Impact/Effectiveness: Learners were highly satisfied with the workshop; most agreed the session was relevant to their needs (4.6), had clear goals (4.6), and was organized (4.6). Even among those who had received formal handoff training in medical school (56%), satisfaction was high. This group was equally likely to report increased confidence in handoff skills after the workshop (mean of 4.4 for both). Interns planned to use IPASS during their handoffs (4.6). Interns entering procedural specialties were less likely than those entering non-procedural specialties to report likelihood of using IPASS (88% vs 100%, p=0.0032) or that the session was relevant to them (81% vs 99%, p=0.001). Both felt equally more confident with handoffs after the session (83% vs 90%, p=0.27).

Large scale interspecialty handoff training using the IPASS tool is feasible for implementation. Our workshop was well-received. Interns reported increased handoff confidence. Next steps include monitoring of IPASS use through observation of resident handoff in real time to evaluate quality and assess standardization. Future research will explore how maintenance interventions can ensure continued good handoff practices.

3 Qualitative Analysis of Residency Applicant Perceptions of Social Media Use by Emergency Medicine Residency Programs

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Background: Studies have demonstrated that program specific websites are important sources of information for applicants; playing a role in decision-making during the application cycle. Social media can be utilized in a similar manner, offering expanded information about the unique qualities of residencies and perhaps influencing candidates' decisions to apply, interview, and rank a particular program. There is a lack of understanding of applicants' perceptions of social media use by residency programs.

Objectives: We hypothesized an overall positive perception of social media use by residency programs, allowing for increased communication and provision of information. The purpose of this study was to assess overall sentiment toward residency program social media use and gain insight to applicants' perceptions.

Methods: We conducted a survey-based, cross sectional study of all applicants to the Emergency Residency Program at the University of Pennsylvania during the 2015-16 application cycle. Applicants were asked if they thought residency programs should have a presence on social media and to provide an explanation of their answer. We utilized descriptive and qualitative thematic analysis of responses. This study was determined to be exempt by the Institutional Review Board at the University of Pennsylvania.

Results: We received 275 (26.3% response rate, 41% female) responses with 52.4% stating that programs should have a social media presence (n=144) and 39.6% of applicants being unsure (n=109). We identified themes with positive, negative, and neutral sentiment. Emerging positive themes included: (1) Provision of deeper insight to programs, (2) Ease of access to program information, (3) Increased avenues for communication, (4) Important for innovation and relevance. Emerging negative themes included: (1) Use as a source of distraction, (2) Presence as unprofessional, (3) Potential for inaccuracy of content. Two neutral themes included: (1) Respondent indifference (2) Potential redundancy (Table 1).

Conclusions: A majority of residency applicants believe programs should have a social media presence. Our findings can serve as a resource for programs that have or are considering a presence on social media. Limitations of our study include a low response rate and inclusion of applicants to a single emergency medicine residency program.

Table 1. Themes of applicant perception of residency program social media use

POSITIVE		NEGATIVE		NEUTRAL	
PROVISION OF INSIGHT TO THE CULTURE AND VALUES OF PROGRAMS	"It makes a residency more personable. I could judge if I can picture myself there or not by the types of posts they make" "I feel social media is a good way for students to learn about the current identity of a program. Many websites or other resources offering information on a program have not been updated in several years, and it can be hard to tell if the information reflects the current face of the program. Social media lets you see what the program is currently like." "A means for bringing the current class together and also a means for applicants to get a bit of candid insight into their potential peers" "Times are different and social media is an important part of the image of any program, whether it's for residency or otherwise. It serves as a way to convey the mission and more about a hospital and school."	**SOCIAL MEDIA USE IS A DISTRACTION**	"Programs should have ONE location for information - namely their website. It is incredibly difficult to keep up with all of the various venues for obtaining information about a single program and 9 times out of 10, the information is different from website to website so it makes all of the information less trustworthy. I think having one site with accurate and up-to-date information is far more valuable than being accessible on twitter or myspace." "Nothing a good website can't do better than social media" "You should be spending your time learning, not keeping up with tweets."	**INDIFFERENCE TO PROGRAMS USING SOCIAL MEDIA**	"Blah" "Not important at least to me"
EASE OF ACCESS TO PROGRAMS	"It can be a good way to find out more about a program, or to remind yourself of certain aspects prior to interviewing/ranking, and an opportunity to ask questions." "Could make the process of learning about programs much easier for the applicant." "Social media provides an excellent resource for students to learn more about EM in general as well as specific programs. I did not have an EM rotation during 3rd year in my program so internet and social media were helpful to me to get a sense for EM and the features of EM residency."	**USE OF SOCIAL MEDIA IS UNPROFESSIONAL**	"I don't think that is a professional manner for a program to interact with applicants" "They aren't professional."	**SOCIAL MEDIA USE MAY BE REDUNDANT**	"Not sure if it's that helpful. Website usually enough." "They could. No real need for it though. Programs socialize at regional and national events."
INCREASED AVENUES OF COMMUNICTION	"It allows for potential collaboration between residency programs and the EM community as a whole, and can be a much faster method of answering questions or dispersing information about the program." "Social media is important in the field of EM. I only have a twitter account to view updates from a handful of leaders in EM. Presence on social media helps shape the public face of EM and keeps programs connected with potential applicants and the public." "It provides another avenue for dialogue with non-medical members of the community. Social media makes up a decent percentage of my daily communications."	**SOCIAL MEDIA POSTS ARE IMPERSONAL AND RAISE QUESTIONS OF ACCURACY OR INTENT.**	"While it may be the wave of the future there is something that sometimes feels gimmicky about social media. As an applicant it is difficult to communicate on social media in a meaningful way as many of us are worried that our social media presence could work against us during the process. Overall, it can be a useful way to get information about a program and understand the "personality" but it does not replace actually meeting the residents and faculty in person." "I think it's important for information to be available, but I think that social media is not the appropriate forum. It seems to me that the line between personal and professional is very delicate and that few people can walk this line well (eg. unprofessional photos/jokes followed by a tweet of a new EM research article). Also, social media is a very curated form of information and so it can come across as inaccurate or trying too hard. It's a very clear marketing strategy."		
IMPORTANT INDICATOR OF INNOVATION AND RELEVANCE OF A PROGRAM	"It's how you interact with the applicants' generation. It's efficient, up-to-date (both unlike most residencies' websites) and can be updated with ease." "It's the 21st century and EM is a 21st century-type specialty. We're innovators and should keep up with the times!" "Technology age, either get with it or get lost."				

4 The Use of Quick Response (QR) Codes to Improve Resident Compliance and Assessment

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Background: One of the key obligations of residency leadership and faculty is to provide trainees with timely and accurate feedback. In 2008, the ACGME introduced the Milestones project aimed to evaluate each resident on

competency based benchmarks. Although there are various methods utilized to evaluate a resident, one issue encountered is difficulty in evaluating the procedural competency of a resident. This is secondary to both resident noncompliance in logging procedures and most faculty feedback given in real time as opposed to through written evaluation. Oftentimes, milestones are assessed based on total number of procedures logged with direct observation by only a few committee members. To address these issues, we introduced a fast and easy method for residents to log their procedures as well as for faculty to evaluate their competency by using Quick Response (QR) codes placed in the Emergency Room.

Educational Objectives: The main objectives were to obtain more thorough faculty feedback for each resident's procedural competency, and to increase resident compliance with logging procedures by utilizing QR codes in the emergency department.

Curricular Design: To achieve these educational objectives, we created specific QR codes for intubations and central venous access and placed them at the physician stations at our institution. QR codes were chosen as many other fields such as business and technology use these codes as rapid ways to access and log information. The resident QR codes were linked to a Google Form in which the resident would select their name as well as answer questions about the procedure that correlated to milestone PC10-Airway Management for intubations, or milestones PC9 (General Approach to Procedures) and PC14 (Vascular Access) for central venous access. A similar form was linked for the faculty QR code, and upper level residents were allowed to fill out the form if no attending physician was present. No PHI are saved on these forms, and this process was deemed exempt by our institutional IRB.

Impact/Effectiveness: Compared to the previous year, procedure logging by the intern class for intubations and central venous access has increased by 52%. The feedback rate from our faculty is currently 42% and this is the first time where these procedural milestones have been consistently logged for review by the clinical competency committee.

Best of the Best Innovation Abstract from 2017

Emergency Medicine Foundations: A Comprehensive Open Access Flipped Classroom Curriculum For Intern Learners

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Background: The tide is turning in Emergency Medicine (EM) residency education from traditional hour-long lectures to more interactive approaches geared towards adult millennials. One challenge lies in teaching residents to be informed learners as online content expands, often without peer review. The flipped classroom approach relies on self-directed learning backed by in-person instructional time for higher order critical thinking. Medical educators must also learn to customize teaching content for learners at different levels.

Educational Objectives: Emergency Medicine Foundations (EMF) is a year-long flipped classroom curriculum designed for EM PGY1 residents. It provides a comprehensive framework for understanding cardinal presentations, "can't miss" diagnoses, and essential management strategies within the EM Model. Other specific aims include asynchronous content catered to diverse learning styles, easy implementation at satellite sites, and open access to all resources on the curriculum website.

Curricular Design: EMF is organized with a systems-based approach into 30 units (Table 1). Using Foundations Learning Pathways (Traditional Text, High-Yield Text, Multimedia), residents can choose assignments for self-directed review of core content. During weekly Foundations Meetings, interns participate in small groups to complete oral-boards style cases led by senior resident or faculty. Meetings provide the opportunity for assessment of intern knowledge, directed feedback and review of key learning points.

Table 1. Curriculum overview

Emergency Medicine Foundations Course Schedule					
	Unit	General Topics	Case 1	Case 2	Case 3
1	Abd/GI I	Acute Abdomen, Anorectal	Hernia/SBO	Ischemic Bowel	Volvulus
2	Abd/GI II	GIB, Eso and Stomach Do	Boerrhaave's	Perforation	Variceal Bleed
3	Abd/GI III	Biliary, Liver, GI Infections	Cholecystitis	Diarrhea/HUS	SBP
4	Cards I	Dysrhythmias	Torsades	Bradycardia	SVT
5	Cards II	ACS, CHF	Inferior/RV MI	CHF	VT 2/2 MI
6	Cards III	Valvular disease, Carditis	Pericarditis	PC Tamponade	Endocarditis
7	Vascular	Dissection, Aneurysm, DVT & HTN	Ao Dissection	Ruptured AAA	HTN Emerg
8	Pulm I	Non-infectious Pulmonary Disease	Asthma	PE	Hemoptysis
9	Pulm II	Infectious Pulmonary Disease	CAP with SIRS	Miliary TB	ARDS
10	Trauma I	Common Traumatic Injuries	Subdural	Tension PTX	Splenic Rupture
11	Trauma II	Specialized Traumatic Injuries	Facial Trauma	Neurogenic Shock	Multi-fracture
12	Trauma III	Specialized Trauma	Thermal Burn	PC Tamponade	PM C-section
13	Peds I	Peds Resus, Neonatal Emerg	SIDS / Arrest	Aortic Coarc	NEC
14	Peds II	Pediatric Pulm, Infections	Neonatal Sepsis	Kawasaki Disease	FB Aspiration
15	Peds III	Other Peds, Child Abuse	Febrile Seizure	Intussusception	Abuse
16	HEENT	Eye, Ear, Nose & Throat Emerg	Glaucoma	Ludwig's Angina	CRAO
17	ID	Infectious Emergencies	RMSF	HIV Pneumonia	Pulm Anthrax
18	Neuro I	Brain Emergengies	AMS/ICH	Meningitis	Seizure
19	Neuro / MSK	Nerve and MSK Emergengies	GBS	Cauda Equina	Septic Arthritis
20	Ortho	Traumatic Orthopedic Injuries	20 Ortho Mini-Cases		
21	Tox I	Toxidromes and Poisoning I	ASA toxicity	TCA Overdose	Ethylene Glycol
22	Tox II	Toxidromes and Poisoning II	Tylenol	OP	CCB Overdose
23	Enviro	Environmental Exposures	Snake Bite	HACE	Hypothermia
24	GYN	Ovarian and Uterine Disease, Gyn ID	Ovarian Torsion	TOA	Sexual Assault
25	OB	Pregnancy Emergencies	Ectopic Preg	Pre-eclampsia	Appy in Preg
26	Psych	Psychiatric Emergencies	Agitation	ETOH Withdrawal	Psychosis
27	Renal / GU	Renal and Urologic Emergencies	Test. Torsion	Fournier's	Priapism
28	Endo / Met	Endo, Metabolic and Nutritional Do	Hyperkalemia	DKA	Thyrotoxicosis
29	Heme / Onc	Heme, Malignancy Emergencies	TTP	Acute Chest	Tumor Lysis
30	Immuno / Derm	Immune, Skin Emergencies	SJS	Anaphylaxis	SSS
Open access to curriculum content is available on the course website: www.emergencymedicinefoundations.com					