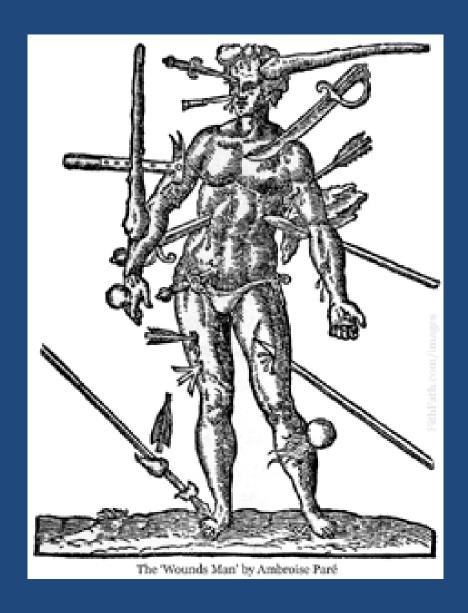
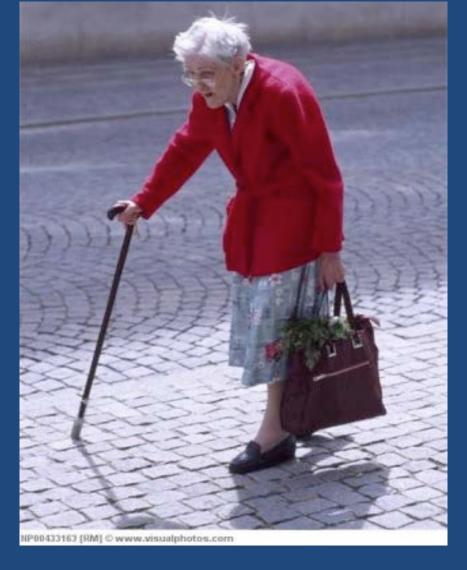
Why Injured Geriatric Patients Should Go to a Trauma Center

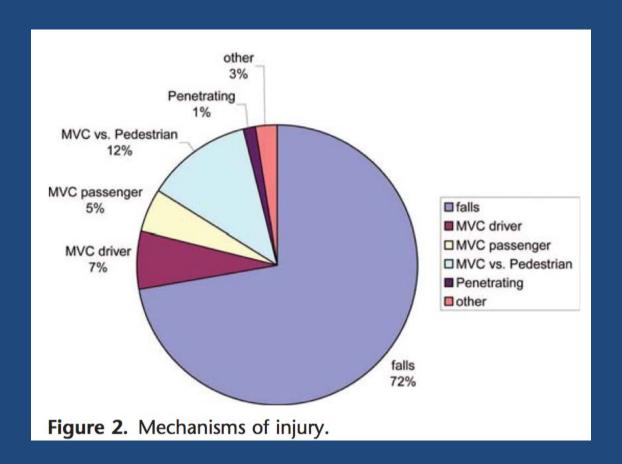
Christine Toevs, MD
Trauma Medical Director



NOTHING TO DISCLOSE







Outcomes of trauma care at centers treating a higher proportion of older patients: The case for geriatric trauma centers

Syed Nabeel Zafar, MD, MPH, Augustine Obirieze, MD, MPH, Eric B. Schneider, PhD, Zain G. Hashmi, MBBS, Valerie K. Scott, MSPH, Wendy R. Greene, MD, David T. Efron, MD, Ellen J. MacKenzie, PhD, Edward E. Cornwell III, MD, and Adil H. Haider, MD, MPH, Boston, Massachusetts

- J Trauma Acute Care Surgery 2015
- 25% of trauma patients ≥ 65
 - -2007-2011
 - National Trauma Data Bank
 - 1.9 million patients
- Older patients 4.2 times more likely to die
- 34% less likely to die if treated in center with higher population of older patients

Isolated hip fracture care in an inclusive trauma system: A trauma system wide evaluation

J.J.E.M. van Laarhoven ^a, G.W. van Lammeren ^a, R.M. Houwert ^{b,c}, C.J.H.C.M. van Laarhoven ^a, F. Hietbrink ^a, L.P.H. Leenen ^{a,*}, E.J.M.M. Verleisdonk ^b

- Injury 2015
- Median time to surgical treatment shorter
- Hospital stay shorter
- Complication rate lower
- Mortality lower

Improving geriatric trauma outcomes: A small step toward a big problem

Peter M. Hammer, MD, Annika C. Storey, DO, Teresa Bell, PhD, Demetria Bayt, MS, Melissa S. Hockaday, MSN, Ben L. Zarzaur, Jr., MD, MPH, David V. Feliciano, MD, and Grace S. Rozycki, MD, MBA, Indianapolis, Indiana

- J Trauma Acute Care Surgery 2016
- IU Methodist
- Oct 1, 2013 ≥ 70yo Trauma I activation
- Ave age 81
- Mortality 8.26% to 7.62%
- ED LOS ≤ 2 hours: 4.8% to 6.5%

	IU Methodist	THRH
Trauma 1	Trauma Surgeon ED Physician Residents RT ED Nurses Pharmacist	Trauma Surgeon ED Physician Anesthesiologist RT ED Nurses OR Nurse ICU Nurse
Trauma 2	Residents ED Physician ED Nurses	Trauma Surgeon ED Physician RT ED Nurses OR Nurse

Predictors of mortality in geriatric trauma patients: A systematic review and meta-analysis

Ammar Hashmi, MD, Irada Ibrahim-Zada, MD, PhD, Peter Rhee, MD, Hassan Aziz, MD, Mindy J. Fain, MD, Randall S. Friese, MD, and Bellal Joseph, MD, Tucson, Arizona

- J Trauma Acute Care Surgery 2014
- Overall mortality in geriatric trauma: 14.8%
- ISS ≥16: 26.5%
- Hypotension greatest predictor of mortality
 - SBP <110 mm Hg
 - Increased mortality 2-fold

Trauma Activation Worksheet

Patient Label

- 1. Person taking report should show to the ED Charge Nurse to ED Physician immediately
- 2. The ED Charge Nurse or Physician will activate the trauma system after determining if patient level

Trauma 1 Activation Physiologic and Anatomic Criteria		Trauma 2 Activation Mechanism of Injury Criteria **Physician discretion with walk ins**				
Check all that apply			Check all that apply			
Airway		to adequately ventilate ed or assisted ventilation		Fall resulting in head injury in anti-coagulated adult (Coumadin, Plavix, Xarelto, etc) with GCS 13-14		
Breathing	Adult	Respiratory Rate < 10 or > 29/min Any sign of respiratory insufficiency (hypoxia, accessory muscle use, grunting)			Adult > 20 feet Child > 10 feet or 3x height destrian/cyclist thrown, run over, or with > 20 mph) impact	
Circulation	Adult < 65 Adult ≥ 65	Confirmed SBP < 90 mmHg at any time Confirmed SBP < 110 mmHg at any time			crash > 40 mph velectrical injury with associated burn	



- SBP<110 for ≥65
- ? tachycardia ≥90

ACS TQIP GERIATRIC TRAUMA MANAGEMENT GUIDELINES



Multidisciplinary Trauma Care

- Trauma Surgeon, team
- Geriatrician
- Pharmacist (geriatric)
- SW/CM
- PT/OT/Rehab
- Palliative Medicine

Redefining the association between old age and poor outcomes after trauma: The impact of frailty syndrome JTACS 2017

Creating New Opportunities to Educate Families on the Impact of Frailty and Cognitive Impairment in a Trauma Intensive Care Unit: JPall Med 2017 Results of a Quality Improvement Project

The impact of frailty on failure-to-rescue in geriatric trauma patients: A prospective study

JTACS 2016

Preinjury physical frailty and cognitive impairment among geriatric trauma patients determine postinjury functional recovery and survival

Superiority of Frailty Over Age in Predicting Outcomes Among Geriatric Trauma Patients

A Prospective Analysis

JAMA Surg 2014

