

	Expectations	Expectations	Expectations
Emergency Stabilization (PC1)	Does not timely initiate appropriate antibiotics	IV Fluids initiated; Appropriate antibiotics given	IV Fluids and pain control given; Diagnosis zeroed in on quickly
Performance of Focused History and Physical Exam (PC2)	Does not evaluate patient thoroughly	Abdominal pain is solicited; focused history questions related to potential causes of abdominal pain	Evaluates for serious causes of abdominal pain; quickly appears to ascertain significance
Diagnostic Studies (PC3)	Blanket orders labs; Orders CT scan initially	Orders labs in thoughtful manner, including lipase Orders plain films first	Quickly considers perfr viscus. Orders plain films quickly;
Diagnosis (PC4)	Does not diagnose perforated viscus, or does so slowly	Diagnoses perforated viscus quickly	Diagnoses perforated viscus quickly; acts upon it
Pharmacotherapy (PC5)	Does not give pain meds, or inadequate pain meds given; antibiotics late	Gives adequate pain medication and antibiotics	Gives pain medication and appropriate antibiotics early in case
Observation and Reassessment (PC6)	Does not reassess	Reassesses effects of pain medication and antibiotics	Reassesses effects of medications; considers deterioration
Disposition (PC7)	Admits to hospital floor, no surgical or slow surgical consult	Admits to hospital bed with surgical consult	Consults surgery quickly, argues for OR
Medical Knowledge (MK)	Does not understand presentation or causes of perforated viscus	Understands presentation or causes of perforated viscus	Understands need for quick reaction to perforated viscus
Professional Values (PROF1)	Does not introduce self	Introduces self	Asks patient about care beliefs related to treatment
Accountability (PROF2)	Does not recognize limitations of knowledge and care	Recognizes lapses in knowledge and care	Recognizes lapses in knowledge and care; seeks answers
Patient Centered Communication (ICS1)	Does not communicate with patient	Elicits from patient their concerns	Communicates with patient addressing concerns
Team Management (ICS2)	Communicates pertinent information to colleagues	Ensures transitions of care are communicated	Resolves difficulties with consultants

Critical Actions	Yes/No
1. Diagnose perforated viscus	Yes <input type="checkbox"/> No <input type="checkbox"/>
2. Orders upright CXR and/or complete Abd. series	Yes <input type="checkbox"/> No <input type="checkbox"/>
3. Consults Surgery	Yes <input type="checkbox"/> No <input type="checkbox"/>
4. Begins antibiotics prior to OR	Yes <input type="checkbox"/> No <input type="checkbox"/>

Figure 1. Sample clinical scenario scoring sheet. IV, intravenous; CT, computed tomography; OR, operating room

76 The Use Of Voice-over Internet Protocol (VoIP) for Residency Interviews: The Wave of the Future?

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Introduction: Residency applications along with interview travel and hotel expense require increasing funds for the average residency applicant. Emergency medicine (EM), in particular, is currently among the more competitive specialties. EM candidates feel pressure to apply to a higher number of programs in order to match. In addition, the Electronic Residency Application Service (ERAS) has a crescendo fee schedule that penalizes the applicant with more than ten applications. This environment challenges the EM residency applicant to survive the interview season without incurring debt.

Educational Objectives: Our research survey examines the use of Voice-over Internet Protocol (VoIP) methods such as FaceTime or Skype for residency interviews.

Curricular Design: All interview candidates were anonymously surveyed at an urban EM program with 36 positions after the rank order lists were submitted. The survey revealed that on average the candidates applied to 59 programs and interviewed at 16 programs. It also showed that 38% of the respondents had financial constraints during interview season. Fifty-five percent of those who replied said they would consider VoIP for interviewing and 32% said that they would select a residency without a physical visit.

Impact: Our results indicate that VoIP interviews are an effective means of assisting programs with high meal

and hotel costs. More importantly, our survey indicates that student applicants strapped with the increasing financial burden of escalating application fees and travel expense would find VoIP an attractive adjunct to the in-person interview.

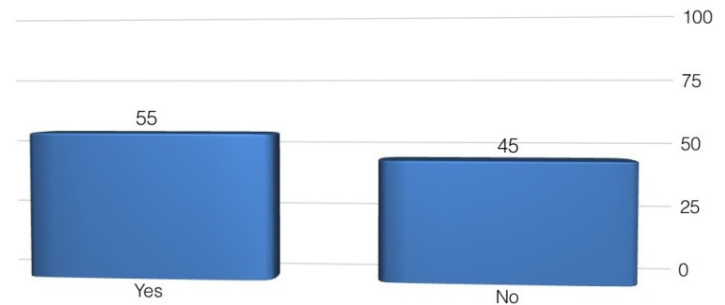


Figure 1. Percentage of candidates who reported they would consider VoIP as a form of interviewing.

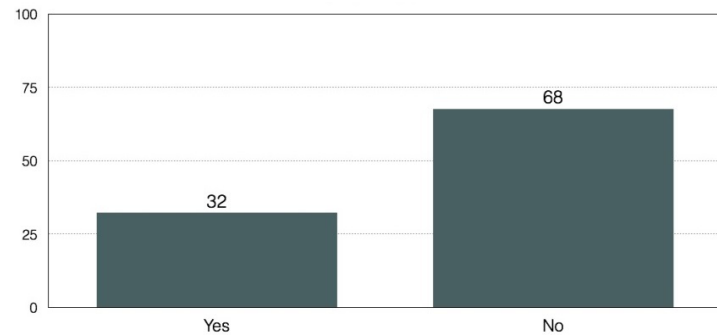


Figure 2. Percentage of candidates who reported they would select a residency program without a visit.

77 Ultrasound Mini Fellowship

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Introduction/Background: Training in the use of emergency ultrasound (EUS) is an Accreditation Council for Graduate Medical Education requirement for all emergency medicine (EM) residency programs. There are many EM residency programs with EM faculty who have limited to no training in the core EUS applications. A lack of proficiency by EM faculty is an obstacle to adequate EUS training for residents, and a barrier to the use of ultrasound in daily practice.

Educational Objectives: Increased capability and comfort-level of EUS performed by EM faculty; improved EUS training of EM residents by EM faculty; increased EUS credentialing of EM faculty; increased utilization of clinical EUS by EM faculty; increased EM faculty productivity; and, increased patient safety and patient satisfaction.

Curricular Design: The mini-fellowship is a 4-week comprehensive, skill-building curriculum (see Figure 1). It focuses on developing competency in core EUS applications

(2008 American College of Emergency Physicians EUS Guidelines), or refining and improving EUS skill for mini-fellows (MF) with significant prior experience. The MF begin with asynchronous training by completing an online US curriculum and reading a concise EUS textbook. They are then given hands-on instruction on core EUS exams and critiqued on their current EUS skills, then assigned dedicated scanning shifts with a requirement to perform over 175 EUS exams. Weekly clinical shifts are focused on increasing integration of EUS into clinical practice. 100% of the EUS exams are reviewed during weekly image review sessions to provide scored feedback and additional teaching. MF are assessed pre- and post-mini-fellowship through a survey, knowledge exam, and objective structured clinical examination (OSCE).

Impact/Effectiveness: EUS-trained EM faculty who are facile with EUS should enhance EUS education for EM residents. Preliminary data (n=2) is encouraging, and suggests that many of the educational objectives of the EUS mini-fellowship will be met.

Figure 1: Emergency Ultrasound (EUS) Mini-Fellowship Four-week Curriculum

1. Pre-mini-fellowship Survey
2. Pre-mini-fellowship objective structured clinical examination (OSCE)
3. Pre-mini-fellowship EUS Exam (<http://www.emsono.com/acep/exam.html>)
4. Read EUS Text – *Manual of Emergency and Critical Care* by Vicki Noble and Bret Nelson
5. Complete Online EUS Modules (<http://www.emsono.com>)
 - a. Practical Scanning
 - b. Extended Focused Assessment with Sonography in Trauma (EFAST)
 - c. Vascular
 - d. Aorta
 - e. 1st Trimester Obstetrics (OB)
 - f. Gallbladder
 - g. Soft Tissue
 - h. Renal
 - i. Deep vein thrombosis (DVT)
 - j. Ocular and Tendon
 - k. Focused Echo
6. Hands on session with US fellowship trained faculty, covering the following EUS examinations:
 - a. Trauma
 - b. Intrauterine Pregnancy
 - c. Abdominal aortic aneurysm (AAA)
 - d. Cardiac
 - e. Biliary
 - f. Urinary Tract
 - g. DVT
 - h. Soft-tissue/musculoskeletal
 - i. Thoracic
 - j. Ocular
 - k. Procedural Guidance
7. Complete 12 scanning shifts
8. Complete 4 clinical integration shifts
9. Participate in weekly image review quality assurance sessions and monthly journal club
10. Perform at least 175 proctored ultrasound examinations
11. Post-mini-fellowship EUS Exam (<http://www.emsono.com/acep/exam.html>)
12. Post-mini-fellowship OSCE
13. Post-mini-fellowship Survey

Figure 1. Emergency ultrasound (EUS) mini-fellowship four-week curriculum.

78 Use of Online Notetaking/Archive Service to Improve Resident Off-Service Rotations

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Introduction/Background: Off service rotations serve to give residents vital exposure to other specialties. Ideally, would be a guide to provide resident with all necessary information to function near the level of on service resident. Software can be used to enable the exchange of this information, allowing them to utilize more of limited rotation time gaining valuable knowledge and skills.

Educational objectives: Create a digital space for sharing information that is readily accessible to make a fast transition to the new service, allowing them to make the most of their rotation.

Curricular design: Innovation started by first year emergency medicine (EM) residents in inaugural year of new program. Residents used first hand experience to create a rotation guide using Evernote, software program designed for note taking and archiving, with the information readily accessible in a centralized location. It is dynamic in that a “note” can include a multitude of medium (word document, a webpage, journal article, audio files, and photos). This provides an advantage over using a linear method, such as forwarded e-mails, as it does not depend on a successive chain where a broken link would adversely affect oncoming resident. Initial document was created by the first EM resident and had advantage over traditional course guides in that it was from an off-service perspective offering relevant insight for the next oncoming rotator. These “insights” were critical to the success of any resident working on the service but would not likely be included in the standard “course expectations” including logistics such as a typical daily schedule, dress code, attending preferences, charting specifics to that rotation, or where to access vital electronic medical record information not typically used by off-service resident.

Impact/effectiveness: Resident perception has been positive with a “smoother transition” on rotations. Unexpected positive outcome has been that new residents have been able to perform more procedures.

79 Validation of a Performance Checklist for Ultrasound Guided Internal Jugular Central Lines for Use in Procedural Instruction and Assessment

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Background: We have created and validated a checklist for performance of ultrasound guided internal jugular central venous catheter (US IJ CVC) placement using the modified Delphi method. We now seek to validate it for use in an educational environment in order to evaluate competency in procedure performance.

Objectives: To evaluate a checklist tool for assessment of resident skill in US IJ CVC placement. We hypothesize that