Main Line Health®
Well ahead.®

Trauma Registrar Participation in Morning Report Handoff

Nina Betts, CPC

Trauma Registrar

Lankenau Medical Center

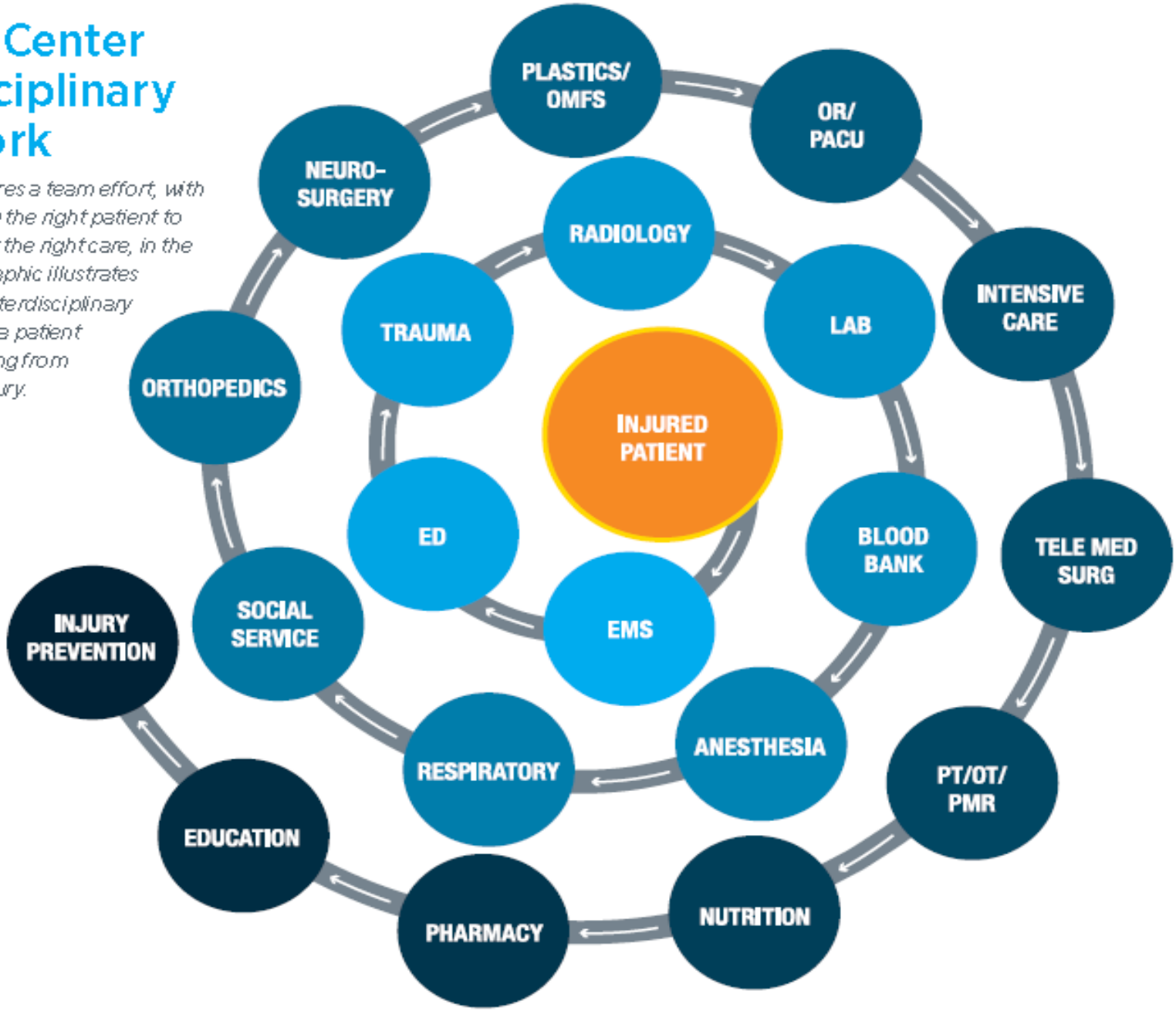
Patient Safety

- AHRQ* and the Joint Commission data further indicate that low expectations, poor communication and poor teamwork, and authority/power gradients remain key underlying reasons for underdeveloped healthcare safety cultures

*Agency for Healthcare Research and Quality

Trauma Center Interdisciplinary Teamwork

Trauma care requires a team effort, with the goal of getting the right patient to the right place, for the right care, in the right time. This graphic illustrates the sequence of interdisciplinary interventions that a patient may receive starting from the moment of injury.



Morning Report Handoff: Team

Trauma Attending (Day & Night)

- Reviews head-to-toe assessment, radiologic studies, plan of care, labs, procedures, consultants recommendations, reviews plan of care

Advanced Practitioner

- Navigates EMR simultaneously

Physical Therapy

- Provides recommendations on disposition needs, is able to hear and plan sessions with new Trauma patients (i.e. weight bearing status)

Social Work

- Discusses disposition needs, and hears plans early during hospital course.

Nutrition

- Discusses diet progression and swallow exams

Trauma Program Manager

- Assists with compliance of state accreditation standards after careful review and discussion of sign-out. Oversees the gathering of the data collected, events as they arise, and improvement plans.

Trauma Performance Improvement Coordinator

- Hears events as they arise throughout hospital stay, asks clarifying questions of clinical staff, allows incidents to be improved and future incidents from arising

Trauma Registrar

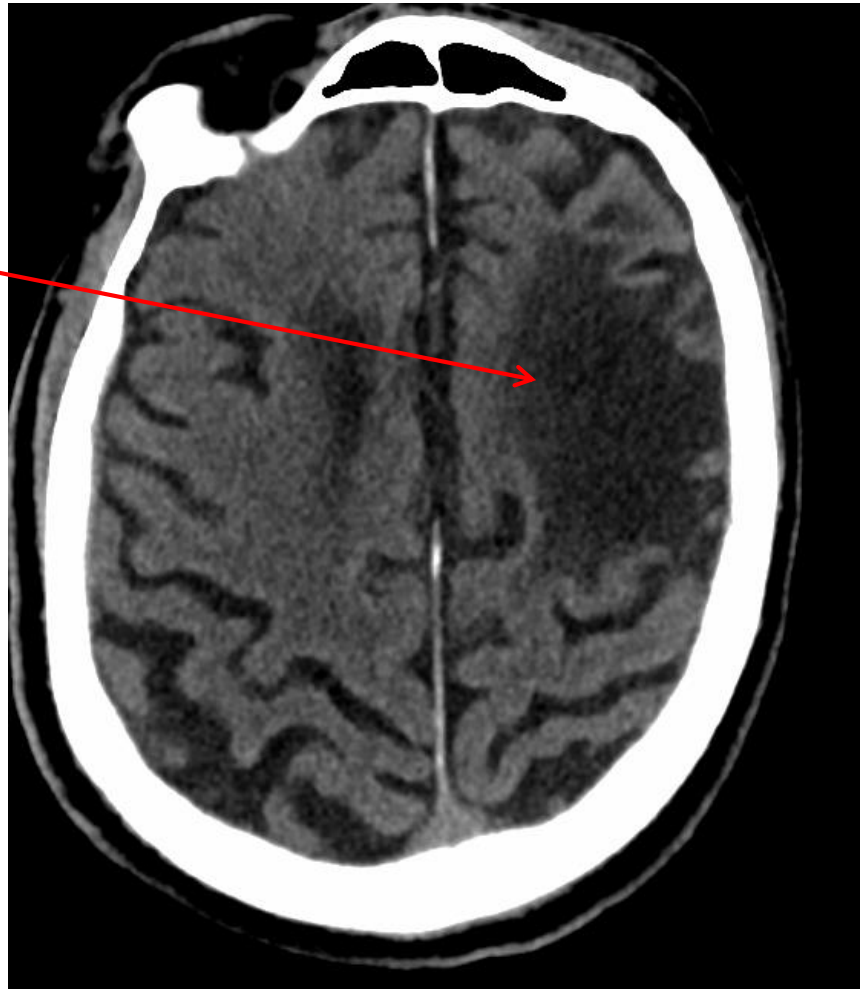
- Gathers data points including diagnoses validation/clarification and reportable NTDB/TQIP events are clarified

Clarification: Subarachnoid hemorrhage on old hemispheric stroke

- Small Rt parietal SAH
- Forehead Laceration
- @Stroke
- @ Seizure

- Findings: There is scattered subarachnoid hemorrhage in the right parietal sulci and likely posttraumatic in location and appearance.

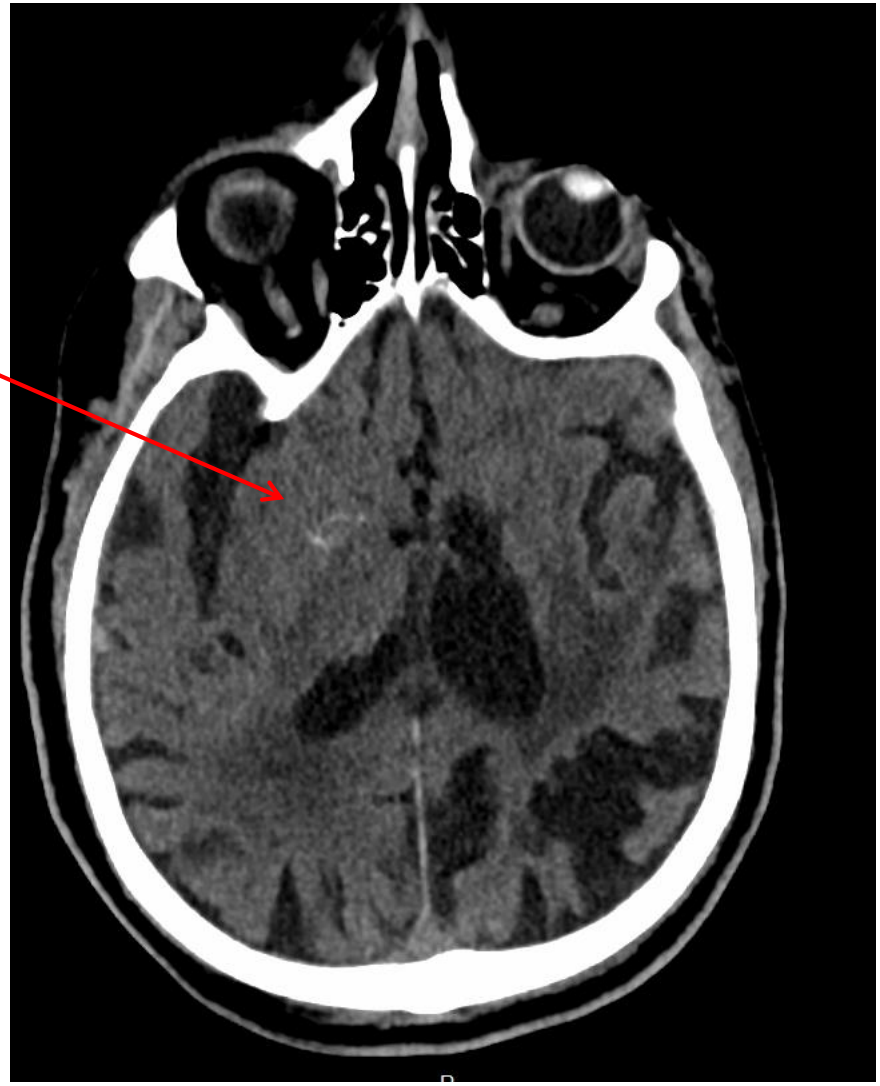
- Otherwise old left MCA infarct.



Clarification: Subarachnoid hemorrhage on old hemispheric stroke

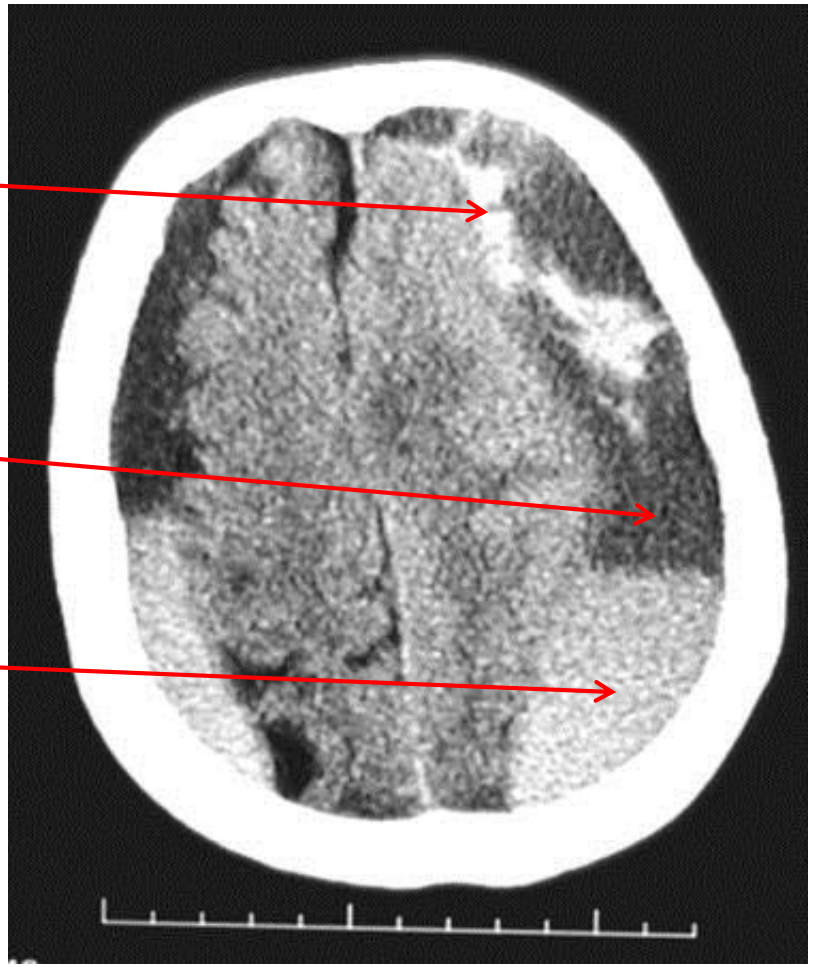
- Small Rt parietal SAH
- Forehead Laceration
- @Stroke
- @Seizure

- Findings: There is scattered subarachnoid hemorrhage in the right parietal sulci and likely posttraumatic in location and appearance.
- Otherwise old left MCA infarct.



Clarification: Acute on Chronic Subdural Hematoma

- Acute
- Chronic
- Subacute
- TMD calls Radiologist who re-dictates the size of each



Clarification: Pre-existing vs. new occurrence: AKI

- Fall, diagnosis of bilateral pneumothorax, T12 compression fracture, ribs 7-11 fracture
- GU: no Foley, Cr 2.4, stage 4 CKD, IVF, continue home Lasix, monitor I&O, q6h and post void bladder scans, f/u UCx

- Acute kidney injury (AKI) (stage 3), is an abrupt reduction of kidney function defined as:
  - increase in serum creatinine (SCr) of more than or equal to 3x baseline
  - OR; increase in SCr to >=4 mg/dl (>= 353.3 µmol/l)
  - OR; patients > 18 years with a decrease in $_{e}$ GFR to < 35 ml/min per 1.73 m²
  - OR; reduction in urine output of < 0.3 ml/kg/hr for >= 24 hrs
  - OR; anuria for >=12 hrs. OR; requiring renal replacement therapy (e.g., continuous renal replacement therapy (CRRT) or periodic peritoneal dialysis, hemodialysis, hemofiltration, or hemodiafiltration). NOTE: If the patient or family refuses treatment (e.g., dialysis) the condition is still considered to be present if a combination of oliguria and creatinine are present.

Pre-existing vs. new occurrence

- UTI
  - At morning report the Attending notes that patient is being treated for a UTI with Bactrim. Registrar asks clarifying question if it was pre-existing. AP brings up labs and cultures and clarifies right then.
- DVT
  - Patient has ultrasound and noted to have L femoral DVT
  - 2nd day in morning report it is noted by AP that the patient's previous admission she was treated for L femoral DVT
  - They compared studies and it was not new

Pre-existing vs. new occurrence (practice)

- DVT/PE
  - 48yo male, history of fall 6 weeks PTA with proximal fibula fracture
  - New admit for fall this morning with dx of C7 nondisplaced fracture and transverse process, C6-ligamentous injury
  - Incidental finding on CTA of bilateral PE and left popliteal and femoral DVT
- What clarifying questions would you ask?

Small Research Project

- 1/1/16 Implemented a daily practice of Trauma Sign Out Rounds / Safety Huddles with access to trauma flowsheets, EMR, lab and radiologic results, consultant notes and operative findings
- PI events (complications and audit filters) are evaluated via Primary Level of Review (PI Coordinator)
- Trauma Registrar clarifies diagnoses, comorbidities and complications

Outcome measures

- Decreased average hospital LOS: 3.6 days
  - National hospital LOS:4.5 days at an average of $10,400 per stay. $p < 0.0001$
    - Statistics: one sample *t*-test found the difference to be statistically significant
- Trauma registry inter-rater reliability score = 97.7%
- No type 1 or 2 errors for TQIP submission
- LMC “exceptional” PI process on PTSF site survey

Conclusions:

- Trauma sign out rounds, with diverse multidisciplinary attendance including trauma attendings, advanced practitioners, physical therapy, nutrition, social work, program manager, performance improvement and trauma registry staff is the ideal venue for real-time communication.

References:

1. Trauma Outcomes and Performance Improvement Course, TOPIC. Society of Trauma Nurses. http://www.traumanurses.org/education/stn-topic

2. Overview of Hospital Stays in the United States. Agency for Healthcare Research and Quality, Healthcare Cost and utilization Project, 2012. https://www.hcup-us.ahrq.gov/reports/statbriefs/sb180-Hospitalizations-United-States-2012.pdf