

Anesthesiology Residency Rotation Examinations

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Learner audience: Anesthesiology Residency Program Faculty and Residents

Needs Assessment: Objective evaluation of knowledge following completion of individual anesthesia residency rotations

Curriculum: In 2005, the Cardiothoracic Anesthesiology division of Vanderbilt University sought to more objectively and frequently measure fund of knowledge of residents as well as predict performance on the ITE/AKT. Currently our program evaluates knowledge primarily with standardized exams given one to two times yearly. We seek an earlier detection of knowledge deficits, which could allow for earlier remediation for our residents.

At the beginning of the four week cardiac rotation, each resident was given a syllabus outlining educational goals including suggested reading material. At the conclusion of four weeks, the residents were evaluated. Each test consisted of twenty questions, ten single answer multiple choice and ten 'K-type' questions written and reviewed by the cardiac anesthesia division. The residents were ranked by percentile within their class. Using Pearson's r Coefficient, we correlated the rotation test results with the ITE and AKT-18, each taken within 7 months of the cardiac rotation exam. There was a strong positive correlation between the rotation examination (n=9) and the overall AKT-18 score (r=0.86) as well as the individual cardiovascular section of the AKT-18 (r=0.86). In addition, there was a positive correlation between the rotation exam and the overall ITE percentile ranking (r=0.41).

Impact: These initial results suggest that monthly rotation exams may useful for objective assessment of knowledge and as predictors of performance on standardized exams. This allows program directors and resident mentors opportunities to remediate residents months before standardized exams are administered. In the future we would like to incorporate the rotation exam for each subspecialty, form a plan for early remediation, and analyze effects on standardized exams.