



Explaining Disparities in Field Triage of Older Adults: Factors that Influence EMS Destination Decisions and Reasons for Over- and Under-Triage

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Disclosures

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Background

- The Field Triage Decision Scheme (FTDS):
 - Four-tiered decision algorithm
 - Physiologic
 - Anatomic
 - Mechanism
 - Special Considerations
 - Designed to identify severely injured patients
 - Guide EMS providers in destination decisions





Background

- Age-based disparities exist in field triage
- Reasons for these disparities are unknown, but may be influenced by:
 - FTDS has lower sensitivity in older adults
 - Covert injuries and low-energy mechanisms influence EMS-perceived injury severity
 - Age bias
 - Continuity of care and patient preference



Study Aims

- We aimed to:
 1. Quantify the extent to which EMS destination decisions aligned with FTDS criteria
 2. Identify which FTDS criteria have higher under-triage percentages
 3. Explore EMS-provider identified reasons for under- and over-triage



Methods – Study Design

- Prospective multi-center study of injured EMS patients:
 - Age 55 and older
 - All injury severities
 - Sustained any mechanism of injury



Methods – Study Design

- Presented to one of four hospitals in Monroe County, NY
 - 1 ACS Verified Level I Trauma Center
 - 3 community hospitals
 - 9 county catchment
 - Patient population over 1 million
 - 85 EMS agencies



Methods – Data Sources

- Interview-based survey with EMS
 - Vital signs
 - Anatomic injuries
 - Mechanism of injury
 - Reason for destination decision
- Detailed medical record review
 - Diagnostic tests, imaging, surgeries, etc.
 - Disposition



Methods – Data Analysis

- Descriptive statistics
- Proportions were used to quantify:
 - Percentage of patients who met the FTDS
 - Percentage under- and over-triaged
 - Percentage of EMS provider endorsing specific reasons for destination decisions
 - Over-triage patients
 - Under-triaged patients

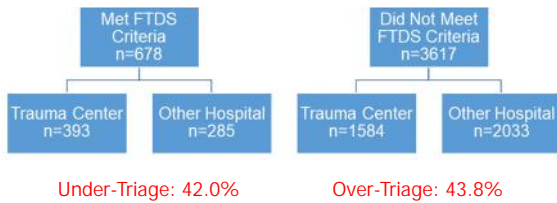


Results

- 4,295 patients were recruited
- Mean age: 75 years (Range: 55-104)
- 60% female
- Most common mechanisms of injury:
 - Fall (75.3%)
 - Motor vehicle collisions (13.5%)

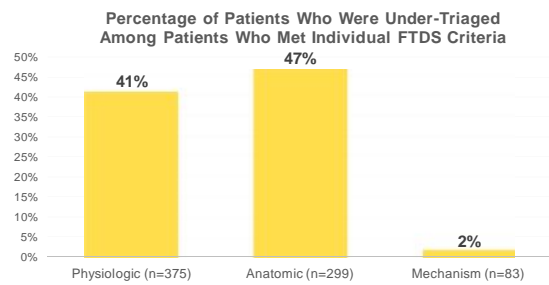


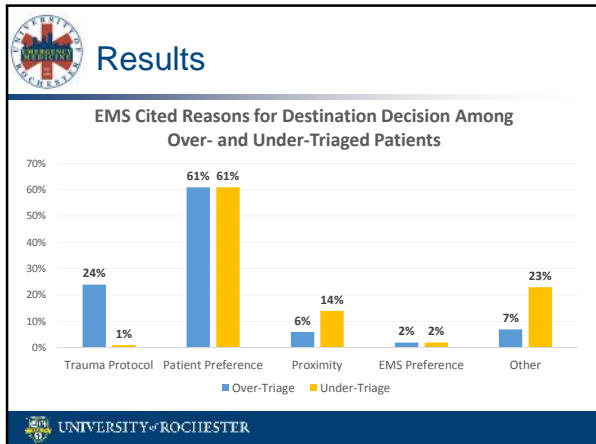
Results





Results





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- ### Limitations
- Unable to make comparisons to the younger adult population
 - Isolating driving force behind destination decisions is complicated when patients meet more than one step of the FTDS
 - Potential for social desirability bias
 - One geographic region

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- ### Conclusions
- Patients meeting the mechanism of injury criteria are less frequently under-triaged
 - Patient preference plays a large role in destination decisions
 - Future studies evaluating EMS provider decision-making practices may help to further understand triage practices



Thank you

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Results



678 patients met FTDS criteria for transport to a trauma center

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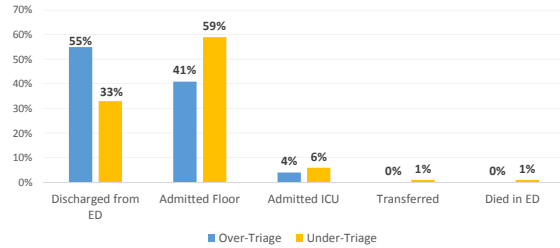


- Only Step 1: 318
- Only Step 2: 239
- Only Step 3: 54
- Steps 1 and 2: 38
- Steps 2 and 3: 7
- Steps 1 and 3: 10
- All Steps 1-3: 12



Results

ED Disposition Among Over- and Under-Triaged Patients





Results

Hospital Disposition Among Under-Triaged Patients (n=285)

