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WIREd for Milestones: A Novel Tool for Resident Evaluation

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82 What Does FOAM Cover? An Evaluation of Emergency Medicine Core Content Covered by Free Open Access Medical Education Resources

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Background: Free Open Access Medical Education (FOAM) resources are increasing in number and utilization by emergency medicine (EM) physicians. However, no study to date has evaluated what EM core content is covered by FOAM resources.

Objective: To quantify EM core content covered by FOAM resources, and identify any predominant FOAM topics.

Methods: This was a retrospective study, approved by the local institutional review board. EM core content was defined by topics covered in the Model of the Clinical Practice of Emergency Medicine (MCPEM), the basis for all American Board of Emergency Medicine exams. Foamem.com, which aggregates 192 FOAM resources at the time of this writing, was used to review all posts between 7/1/2013 and 6/30/2014. Posts were categorized according to the topics found in the MCPEM, and could cover more than one topic. Repeat posts and summaries were not re-recorded. Non-English posts were excluded.

Results: 915 total EM topics in 20 sections were identified based on the MCPEM. 6,424 FOAM posts were reviewed. 71.5% (654/915) of the topics were covered providing 7,279 data points. Section 19.0: Procedures was covered the most, comprising 31.4% (2,285/7,279) of the data points. Four sections tied by percentage as the least represented, each comprising only 0.6% of the data points (Cutaneous, Immune, Obstetrics and Gynecology, and Non traumatic musculoskeletal disorders). Resuscitation, airway techniques, electrocardiogram interpretation, ultrasound, and research/evidence based medicine/interpretation of the literature were disproportionately represented topics, combining for 23% of the data points (1,674/7,279).

Conclusions: This data suggests a trend of imbalanced and incomplete coverage of EM core content in FOAM. The study is limited in that it is retrospective, and subjectively views resources available on the referred website. More comprehensive and complete coverage of EM core content in FOAM is needed if it is to be used more broadly, especially in resident education.

83 WIRED for Milestones: A Novel Tool for Resident Evaluation

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Background: The Next Accreditation System has fundamentally altered the evaluation process for emergency medicine (EM) residents. We developed a novel Web-based Individualized Resident Evaluation (WIRE) instrument to make this milestone-based evaluation process intuitive and quick for faculty, while providing performance data to residents and administrators. Each WIRE form asks faculty to complete a checklist of behaviors (positive and negative) exhibited by the resident on that shift.

Objectives:

1. Examine the effectiveness of WIRE in collecting milestone-based resident evaluation data
2. Evaluate faculty practices and effort in using WIRE
3. Evaluate faculty satisfaction with WIRE

Methods: WIRE was deployed on July 1, 2013 and each faculty member was asked to complete 1 evaluation/resident/shift. A 15-minute orientation was provided to all faculty. In April 2014, faculty were surveyed on their use of WIRE. Data for the period 7/1/13 through 6/30/14 was analyzed using descriptive statistics.

Results: Data was recorded on 53 residents by 38 faculty. 2,930 WIREs were completed in 12 months, of which 64% (1,870) had additional descriptive comments on faculty opinion of resident performance, 32% (596) of which were discussed with the resident. Overall 11,107 observations were recorded for 166 distinct milestones. Faculty completed approximately 1.05 WIREs/shift. 69% of faculty reported completing a WIRE at the end of a shift, and the rest within a few days. 53% of faculty described themselves as "very satisfied" using WIRE to evaluate residents and 39% were "somewhat satisfied". Our experience with WIRE is described in Table 1.

Conclusion: WIRE provides an intuitive and quick method for EM faculty to record resident evaluations using the Milestones framework. It provides robust evaluation data to residents and residency administrators and is quickly adopted with minimal training requirements. It also enables specific and timely feedback for residents.

Table 1. Experience with the WIRE tool.

	Mean	Median	Standard deviation	Range
No. of WIREs per resident	55.3	62	30.0	6-105
No. of Milestones observed per WIRE	3.8	4	2.2	1-23
No. of Milestones observed per resident	209.6	232	112.5	26-436
No. of WIREs completed per staff physician	77.1	72	47.5	2-208
Self-reported time taken to complete a WIRE (minutes)	3.8		2.9	0.5-15

WIRE, web-based individualized resident evaluation.