

## A Comprehensive But Simple Method to Manage and Track Resident Knowledge and Skill Acquisition during Pediatric Anesthesia Training

Destiny Chau, M.D., Rae Brown, M.D.  
University of Kentucky College of Medicine, Kentucky Children's Hospital, Lexington, Kentucky

**Learner audience:** Anesthesiology training program in an academic medical center

**Background:** Information concerning the management of patients and the development of skills is imparted in a number of different ways during residency training, including manuals, lectures and journal clubs. Documentation of the acquisition of knowledge and skills during subspecialty training has been a problem. Defining the extent that information is presented to each individual resident is a complex issue and requires substantial data gathering. We have struggled with this issue.

As a solution we have created a spreadsheet program that allows a program director or the head of a subspecialty rotation to determine: 1. Whether all aspects of a given curriculum are covered in some way within the residency-training program, 2. The extent to which individual residents avail themselves of the information as it is presented and, 3. The extent that the curriculum is being carried to all of the residents of the program. Data that are gathered from the results of in training exams can be compared with the curriculum to assure that all salient aspects of the subspecialty are covered. Data from the spreadsheet program allow us to assess the success or failure of individual methods of presenting material. For the residents, this program facilitates self-assessment of their skills and knowledge for the scope of the subspecialty throughout the entire residency and consequently it encourages independence for managing their individual learning.

**Outcome:** Through the use of this spreadsheet program, we are better able to manage the knowledge that needs to be transferred to residents during the training program. It also allows us to determine the best practices for the transfer of this knowledge by evaluating resident preference and objective test scores.