

Chapter Five

Assessment Strategies and Methods

INTRODUCTION

“Assessment drives training” is a familiar statement to educators. Proper assessment of knowledge gains and the acquisition of basic competencies is tantamount to a successful postgraduate training program in pediatric medicine. In this chapter we provide recommendations for assessment procedures and tools during residency training. The section on “Matrix of Assessment” is designed to provide recommendations for how to assess individual competencies. We encourage faculty to take all assessment methods into account when making landmark decisions such as advancement in training or end-of-training accreditation.

Recommendations for Assessment during Training

Faculty should provide timely assessments of trainee progress throughout the training experience. Objective feedback should be provided during and following each rotation and other educational assignments. Assessments should be documented and made part of the trainee’s permanent record. All assessment information should be made available to trainees.

The Goals of Assessment

Pediatricians should undergo standardized assessment throughout training and practice. The type of assessment needs to account for the educational setting and all of the variables that comprise that setting. Two basic forms of assessment should be considered when planning an evaluation program:

1. Formative – these assessments occur throughout the duration of training. Milestones such as rotations should be evaluated during the experience to ensure that trainees are making the appropriate progress. Multiple members of the training team should be involved in these assessments, eg, faculty, peers, patients, and other professional staff including nurses.
2. Summative – the program should provide a minimum of annual summative evaluations for each trainee and an overall evaluation at the end of the training experience. We recommend bi-annual summative assessments if feasible in the local training environment.

Following are core recommendations based on best-practices from around the world and taking into consideration the experience of our delegate organizations. The user is referred to the reference list for supporting documentation and additional reading.

Core Recommendations

Recommendation #1: Assessment should evaluate the Core Competencies as outlined in the Global Pediatric Curriculum (see Chapters 1-3). Realizing that not every educational setting, nor every assessment tool, will lend itself to evaluating each of the Core Competencies, the goal is to use a broad range of assessment tools to eventually cover all of the competencies throughout the training experience. Reliance upon a single assessment modality will limit the faculty and program's ability to satisfy best-practices in measurement for adequate assessment of the Core Competencies. Therefore, trainers and organizational leadership are encouraged to utilize multiple assessment methods to gain a well-rounded assessment of competence.

Recommendation #2: Acceptable standards of reliability and validity for assessment tools and methods should be utilized when developing evaluation tools and administering and reporting results (see References and Additional Resources).

- a) Proper examiner calibration should be achieved with workplace assessments (eg, clinical observations, OSCEs) in order to ensure reliability of the resulting scores.

Recommendation #3: Appropriate standards, or cutscores, should be clearly defined and applied to all assessment tools. Standards should be credible and defensible, thus, they should be developed by individuals with the appropriate education and skills for making such judgments.

Recommendation #4: Assessment should occur routinely and in an on-going manner throughout the duration of residency training. Competencies evolve over time and on-going assessment is necessary to ensure this process is taking place satisfactorily.

Recommendation #5: Assessment should be provided both as formative and summative opportunities. It is commonly accepted practice that summative evaluations demand the most rigorous standards for reliability and validity but this in no way should allow for poorly designed or developed assessment tools during (ie, formative) training or practice.

- a) Formative evaluation should be a routine part of residency training. Such evaluation includes recurrent feedback to the student/practitioner in order to reveal strengths and weaknesses as they occur.
- b) Summative evaluation should also be a part of the training and learning process, such as end-of-rotation assessments, end-of-year examinations, and exiting from training (ie, final examinations). These evaluations are typically used to make advancement decisions or to determine if certain levels of competence or mastery have been attained.

Recommendation #6: Appropriate feedback for all assessments should be provided to the trainee and trainer to help guide future training. Therefore, it is important to choose the

appropriate assessment tools when evaluating core competencies during training so that the results are appropriate for remediation and on-going monitoring of progress.

References and Additional Resources

American Board of Pediatrics (2011). *Assessment in Graduate Medical Education: A Primer for Pediatric Program Directors*. Chapel Hill, North Carolina (USA): The American Board of Pediatrics.

American Educational Research Association, American Psychological Association, and the National Council on Measurement in Education (1999). *Standards for Educational and Psychological Testing*. Washington, DC: American Educational Research Association.

Dent, JA and Harden, RM (2009). *A Practical Guide for Medical Teachers*. London: Elsevier.

Royal College of Physicians and Surgeons of Canada (2006). *The CanMEDS Assessment Tools Handbook: An Introductory Guide to Assessment Methods for the CanMEDS Competencies*. Calgary: The Royal College of Physicians and Surgeons of Canada.