Title
Flipped Learning Initiative Program (F.L.I.P.): Flipping the Classroom with a FOAMed Supplemental Curriculum

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Ultrasound Education (EUE) sessions (one per resident per EM block lasting 3 hours each) during which small groups of 5-8 residents of all PGY levels were scheduled to scan in the ED. Sessions occurred after our weekly conference and incorporated small group (2-4 residents) or independent scan time during which, an EUS faculty member rotated through groups in order to provide real-time feedback. Each session concluded with group image review.

**Impact/Effectiveness:** We believe EUE sessions are an effective way to incorporate protected bedside hands-on scanning into resident EUS education. One year after implementation of EUE, a cross-sectional survey was sent to 55 EM residents with a response rate of 67%. Based on survey results, EUE sessions were considered a successful addition to resident POCUS curriculum as they increased the majority of residents’ confidence with POCUS (Figure 1) and added value to most residents’ EUS education (Figure 2). In the future we will increase the amount of hands-on scanning by EUS faculty members during EUE sessions as 71% of residents wanted more hands-on scanning.

**Figure 1.** Resident Confidence in EUS after EUE implementation.

**Figure 2.** Value Added to Ultrasound Education by EUE Sessions.

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### Flipped Learning Initiative Program (F.L.I.P.): Flipping the Classroom with a FOAMed Supplemental Curriculum

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**Background:** The fusion of medicine, education and technology has resulted in an explosion of Free Open Access Medical Education (FOAMed) and demanded we tailor our emergency medicine curriculum to meet the needs of our learners. There has been much debate on how to successfully incorporate FOAMed into pre-existing ‘traditional’ residency curriculums which have been the standard. A residency-wide needs assessment demonstrated residents wanted FOAMed resources as part of the curriculum.

**Educational Objectives:** To incorporate FOAMed resources into a pre-existing monthly textbook reading assignment as a supplemental curriculum while employing the ‘flipped classroom’ concept.

**Curricular Design:** Each month a block of textbook chapters are assigned for residents to read focusing on a core concept and then discussed at monthly faculty led small groups. In order to incorporate FOAMed and the ‘flipped classroom’ concept we created a supplemental curriculum to parallel the assigned textbook chapters. Using the Delphi method, each month a F.L.I.P. (Flipped Learning Initiative Program) page is created comprised of podcasts, blog posts, videos, published articles and 3-5 board review questions related to the assigned chapters. Residents are advised to read the assigned chapters but use FLIP as supplemental resources to aid in knowledge retention. The small group sessions are designed to be case based, covering the core topics through group discussion rather than lecturing.

**Impact/Effectiveness:** We propose a novel way to incorporate FOAMed into a residency curriculum as a supplement to traditional teaching that additionally employs the ‘flipped classroom’ technique. Feedback from a residency wide survey has been very positive with almost all respondents believing F.L.I.P. is an effective integration of FOAM. Furthermore a majority of respondents feel more comfortable and confident in FOAMed as a reliable resource and now use FOAMed more frequently.

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### Geriatrics Longitudinal Integrated Curriculum for Emergency Medicine Residents


**Background:** In 2010 there were roughly 20 million ED visits by patients over the age of 65 and the number is...