Geriatric Hip Fracture Protocol

Thomas Oweis, MD
Rick Ricardi, RN
Jeff Mendoza, RN

St. Mary Mercy Livonia

Trinity Health

St. Mary Mercy Livonia:

Evolution of Hip Fractures

Presented By:

Thomas Oweis MD, FACS

- SMML *Trauma Medical Director*

Rick Ricardi BSN, RN

- SMML *Director of Trauma Services*

Jeff Mendoza BSN, RN

- *MTQIP Coordinator*

Hospital Demographics

Registry Volume-1500 per year / 240 Hip Fractures per year

Hospital beds: 304

OR Suites: 8

Initial Orthopedic Call panel >20

Currently we have 15 2 Ortho Traumatologists

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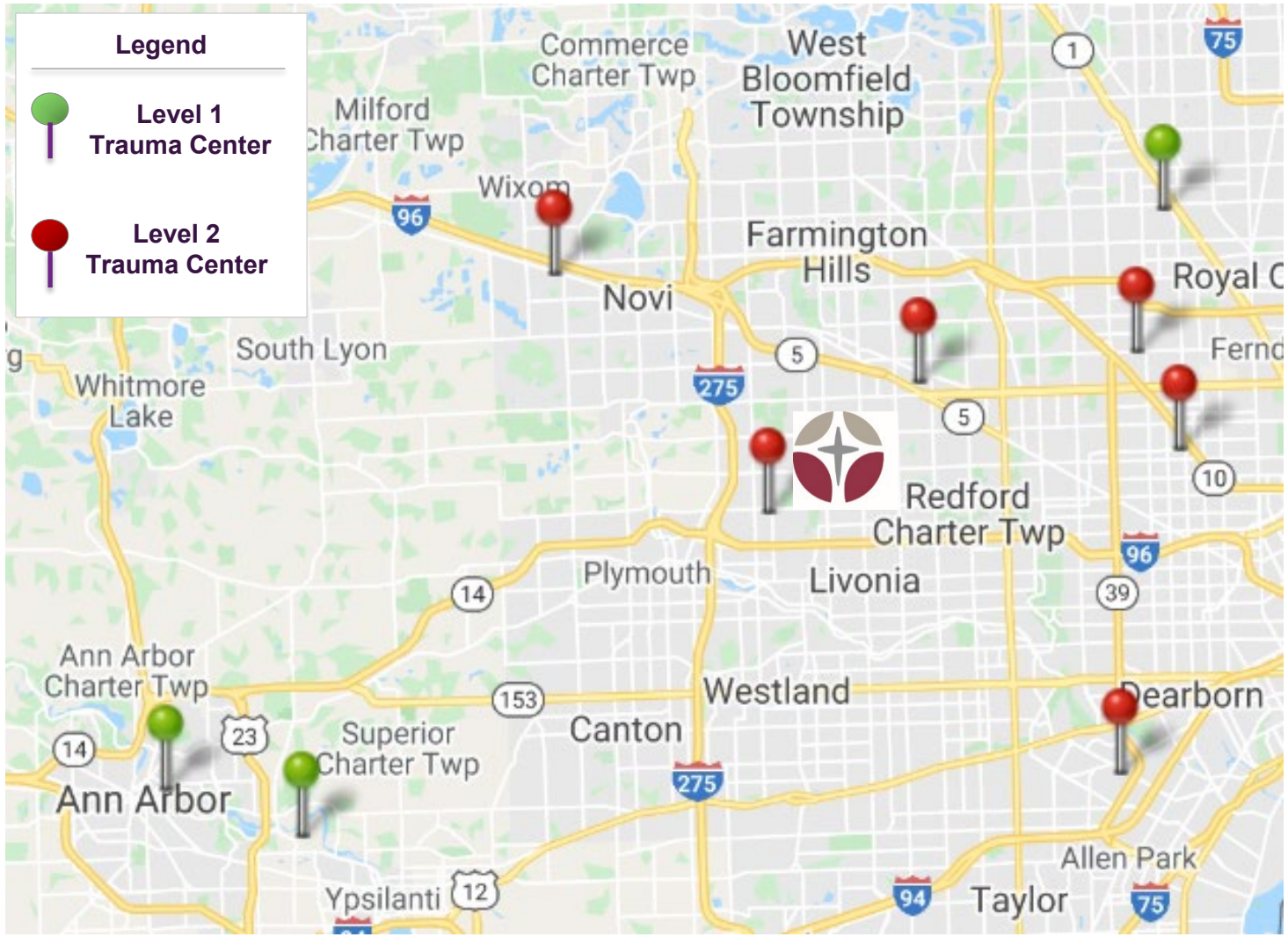
Our Team

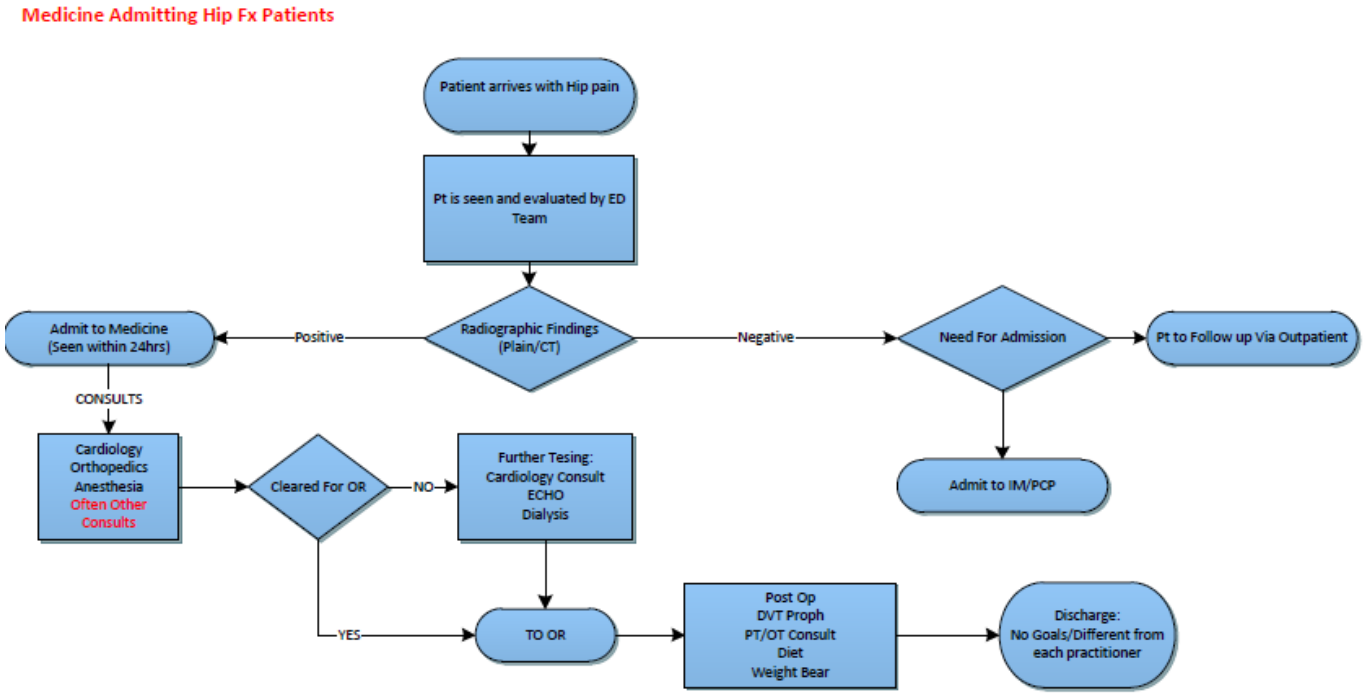
- 9 Trauma Surgeons
- 2 Trauma Registrars
- 1 Quality MTQIP Reviewer-BCBS
- 1 Injury Prevention Specialist
- 8.5 FT Advanced Practitioners- 2 Day/1Night

The Community We Serve



- **Across the trauma centers in Michigan, St Mary's treats some of the oldest patient population**
- **Situated at the intersection of 3 major freeways, St Mary's is the nearest trauma center**

“Old” Medicine Admit Algorithm



No Formal Review:
Hip Fx Deaths
Hip Fx Readmissions

Average LOS-7 days
Average Door-OR Time: >48hrs

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The goal of the Hip Fracture Guideline is to:

- Decrease the overall length of stay
- Decrease the door to OR time
- Decrease Morbidity/Mortality
- Create Interdisciplinary Team Management
- Goal: Hip fracture patients are best optimized with surgical fixation within 24 hours of admission and discharged to structured rehabilitation on POD#2-3

Collaborative Meeting:

- Multidisciplinary Team Established
- Physician Liaisons: Anesthesia, Cardiology, Medicine, Trauma Orthopedics and Emergency Medicine, Pharmacy Identified
- Protocol Created / Revised
- Hip Fracture Guideline Created

Hip Fracture Guideline Trauma

Effective Date: 6/2018
Revised Date: 2/2018
Reviewed Date: 5/2018, 01/2019, 12/20

Submitted by: Rick Ricardi, Director, Trauma
Approved by: Dr. Tom Oweis, Trauma Medical Director
Dr. Matt Steffes, Orthopedic Trauma Liaison
Dr. Roy Misirliyan, Cardiology
Dr. Katherine Vitale, Anesthesia
Cheryl Malloch-Clafton-PharmD
Teresa Guastella, PA-C, Lead APP Trauma Services
Rick Ricardi, Director of Trauma Services

1. Purpose: To provide treatment guidelines for adults with hip fractures. The use of standard protocols is aimed at reducing mortality, hospital length of stay, and complications

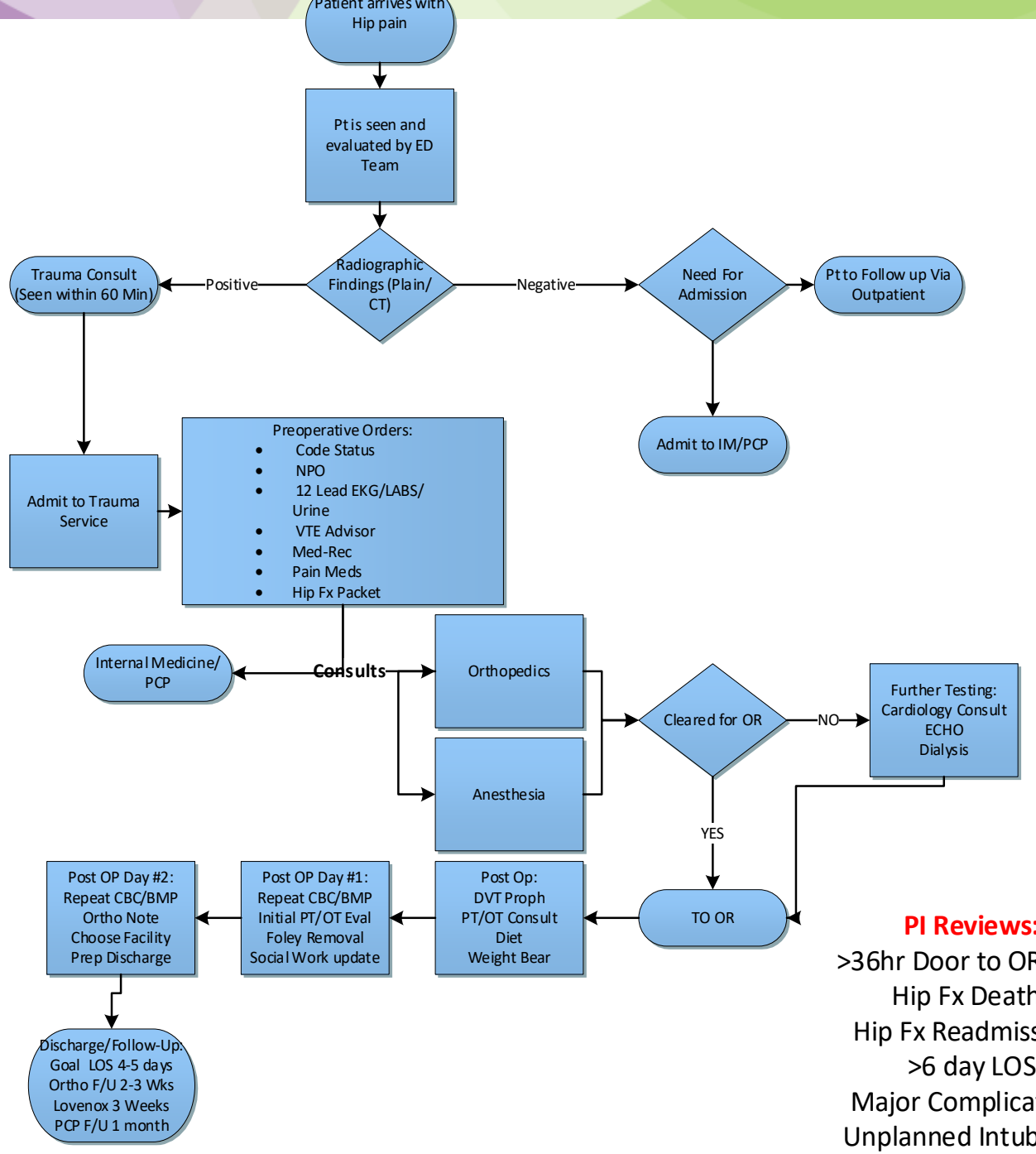
2. Goal: Hip fracture patients are best optimized with surgical fixation within 24 hours of admission and discharged to structured rehabilitation on POD#2-3

Preoperative

1. The trauma service will be notified by level 1, 2 or 3 activation based on the patient's mechanism of injury and overall hemodynamic stability. Ground-level mechanical falls resulting in isolated hip fractures will generally be activated by the ED as level 3 consults

2. All operative hip fractures are admitted to the trauma service. Admission orders should include:
    a. Inpatient admission
    b. Code status with supporting documentation
    c. NPO status, depending on timing of surgery
    d. 12 Lead EKG (if not already performed in ED)
    e. DVT Prophylaxis: If surgery will not be completed until the next day, it is "OK" to order daily dose of lovenox 30-40 mg to be given on admission. Hold DVT prophylaxis day of surgery.
    f. Foley Catheter (condom catheter/urinal may be appropriate in some males)
    g. IV fluids
    h. Laboratory work-up ordered in ED
        i. CBC, BMP, PTT, PT/INR, Type and Screen
        ii. Vitamin D 25 Hydroxy Level (add-on lab)
            1. If abnormal, have the patient follow-up with PCP for management and note in DEPART
    i. Neurovascular checks q shift
    j. Reconciliation of home medications, holding previous anticoagulants/antiplatelet agents
    k. Pain medication regimen considering age/weight/mental status (see appendix)
    l. Scheduled bowel regimen
    m. Orthopedic consult, utilizing on-call schedule
    n. Consult to patient's PCP or covering service if there are acute medical issues requiring consult.
    o. Social work consult – selecting "placement" as reason
        i. Patient/family will receive a "hip fracture information packet" from the social worker in the ED. During off hours, packet should be given the next morning prior to surgery

Trauma Admitting Hip Fracture Patients



PI Reviews:

>36hr Door to OR Time
Hip Fx Deaths
Hip Fx Readmissions
>6 day LOS
Major Complications
Unplanned Intubation
Unplanned ICU Admission

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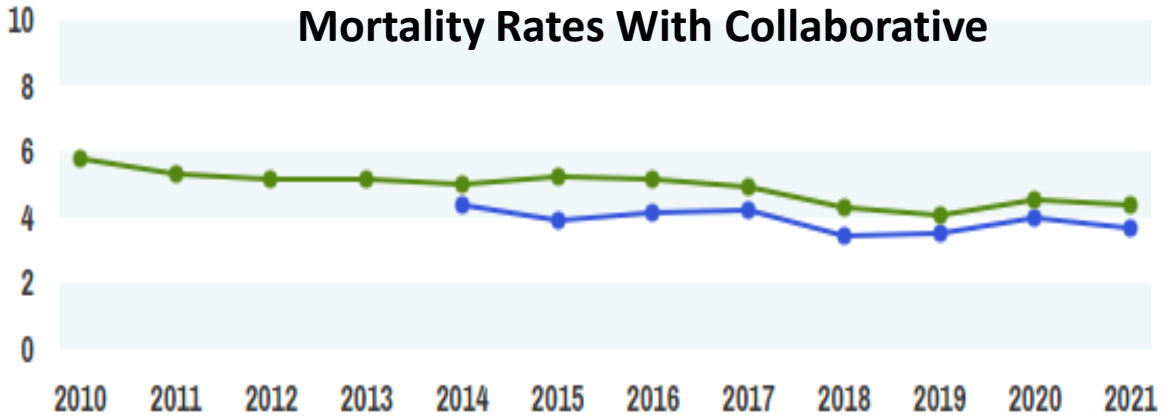
Cardiology Clearance if:

- Active Chest Pain
- New Arrythmia/Tachycardia
- Overt Failure
- New Documented Murmur

MTQIP: Quality Improvement and Focus



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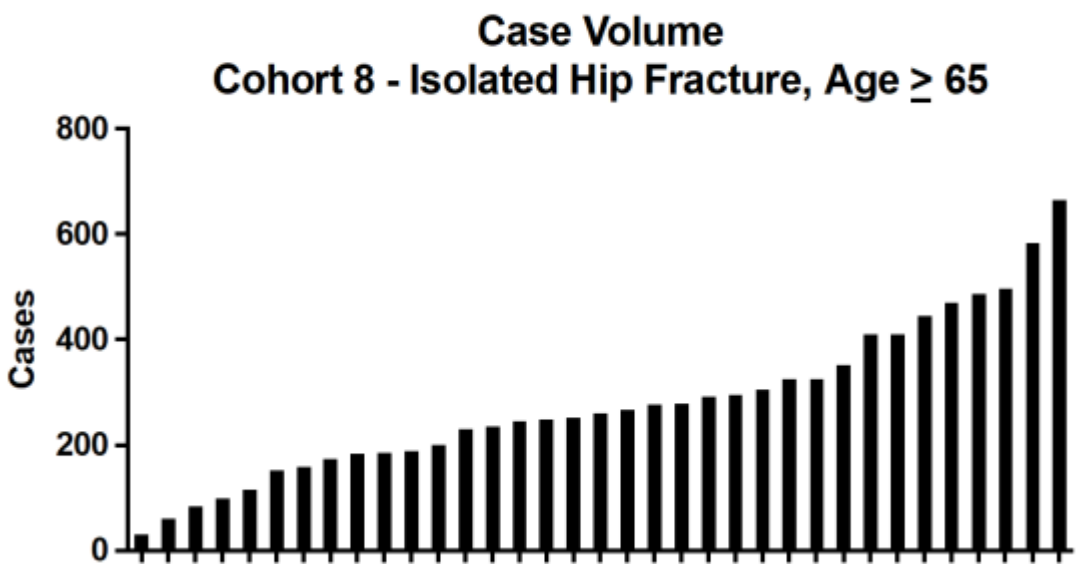
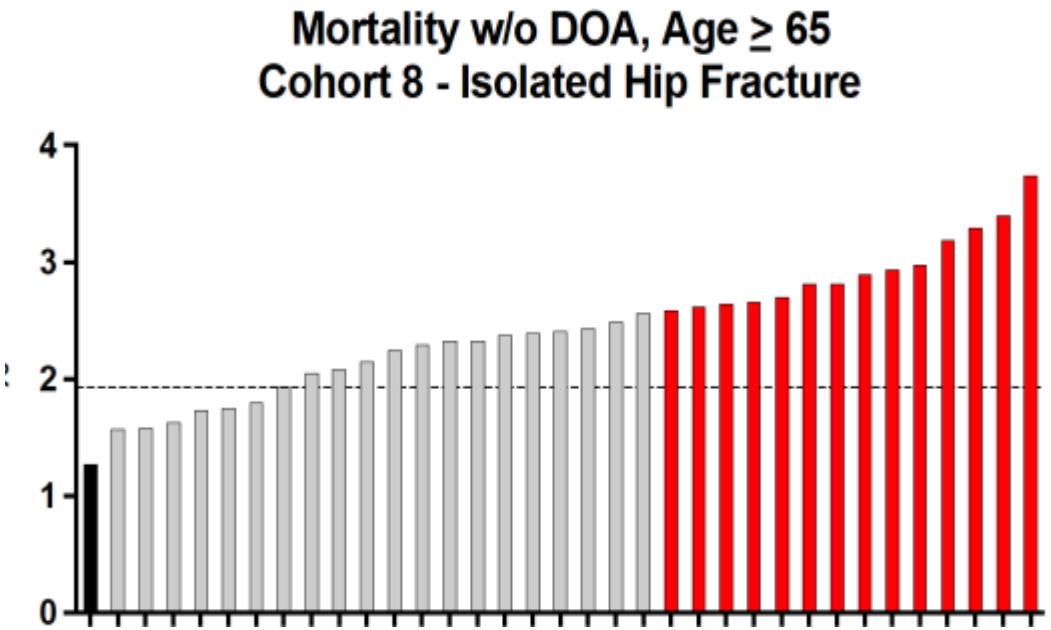
Isolated Hip Fracture





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Process Monitoring and Control

- The care process is reviewed daily to keep track of our performance.
- Implementation of a monthly dashboard that is shared at both Trauma Peer Review and Trauma Committee Multidisciplinary Team
- In an effort to maintain the 24 hour door to OR guideline, any patient that becomes an outlier greater than 36 hours is reviewed by the Trauma Medical Director and Program Administrator. If the delay is deemed to be appropriate the case is closed; if opportunity for improvement is identified, the case is then escalated to our Orthopedic Trauma Liaison for review
- If further discussion is needed the case is abstracted and then reviewed at our Trauma Peer Review meeting for further discussion

Conclusion

- Hip fractures are a major cause of morbidity and mortality in the older population. The increase of falls and longer life span represent a significant strain on our health care organizations in the future. We were able to show that having a hip fracture guideline had a positive impact on our overall length of stay, door to OR time, morbidity/mortality and interdisciplinary communication.

- In conclusion, this guideline has truly benefited the patients and community in which we serve. It has brought multiple disciplines to the table to collaborate on best practice.

- Injury Prevention! https://youtu.be/Q_Eb9t6VKf4


Questions?