Incorporation of Literature Review into Resident Morning Report to Enhance Training in Evidence-Based Medicine

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Background: Training in Evidence-Based Medicine (EBM) is an ACGME-mandated component of resident education. Residency programs face the challenge of training young physicians to translate clinical questions into effective literature searches, thereby generating answers which can be taken back to the bedside.

Intervention:
Senior residents presenting at weekly morning report were instructed to identify a question for a Critically Appraised Topic (CAT) at the end of their presentation. Residents were provided with a template for CATs instructing them in the Patient, Intervention, Comparison, Outcome (PICO) model. The resident searched the literature and identified a relevant paper or guideline. The pediatric librarian attended all sessions and was available for assistance. The resident prepared a brief report including the question, search methods, assessment of the evidence, and a “clinical bottom line” describing how the evidence would impact future care. These summaries were sent to all residents at the end of each week.

Outcomes:
In the 6 months since implementation of this model, 48 CATs have been generated by residents from morning reports. The most common categories of questions selected were treatment (31%), epidemiology (25%), clinical prediction (21%), and diagnostics (10%). The most common topics were Infectious Diseases (27%), Neurology (15%), and Rheumatology (8%). The sources identified by resident searches included retrospective cohort studies (25%), systematic reviews with or without meta-analyses (22%), randomized controlled trials (15%), and prospective cohort studies (10%). This model has met with approval from residents and the residency advisory committee.

Conclusions:
Incorporation of CATs into a resident morning report generated literature searches on a wide variety of questions and topic areas. This model has the potential to improve curricula in EBM and train residents to incorporate EBM into routine clinical care. Further study is needed to demonstrate educational effectiveness of this model.

Question Type
Clinical Prediction – 10 (21%)
Diagnostics – 5 (10%)
Epidemiology – 12 (25%)
Pathophysiology – 2 (4%)
Prognosis – 3 (6%)
Treatment – 15 (31%)
Public Health – 1 (2%)

Study Type
Basic Science – 1 (2%)
Cross Sectional Survey 1 (2%)
Case Control – 1 (2%)
Case Series – 4 (8%)
Retrospective Cohort – 12 (25%)
Validation study – 1 (2%)
Randomized Controlled Trial – 7 (15%)
Prospective Cohort – 5 (10%)
Nonsystematic Review 2 (4%)
Nonrandomized Trial – 1 (2%)
Systematic Review (with or without meta-analysis) – 11 (22%)

Topic Area
AI – 2 (4%)
Cardiology – 2 (4%)
Dermatology – 1 (2%)
Emergency – 2 (4%)
Endocrinology – 1 (2%)
ENT – 2 (4%)
Pulm -2 (4%)
GI – 5 (10%)
Hematology/Oncology – 3 (6%)
ID – 13 (27%)
Metabolism – 1 (2%)
Neonatology – 1 (2%)
Neurology – 7 (15%)
Nephrology – 3 (6%)
Rheumatology – 4 (8%)