Background: Twitter is growing in popularity and influence among emergency physicians (EP), with over 2,200 self identified EP users. Despite this popularity, there are competing ideas about its value for EPs. Some argue that social media is time wasted. Others assert a virtual community of practice exists among EPs on Twitter sharing a common domain, community, and practice. Deep exploration of the conversation, culture, and content of Twitter use among EPs can help us better understand its value while promoting mindful social media engagement.

Objectives: To explore the nature of EPs conversations on Twitter.

Methods: We performed a mixed methods analysis of publicly available tweets from the 62 most influential EPs on Twitter defined in a previous study. We analyzed tweets from a sample of random days in 2015. In addition to recording quantitative data, we performed qualitative thematic analysis to analyze tweets. We followed best practices in qualitative research, including reflexivity, memoing, and using a diverse team of coders.

Results: 1084 unique tweets were analyzed. The majority of tweets (75%) had some engagement in the form of re-tweets, likes, or replies. Messages were split evenly between new initiations of conversation and replies to other tweets (52%, 48% respectively). Most were related professionally to the broad domain of medical practice (70%), while fewer were social (30%). 79% of tweets were statements, 9% were questions, and 12% answers to questions. We identified several distinct types of tweets. Common observed themes among tweets are presented in Table 1. Self promotion and advertisements were rare, occurring in less than 5% of tweets.

Conclusions: Influential EPs are engaging in professional and social conversations on Twitter. Resources and opinions are being shared and rapport is being built. This data may help inform mindful social media engagement. Next steps include exploring perceptions of value of Twitter to individual faculty and resident users.
You've Got Mail: Efficacy of an Electronic Mail System as an Educational Strategy in Residency Training

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Background: Computer-assisted instruction (CAI) has been used in many areas of medical education to improve teaching and compares favorably with lectures or reading. Our emergency medicine (EM) residency program has been sending a daily emergency medicine-based question electronically to all learners since July 2010.

Objectives: To assess a computer-based teaching program utilizing multiple-choice questions sent daily to EM learners. Our study hypothesis was that daily CAI throughout residency training would lead to higher scores on qualifying examinations.

Methods: A prospective, self-administered online survey sent to residents, graduates and mid-level providers affiliated with one EM residency program. The survey instrument had 13 open-ended and closed questions to assess the level of training, clinical experience, recommendations, satisfaction with electronic mail system and quality (content) of the CAI. A secondary outcome measure was the annual composite scores on resident in-service exams and written board exams for the past 7 years. To assess the statistical significance of trends in exam scores, we used weighted ?2 test for trend.

Results: Sixty-six respondents completed the survey (50% response rate), and included board-certified physicians (59%), residents (26%), mid-level providers (9%), and board-eligible physicians (6%). Respondents have been receiving daily CAI for approximately 4 years, and that they read the CAI daily (54%) or weekly (43%). The majority (97%) felt the content of the CAI was “of high quality and relevant to my practice” and 98% believed the content would “help in preparation for the national written exams.” Overall, 98% replied that the content was balanced across all of the core topics in Emergency Medicine. The main reason for reading the CAI was to keep current with the medical literature (60%), followed by preparing for written tests (29%), and “just for fun” (11%). Despite the overwhelming acceptance of CAI by respondents, the secondary outcome measures (annual composite scores on resident in-service exams and written board exams) showed no significant long-term impact over the last seven years.

Conclusions: CAI using a daily question format was well received by clinicians in our residency program. Surprisingly, the majority of respondents used the questions to keep current with medical literature rather than to prepare for written qualifying examinations.

Innovations Abstracts

1 A 3D Printed Model for Simulated Arthrocentesis Training

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Background: Arthrocentesis is a commonly performed emergency department procedure. Improper performance