

## 14 Creation and Evaluation of Free Open Access Medical Education (FOAM) Resources: Electrocardiogram Triage as a Virtual Infographics Challenge in EM Resident Didactic Conference

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**Learning Objectives:** Our objective for this initiative was to create a novel and interactive activity that would be feasible in the virtual setting and challenge the residents to collate and evaluate information to create an infographic resource, all while reviewing FOAM evaluation and the content area selected.

### Abstract:

Emergency Medicine (EM) residents utilize free open access medical education (FOAM) sources, and many create them to distribute publicly. They often lack training on creation of educational resources despite serving in educator roles within their communities. During the COVID-19 pandemic, use of virtual resources increased with medical professionals seeking information from FOAM sources. The transition to virtual didactic conferences posed the challenge of creating active learning opportunities. Here we present a novel, interactive FOAM creation challenge for EM residents. Our objective was to create a unique challenge where residents would compete while creating, evaluating and disseminating FOAM resources. In May 2020, all 42 EM residents were placed in groups of 5-7 with diversity in training level and were tasked with creating a single-page infographic using free online sites to be used on-shift as a point-of-care reference. Groups met virtually during conference. We chose ECG interpretation and triage in the emergency department as the topic. At our institution, PGY-3 residents are allowed to “sign” triage 12-lead electrocardiograms (ECGs), a process including determining if it meets ST-elevation myocardial infarction (STEMI) criteria and identifying other pathologies needing immediate intervention. We further subdivided the topic into determination of STEMI, STEMI equivalents, STEMI mimics and other emergent findings. The residents and faculty jointly created and validated a novel grading rubric (Figure 1). Infographics from each team were then de-identified and assessed using the rubric and disseminated.

This innovation can be utilized in any level and on any topic in medical education. It created an interactive activity challenging residents to work together virtually while applying knowledge to create usable on-shift resources. This intervention was met with positive feedback on its novelty, ability to make virtual learning interactive, and its relevance.

The figure shows a digital grading rubric interface. It starts with a dropdown menu labeled 'Which infographic are you evaluating?'. Below are five Likert scale questions, each with a 1-5 rating and radio button options. The categories are: 1. Visual appeal (unorganized/unappealing to visually appealing/ideal formatting), 2. Content selection (incomplete coverage to complete coverage), 3. Usability (difficult to use to easy to use), 4. Evidence-based (unclear sources to clear sources), and 5. Utility (irrelevant to extremely relevant). At the bottom, there are fields for 'Total Score (out of 25 possible points): Your answer' and 'Additional comments or feedback? Your answer'.

**Figure 1.** Online grading rubric utilized based on 5 categories: content, usability, evidence-based, and utility.

## 15 Creation of an Innovative Quality and Patient Safety Curriculum for an Emergency Medicine Residency during COVID-19

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**Learning Objectives:** Our goal was to create a Quality and Patient Safety Curriculum for EM Residents that included interactive lectures, resident projects, infographic emails, and simulations. This curriculum was developed during COVID-19 and therefore was adapted for virtual and in-person socially distant education.

### Abstract:

**Introduction/Background:** The American College of Graduate Medical Education (ACGME) requires residents develop skills to analyze quality assessment methods; identify system errors; and participate in quality improvement projects. When surveyed, 52% of EM residencies had <4 hours/year of