



Comparison of the 1999 and 2006 Trauma Triage Guidelines: Where do the Patients Go?



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OBJECTIVE

To determine the change in the number of patients who meet the 2006 Field Triage Decision Scheme compared to the 1999 Scheme.

INTRODUCTION

- In 2006 a revised American College of Surgeon's Field Triage Decision Scheme was released
- This revision was developed by a nationally representative, multi-disciplinary, expert panel convened by the CDC
- The new scheme modified each of the steps of the Field Triage Scheme
- It is unknown how these changes will affect the number of patients who are identified for immediate transport to a regional trauma center

Support

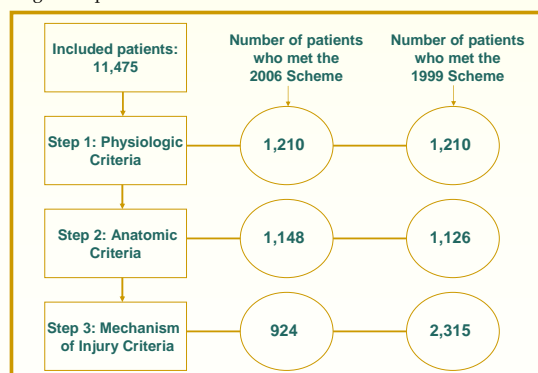
This poster was supported by grant: 5R49CE001010 from the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the CDC. The authors have no financial conflicts of interest to report.

METHODS

- A prospective observational study was conducted at 3 regional trauma centers in 3 midsized cities
- Included in the study was any adult injured patient, regardless of injury severity, transported to the regional trauma center
- EMS providers in charge of patient care were prospectively interviewed upon arrival at the emergency department
- The interview included: patient demographics, initial vital signs, apparent anatomic injury, and mechanism of injury
- The 1999 and 2006 Schemes were each then retrospectively applied to the collected data
- The number of patients identified by each scheme was determined
- Data analyzed using descriptive statistics

RESULTS

- A total of 11,475 interviews were conducted
 - Average patient age was 47.9 years \pm 21.8
 - 51% were men
 - 54% brought to trauma center based on local trauma protocol
- Use of the 1999 scheme would have identified 4,651 patients (41%; 95%CI: 40% to 41%) for transport to the trauma center
- Use of the 2006 scheme would have identified 3,282 patients (29%; 95%CI: 28% to 29%) for transport to the trauma center
- Overall, use of the 2006 Scheme would have identified 1,369 (12%; 95%CI: 11% to 13%) fewer patients for transport to a trauma center



RESULTS

Comparison of the Anatomic Criteria

2006 SCHEME		CRITERIA	1999 SCHEME	
# of Patients	Included in 2006		Included in 1999	# of Patients
692	X	Penetrating injuries	X	692
26	X	Flail chest	X	26
135	X	2 or more proximal long bone fractures	X	135
196	X	Pelvic fracture	X	196
82	changed: open or depressed	Open and depressed skull fracture	X	3
64	X	Paralysis	X	64
9	X	Amputation	X	9
---	removed	Major burns	X	2
---	removed	Combination burns with trauma	X	43
Not collected	X	Crush, degloved or mangled extremities	not included	---

Comparison of the Mechanism Criteria

2006 Scheme		CRITERIA	1999 Scheme	
# of Patients	Included in 2006		Included in 1999	# of Patients
37	X	Ejection from automobile	X	38
25	X	Death in same passenger compartment	X	25
134	changed: to >12 inches patient side and >18 inches any site	Intrusion >12 inches	X	199
Not Available	X	Vehicle telemetry data	Not Included	---
---	removed	Extrication time >20 minutes	X	100
---	removed	Rollover	X	501
---	removed	Initial speed >40 mph	X	933
---	removed	deformity >20 inches	X	446
36	X	Fall > 20 feet	X	37
155	changed: to >20mph	Auto-pedestrian/bicycle >5mph	X	309
173	X	Pedestrian thrown or run over	X	177
312	changed: removed separation of rider from bike	Motorcycle crash >20mph or separation of rider from bike	X	398

DISCUSSION

- This study found that the 2006 Field Triage Scheme change will likely lead to fewer patients being identified for transport to a trauma center
- This study did not consider the effect the scheme change will have on patient outcome
- However, it provides important information on how the scheme change will effect transport practices
- Limitations:
 - Crushed, degloved and mangled extremity from the 2006 criteria not collected - may have under-estimated 2006 Scheme
 - Unable to determine if penetrating extremity injuries are proximal to the knee or elbow - may have over-estimated both the 1999 and 2006 Scheme

CONCLUSIONS

Use of the 2006 Field Triage Decision Scheme results in a significant decrease in the numbers of patients who are identified as needing a trauma center.