

# *Orthopedic Direct Triage in an Emergency Department: Laying the PT Foundation*

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# Disclosure

- ▶ Speaker(s) have no disclosures or conflicts of interest in presenting today's material.

# Outline

- ▶ Opening: welcome, introductions, objectives (10 minutes)
- ▶ Overview: current practice models and historical data “who we are/what we do” (15 minutes)
- ▶ Review: research and outcomes “laying the foundation” (15 minutes)
- ▶ Cost utilization: review of financial considerations “developing the compelling argument” (15 minutes)
- ▶ Direct PT Triage Model: “creating the model” (30 minutes)
- ▶ Challenges and barriers: “problem-solving in advance” (10 minutes)
- ▶ Questions/open forum (15 minutes)
- ▶ Closing comments (5–10 minutes)

# Learning Objectives

- ▶ Participants will be able to understand the current PT practice model and ED workflow of a typical non-traumatic musculoskeletal diagnosis.
  - ▶ Participants will gain an understanding of the cost comparison of PT evaluations to ED diagnostic studies as well as total ED cost of care for orthopedic conditions.
  - ▶ Participants will identify the differences between the current model and a direct triage model. This includes understanding barriers for both practice models.
  - ▶ Participants will gain increased knowledge of current and pending research in this emerging practice area.
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# Overview: “who we are”

## ▶ **EMTC @ Methodist Hospital**

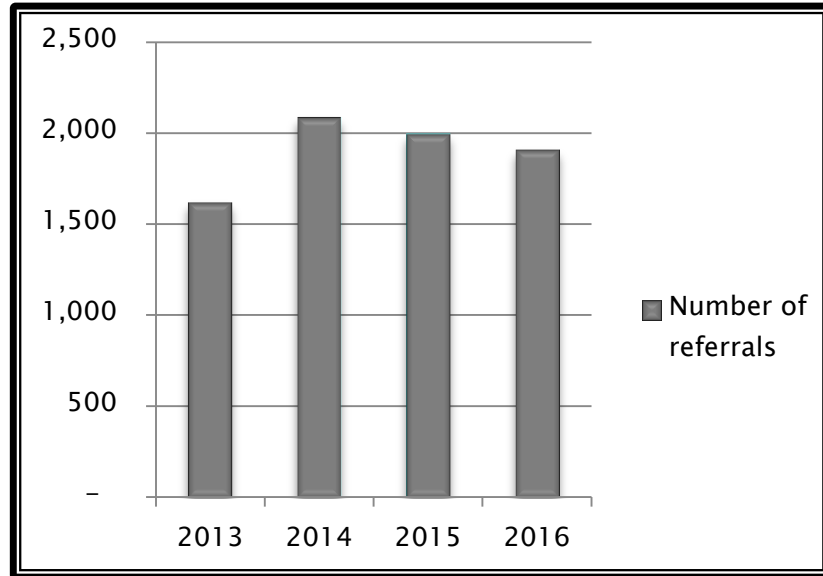
- Downtown Indianapolis
- Level One Trauma Center
- 100 bed ED and 14 bed Observation unit
- ~100,000 ED visits annually
- PT staffs 7 days/week; 360 days/year
- 12 hour coverage M–F
- 6 hour coverage Sat/Sun.

## ▶ **Michael & Susan Smith ED @ Eskenazi Heath**

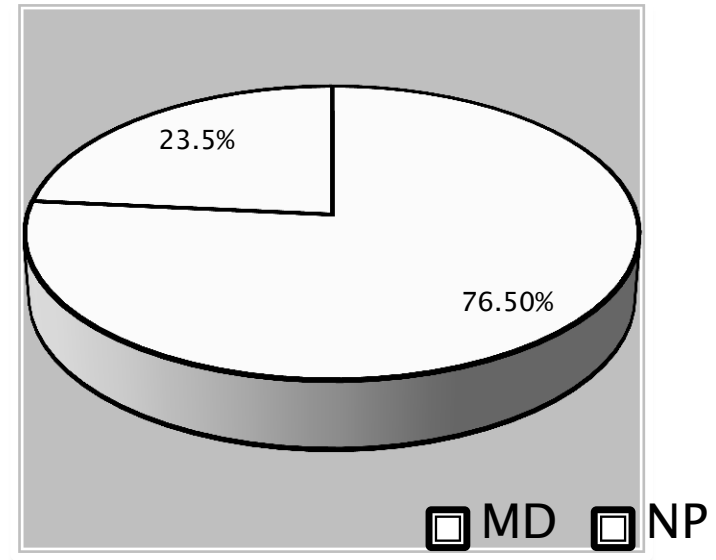
- Within 1.5 miles of Methodist Hospital
- Level One Trauma Center
- Similar size ED
- ~95,000 ED visits annually
- Similar coverage model to EMTC

# Overview

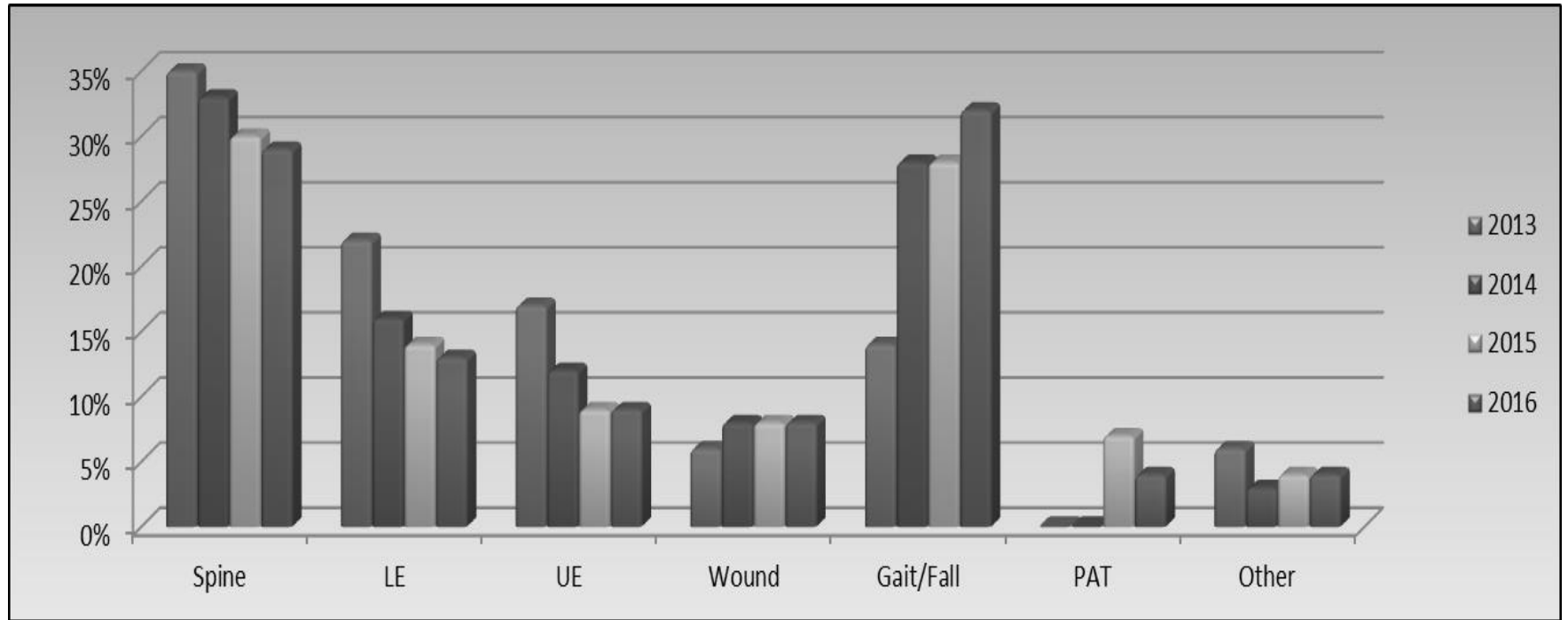
## Total Volume



## Provider breakdown



# Overview: 4 year referral trend



# Overview

- ▶ Current workflow (ED throughput)
  - Arrival
    - Triage levels VI-I
  - Door to Provider time
    - Current for non-trauma patients: 29 minutes
    - Likely med student or resident
    - Staffed with 3<sup>rd</sup> year resident or staff MD
  - LOS to PT referral
    - PT notification of referral
    - Average 45-60 minutes
  - Collaboration with Multi-disciplinary team
  - Door to Door time
    - Average 180 minutes



# Overview


## Current barriers to growth

- Dependency on Provider for referrals
  - Inconsistent with direct access autonomy
- Overemphasis on Organizational metrics
  - Door to Provider time
  - ED throughput
- Staffing changes
- Medical staff misperceptions
  - Appropriate ED consults
  - Access to follow-up
  - Appropriate referrals at discharge

# Review of Research– “Laying the Foundation”

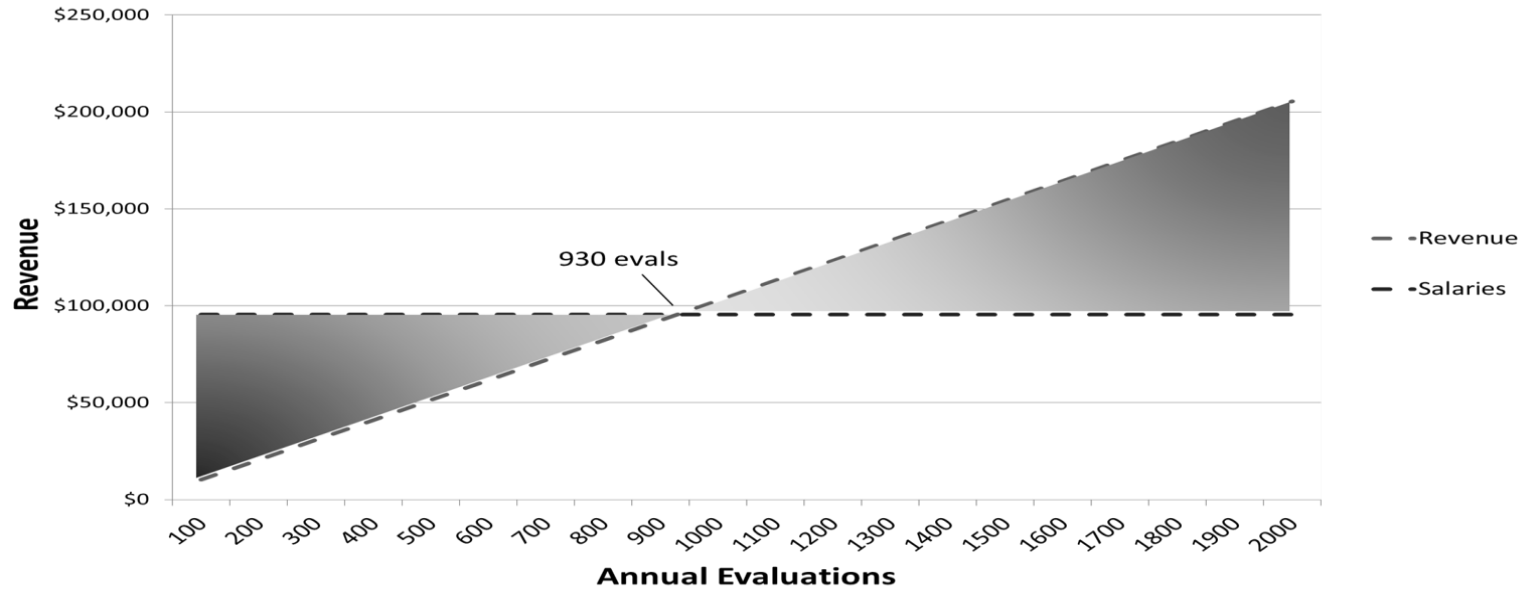
- ▶ Current and prior research related to Physical Therapy in the ED will be discussed
  - United States
    - US Army
    - Private Sector
  - International

# Cost Utilization: “Developing the Compelling Argument”

- ▶ Are we profitable in the ED
  - ▶ Is PT a better value
  - ▶ Can we provide better care
  - ▶ Will patients report better satisfaction
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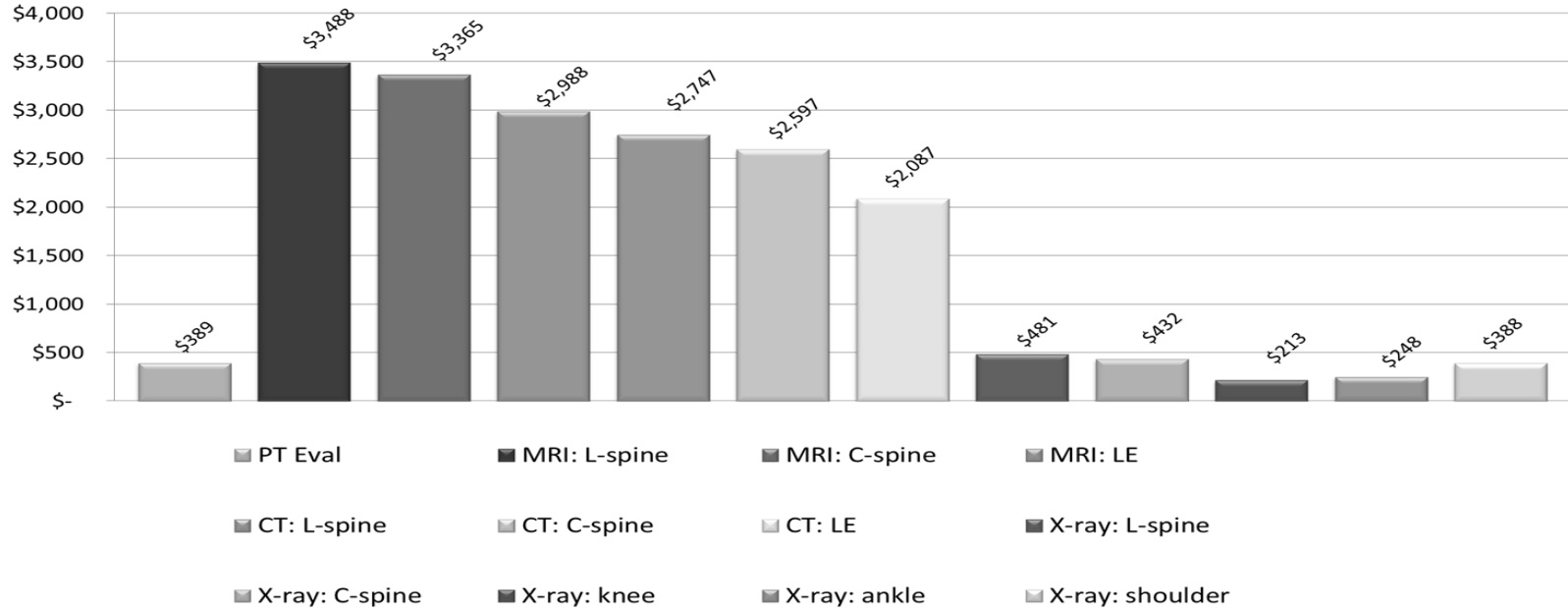
# Are we profitable?

## Break-even Point for Profitability



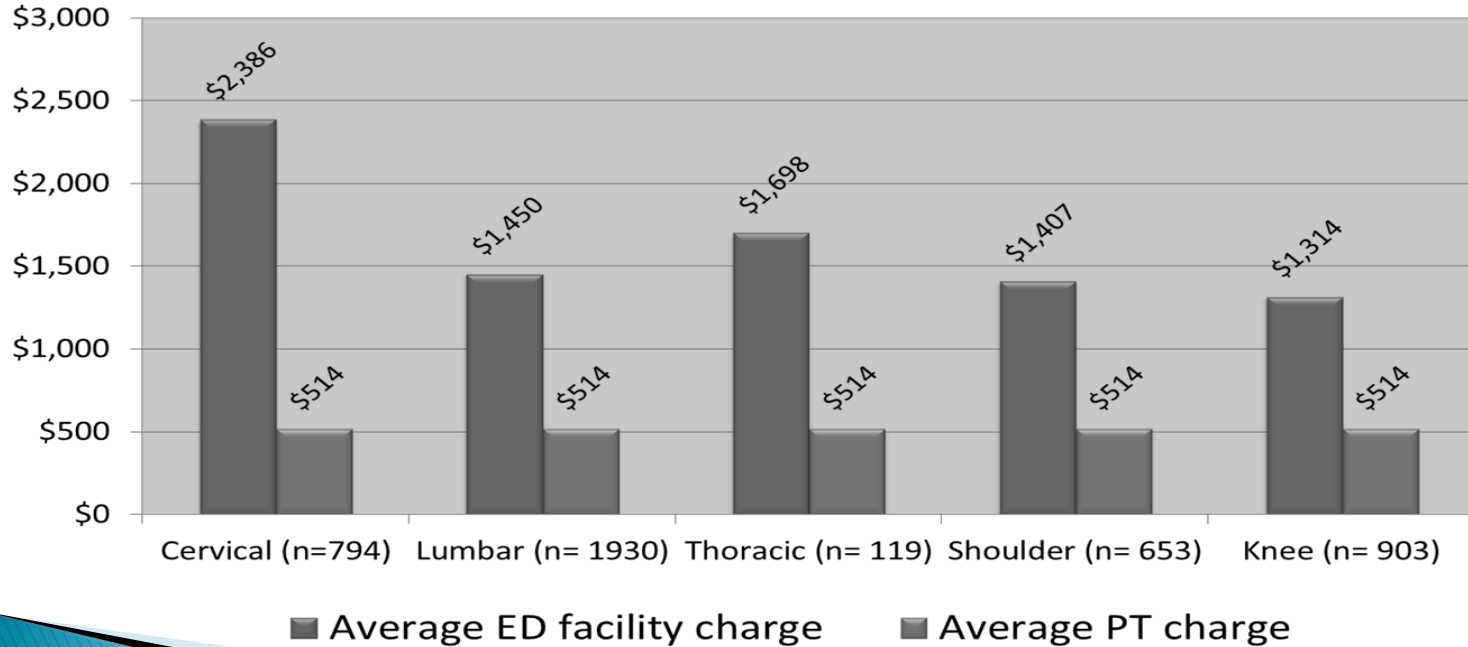
# Are We a Better Value?

## Average Cost of ED Diagnostic Imaging



# The Compelling Argument

## Average Billed Cost to Patient/Insurance



# The PT Direct Triage Model

## ▶ “Creating the Model”

### ▶ Initial Meetings Identified:

- Goals of the model
- Scope
- Stakeholders
- Measurables
- Infrastructure
- Timeline for implementation

## ▶ Who was involved

- Michael Brickens, PT
- Kevin Flint, PT MBA
- Nash Whitaker, MD
  - Assistant Clinical Professor–  
Department of Emergency  
Medicine, Indiana University  
School of Medicine

# Model Framework

## Opportunity:

- ▶ ◆Improve patient access in both Emergency Departments
- ▶ ◆Decrease door-to-provider time for lower extremity (LE) orthopedic conditions
- ▶ ◆Decrease unnecessary diagnostic imaging that are both time-consuming and costly
- ▶ ◆Improve throughput for non-emergent LE orthopedic conditions
- ▶ ◆Shift cost utilization of Emergency Department resources to emergent conditions
- ▶ ◆Provide situation specific orthopedic learning for IUSM Emergency Medicine Residency Program

## Recommendation:

- ▶ This proposal, based on prior published research and collected data, recommends utilizing Physical Therapists as advanced consultants in the management of lower extremity orthopedic conditions within the below criteria. These consultants would evaluate and manage chief complaints that are not life-threatening in order to minimize the time medical providers spend with these conditions.



## ▶ Inclusion criteria

- Chief complaint involving the knee, ankle, or foot
- Between the ages of 13–60 years old
- No visible bony protrusions
- Intact pulses
- WNL neurovascular checks
- No surgical procedures in past 90 days
- Not seen in the ED in past 24 hours

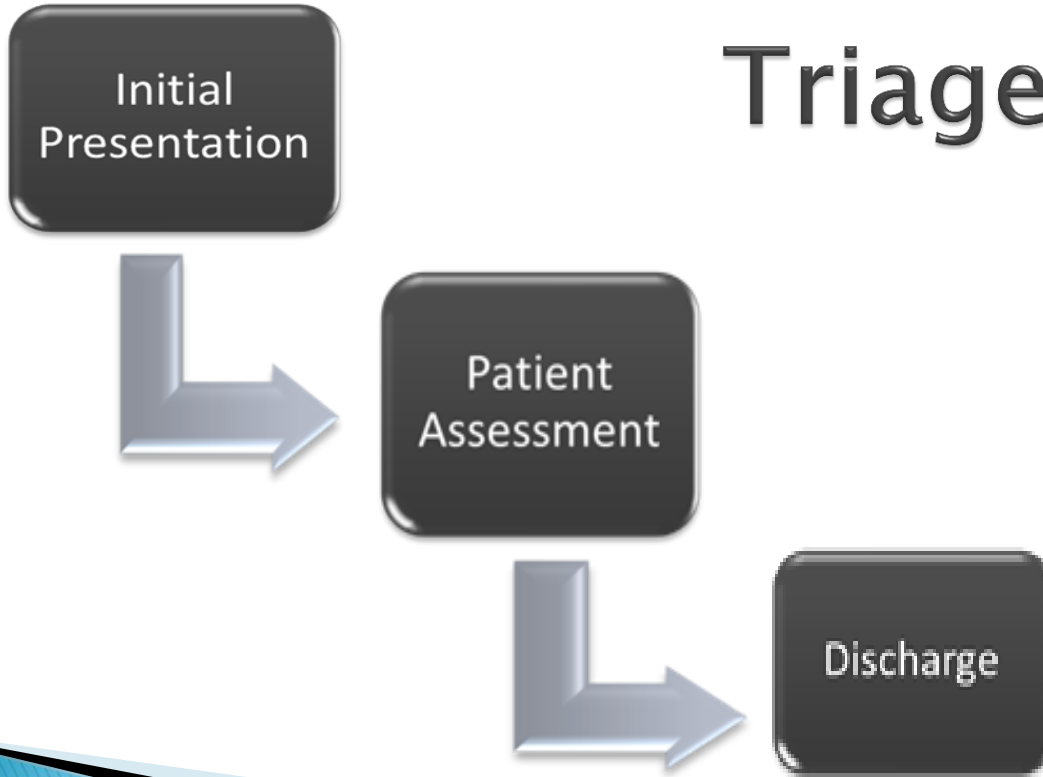
## ▶ Exclusion criteria

- Arrival by EMS
- Patient meeting Trauma 1 criteria
- Suspected alcohol intoxication
- Fever greater than 100.4 degrees orally
- Joint that is red, hot, and swollen
- Penetrating or laceration injury

# Staffing

- ▶ Current staffing model used
  - Maintains budget-neutral emphasis for trial period
  - Maintains continuity for medical staff
- ▶ Coverage hours for model
  - Monday through Friday 1300 – 1800
    - Allows PT to be consulted in other areas of ED
- ▶ Trial period
  - 90 days from implementation

# Triage Workflow



# Triage Workflow

## ▶ Initial Presentation


- Patient arrives
- Triage RN records chief complaint and reviews inclusion criteria
- PT is notified immediately of patient arrival
- PT applies exclusion criteria
- Patient is accepted into model
- Quick registration is completed
  - Allows for proper billing

# Triage Workflow

- ▶ Patient assessment
  - Nursing assessment completed
  - Patient is moved immediately to the PT waiting area
  - PT exam completed
  - Findings reviewed with the Medical Staff (EMTALA compliant)
  - Medical staff will perform independent evaluation
  - Medical staff will agree or modify plan

# Triage Workflow

## ▶ Discharge

- PT will complete treatment and education
  - All necessary documentation complete and discharge instructions issued to patient
  - Patient released in EMR
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# Goals

## ▶ Length of Stay

- Door to Provider time: <20 minutes (current metric is 26 minutes)
- Door to discharge time (without radiology studies): 75minutes (current metric is 3 hours for all patients)
- Door to discharge time (with radiology studies): 2 hours (no differentiation in the current metric)

# Data Needs

## ▶ Measurables

- Return rate (within 3 days of Direct Triage visit)
- Utilization of imaging (reduction in use based on EBP)
- Specialist referral at discharge
- Cost utilization/resource management
- Rate of narcotic prescriptions at discharge (reduction in opioid use)



# Other Needs

- ▶ These serve to streamline the overall time involved in managing the workflow
  - Standing orders: PT consult (for pilot program diagnoses)
  - Standing orders for standard view plain film radiology studies (after discussion with staff MD)
  - Staff MD/Nurse Practitioner available for consultation and medication orders (as indicated)

# Considerations

## ▶ Challenges

- Effect on nursing workflow in front-triage area
- Effect on nursing workflow in all other areas
- Effect on medical providers' workflow
- Impact on EM Residency education
- Reimbursement cost centers

## ▶ Barriers

- Lack of precedence
- Liability
- EMTALA and facility practice acts
- Financial implications on medical staff
- Core competency of PTs

# Open Forum

Questions??

# Closing Comments

- A direct-triage proposal to utilize Physical Therapists in the Emergency Department in order to better manage non-traumatic lower extremity orthopedic injuries and contain costs.

# References

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