Graduate Medical Education (ACGME) and, in some cases, state governments, are the most salient example.**
 - **The concept that residency and fellowship training are not simply apprenticeships, but rather a formal educational process requiring**
 - **A structured curriculum;**
 - **Commitment to goals and objectives for each phase of training;**
 - **A multifaceted system for monitoring the progress of each trainee, and specifically, evaluating their success in meeting the goals and objectives of training.**

COMPETENCY

- Historically it has been very difficult to define what makes a doctor “well-trained.” It is impossible to train a competent physician if we don’t know what **competence** is.
- To paraphrase Justice Potter Stewart’s famous remark about pornography,



I don't know what competence is but I know it when I see it!

COMPETENCY (continued)

- The ACGME has recommended that all training programs recognize **six basic competencies**, and create an educational experience that enables trainees to achieve all of them. These six are:
 - **Patient care**
 - **Medical knowledge**
 - **Practice-based learning and improvement**
 - **Interpersonal and communication skills**
 - **Professionalism**
 - **Systems-based practice**

What do these mean? Following are the ACGME's own definitions.

Patient Care

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

- **communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families**
- **gather essential and accurate information about their patients**
- **make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment**
- **develop and carry out patient management plans**
- **counsel and educate patients and their families**
- **use information technology to support patient care decisions and patient education**
- **perform competently all medical and invasive procedures considered essential for the area of practice**
- **provide health care services aimed at preventing health problems or maintaining health**
- **work with health care professionals, including those from other disciplines, to provide patient-focused care**

MEDICAL KNOWLEDGE

Residents must demonstrate 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. Residents are expected to:

- **demonstrate an investigatory and analytic thinking approach to clinical situations**
- **know and apply the basic and clinically supportive sciences which are appropriate to their discipline**

PRACTICE-BASED LEARNING and IMPROVEMENT

Residents must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. Residents are expected to:

- **analyze practice experience and perform practice-based improvement activities using a systematic methodology**
- **locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems**
- **obtain and use information about their own population of patients and the larger population from which their patients are drawn**
- **apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness**
- **use information technology to manage information, access on-line medical information; and support their own education**
- **facilitate the learning of students and other health care professionals**

INTERPERSONAL and COMMUNICATION SKILLS

Residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients families, and professional associates. Residents are expected to:

- create and sustain a therapeutic and ethically sound relationship with patients**
- use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills**
- work effectively with others as a member or leader of a health care team or other professional group**

PROFESSIONALISM

Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. Residents are expected to:

- demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supercedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and on-going professional development**
- demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices**
- demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities**

SYSTEMS-BASED PRACTICE

Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value. Residents are expected to:

- understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice**
- know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources**
- practice cost-effective health care and resource allocation that does not compromise quality of care**
- advocate for quality patient care and assist patients in dealing with system complexities**
- know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance**

THE SIX COMPETENCIES MADE SIMPLE

PATIENT CARE



Practice informed, compassionate, up-to-date medicine

COMMUNICATION AND INTERPERSONAL SKILLS



Listen and express self effectively; foster therapeutic relationship; practice collaboratively

PRACTICE-BASED LEARNING



Use clinical experiences and available resources to expand own knowledge base

PROFESSIONALISM



Exercise sensitivity and respect towards patients and colleagues; Comport self as befits a physician

SYSTEMS-BASED PRACTICE



Utilize resources, and other members of healthcare team appropriately

MEDICAL KNOWLEDGE



Develop a strong scientific foundation and logical thought processes

EVALUATIONS, OUTCOMES and MEASUREMENT

- The idea of the competencies is to promote an approach to education that targets specific academic and professional goals.
- To ensure that trainees are on the right path to achieving these competencies, a good evaluation system is critical. Such an evaluation system should offer:
 - **Validity of assessment techniques**
 - **Usefulness of assessment data collected**
 - **Consistency of assessment techniques**
 - **Practicability**
 - **Fairness**
 - **Multidimensional assessment**

WHAT IS MEANT BY “MULTIDIMENSIONAL ASSESSMENT METHODS?”

- **Multiple assessment approaches/instruments** are employed.
Because competence is multi-dimensional and individual assessment approaches have limitations, it is unlikely that a single approach to assessment will be adequate. This problem is addressed by using a few different assessment approaches.
- **Multiple observations** are conducted.
Multiple observations improve the reliability or precision of assessment and allow identification of patterns of behavior over time.
- **Multiple observers/raters** provide assessments.
Using multiple observers improves the reliability or precision of assessment and enhances the scope of assessment.

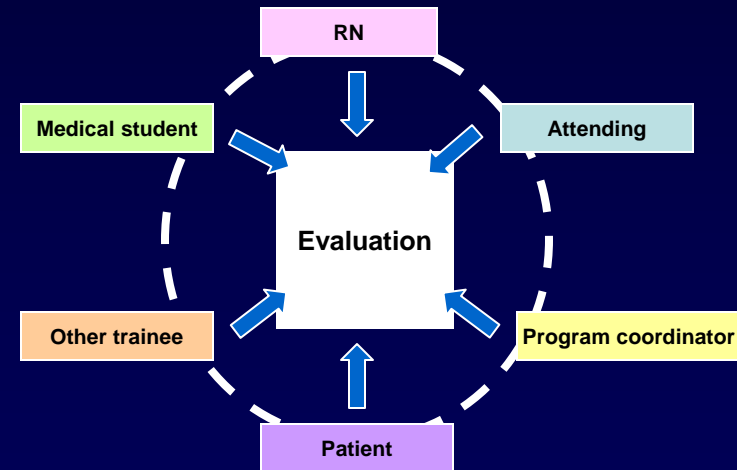
MULTIPLE OBSERVERS / RATERS

The 360° Evaluation

The most commonly used way for evaluators to collect information from multiple sources is through the use of a so-called **“360-degree evaluation tool.”**

This means soliciting feedback from people who interact with the trainee in various contexts.

For a physician-in-training, such people might include nurses, peers, faculty, medical students, patients, and support personnel.



This is the 360° Evaluation template we have designed for use in our departmental training programs

DEPARTMENT OF MEDICINE RESIDENT/FELLOW 360° EVALUATION

TRAINEE _____
 EVALUATOR _____

PROGRAM _____
 TODAY'S DATE _____

Dear _____,

In order to make certain that we are doing a good job training our physicians, we periodically need to assess their performance. We are asking that you evaluate Dr. _____ using the survey below. For each question, please check off the appropriate box. Please start with question number one, then proceed to the questions indicated.

Thank you for your help!

- 1) In what capacity do you know this trainee? (*check one*): Answer these questions :
- I am a Nurse _____ → 2,3,4, 6, 8,10,13
 - I am a Medical student or resident _____ → 2, 4, 9,12,14
 - I am a member of the Office staff _____ → 2,8,9,10,13
 - I am a Physician/faculty _____ → 2,3,4,6,8,9,10,11,12,13,14
 - I am a Hospital unit clerk _____ → 2,5,8,9,10
 - Other (specify) _____ → Please answer as many as you can

| | | Does not apply | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 2) The trainee is courteous and professional..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3) The trainee seems competent | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4) The trainee treats me with respect..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5) The trainee prepared me for the procedure | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6) The trainee performs procedures with skill | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7) The trainee kept me informed about my condition and care..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8) The trainee responds to calls promptly..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9) The trainee has good communication skills..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10) The trainee maintains accurate, thorough, and legible records..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11) The trainee is efficient in his/her work..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12) The trainee is supportive of other members of the medical team..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13) The trainee maintains a neat appearance..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

COMMENTS _____

OTHER TYPES OF EVALUATION TOOLS

- There are many types of evaluation tools. Some of them are better suited for certain venues than others. For example, the 360° tool lends itself to use in the clinic or hospital setting.
- Programs may design their own evaluation methods for each aspect of their curriculum using these various tools.
- Following are descriptions of some of the other tools that may be utilized in the multidimensional evaluation of trainees.
 - **Global rating:** this is the most commonly used evaluation. It is the one that faculty fill out for each trainee at the end of each rotation (and vice versa). Our checklist is carried on the E*Value system.
 - **Chart review:** periodically, the program director or key faculty should review medical record keeping by their trainees and rate for thoroughness, clarity, thoughtfulness, and timeliness.
 - **Observed exercises:**
 - OSCE (Objective standardized clinical exercise)
 - Standardized patients
 - Simulations and models(We have unique resources for these types of exercises at UMass. Further information is available through the Office of Medical Education or OGME.)
 - The Mini-CEX (see next slide)

THE MINI-CEX

The Mini CEX is a witnessed patient encounter exercise that is easily performed in the outpatient or inpatient setting.

Mini-Clinical Evaluation Exercise (CEX)

Evaluator: _____ Date: _____

Resident: _____ O R-1 O R-2 O R-3

Patient Problem/Dx: _____

Setting: Ambulatory In-patient ED Other _____

Patient: Age: _____ Sex: _____ New Follow-up

Complexity: Low Moderate High

Focus: Data Gathering Diagnosis Therapy Counseling

1. Medical Interviewing Skills (O Not Observed)

| | | | | | | | | |
|----------------|---|---|--------------|---|---|----------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| UNSATISFACTORY | | | SATISFACTORY | | | SUPERIOR | | |

2. Physical Examination Skills (O Not Observed)

| | | | | | | | | |
|----------------|---|---|--------------|---|---|----------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| UNSATISFACTORY | | | SATISFACTORY | | | SUPERIOR | | |

3. Humanistic Qualities/Professionalism

| | | | | | | | | |
|----------------|---|---|--------------|---|---|----------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| UNSATISFACTORY | | | SATISFACTORY | | | SUPERIOR | | |

4. Clinical Judgment (O Not Observed)

| | | | | | | | | |
|----------------|---|---|--------------|---|---|----------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| UNSATISFACTORY | | | SATISFACTORY | | | SUPERIOR | | |

5. Counseling Skills (O Not Observed)

| | | | | | | | | |
|----------------|---|---|--------------|---|---|----------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| UNSATISFACTORY | | | SATISFACTORY | | | SUPERIOR | | |

6. Organization/Efficiency (O Not Observed)

| | | | | | | | | |
|----------------|---|---|--------------|---|---|----------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| UNSATISFACTORY | | | SATISFACTORY | | | SUPERIOR | | |

7. Overall Clinical Competence (O Not Observed)

| | | | | | | | | |
|----------------|---|---|--------------|---|---|----------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| UNSATISFACTORY | | | SATISFACTORY | | | SUPERIOR | | |

Mini-CEX Time: Observing _____ Mins

Providing Feedback: _____ Mins

Evaluator Satisfaction with Mini-CEX

LOW 1 2 3 4 5 6 7 8 9 HIGH

Resident Satisfaction with Mini-CEX

LOW 1 2 3 4 5 6 7 8 9 HIGH

Comments: _____

Resident Signature _____

Evaluator Signature _____

DESCRIPTORS OF COMPETENCIES DEMONSTRATED DURING THE MINI-CEX

Medical Interviewing Skills: Facilitates patient's telling of story; effectively uses questions/directions to obtain accurate, adequate information needed; responds appropriately to affect, non-verbal cues.

Physical Examination Skills: Follows efficient, logical sequence; balances screening/diagnostic steps for problem; informs patient; sensitive to patient's comfort, modesty.

Humanistic Qualities/Professionalism: Shows respect, compassion, empathy, establishes trust; attends to patient's needs of comfort, modesty, confidentiality, information.

Clinical Judgment: Selectively orders/performs appropriate diagnostic studies, considers risks, benefits.

Counseling Skills: Explains rationale for test/treatment, obtains patient's consent, educates/counsels regarding management.

Organization/Efficiency: Prioritizes; is timely; succinct.

Overall Clinical Competence: Demonstrates judgment, synthesis, caring, effectiveness, efficiency.

Note 1: Reprinted with permission from the American Board of Internal Medicine, www.abim.org.

Note 2: Discussed in: Norcini JJ, Blank LL, Arnold GK, Kimball HR. The mini-CEX (Clinical Evaluation Exercise): a preliminary investigation. Ann Intern Med 1995;123:795-9.

OTHER TYPES OF EVALUATION TOOLS (continued)

- **Procedure log**– This is the record kept by trainees to document their experiences performing key procedures in their discipline. The various subspecialty boards have their own procedure requirements. Our logs are maintained in the E*Value system. Trainees must be continually reminded to document their procedures.
- **Exams**– Training directors may elect to utilize examinations to gauge trainee knowledge in key content areas. These tools are particularly valuable to trainees for self-assessment and study guidance.
- **Check list**– this is simply an itemized list on which the program director may check off key requirements as they are fulfilled. It is a useful mechanism for ensuring that residents and fellows are board eligible when they reach the completion of their training.

OTHER TYPES OF EVALUATION TOOLS (continued)

- **Portfolios**– These are personal collections of resident / fellow work that attest to their achievements.
 - Portfolios are distinct from other evaluation tools in that they
 - Are unique to each trainee
 - Are developed and maintained by the trainee
 - May include entries as decided by the trainee or the program director
 - Can be continued throughout their career
 - What types of entries might be included in a resident’s portfolio?
 - Powerpoint presentations they have made (eg, CPC, journal club)
 - Essays or reflective pieces on assigned topics
 - CV
 - Letters of praise, positive feedback
 - We are currently in the process of developing a web-based program for creating and maintaining portfolios.

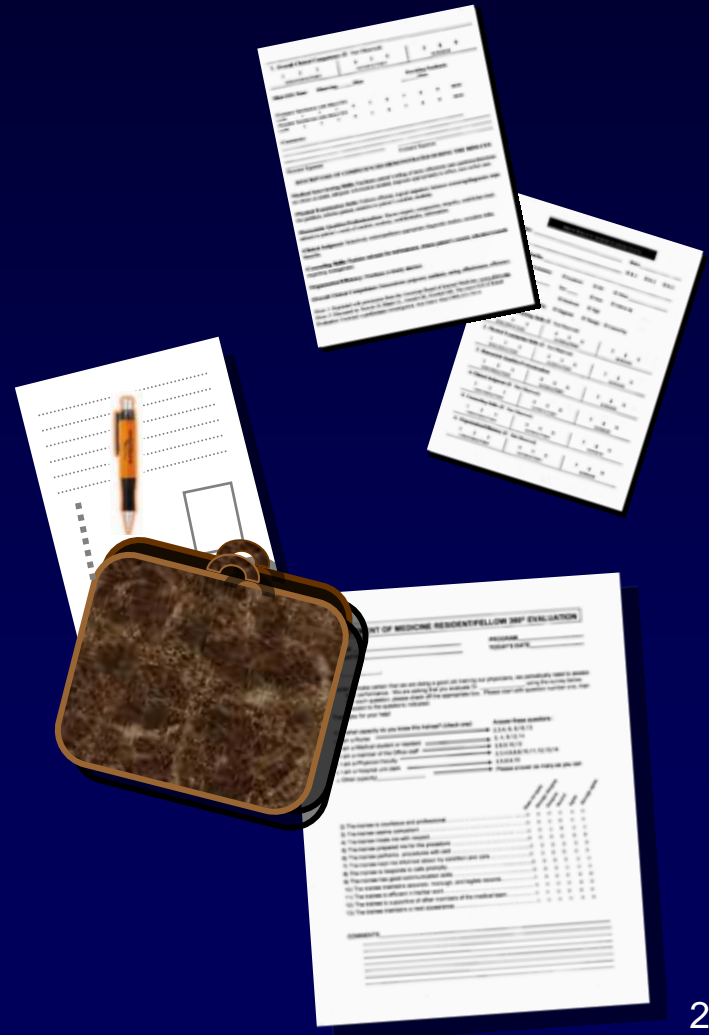


FACULTY EFFORT IS PIVOTAL TO THE SUCCESS OF ANY EVALUATION SYSTEM

- **Faculty must complete their evaluations in a timely fashion.**
 - **E*Value makes this easy to do.**
 - **E*Value also allows us to track the rate of completion of evaluations in each program throughout the year.**
Compliance (both for faculty and trainee evaluations) is an accreditation requirement.
- **Faculty should put thought into their evaluations.**
- **Faculty should provide relevant feedback to trainees well before the final evaluation is made. They should review evaluations with their trainees.**

SUMMATIVE EVALUATION

- At the end of the fellow's training, the program director must prepare a final, summative evaluation.
 - The summative evaluation draws from the collective information that has been amassed about the fellow's performance and competence.
 - It is critical that the summative evaluation be accurate and backed up with good documentation.
 - Will follow trainee throughout career
 - Program is liable for misstatements about fellow's competence or noncompetence.
- Yet another reason why good evaluation effort by faculty is so critical.



EVALUATIONS, OUTCOMES and MEASUREMENTS

Summary points

- **Training fellows requires careful monitoring of their progress. Therefore, each program should develop an evaluation system that**
 - **Is multidimensional**
 - **Multiple assessment tools**
 - **Multiple assessors**
 - **Is crafted so as to permit monitoring of progress in all phases of the curriculum (rotations, year of training, etc)**
 - **Programs may exercise creativity and judgment in designing their evaluative systems, as long as they are based on the ACGME competencies**

END OF MODULE 1