Limitations include ongoing effects of the COVID-19 pandemic on productivity.

4 Exposure of Emergency Medicine Clerkship Students to Psychiatric Emergencies

Connor Knowles

Learning Objectives: To determine if a dedicated didactic and clinical curriculum in psychiatric emergency care would improve medical student comfort and perceived ability to assess psychiatric emergencies. It is believed these parameters would increase with this intervention.

Background: Medical students rotating in the emergency department (ED) are often discouraged or otherwise limited from seeing patients with psychiatric emergencies. Little is known about students' perceived preparedness and comfort levels in the assessment of individuals with acute mental health related complaints.

Objectives: To determine if a dedicated didactic and clinical curriculum in psychiatric emergency care would improve medical student comfort and perceived ability to assess psychiatric emergencies. It is believed these parameters would increase with this intervention.

Methods: Over a 10-month study period, students rotating in an Emergency Medicine (EM) clerkship at a large community-based ED received 1-2 hours of EM attending-led psychiatric case-based discussions in addition to an 8-hour clinical experience with the ED behavioral health team, assessing a wide scope of behavioral health emergencies. An identical pre-and post-rotation 10 question survey (1-10 Likert scale) was given regarding their comfort level and perceived abilities to assess aspects of this patient population. Statistical assessment was performed utilizing the Wilcoxon signed rank test.

Results: Seventeen students completed this voluntary study to completion seeing a mean of 4.8 patients during their 8-hour clinical experience, about 60% presenting with acute suicidal ideation. A mean improvement in the Likert scale was noted in "comfort in evaluation and interviewing" [+1.82 ($p<0.01$)], "decision-making for appropriate disposition" [+2.41($p<0.01$), and "screening for acute suicidal risk" [+1.76 ($p<0.01$)]. Similar improvement patterns of these parameters were also shown for complaints of acute mania and acute psychosis.

Conclusion: Focused education and exposure to patients with psychiatric emergencies had a positive impact on medical students' perception of their ability to assess and manage this population. This may lead to greater preparedness among incoming EM residents.

5 High sensitivity troponin - 6 hours is the magic number

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Learning Objectives: We wanted to assess whether emergency department (ED) patients presenting with chest pain with a high sensitivity troponin under the 99th percentile drawn at 6 hours or greater after symptom onset could safely be discharged from the ED.

Background: High sensitivity troponin (hsT) assays have become widespread for emergency department (ED) evaluation of acute chest pain. Several studies have demonstrated safety of a "rapid rule-out" strategy, evaluating initial hsT with repeat testing at 1-2 hours. A small number of patients can be discharged using this strategy while the most patients have a detectable hsT level and require a prolonged workup.

Objective: We assessed if a hsT under the 99th percentile drawn at 6 hours or greater from symptom onset could safely rule out patients.

Methods: We conducted a multicenter retrospective study examining ED patients with chest pain who did not meet rapid-rule out criteria and were admitted for further evaluation. Among these admitted patients, we assessed the rate of clinically relevant acute cardiac events (CRACE) and NSTEMI in patients with hsT less than 99th percentile (34 ng/mL in females, 53 ng/mL in males) obtained after at least 6 hours of chest pain. CRACE was defined as death, cardiac arrest, STEMI, or life-threatening arrhythmia. A manual chart review was conducted with 10% of randomly selected charts to estimate the number of patients admitted with nonischemic ECG and no other compelling reason for admission (unstable vitals or additional diagnoses).

Results: Out of 1189 patients admitted, we found 30 CRACE, all of which occurred in patients admitted for another compelling reason or ischemic ECG. 36 patients had an NSTEMI, of which 33 were identified with hsT above 99th percentile within 6 hours of chest pain onset. This left 0 CRACE and 3 NSTEMI among the 430 patients with a negative hsT at 6 hours and nonischemic ECG and no other compelling reason for admission.

Conclusion: Patients who have hsT values under the 99th percentile after 6 hours of chest pain have a low rate of CRACE and NSTEMI. Future prospective studies to evaluate the safety of outpatient management are warranted.