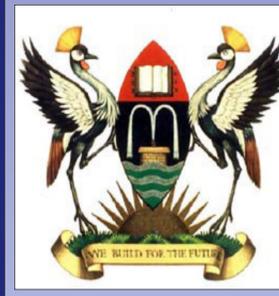




IDENTIFICATION OF SYSTEMS BASED IMPROVEMENTS FOR TRAUMA CARE AT A TERTIARY HOSPITAL IN AN AFRICAN CITY

Kristine Breyer MD*, Gerald Dubowitz MD*, Sharon Mpumwire MD#, Arthur Kwizera MD#, Cephias Mijumbi MD#, *University of California, San Francisco, USA & #Makerere University, Kampala, Uganda



BACKGROUND

- Injury is a leading cause of morbidity and mortality in low and middle income countries (LMICs)
- Over 90% of all deaths due to injury occur LMICs
- Interventions aimed at early hospital care are essential
- Better organization and utilization of current resources can provide a sustainable cost-effective model for improved injury care in a resource-limited environment
- Little objective evidence documenting the existing process of trauma care hindering the identification of specific targets for improvements

MATERIALS AND METHODS

- Prospective Observational Study
- Injured patients arriving to Mulago Hospital, Uganda for one month
- Data collected from time of arrival until transfer or discharge from Casualty Department (ED)
- Data collected included demographics, injuries, timing of assessments and interventions
- Excluded; Midnight to 06:00am

RESULTS

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- Data was collected on 387 patients, we had completed data on 288 patients
- Our study sample demographics correlated with prior records from Mulago Hospital
- Male to female ratio was approximately 2:1, the most injured age group were 19 to 29 year olds (47.4%) and road traffic accidents were the most common presenting mode of injury (53.2%)
- There was inconsistent availability of triage staff
- Time from arrival to first encounter with casualty physician did not vary significantly between day and evening nor weekday and weekend
- Very few patients (17.7%) had any vital sign recorded with only 4.5% of patients having both blood pressure and respiratory rate recorded



CONCLUSIONS

- The time from presentation to encounter with the casualty physician was usually within an hour and did not vary despite inconsistent availability of support staff. This shows remarkable adaptability of the physicians who are working in a resource limited environment.
- In spite of working equipment we found inadequate recording of objective data with regards to severity of injury
- Although time in the emergency department is relatively efficient we observed some patients would likely have benefited from additional interventions or evaluation prior to transfer to the ward
- Few patients have any vital sign recorded & even less patients have more than one vital sign recorded
- Patients with lower GCS scores did have vital signs taken more frequently than patients with normal GCS scores
- There is a trend towards more vital sign recording in patients brought in as transfers or by private ambulance

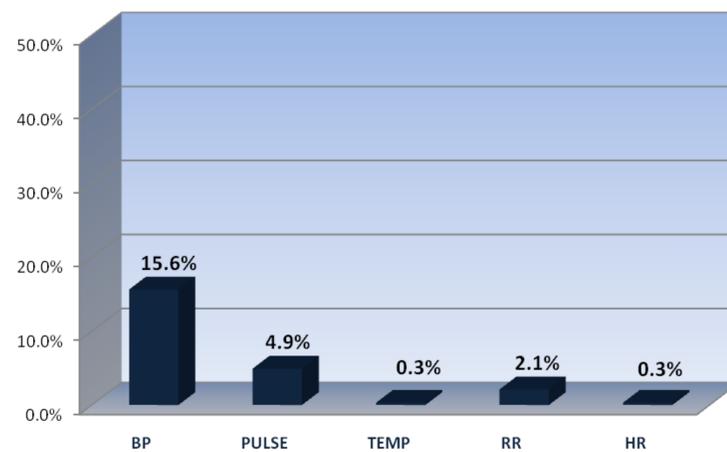
LIMITATIONS:

- Unable to score injury severity (other than GCS)
- No follow-up past Casualty Department
- No data from Midnight to 06:00am

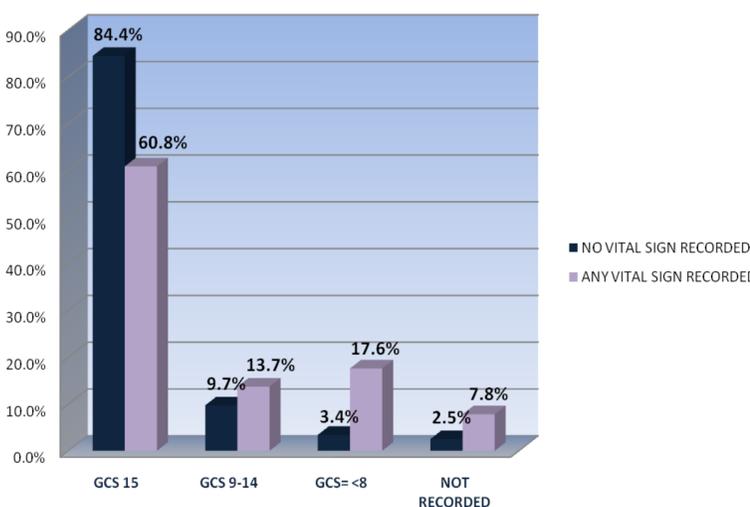
FUTURE DIRECTIONS

- Locally driven sustainable interventions, for instance, a protocol for measuring vital signs and scoring patients may allow for a more effective distribution of resources, such as disposition of patients to a high dependency unit.
- We plan to use this baseline data to compare the efficacy and impact of such interventions. We expect to be able to make objective improvements to casualty care and ultimately impact the morbidity and mortality associated with injury in Uganda.
- Comparative baseline study at different institution

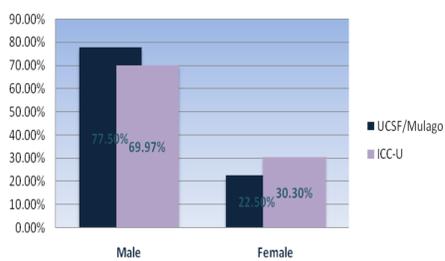
Vital Sign Recorded (ALL INJURED PATIENTS)



GCS Severity by Vital Sign Recording



UCSF/Mulago vs ICC-U Males: Females



Injury Distribution by Age

