

# Analysis of Prehospital Treatment of Pain in the Multisystem Trauma Patient at a Community Level 2 Trauma Centre



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## Introduction

- The Ontario advanced life support patient care standards (ALS-PCS) limit the delivery of analgesia by advanced care paramedics (ACPs) to trauma patients who have suffered isolated extremity trauma.
- ACPs are able to establish on-line medical control to request analgesia for multisystem trauma patients that do not meet the ALS-PCS.

## Objectives

### Primary Objective

- To determine how often analgesia is provided to trauma patients as defined by an injury severity score (ISS) > 12 by either the ALS-PCS medical directive or through on-line medical control.

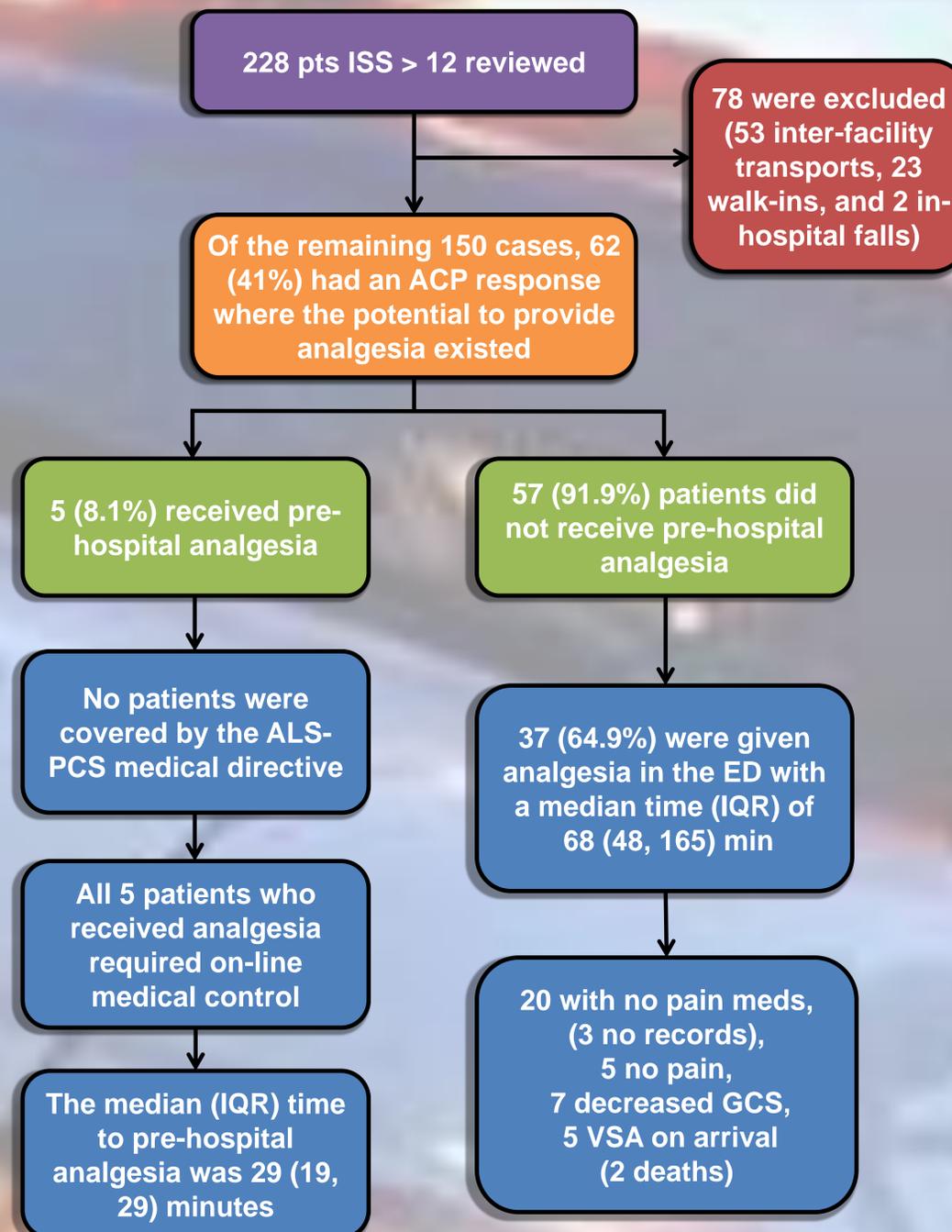
### Secondary Objectives

- To determine the proportion of trauma patients who were transported by ACPs versus primary care paramedics (PCPs).
- To determine the amount of time saved if analgesia was delivered in the field versus in the emergency department (ED).

## Methods

- A retrospective chart review was performed for trauma patients transported from the scene to a level two trauma center from April 1st 2010 to March 31st 2011.
- Cases were reviewed by a trained ACP Base Hospital auditor/educator, medical student and EMS/ trauma team leader/ EM physician.

## Results



**Figure 1.** Flow diagram of retrospective findings

## Conclusions

- Despite demonstrated rapid delivery, the frequency of pre-hospital analgesia use for multi system trauma patients is extremely low (8.1%).
- No patients met the criteria for ALS-PCS medical directive for prehospital analgesia
- The median time difference between prehospital and ED analgesia administration was 39 minutes
- The majority of multisystem trauma patients in Essex County are attended by PCP who cannot administer analgesia in Ontario (59%).

## Limitations

- Retrospective data collection
- Unknown as to why ACPs did not patch for prehospital analgesia

## Future Directions

- Promoting more frequent use of on-line medical control by ACP may allow patients to receive analgesia much sooner.
- Consideration should be given to expanding prehospital directives for all types of paramedics to include pain control for multisystem trauma patients.

## Disclosure

- No conflict of interest.