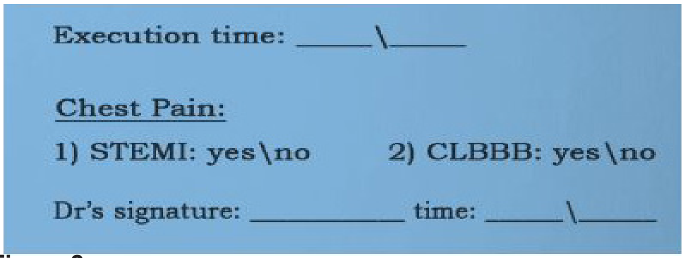

Execution time: __________

Chest Pain:

1) STEMI: yes\no 2) CLBBB: yes\no

Dr's signature: __________ time: __________

Figure 2.

Table 1. Adherence to clinical guidelines in patients with STEMI (n=140) before and after the intervention program.

Clinical guidelines	Adherence to time lags (n=140)		Improvement difference	P value
	Pre intervention n=60	Post Intervention n=80		
Triage within 15'	43 (71.7)	64 (80.6)	8.9	0.23
ECG within 10'	24 (40)	46 (57.5)	17.5	0.04
Physician assessment within 40'	44 (73.3)	66 (82.6)	9.3	190.
Total waiting time in ED of 60'	38 (63.3)	70 (87.5)	24.2	0.01
Door to balloon time within 90'	37 (61.7)	56 (70)	8.3	0.30

Table 2. Time lags in relation to clinical guidelines before and after intervention.

Clinical guidelines	Adherence to time lags (in minutes)		P value
	Pre intervention	Post intervention	
Triage			
≤15'	7.65±3.84	7.06±4.69	0.50
>15'	27.35±14.34	22.81±5.6	0.20
ECG			
≤10'	6.95±2.74	5.69±2.83	0.10
>10'	24.55±14.21	20.26±7.29	0.12
Physician assessment			
≤40'	20.48±10.37	18.83±10.28	0.41
>40'	70.25±30.24	52.86±13.51	0.05
Total waiting time in ED			
≤60'	37.93±11.54	32.91±14.8	0.10
>60'	126.18±59.63	72±9.67	<0.001
Door to balloon			
≤90'	66.88±17.2	60.57±19.63	0.12
>90'	164.61±53.89	125±32.25	0.01

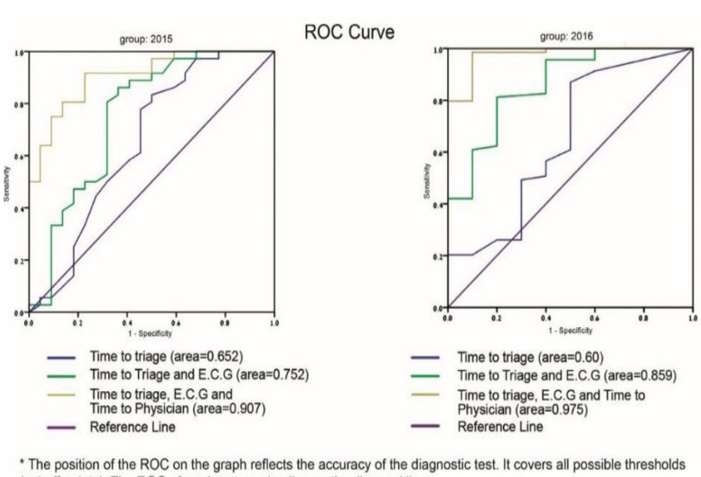

Figure 3. Receiver operating characteristic (ROC) curve

24 Analysis of Patient Dispositions by Hour of Shift for Emergency Physicians

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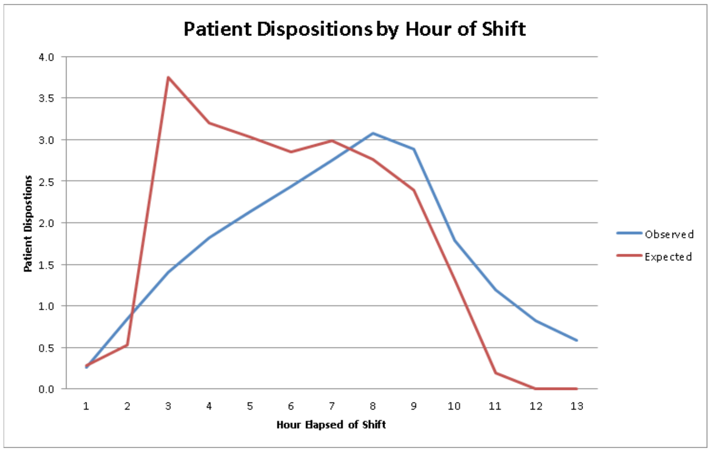
Objective: Emergency departments (ED) across the country continue to see increasing volumes with higher acuity, which can have consequences on ED throughput. One major metric of throughput is the time to decision or disposition time. Once a patient is seen, evaluated, and with a completed work-up, a decision to find the appropriate disposition becomes necessary to generate throughput and open up the bed for the next patient. We performed this study to analyze how decision times are distributed throughout the length of an ED shift.

Design and Method: We conducted the study at an academic hospital with an emergency medicine residency where resident shifts are matched with attending shifts. Shift lengths are eight or nine hours. We performed a retrospective analysis from 07/01/2015 to 06/30/2016 for a total of 2,190 shifts. The number of patient dispositions (PDs) by hour elapsed since shift started was recorded. Dispositions included were discharge, against medical advice, inpatient, or observation bed requested. Eloped patients and left without being seen were excluded. We calculated the expected number of PDs by shift hour by taking the median time to disposition (stratified by ESI) and adding it to the time when the patient was seen by the attending. A chi-squared test was performed on the data.

Results: The first two hours had a similar number of observed PDs (0.3 and 0.8) when compared to expected (0.3 and 0.5). The third through seventh hour had a smaller number of observed PDs (1.4, 1.8, 2.1, 2.4 and 2.8, respectively) compared to expected (3.7, 3.2, 3.0, 2.9 and 3.0, respectively). From the eighth hour onward, there was a larger number of observed PDs (3.1, 2.9, 1.8, 1.2, 0.8 and 0.6, respectively) compared to expected (2.8, 2.4, 1.3, 0.2 and 0.0, respectively). The p-value of the chi-squared test was <0.001, representing a statistically significant difference.

Conclusion: The observed number of PDs by hour of shift differs significantly from the expected number. Whereas the observed data showed PDs toward the later part of the shift, the expected data anticipated more PDs toward the early and middle portions of the shifts. Many factors could contribute to this difference, including the desire to have dispositioned patients prior to sign-out to decrease the burden for the oncoming physician. Other factors might include a non-linear degradation in provider efficiency as the number of hours elapsed during a shift, as well as the number of tasks that had to be performed.



25 Chief Complaints Pre- and Post-2015 Earthquake in Rural Nepal

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Introduction: Characterization of presenting complaints is key to establishing locally appropriate healthcare systems, resources, and facilities. Little data exists on the changes in chief complaints (CC) before and after a natural disaster. This study characterized the baseline CC of a village in rural Nepal and determined how these complaints changed immediately post-earthquake.

Methods: We conducted a retrospective analysis of CC logs from Himalayan HealthCare (HHC), specifically from their work in the Lapa village. HHC provides free services in rural locations and records presenting complaints. This group was present before and after the April 25, 2015, earthquake. We aggregated data from physician logs and trends between presenting complaints extracted.

Results: Overall, 1,227 patients were seen, evaluated, and treated by HHC. During the 2.5-day service trip pre-earthquake, a total of 366 patients presented for care (146.4 patients/day), with gastrointestinal (GI) (20%), orthopedic (13%) and ophthalmologic (10%) issues comprising the three most common CC. During the five-day post-earthquake trip, 861 patients presented for care (172.2 patient/day). Primary CC were GI (38%), orthopedic (15%) and respiratory (7%). There was a significant change in CC for diarrhea, which rose from 6% to 23% pre-and post- earthquake, respectively. Only four other diagnoses increased in frequency: GI (excluding diarrhea), non-orthopedic trauma, orthopedics, and neurology (which was driven by headaches and migraines).

Conclusion: As expected, we found an increased demand for trauma and orthopedic services after the 2015 earthquake. There was a significant increase in diarrheal disease, likely from the disruption of infrastructure, i.e., safe ingestible water, damaged toilets leading to open defecation and poor plumbing. More studies are required to better characterize the needs in these remote locations to strengthen the infrastructure and health systems to be more resilient in such disasters.