Physical Therapy in the Emergency Department: How to Start and Sustain a Successful Emergency Care PT Service

Course Description

1. Describe the development of the PT consultation service in the St. Mary’s Hospital ED.
2. Review the process and outcome measures of the pilot year of the St. Mary’s Hospital PT ED project.
3. Provide evidence of value of PT in the ED.
4. Review which diagnoses and populations are commonly seen in the ED.
5. Suggest what tools and skills are needed to be an ED PT.
6. Offer suggestions on how to start your own PT consultation service in your ED.

Course Objectives

Upon completion of this course, participants will be able to:

1. Explain how PT can add value to an ED.
2. Collect data before and after implementation of PT in the ED to justify the value of the service.
3. Establish a successful ED PT consultation service.
4. Sustain a successful ED PT consultation service.
ED PT Care Pathway
1. ED PT on Float caseload – evals only
2. ED staff identifies appropriate patient
3. Enters PT referral in EPIC and calls Float cell phone to give info
4. PT calls administrative assistant to reschedule next patient on float load
5. PT arrives within 20 minutes
6. PT eval and treat <60 minutes
7. Coordinate with RN, Physician/PA, Care Management for D/C planning

PT Diagnoses
- Back pain (acute or chronic)
- Limb pain
- Non-surgical fractures
- Non-cardiac chest pain
- Falls
- Gait instability
- Failure to thrive
- Vertigo/vestibular dysfunction

Care Management
- Relationship between Care Management and PT is vital
- Cyndi Benson-Lein, RN Case Manager
- Need for increased Care Management presence in the ED
- Responsible for utilization management
  - Decreasing unnecessary admissions
  - Finding medical necessity before inpatient admission

A typical ED visit
- Triage
- MD assessment
- Medications
- Imaging (if necessary)
- Hospitalist/MD admits or discharges
- Patients may or potential conversion to inpatient status
- Discharged from ED
- Referral to outpatient PT with symptom or diagnosis

Who comes to the ED?
- True emergencies
  - Losing life
  - Losing limbs (Willis et al, 2008)
- Perceived emergencies
  - ~50% of ED patients have non-life threatening injuries
  - ~10% of ED patients have chronic pain as their C/C (Cordell et al, 2002)
  - Patients with pain feel the need to have objective results to justify their symptoms (Willis et al, 2008)
- Frequent visitors
- Re-admissions or re-visits
- Use of ED as primary care
- Convenience users

What if we could...
- Decrease unnecessary admissions
- Decrease re-admissions or re-visits to the ED for same diagnosis
- Better manage symptoms in the ED
- Improve patient satisfaction in the ED
- Decreased unnecessary outpatient PCP visits
- Decrease the length of time between ED visit and outpatient PT visit
- Decrease time between ED visit and home health services introduction
Project Background

- Opportunity: To practice exceptional stewardship by providing the appropriate level of care for our patients in the ED
  1. Return visits to the Emergency Department (ED) for unresolved symptoms
  2. Extended observation stays
  3. Inappropriate admissions to hospital
- Identifies opportunities for Physical Therapy (PT) and Case Management (CM) in the ED

Implementation Steps

1. Update the rehab director
2. Discuss with PT colleagues
3. Identify lead PT and a few substitutes
4. Create steering team of stakeholders
   - Sarah Nechvatal, PT
   - Cyndi Benson-Lein, Lead RN Case Manager
   - Nancy Rung, Rehab Director
   - Theresa Ojala, ED Director
   - Anthony Callisto, MD – Medical Director of ED
   - Sheryl Krause, RN, Emergency Medicine CNS
   - Deb Dees, ED RN

Goals

1. Decrease number of observation patients within our selected population by 10% over 6 months.
2. Decrease observation length of stay within our selected population by an average of 12 hours over 6 months.
3. Decrease return visits to the ED within 5 days for same complaint by 10% over 6 months.

The Front Porch Project

Prepared by:
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7. Coordinate with RN, Physician/PA, Care Management for D/C planning
Implemention Steps

5. Developed care pathway
6. Presentation to the ED physician group
   Pathway
   Narcotics education
7. Presentation to the ED Nursing staff
   Pathway
   Narcotics education
8. Presentations to Rehab and Care Management
9. Meeting with community resources
   Area outpatient PT clinics and clinic directors
   Home health agency schedulers
10. Go Live! on November 1, 2010

Process Measures

Number of Emergency Department Referrals During the First Year

<table>
<thead>
<tr>
<th>Month</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
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<td>15</td>
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<td>16</td>
<td>15</td>
<td>16</td>
<td>20</td>
<td>20</td>
<td>19</td>
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</tbody>
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Outcome Measures

Number of Observation Patients within our Selected Patient Population that were admitted through the ED

Outcome Measures

Average Observation Length of Stay within our Selected Patient Population in Days

- **Diabetes**
  - Trimmed mean for Pilot Year: 3.2
  - Trimmed mean for Previous Year: 3.6

- **Limb Pain**
  - Trimmed mean for Pilot Year: 2.5
  - Trimmed mean for Previous Year: 3.0

- **Back Pain**
  - Trimmed mean for Pilot Year: 1.5
  - Trimmed mean for Previous Year: 2.3

Changes After 1st Month

- Dr. Bell – new consultation service
  - Be present.
  - Be seen.
  - Get in with the nurses.
- Documented in the ED during down time
- Introduced myself to everyone I didn’t recognize
- Talked with the nursing staff
- Made reminder signs for the walls @ each ED phone
- Invited nursing staff into my sessions
- Empowering the hospitalists
- Making believers...one at a time (Hold the Bucket)
A Review Lesson on Averages

3 + 4 + 4 + 26 + 24 + 30 = 91
91 ÷ 6 = 15.17 hours

3 + 4 + 4 + 26 + 24 + 30 = 80
80 ÷ 3 = 26.67 hours

Outcome Measures

PT Qualifying Patients Who Return to the ED within 5 days and ED Patients who are Admitted within 5 days of ED Visit with Same Complaint

Process Measures

Number of PT Referrals Throughout the Day

ED Volume per Hour of Day

Average Observation Length of Stay within our Selected Patient Population in Days

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**ED Volume per Day of Week**

**Process Measures**

- Call to Contact Time
  - Expectation: 20 minutes
  - Expectation achieved: 80%
  - Average: 16 minutes and 36 seconds

- Treatment Time
  - Expectation: ≤ 60 minutes
  - Expectation achieved: 89%
  - Average: 45 minutes and 12 seconds

**Discharge Disposition from ED after PT**

- Home: 79%
- Inpatient: 3%
- Observation: 6.90%
- SNF: 1.50%
- ALF: 0.50%

**Home Services after Discharge Home from ED**

- No services: 49%
- Home Health: 24%
- Occupational PT: 28%
- Physical PT: 43%
- Fauci Assist: 18%

**Chief Complaint**

- Back Pain: 13%
- Limb Pain: 9%
- Falls/Gait Instability: 40%
- Vertigo/Dizziness: 52%
- Misc: 74%

**Payor**

- Medicare: 4%
- Dean: 3%
- Self Pay: 3%
- Medicaid/BadgerCare: 16%
- WPS: 14%
- Worker’s Comp: 11%
- Other insurance: 49%
Lessons Learned

1. Make SMART goals after collecting data.
   - Specific, Measurable, Attainable, Realistic and Timely
2. Data collection always takes longer than expected.
3. Educate the hospitalist group before implementation.
4. Do a full year for the pilot.
5. Conduct a study group for PTs to review vestibular and musculoskeletal exam and treatment so that more PTs feel comfortable in that role

Collecting Outcome Measures

- Connect with your ED data analyst (a.k.a. CQI, information systems)
- Data analysts track re-admits or re-visits
- Trendstar (billing tool) and HDM are commonly used programs
  - We now use Epic instead of HDM
  - Trendstar has a 1-2 month lag
- Connect with medical record ICD-9 coders to identify ICD-9 codes

Observation Patients: Number & LOS

- Observation charge code (instead of inpatient)
- Actual vs Billed time
  - Actual time is the whole time they are observation
  - Billed time deducts procedures and consultations
- Only included patients who were observation the whole time

Tracking Return Visits

- Same ICD-9 codes
- Runs a Re-Admission report (within 5 days)
  - Return visits: ED visit, D/C from ED, return to ED
  - Admitted within 5 days: ED visit, D/C from ED, then is admitted to hospital (through ED or direct admit from outpatient)
- Chart Audits to see who could have benefitted from PT during the first visit to prevent second visit
- Include ICD-9 codes in both primary and secondary diagnoses
  - Back pain – primary diagnosis both visits
  - Fall with leg pain, return with gait instability – primary, secondary
  - Fracture then readmitted for surgery 3 days later

Why Didn't We...

- Track for the post-pilot year?
  - Too time consuming to do chart audits
- Other variables were introduced that could affect these outcomes
- Audit charts of patient who returned within 30 days?
  - Too time consuming to do chart audits for that many patients
  - Would PT intervention one day prevent a return visit to the ED 3 weeks later? Probably not.
- Track patient satisfaction?
  - We didn't think we could do a before and after since the current practice is randomly survey patients with random diagnoses
  - St. Joseph’s Carondelet tracked – 80% of patients were satisfied with the PT service. (Woods, 2000)
Skills and Character Traits Needed

- Musculoskeletal exam
- Manual therapy
  - Joint mobs
  - Soft tissue work
- Modalities
- Vestibular assessment
- G Code expertise
- Ability to communicate the proper series of events for a musculoskeletal condition
- Enthusiastic
- Confident
- Active learner
- Flexible
- Time management
- Lead PT
  - Persistent
  - Good salesperson
  - Diplomatic

Value of PT in the ED

- PTs are less likely to miss significant knee injury and can deliver the diagnostic service more cost effectively than "senior house officers" (Shahle et al, 2003)
- Patients with acute LBP, with or without referred leg pain, had statistically significant reduction in pain and increased satisfaction with PT intervention when compared to control group who received walking training and walking aids only (Law et al, 2008)
- Extended scope physiotherapists (ESP) achieve higher patient satisfaction with assessment/treatment of peripheral soft tissue injuries and associated fractures compared to physicians and emergency nurse practitioners (McClaran et al, 2006)

Resources Needed

- High-low table (ED beds)
- US/E-stim machine
- Access to ice and heat modalities
- Massage cream
- Exercise library and patient education handouts (ie. Exercise Pro)
- Gait belts
- Access to stairs/curb step
- DME: crutches, 2ww, youth 2ww, 4ww with seat, standard walker, platform attachments for walker and crutches, straight cane, quad cane, manual w/c

Value of PT in the ED

- ED physicians perceive PT has value due to increasing the scope of their management options for musculoskeletal pain (an alternative for narcotic use), vestibular impairments and evaluating mobility of potentially unsafe patients. Physicians perceive that PTs have reduced their workload (Lebec et al, 2010)
- Barnes-Jewish Hospital in St. Louis surveyed ED personnel who report satisfaction with the PT's management of musculoskeletal pain, contribution to differential diagnosis, and discharge recommendations (Fleming-McDonnell et al, 2010)

What does the future hold?

- Keep the conversation going with stakeholders
- Direct Access
  - EMTALA (Emergency Medical Treatment and Labor Act)
  - The right care, the right place (sort of), at the right time
  - "Potential to prevent chronic progression and its high associated costs" (Lebec & Jogodka, 2006)
- Proving value of PT in the ED
  - Cost effective care
  - Increased patient satisfaction
  - Improved clinical outcomes

Less Money Lost in the ED?

- Traditional ED care with physician assessment, tests, medications, nursing staff is billed as thousands of dollars
- The reimbursement does not cover the actual cost and therefore the ED is a "money loser"
- PT practices relatively independently – cost is mostly just PT wages and supplies used during treatment (Lebec & Jogodka, 2009)
Where to Start?

1. Identify lead PT, lead Case Manager and a few substitutes
2. Identify stakeholders and start the conversation
3. Identify what is important to that individual role (ie. Administrator)
   - How will this help the system?
   - How will this affect FTEs?
   - Will this prevent readmissions?
   - Will this increase our outpatient PT referrals? (Is there opportunity for downstream revenue?)
   - How will this affect staff satisfaction?
   - How will this affect patient satisfaction?
4. Meet with data analyst and collect data on what’s important
5. Create goals

Where to Start?

6. Create your steering team
   - Lead PT, Case Manager (Social Worker or RN Case Manager), ED RN, ED physician, ED nursing director, & Rehab Director
7. Create care pathway
8. Educate stakeholder groups (pathway & what is important to them)
   - ED physicians
   - ED nursing
   - Hospitalists/Internal Medicine
   - Rehab department
   - Care Management department
   - Community Resources (home health, outpatient clinics, etc)
   - Administration
9. Gather equipment and resources
10. 1 year for pilot period
11. Keep the conversation going with regular meetings/updates with stakeholders and ask for their feedback

References


Questions?

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