SWSC 2020 On-Demand Meeting Abstracts

4. EMERGENCY DEPARTMENT RE-PRESENTATION OF TRAUMA PATIENTS AFTER DISCHARGE: WHY ARE THEY COMING BACK?

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Background: Trauma patients are a unique and vulnerable population, with many relying on public health insurance or lacking insurance altogether. These factors may increase reliance on the emergency department (ED) as a primary health care resource after discharge. While much has been documented about re-admission rates of trauma patients, little has been described about re-presentation to the ED. The objectives of this study were to determine the rates of re-presentation to the ED after discharge along with factors contributing to their return visits.

Methods: We performed a 1-year (2018-2019) retrospective analysis of adult trauma patients admitted to our County-funded academic level 1 trauma center. The primary outcome was rate of re-presentation to the ED within 30 days of discharge. Secondary outcomes included re-admission rate, time to ED re-presentation and reasons for re-presentation (Table). Univariate analysis was performed comparing patients who re-presented to the ED to those who did not. A multivariable logistic regression model was developed adjusting for clinically relevant factors to identify predictors of re-presentation.

Results: Of 1,416 trauma patients, 195 (13.8%) re-presented to the ED. Of those that re-presented, 47 (24.1%) were re-admitted (3.3% overall). Median time to re-presentation was 7 days. The most common reasons for re-presentation were pain control (23.2%) and wound complications (22.7%), while the most common reasons for re-admission from the ED were disease progression/sequelae of traumatic injury (31.9%) and non-compliance/AMA (19.1%) (Table). Patients who re-presented were younger (41 vs. 46 years old, p<0.001), more likely to be male (80.0% vs. 70.8%, p=0.008), non-white (92.3% vs. 81.4%, p<0.001), a victim of penetrating trauma (30.3% vs. 17.9%, p<0.001), and noncompliant with their trauma clinic follow-up appointment (20.2% vs. 11.1%, p<0.001). On multivariable logistic regression, black patients (odds radio [OR]=2.3, 95% CI 1.2 to 2.3) and Hispanic patients (OR=2.0, 95% CI 1.1 to 3.6) were more likely to re-present compared to their white counterparts. Additionally, patients with Medicare (OR 2.6, 95% CI 1.3 to 5.2) or Medi-Cal/Other government insurance (OR 2.5, 95% CI 1.6 to 4.1) were more likely to re-present than patients with commercial insurance.

Conclusion: At our County-funded trauma center, a considerable number of trauma patients re-presented to the ED after discharge for reasons that do not often require hospitalization. Minorities, uninsured patients and those who miss their trauma follow up are more at risk for re-presentation. Discharge planning for these vulnerable groups should emphasize wound care, pain control and scheduled follow up to decrease the reliance on the emergency department.

Table: Reasons for re-presentation and re-admission

Reason	Re-presented to ED n=195	Re-admitted from ED n=47
Pain control	45 (23.2%)	2 (4.2%)
Wound complication	44 (22.7%)	7 (14.9%)
Medical/pre-traumatic condition	33 (17.0%)	7 (14.9%)
Administrative/missed follow up	23 (11.9%)	2 (4.2%)
Disease Progression/sequelae	20 (10.3%)	15 (31.9%)
AMA/non-compliant	17 (8.8%)	9 (19.1%)
Recidivism/additional trauma	10 (5.2%)	4 (8.5%)
Missed injury/discharge error	1 (0.5%)	1 (2.1%)
Other infection (UTI, PNA)	1 (0.5%)	0