A High-Fidelity Porcine Model for Teaching Transvenous Pacing to Emergency Medicine Residents

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A Dedicated EBM Curriculum Integrated into Journal Club Increases and Sustains EBM Competency: An Innovation in EBM Curriculum

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Introduction: With the increasing volume of clinical evidence available to practitioners, curricula designed to teach residents the principles of evidence-based medicine (EBM) and knowledge translation have become a significant focus throughout graduate medical education. The method to best deliver these needed skills has been an area of active research and innovation.

Educational Objectives: The goal was to develop a dedicated EBM curriculum implemented as part of a monthly journal club on EBM competency. We hypothesized that integrating EBM principles into a novel and revised journal club format would increase EBM competency, and that these educational gains could be sustained.

Curricular Design: A formal EBM curriculum was implemented utilizing a four-pronged approach: 1) peer instruction model and peer to peer discussion coordinated by a teaching resident, 2) dedicated EBM lecture delivered at the beginning of each journal club, 3) identification of teaching residents who select articles consistent with EBM topic focus, and 4) core EBM faculty to deliver lectures and meet with teaching residents. An 18 month curriculum was adopted with this approach in June, 2012. The Fresno test, a validated instrument for assessing EBM competency, was administered to all residents annually, starting the year before implementation.

Effectiveness: A total of 22 respondents encompassed the pretest group, with 23 respondents in the year 1 post-test and 26 respondents in the year 2 post-test. A multivariable model using generalized estimating equations controlling for year of residency and repeated measures demonstrated a significant increase in performance from the pre-test data to the subsequent two post-test years (pre-test adjusted mean 110.16, year 1 adjusted mean: 127.82, year 2 adjusted mean 127.07, p=0.011). An EBM curriculum implemented as a part of journal club was an effective strategy for increasing competency, and improvements were sustained after implementation.