Background & Objectives

- Interpersonal violence and road injuries remain leading causes of mortality in Ecuador, accounting for 20–40% of Emergency Department (ED) visits.1,2
- Post-trauma mortality is 25% higher in places with inconsistent EMS responses.2
- A 2012 initiative formed SIS ECU 911, which promised to remediate causes of poor past performance of Ecuador’s Emergency Response (EMS) system
- Past EMS issues included limited training of healthcare providers; poor communication; and lack of any quality improvement programs.3
- Following the formation of SIS ECU, physicians at Cuenca, Ecuador’s only trauma center (HVC) requested an updated assessment of the EMS system

Objectives:

- Gain a detailed understanding of EMS communication between all stakeholders
- Assess knowledge, practice, and attitudes of care providers regarding trauma guidelines, communication, and decision-making
- Identify barriers to effective communication; trauma protocol implementation; and effective trauma patient care
- Collaboratively develop potential solutions to identified problem areas in the trauma response system

Methods

- IRB-approved, voluntary, anonymous survey administered to prehospital providers of four ambulance services, 911 dispatchers, and HVC ED staff
- The survey questions asked about demographics; attitudes, knowledge and practice of the MIVT (Mechanism/Injuries/Vital signs/Treatment) trauma care communication protocol; and perceptions of existing trauma communication
- Comparative & descriptive analyses of the data were performed in SPSS, using a thematic approach (administration/organization; qualifications/competences; resource availability; communication/transportation; and stakeholder input)3

Discussion & Future Directions

Discussion

Identification of areas for improvement

- Allocation of trained medical resources
- Limited triage resolution at dispatch level
- Limited ability to mobilize appropriate level of EMS care

On-site Medical Decision Making

- Lack of coordination on-site & system leadership
- Inconsistent knowledge base for in-field patient assessment

Inconsistent quality of communication of patient information

- Inconsistent use of standardized form of communication
- Lack of direct communication between EMS and hospital

Inconsistent receiving hospital preparation

- Lack of consistent individual who receives all EMS calls
- Lack of training for hospital clerks regarding trauma alerts

Possible Solutions for Consideration

Short-Term:

- Flowchart/Checklist at ECU 911 for receiving calls, possibly computer-based
- Corresponding mobile application or reference card for EMS use in the field
- Dedicated nurse or trained clerk for receiving EMS calls with reference checklists

Long-Term:

- Implement centralized radio and direct EMS-hospital communication systems
- Standardize criteria & protocols for alert levels on a per-chef complaint basis
- Training for prehospital staff, hospital triage clerk/nurse, and ECU 911 staff

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