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Point of Care Ultrasound to Expedite Emergency Department Disposition

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Objectives: We sought to evaluate the impact of the implementation of student billable notes on professional level of service (PLOS) in our Emergency Departments.

Methods: The primary outcome of interest was PLOS which was measured in three levels, '3 or less', '4', or '5.' A one-level increment in PLOS pre- vs post-implementation of student billable notes was studied. Billing note attributes were summarized using frequencies and percentages, and unadjusted differences were evaluated using Fisher's Exact tests. Ordinal logistic regression was used to estimate the odds of a billing note having a one-level increment in PLOS during the two billing periods, adjusting for chief complaint categories.

Results: Differences in proportions of notes based on chief complaint and billing level were identified to allow for appropriate modeling. Odds ratios (OR) and 95% confidence intervals (95% CI) corresponding to billing period and all chief complaint categories were reported for the full model and a final model. Notes collected after the implementation of student billing notes had about one-fifth of the odds of having a higher-level (e.g., '4' or '5') PLOS than prior to implementation. Adjusting for billing period, billing notes with psychiatric, chest pain/shortness of breath, syncope, and generalized weakness chief complaints had higher PLOS levels, and fever chief complaints had lower.

Conclusions: The two-stage model building approach was effective in constructing a parsimonious final model and identified subtle differences in billing in the two time periods stratified by chief complaint type. This information highlights the limited effect of student billable notes on ED coding levels, and provides opportunity to limit financial impact while increasing student learning in this domain. Limitations to the study include convenience sampling and a relatively small sample number that allows for only moderate effect size estimates.

59 Factors that Influence Medical Student Perception of Emergency Medicine

Ambika Anand, Stephen Miller, Nathan Lewis, Joel Moll, Eric Steinberg

Introduction: Emergency Medicine (EM) has seen declining interest among medical students despite prior growth. Factors such as the COVID-19 pandemic, EM job market concerns, and burnout have been speculated to influence specialty choice, prompting a need to explore shifting perceptions of EM and their impact on the future EM workforce.

Objectives: This study aimed to identify current perceptions of EM among fourth-year medical students, explore factors influencing their specialty choice, and uncover barriers to selecting EM as a career. The goal is to

inform strategies to combat misinformation and enhance recruitment for EM positions.

Methods: A single-site prospective cohort mixed methods study focusing on qualitative analysis was performed at an academic urban emergency department. Fourth-year medical students on an EM rotation were surveyed voluntarily from September 2023 to March 2024. Visiting student rotators were excluded. The survey covered specialty choice, interest in EM, advising sources, and perceptions of EM. Data was analyzed using descriptive statistics and thematic analysis.

Results: Among 40 respondents (40.4% response rate), key factors attracting students to EM included lifestyle (50.0%), shift schedule (51.4%), diversity of patients (64.9%), and procedural opportunities (64.9%). Deterrents were shift schedule (56.8%) and burnout (86.5%). Additionally, 34.2% were advised against choosing EM, suggesting potential misinformation. Thematic analysis revealed concerns about shift schedules, lack of continuity of care, burnout, impact of social determinants of health (SDoH), and limited EM specialty knowledge as barriers to choosing EM.

Conclusions: This study identified opportunities to increase interest in EM, including earlier exposure to EM, better education of medical school leaders and physicians of other specialties about EM, and candid discussions with medical students about burnout and handling SDoH. Future research should include multi-center studies with larger sample sizes and further qualitative analysis to gain deeper insights into current trends and create targeted interventions.

60 Point of Care Ultrasound to Expedite Emergency Department Disposition

Deseray Sileo

Introduction: This retrospective study aims to further evaluate the potential of ED U/S to reduce ED length of stay (LOS) in patients presenting with biliary or renal colic, as compared to those who had radiology-performed studies (RPS). It also seeks to identify other factors that influence the potential of ED U/S to reduce LOS. Prospectively, we will use study findings to provide individual feedback to residents and assess the effect on U/S utilization and its impact on ED LOS at the provider level.

Methods: A retrospective chart review of ED patients at Olive View-UCLA in January 2023 identified patients with discharge diagnoses related to biliary or renal colic and those with a renal or hepatobiliary ED U/S. Analysis included a two-tailed t-test with unequal variance to compare ED LOS between ED U/S and RPS groups.

Results: A total of 257 patients (55.6% female, 44.4% male) were analyzed. Common comorbidities included:

obesity (30.7%), hypertension (21.0%), diabetes (18.3%). Only 7.4% met SIRS criteria. Mean LOS in ED U/S group and RPS group was 334 minutes (95%CI 303.5-364.3) and 390.6 minutes (95%CI 352.2-429) ($P = 0.023$) respectively. In the ED U/S group, mean LOS in patients with a surgical consult (11.6%) and without was 500.4 mins (95%CI 412.3-588.4) and 312.2 minutes (95%CI 281.3-343.1) ($P = 0.0003$), respectively. Hospital admission in the ED U/S group (23.1%) accounted for a mean LOS of 460.1 min (95%CI 394.5-526.7) compared to 300.1 minutes (95%CI 332.1-268.1) ($P < 0.005$) for patients with ED discharge (76.9%).

Conclusions: ED U/S use was associated with a 56.6 minute shorter LOS in the study population, which was statistically significant when compared to patients who had RPS, exemplifying the potential of ED U/S to expedite ED disposition in a county setting. These reductions in LOS were consistent across all PGY levels. Variables such as surgical consult and hospital admission influenced the potential of ED U/S to reduce LOS.

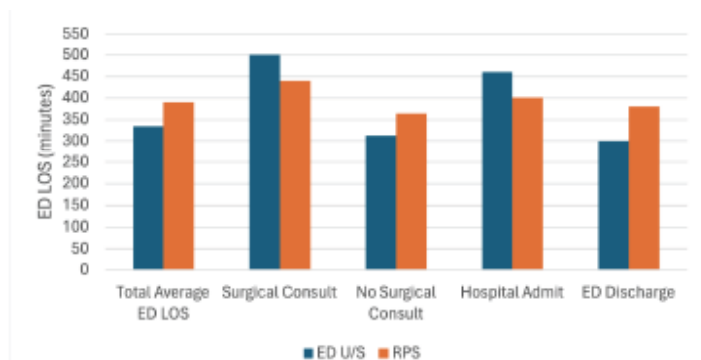


Figure 1. Factors influencing ED LOS.

61 Teaching the ABCs

Elsbeth Pearce, Mojibade Hassan

Introduction: One of the most important skills to learn early in residency is identifying “sick” or “not sick” patients and initiating stabilizing interventions. Starting EM Interns have differing levels of experience in these domains, which may lead to anxiety and poor performance clinically. Our residency identified a need for a structured program to develop these skills at the beginning of intern year. Educational Objectives: 1. Interns will learn and practice identifying sick patients and initiating stabilizing interventions using the “EM Rapid Assessment” cognitive aid as a structured approach. 2. The team leader will practice key leadership tasks, including verbalizing assessment steps, delegating tasks, and conveying information promptly. Curricular

Design: The “EM Rapid Assessment” cognitive aid

(Image 1) was developed for use in an EM intern “bootcamp” simulation by the author and vetted by a group of critical care and EM educators. It includes the identification of sick vs not sick by outlining the explicit actions of expert clinicians. Next are the “ABCs”, the five critical systems to assess when first evaluating an ill patient, and it explicitly outlines the exam findings to look for and interventions to initiate. The third section of the cognitive aid includes the team’s next steps once the patient is stabilized. Interns learned this framework through lectures and simulations, practicing patient stabilization, including fluid resuscitation, bag-valve-mask ventilations, and managing hypoglycemia and opioid overdose.

Impact: Ten EM interns participated in the simulation during their first residency month, all demonstrating skills aligned with EM Milestone Patient Care 1: Emergency Stabilization Level 2. All interns completed a post-event survey. 10/10 felt the activity enhanced clinical quality and safety, with 8/9 reported feeling either very (4) or extremely (4) confident in applying their training in a clinical setting. The cognitive aid and simulation event successfully introduced our EM interns to the initial stabilizing steps of resuscitation and team leadership skills

FIRST SECONDS	RAPID ASSESSMENT	HEAD TO TOE
LOOK Scan for scene safety, alarms, abnormal color, posture, level of alertness, or general appearance.	CIRCULATION - Absent central pulse - Poor peripheral perfusion - Syncope/pre-syncope - Hypotension (MAP <65) - Severe Bradycardia (<40) or Tachycardia (>150)	REPEAT Repeat the Rapid Assessment as needed to address abnormal findings or due to changes in condition.
TALK Verbally engage, escalate as needed. Focus inquiry on any severe symptoms.	AIRWAY - Choking - Stridor - Not managing secretions - Dwelling or trauma to face	EXAM Complete a physical exam with attention to causes of the patient's condition and time sensitive diagnoses.
TOUCH Make physical contact to assess for abnormal temp, diaphoresis, and pulse if needed.	BREATHING - Agonal - Very slow <8 or shallow - Very fast and/or >20/min - Hypoxic (<88%) - Abnormal or absent breath sounds	POCUS Consider using bedside US evaluation.
ACTIVATE Alert team to sick patient	DISABILITY - Low GCS - Abnormal pupils - New loss of motor function - Aphasia - Seizure activity	REVIEW Confirm identity of the patient, perform a chart check of the patient if possible or applicable.
DESIGNATE Identify leader and assign roles (monitor, IV access, oxygen, meds, recorder, family liaison)	EXPOSURE - Hypo or hyperthermic - Injuries, wounds - Rash - Medical equipment or alert bands	ORDERS Place any additional orders needed to complete workup.
LEADER RECAP		

62 Analyzing Trends in DO Match Rates for Primary vs. Non-Primary Care (2020-2024)

Christopher Reilly, Amir Jafari

Objectives: The aim of this study is to analyze match rates of DO seniors into primary care specialties, compared to non-primary care specialties over the past five years (2020-2024). It seeks to determine overall match rates of DO seniors, analyze trends in match rates over the five-year period, and assess if primary care specialties are matched into more favorably. Given that osteopathic programs have