Background and Objective: Emergency departments (ED) play a critical role in acute care delivery and are at the interface of the community and the medical system. Some have capitalized on this role by implementing public health initiatives, such as human immunodeficiency virus (HIV) screening. Lab-based, fourth-generation testing detects acute HIV infection (AHI) when patients are highly infectious, may have symptoms, and often are unaware of exposure.

We describe newly diagnosed HIV from EDs across the U.S. with focus on the prevalence of AHI and the proportion of AHI among all newly diagnosed.

Methods: We collected data from six urban EDs in geographically distinct areas that have implemented HIV screening algorithms using fourth-generation testing capabilities. Data was aggregated to determine the total number of HIV tests performed, new HIV diagnoses and number of AHI. We defined AHI based on a reactive HIV Ag/Ab assay, negative HIV ½ antibody differentiation test, and detectable HIV-1 RNA.

Results: During the study period ending December 31, 2015, 159,102 HIV Ag/Ab tests were performed. In total, 2100 patients were identified with HIV; 605 (0.38%) were new HIV diagnoses, of which 98 (16.3%) were AHI. Total prevalence of AHI was 0.06%, and the percentage of newly diagnosed HIV that were AHI ranged from 13.1%-55.6% in the six EDs.

Conclusion: EDs are the central component of the acute care delivery system in the U.S. The percentage of AHI among ED patients is likely secondary to these patients seeking care for symptoms attributable to AHI and provides a valuable opportunity for early interventions.

10 Predicting Admission at Triage: Comparison of the Sydney Triage to Admission Risk Tool (START) and the Glasgow Admission Prediction Score (GAPS)

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Introduction: Emergency departments (ED) are the units where patient flow is intense, fast, and accurate. In recent years because of increased ED intensity, patient management became more complicated, patient satisfaction decreased, and emergency service expenditures increased. Current triage systems can predict the urgency of patients' needs but cannot predict hospitalization requirements. In this study we evaluated two established clinical scores, the Glasgow Admission Prediction Score (GAPS) and the Sydney Triage to Admission Risk Tool (START), for hospitalization predictions and compared them for superiority in predicting hospitalization requirements.

Methods: In this prospective observational study, all patients admitted to the Akdeniz University Hospital Emergency Department adult triage area between June 1-8, 2018, were evaluated. We calculated GAPS and START scores of patients during triage, and then patients were checked for their final management in the ED if they were hospitalized or discharged. The ability of both scoring systems for predicting hospitalization were calculated. We analyzed these comparisons with area under the receiver operating characteristic curve (AUC) values.

Results: A total of 2117 patients were enrolled to the study and 236 (11.1%) were hospitalized. The AUC value of GAPS was 0.894 (95% confidence interval [CI], 0.881 to 0.907) and the AUC value of START was 0.819 (95% CI, 0.801 to 0.835). The prediction of admission was high for both scoring systems; however, GAPS was a significantly better predictor for admission than START ($p<0.0001$).

Conclusion: In predicting hospitalization during triage in ED evaluation, both GAPS and START could be used; however, GAPS is a better predictor for hospital admission than START.

11 Implementing a Social Media-Based Curriculum for Newly-Matched Interns

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Objective: Transitioning to emergency medicine (EM) internship from medical school can be difficult. While prior investigations have evaluated pre-graduation or early internship boot camps to ease the transition, there is no previously described curriculum for the time between Match Day and start of internship. To address this gap, we designed a curriculum to be administered using the social media platform Slack. With our Slack curriculum, newly-matched interns can refresh their clinical knowledge before internship with collaborative learning via clinical cases. Our objective was to test the hypothesis that the Slack curriculum would increase the self-reported comfort of newly-matched interns with several EM learning objectives.

Design and Method: This was a prospective, observational study at St. John's Riverside Hospital, Northwestern University, and Rutgers New Jersey Medical School EM residency programs. The population was newly-matched EM interns, with no exclusion criteria, and participation was voluntary. The curriculum is published at (https://jetem.org/socialmedia_inn/). Subjects completed a

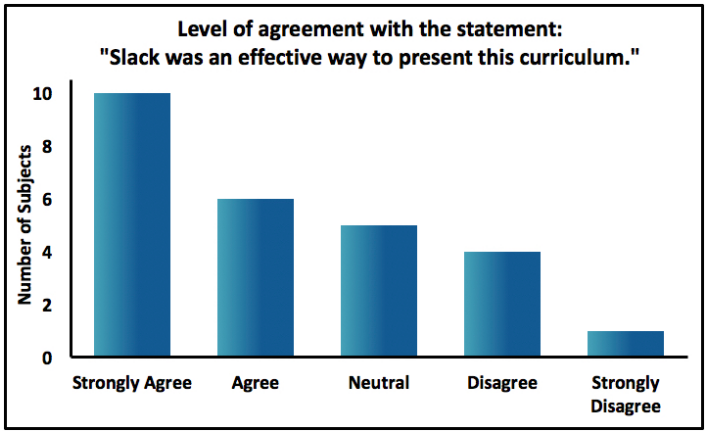
pre-survey assessing comfort with several aspects of EM. The curriculum was implemented between Match Day and the first day of internship in 2018. Interns completed a post-survey that re-assessed comfort and elicited feedback on the curriculum.

Results: All 36 interns completed the pre-survey and 26 completed the post-survey (Table1). Participants reported a statistically significant increase in comfort with identifying airway anatomy and physiology ($p = 0.01$). Mean comfort increased, but was statistically significant for all other objectives. Sixteen of 26 post-survey participants agreed that Slack was an effective way to present the curriculum, and only five disagreed (Figure1).

Conclusion: When presented prior to the start of residency, the curriculum significantly increased self-reported intern comfort with one EM learning objective. A majority of interns felt that Slack was an effective way to present the curriculum. Limitations included small sample size, possibly hindering detection of statistically significant changes. Interns who found the curriculum less useful may have been less likely to complete the post-survey. This study was not designed to measure improvements in clinical knowledge. Future directions will address these issues.

Table 1. Comparison of the Means Pre- and Post-Utilization of Slack Curriculum. Means based on Likert scale ratings 1-5, with 1 being least and 5 being most comfortable.

Assessed Aspect of Emergency Medicine	Pre-Slack Mean	Post-Slack Mean	Difference	Standard Error	T-Value	95% CI	P-Value
Determining Necessity of Diagnostic Studies	3.56	3.85	0.29	0.20	1.45	3.43−4.26	0.16
Interpreting Radiographs	3.39	3.39	0.00	0.23	-0.18	2.91−3.86	0.99
Interpreting Ultrasounds	2.81	3.15	0.35	0.26	1.33	2.61−3.70	0.20
Interpreting CT Images of Head	3.06	3.35	0.29	0.27	1.08	2.79−3.90	0.29
Constructing a Differential Diagnosis	3.92	4.04	0.12	0.15	0.84	3.74−4.34	0.41
Identifying Airway Anatomy and Physiology	2.86	3.65	0.79	0.27	2.99	3.11−4.20	0.01
Describing Basic Biostatistic Principles	2.75	3.08	0.33	0.30	1.09	2.46−3.70	0.29



12 Which Wellness Activities Correlate with Lower Resident Physician Burnout?

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Objective: Studies show a high burnout level among resident physicians. Many different activities have been recommended to improve burnout. Researchers also describe the importance of culture and work efficiency in employee wellness. This study aimed to evaluate the correlation between resident burnout and various wellness activities.

Design and Methods: Each year, the University of Kansas Medical Center Graduate Medical Education Wellness Subcommittee administers a wellness survey to all 560 residents and fellows. The 71-question, electronic survey, which was originally developed at Stanford University Medical Center, received institutional review board approval.

Results: Of the 560 residents who received the survey 393 (70% response rate) completed it, including 147 female residents (37%) and 246 males (63%). The overall resident burnout rate was 20.4%. Sixteen emergency medicine residents completed the survey with a reported burnout rate of 37.5%. Several activities and program attributes correlated with statistically lower resident burnout. Survey results indicated the following: 258 of 383 residents regularly engaged in hobbies outside of work (burnout 15.5% vs 31.2%, chi square p value = 0.0004); 294 out of 381 regularly scheduled protected time with partner/family/friends (burnout 17.4% vs 32.2%, p value =0 .0027); 329 of 379 felt their residency programs had a supportive culture with respect to wellness (burnout rate of 15.2% vs 54%, p-value = <0.0001); and 232 of 388 responded that it was "very true" or "completely true" that their residency programs engaged in initiatives aimed at improving the efficiency of their healthcare delivery (burnout rate of 11.2% vs 40.0%, p-value = <0.0001). Residents who regularly engaged in physical activity more often than once per week trended toward lower burnout (burnout rate of 17.7% vs 32.8%, p value = 0.14). Practicing meditation/mindfulness or considering oneself to be a spiritual person did not correlate with lower burnout in our survey.

Conclusion: Our study demonstrates evidence of several factors that may be protective against resident physician burnout. These findings are important for emergency physicians, who typically suffer from higher burnout than other specialties. Leaders of academic emergency departments should ensure that they foster a supportive culture, undertake initiatives to improve efficiency, and empower their resident physicians to protect time outside of work and engage in activities that increase wellness.

13 Impact of Endotracheal Tube Twisting on the Diagnostic Accuracy of Ultrasound for Intubation Confirmation

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