

## WPA template for undergraduate and graduate psychiatric education

### **VIII. Competency based evaluation in residency training**

Competency based evaluation is a relatively new approach to assessing clinical competence in the field of medicine, although variations of this approach have been used for several decades. When program directors and faculty are asked to assess whether a resident is competent to be promoted or to practice independently, an accurate determination requires multiple observations and methods of assessment just as in making a diagnosis of a complex or challenging patient. The model for evaluation of residents described here has been developed by the United States Accreditation Council for Graduate Medical Education (1) and is summarized in Table 3.

#### **A. Purposes of assessment**

*Did the resident achieve the objectives for the educational experience?* The objectives of a rotation or other educational experience provide guidelines and a framework for what the resident is expected to know or be able to do by the end of that experience. An example is whether a resident has gained the competence to accurately assess suicide risk when evaluating a patient in a hospital emergency room.

*What knowledge, skills, or attitudes the residents need to acquire or improve* must be established. By providing constructive and ongoing feedback, the faculty can help guide the resident in implementing changes that will lead to performance improvement.

*How might the residency program use aggregate performance data to improve education?* For example, in reviewing all of the evaluations done at the end of a particular rotation on residents completing an inpatient psychiatric rotation, the faculty might determine that the residents, as a group, are rated low in their understanding of basic psychiatric disease principles. This insight will facilitate the program adding didactic lectures, case conferences, and other experiences that help enrich the residents understanding of the pathophysiology of psychiatric illness.

*Assessment results can provide formative and summative feedback to residents.* Formative evaluation refers to an assessment whose primary purpose is to provide feedback to the residents during an experience in order to improve knowledge or skills. Summative assessments review performance at the end of an experience, and are typically used to make a statement about whether a resident has mastered specific competencies; identify skills needing attention; and identify opportunities for program improvement.

## **B. Fundamentals of assessment**

An assessment system must accomplish its aim. First, is it *reliable*? That is, does the assessment tool used provide a dependable and consistent result of a resident's performance that is consistent across evaluators? Without established reliability clinical performance ratings and in-training exams are less helpful and perceived as unfair by trainees. The assessment tool must also be *valid*. A valid assessment tool measures what is intended. For example, does a clinical performance rating done at the end of a rotation accurately capture what the faculty member believes that resident's performance was on that particular rotation. An assessment tool must be *practical* to implement because if it is too complicated, it will never be used.

In developing an assessment system, it should be comprehensive, and assess what is necessary. For example, Table 3 shows a possible model of an assessment system. The multiple perspectives gained from having a focused observation tool, a 360° evaluation, a portfolio, and a clinical performance rating tool can provide an array of information that in combination can determine whether a resident is appropriately gaining the knowledge and skills necessary to practice independently and competently. An important criterion for assessment systems includes using multiple evaluators, which improves the reliability of the assessment tool, and obtaining multiple observations, which also improves the reliability of the assessment being used.

Table 3 A proposed model for the assessment of clinical competencies in residents (2)

<b>Tool</b>	<b>Who evaluates?</b>	<b>How are the evaluators trained?</b>	<b>What performance is evaluated?</b>	<b>Frequency</b>
Clinical performance rating	Faculty	Faculty set behavioral anchors; review meaning of numerical ratings	All appropriate competencies	Once a month
360°/multi-rater	Nurses, peers, ancillary personnel		Interpersonal and communication skills; professionalism	One a year
Focused observation	Faculty	Faculty discuss focused observation tool and have criteria for rating the resident	All appropriate competencies	Quarterly
Portfolio	Faculty mentor, program directors	Faculty decide criteria for portfolio entries	All appropriate competencies	To be determined

Case logs	Program directors		Medical knowledge, patient care	Semi-annual meeting with program directors
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Table 4 Behavioral anchors for “end of rotation” assessment (2)

<b>Fail (1)</b>	<b>Needs to Improve (2)</b>	<b>Satisfactory (3)</b>	<b>Above Expectations (4)</b>	<b>Excellent (5)</b>
Poorly organized history.	Misses important details in history.	Covers essential details to construct differential diagnosis.	Covers essential details for diagnosis; explores psychosocial issues.	Covers essential details for diagnosis; history-taking well focused; explores psychosocial issues; well paced.

### C. Components of a core assessment system

As noted, when resources allow, the use of a wide range of assessment tools and methods is best for measuring resident’s capabilities. There are other types of assessment methods that can be used, and the following list is by no means the only appropriate one. It is, though, an approach helpful in developing and establishing a competency based system. What follows is a brief description of each one of these components.

Global clinical performance ratings are often used at the end of specific clinical rotations. In order to increase the utility of the information from these “end of rotations” assessments, one approach is to add behavioral anchors to the assessment, as shown in Table 4.

Focused observer methods include such approaches as direct observations of a resident-patient encounter with a concurrent written evaluation by the observer. This can be done live or videotaped, with a patient’s permission, and can be used in any typical patient care setting. Observing a resident’s core skills early in the educational programme to identify those skills

requiring improvement, can then later gauge whether improvement occurred. Regularly scheduled sequential evaluations identify gaps in knowledge or skills and assess improvements as a result of remediation efforts. The disadvantage of this approach is that it may be very time consuming, and faculty must be trained as a group, so that their evaluations are consistent across observers.

Multi-rater evaluations, often called 360° evaluations, provide multiple perspective on a variety of aspects of the resident's performance. For example, in an inpatient service, such assessments are comprised of evaluations by faculty, other residents, medical students, nurses, other clinical staff, administrative support staff, and even patients. Self-evaluation is also an important part of a multi-rater assessment system. The disadvantage of this system is that it requires a great deal of administrative time, in part because all of the raters have to be trained to use a specific evaluation approach.

Cognitive Tests, which have been designed in a number of countries, either locally or nationally, for use in a variety of settings, are of most help in assessing medical knowledge. They are not generally useful in assessing clinical performance.

Case logs are another important way of documenting resident experiences. They permit the resident to track patient care experiences, including the number of cases by particular diagnoses, or particular treatment interventions.

A learning portfolio is a collection of materials that represents a resident's efforts in multiple areas of the curriculum. The portfolio can include self-assessment and goal setting documents prepared by the resident, mentored observation and feedback, works in progress with formative feedback, self-reflection on work, and summative materials documenting achievement. Portfolios can provide a mechanism for integrating all aspects of clinical competencies into

assisting the developing competence of a physician. Because the resident is responsible for developing the portfolio, it promotes reflection and self-assessment. For the same reason, it also facilitates a learner-centered approach in which the curriculum components are specifically geared to the particular educational needs of the resident. Because the nature of the portfolio is quite variable and the information is more often qualitative than quantitative, it is unlikely that this mechanism or approach could be used in isolation. It does, though, provide a faculty member with insight into the resident's professional development towards competency.

The most important aspect of any assessment system is the way information about performance is communicated back to the resident. This feedback includes both formative and summative kinds of assessment information. A formative assessment conducted during a clinical or other learning experience provides residents with immediate feedback allowing them to incorporate new knowledge and skills to improve their clinical performance. An example of a formative assessment is the observation of a resident's clinical interview of a patient in the hospital with immediate feedback on his/her performance, including gaps that need to be remediated and the development of a remediation program. Summative assessments review performance typically at the end of an experience, and are used to make a more final type of comment about whether a resident has mastered specific competencies desired within the confines of a specific clinical rotation. It also identifies skills that are in need of improvement for that individual, and allows for information to be communicated to the faculty members who will be supervising the resident in their next clinical experience. Finally, summative assessments provide opportunities for program improvement by pooling performance of all residents within a particular experience. The final aspect of a summative assessment includes the determination about whether a resident is suitable for promotion or graduation from the program.

**Reference:**

1. Batalden, P. (2006). ACGME Outcome Project: “*Developing an Assessment System.*”  
Accreditation Council for Graduate Medical Education.
2. Kay J. Traumatic deidealization and the future of medicine. JAMA 1990;263:572-573.