## **UC Irvine**

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#### **Title**

Integration of Team-Based Learning (TBL) into a Residency Didactic Curriculum

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components for III. Along with these requirements, our educational goals are to expose the residents to core curriculum EM journal articles. Online literature modules were developed that could be completed asynchronously and accessed using Moodle, a free learning management system. Subject matter is chosen within each module that links to NB, a collaborative annotative website that hosts the PDFs of the journal articles. Using NB, the residents can read, annotate and collaborate with each other and the supervising faculty. Once finished reviewing the articles, the resident then completes a quiz that serves to evaluate the resident's comprehension of the material. Participation is monitored through New Innovations, our institutional procedure-tracking software. Through this workflow, all required elements for an III activity are met while fulfilling our educational goals for the residents as well.

**Impact:** During the 2013-2014 academic year, 50 out of 85 residents chose to complete the online modules as part of their III curriculum for a total of 540 hours. The use of NB and Moodle allows for the creation of interactive learning that PDs can utilize in the development of a more robust III curriculum.

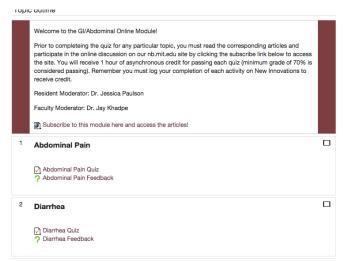


Figure 1.

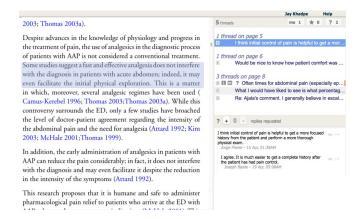


Figure 2.

# 41 Integration of Team-Based Learning (TBL) into a Residency Didactic Curriculum

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Introduction/Background: Traditional lecture formats employed in educational conferences may not adequately ensure the degree of resident engagement necessary for mastery of emergency medicine core content. Team-based learning (TBL) strategies have been shown to improve knowledge acquisition and critical thinking skills among medical students, however their application to postgraduate medical education is not yet well defined.

**Educational Objective:** This curricular intervention was intended to improve resident participation and performance during textbook-based content review sessions, with the goal of increasing subject area expertise and improving future performance on summative assessments, including the American Board Emergency Medicine (ABEM) In-Training examination.

Curricular Design: TBL sessions are 90 minutes in length and scheduled monthly. Chapters from a major emergency medicine text organized by core content area are assigned in advance, and residents and faculty are oriented to the theory and mechanics of TBL prior to the first session. Teams are assigned randomly by post graduate year.

Residents begin each TBL session with an Individual Readiness Assessment Test (IRAT) composed of 10 board-style questions prepared by the faculty facilitator. During the Group Readiness Assessment Test (GRAT), teams take the same test collectively. Teams then have the opportunity to defend and debate their answers, then synthesize and apply this knowledge to higher-order case based questions (Application Exercise).

Challenges encountered include required faculty time to prepare the session materials, and the duration of conference time necessary to successfully complete each of the TBL elements.

**Impact/Effectiveness:** Impact of TBL curriculum is measured by quarterly resident feedback surveys. Results to date are summarized in Figure 1. Ongoing work will study educational effectiveness measured by resident trends on ABEM In-Service scores, board pass rates and clinical evaluations.

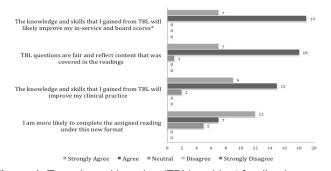


Figure 1. Team-based learning (TBL) resident feedback survey.