CT Scans Complete and Waiting for a Bed….Where Do We Go From Here?

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Trauma Care 2016
- 87 years old
- Baseline dementia
- Fell on to her left side
- Presents to the emergency department as a trauma activation
The Journey of a Trauma Patient
The Trauma Bay
To the CT Scanner
Back to the ED
• Back to Gertrude
• CT results → left sided rib fracture
• Hospital is pretty full – may be a while until a bed is available
• Given 0.5 mg of dilaudid
• No complaints from the patient for next several hours
• Nursing check → patient is unresponsive
• Blood gas → PCO2 75
• Patient needs emergent intubation
How could this patient have been more optimally managed in the emergency department?
The Problem

“Extended ED stay of the older adult results in poor patient outcome”  Donatelli et al, J Emerg Nurs, 2013

“Prolonged Emergency Department Length of Stay as a Predictor of Adverse Outcomes in Patients with Intracranial Hemorrhage”  Jones et al, J Crit Care Med, 2015

“Predictors of patient length of stay in 9 emergency departments”  Wilker et al, American Journal of Emergency Medicine 2012
“Emergency Department Length of Stay Is an Independent Predictor of Hospital Mortality in Trauma Activation Patients”

Mowery et al, June 2011

- Hospital mortality increase for each additional hour spent in the ED
- Risk of death increased 1% for every 3 minutes in the ED
“Impact of Delayed Transfer of Critically Ill Patients from the Emergency Department to the Intensive Care Unit” Chalfin et al., Crit Care Med, 35 (2007), pp. 1477–1483

- In-hospital mortality
  - 17.4% (delayed) vs. 12.9% (nondelayed) (p < .001)

- Critically ill emergency department patients with a ≥6-hr delay in intensive care unit transfer had increased hospital length of stay and higher intensive care unit and hospital mortality.
• Barriers
  • Less staffing
  • Different focus of training
  • Unclear role of physicians (ED, surgeons, residents)
  • Geographic distribution of patients
  • Monitoring equipment and abilities
- **Trauma bay**
  - 2 nurses
  - 1 medic
  - 3+ residents
  - Respiratory therapist
  - Advanced practice provider
  - ED physician,
  - Trauma surgeon

- **Intensive care unit**
  - 2:1 nurse ratio
  - Residents
  - Trauma surgeons

- **Stepdown unit**
  - 3:1 nurse ratio
  - Advanced practice providers
  - Residents
  - Trauma surgeons

- **Emergency room**
  - 4:1 nurse ratio
  - ED doc or trauma team?
  - Who’s in charge?
  - Who’s covering?
• Not a problem that is going to go away
• Central Ohio is not getting any smaller
Solutions?

- Define roles and responsibilities
- Bring trauma care to the emergency department
- Create a system where patients can be taken care of wherever they are
Don’t let your guard down!
Don’t be surprised
Key Points

- Don’t let your guard down
- Keep a high index of suspicion
- Recognize significant and potential life-threatening clinical changes
  - Changes in mental status
  - Changes in hemodynamic stability
  - Understand the spectrum of injuries and potential complications
  - Trauma specific training for ER nursing
- Identify and inform appropriate physicians responsible for clinical oversight
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Questions?

SOMEWHERE IN AMERICA...

... THERE'S ABOUT TO BE AN E.R. NURSE WITH A GREAT STORY TO TELL...