

[P01.011] Evaluating Acute Altered Mental Status: What Is Learned during Internship?

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OBJECTIVE: To compare the competency of interns in the evaluation and management of acute altered mental status (AMS) before and after internship using an Objective Structured Clinical Examination (OSCE).

BACKGROUND: Evaluating hospitalized patients with AMS is a common task of interns. The effectiveness of medical education to ensure competence in this area remains unknown. A 2006 pilot study of incoming interns demonstrated poor performance in Medical Knowledge and Patient Care domains. **DESIGN/METHODS:** A prospective cohort study was conducted with 58 medical school graduates entering internship at a single teaching hospital for academic year 2006-07. Each intern participated in an OSCE before and after internship, which included a 12-minute simulated encounter evaluating acute AMS. Competency in performing a history and neurological exam, generating a differential diagnosis, and ordering diagnostic studies was graded by the same neurologist using consensus criteria developed by neurology faculty. Scores were expressed as the percent of items correct.

RESULTS: Mean overall performance scores increased from 31.1 ± 5.34 pre-internship to 39.5 ± 4.62 post-internship ($p < .0001$). Sub-scores for patient care and medical knowledge increased from 29.6 ± 4.87 to 36.6 ± 4.4 ($p < .0001$). Interpersonal skills and professionalism scores increased from 52.9 ± 17.9 to 69.0 ± 14.4 ($p < .0001$). Items showing the greatest improvement included obtaining vital signs, considering toxic-metabolic etiologies, and ordering a head CT. No significant improvement was seen in examining for focal neurologic deficits, considering alcohol withdrawal or seizure as diagnostic possibilities, or utilizing lumbar puncture. There was no significant difference in scores between those who had a neurology rotation during internship and those who did not. **CONCLUSIONS/RELEVANCE:** The overall ability of physicians-in-training to effectively evaluate acute AMS improves during internship as measured by the OSCE. However, certain clinical skills and knowledge items remain relatively deficient, highlighting the opportunity to improve the educational curriculum for AMS in internship and medical school.