INTRODUCTION AND OVERVIEW

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OBJECTIVES

- Explain the necessity of improving efficiency in the delivery of physical therapy services in the acute setting as related to reductions in hospital reimbursement rates, system expense reductions, and patient outcomes
- Provide operational definitions for productivity and efficiency and current industry standards for therapist productivity

HISTORICAL PERSPECTIVES

Measured 11 therapists' billed services revenue in acute care to identify the most efficient therapist, then calculated the increased revenue if all therapists achieved this level of performance.


PRODUCTIVITY METRICS AND OUTCOMES IN ACUTE CARE

“What we should be using productivity to monitor the efficiency and effectiveness of the systems and processes that SUPPORT practice...whether we monitor productivity or not is NOT the issue....how or what we do with the data IS”

Arslanian L, Gromoki Doer M, Kapur S. Productivity Metrics And Outcomes in Acute Care. CSM 2006

What are the compelling reasons for measurement and management of productivity (efficiency) today?

How do we measure and manage?
Clinician and Team Productivity in P.T.
Throughout the Continuum of Care.
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**Healthcare Cost Escalation**

![Graph showing healthcare cost escalation from 1980 to 2020 with data points for 2012, 2013, 2014, and 2015.]

**Economic Rationale:**

![Bar chart showing revenue and expense with a question about where the practice/organization is positioned.]

**Environmental Pressures**

- PCACA: 40 million new insured
- Aging population
- High deductible plans
- Rising patient co-payments/co-insurance levels
- Supply/demand of clinicians
- Technology advancements
- Substitute competitors—Google, Wal-Mart, Walgreens, SoloHealth
- Social media
- Large employer “outsourcing” of select elective procedures

**Environmental Pressures**

- System expense reductions
- Lean process
- EMR implementation enhancements
- LOS management
- Clinical pathways
- Increased referrals – non-skilled needs
- Readmission penalties
- Hospital Value-based purchasing programs
- Government and regulatory scrutiny

**What Is Our Value Proposition?**

Value = Benefits / Cost

**What Is the Impact of Extra Physical Therapy?**

- 2826 Articles searched using PEDro scale with 16 RCTs (1699 participants)
- Compared with standard physical therapy, extra physical therapy reduced length of stay (SMD = .22; 95% CI, -.39 to -.05) in acute settings
- Also improved mobility, activity, and QOL
WHAT IS THE IMPACT OF ADDITIONAL EXERCISE?

- 236 patients 65 years of age or older admitted to an acute care hospital
- Experimental group received usual care plus tailored exercise program, twice daily, each day
- No significant differences: length of stay; Barthel Index; TUG; Functional Ambulation, adverse events


WHAT IS THE EFFECT OF PT “OUTSIDE HOURS”?

- Systematic review: assessment impact on patient LOS, pulmonary complications, discharge destination, discharge mobility status, QOL, cost savings, adverse events, mortality
- Nine articles: low to medium quality
- One study ICU overnight PT decreased LOS and reduced pulmonary complications
- No strong evidence of impact in orthopedics, neurology, postcardiac surgery, rheumatology


OPERATIONAL DEFINITION REQUIRED!

- Billed units (output) / hours worked
- Examples:
  - 75% = 24 units in eight hour work day (six hours billed)
  - 85% = 408 billed minutes in eight hour work day
- Exclude PTO and sick time hours
- Careful: 100% “productivity” may mean achievement of targets
- Consideration for whether therapists are exempt or non-exempt

ACUTE CARE: LEVEL OF PRODUCTIVITY

- 60% billable time?
- 75% billable time?
- IT DEPENDS>>>>

Source: Ed Dobrzykowski, PT, DPT, ATC, MHS
Manager Surveys, Continuing Education Classes

HPA “BURNING QUESTION” SURVEY

- How is productivity measured? What are the metrics used?
- What are the efficiency measures used in the continuum of care?
- 171 respondents
  - 39.2% utilized billed treatment units (BTUs)
  - 48% of respondents reported productivity rate of 72%
    (23 BTUs)

Section on Health Policy & Administration, Dec. 2011

WHAT FACTORS IMPACT PRODUCTIVITY IN ACUTE CARE?

- Type of hospital
- Physical space covered
- Case mix
- Care plans and intensity
- Appropriateness of skilled referrals
- Others

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Can we eliminate, delegate or mitigate non-productive and non-billable activities?

IMPROVING EFFICIENCY
- Explain the context - Why?
- Define operationally
- Outline expectations
- Measure and raise the bar

REFERENCES
- Aslaksen L, Gonzales Dean M, Soper S. Productivity Metrics And Outcomes in Acute Care. CSM 2006
- Robinson R. Productivity Among Physical Therapists: An Evaluation of One Department. Phys Ther 1984; 64:242-244

PRODUCTIVITY AND BENCHMARKING
- Solucient: www.solucient.com
- Premier: www.premierinc.com
- HCS Consulting: www.hcsconsulting.com
- Total Productivity Track: www.therapytrack.com
- AAOS: www.aaos.org

STANDARDIZATION OF METRICS: LARGE ACADEMIC MEDICAL CENTER
CATHARINE CURRIER-BUCKINGHAM, P.T., M.B.A.
DIRECTOR, REHABILITATION SERVICES
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PRACTICE SETTING
- Academic medical center
- 900 hospital beds
  - 200 ICU; 25 IRF; 25 SNE; 25 Psych; 40+ Obs.
  - Clinics/OP: ALS; MD; MS; OP diagnostics(neuro)
- 65 PT/PTA employees
- 43.5 PT/PTA FTE’s
- 5 departments (SLP, SNE, IRF, Psych, Acute)

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**MEASUREMENT**

**ISSUES**

- What reflects your operation?
- Is there a national benchmark?
  - Is data comparable?
- Current data: clean & valid?
  - Ease of translation?
  - Ease of collection?
  - Meaningful?

**DESCRIPTIVE METRICS**

**My Key Questions**

- What services do we provide?
- What are the necessary resources?
- Are we efficient in service provision?
- National benchmark—? comparable
- What is our current baseline?

**OUR STANDARDIZATION**

**1. Service Definition**

- Common definition
  - CPT codes
  - Units of service(uos)=15 min of time
- Update “charge master guidelines”
- Hardwire:
  - Orientation of new providers
  - Update annually

**EXAMPLE**

**CDM Guideline: “Eval-Intermediate”**

Definition:

“30-60 min of therapist time with patient.”

Value=5 UOS (Units of Service)

**OUR STANDARDIZATION**

**2. Define Necessary Resources & Cost**

- Procedure Rate Setting Guidelines
- Labor expense (licensed & non-licensed)
- Preparation- avg. minutes
- Direct service- avg. minutes
- Hand off/communication- avg. minutes
- Documentation- avg. minutes
  - Supply expenses(average)
- Assign UOS “value” for Charge

**EXAMPLE**

**Professional Assist, Ea 15 min**

- Definition “Patient- specific tasks/communications which facilitate through put for patient. EX= discussions w/family, case mgr, physician, DME vendorinclude in daily documentation under “collaboration” or “education”. Per 15 min.
- VALUE=1 UOS

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**CDM item:** Lymphedema LE, ankle & foot:

- **Labor**
  - PT: $40/hr x 1 FTE x .6 hr = $24.00
  - Tech: $14/hr x 1 FTE x .6 hr = $8.40
- **Supplies**
  - Webroll x 3 x $0.52 each = $1.56
  - Lo Press x 3 x $3.87 each = $11.61
  - Total Expense: $45.57
- Value = 2 UOS

**Example**

- **Define Efficiency**
  - Relates Resource to Output
  - Denotes “over or under” resourced
  - Real time measures flexibility
  - Predicts Capacity
  - UOS/FTE - WHPUOS (Worked Hour/Unit of Service)

**Example**

- **Worked Hour per UOS**
  - Minutes of “Resource” (average)
    - PT/OT: 15
    - PT/OT Travel: 5
    - Tech tx: 9
    - Tech Travel: 7
  - Total: 36 min.
  - Resource/hour/UOS: 36 min/60 min = 0.6 hour

**Example**

- **Predict Staffing**
  - Ave UOS/day (existing) = 348
  - WHPUOS = 0.6 hours to complete 1 UOS
  - Ideal Staff Level:
    - 348 UOS x 0.6 = 208.8 hours of “productive” time

**Example**

- **Useful in Daily Operations**
  - Real time measures
  - Predict and identify staffing needs
  - Trends practice patterns
  - Allows comparison of productivity
    - Setting
    - Across time
  - Tracks improvements

**Example**

- **UOS Volume**

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Strategies to Meet Productivity in Acute Care

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Productivity

In economics, a measure of productive efficiency is calculated as the ratio of what is produced to what is required to produce it.

Productivity Expectations

13 patient visits / 8 hours
1.62 patients/hour

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Productivity Expectations
- Eval = .5 = 30 minutes
- Treatment = .25 = 15 min

Productivity Expectations
- If an average visit = 30 minutes then the expectation is 6.5 productive hours per 8 hour day. This is a productivity percentage of 81.25%

Barriers to Productivity
- Availability of patients
- Multiple floor coverage
- Complicated patients
- Time need for documentation
- Attendance at Rounds

Strategies to Improve Productivity
- Rounds
- Assignment of PT to floor
- Early mobility
- Use of Regular per diem
- Use of the PT Aide
- Ongoing Productivity Communication

Strategies to Improve Productivity
- Use of the Rehab Aide
- Patient Assignment and Scheduling
- Patient availability
- Room/Patient setup
- “Extra pair of hands”
- Post-set up
- Patient billing

Strategies to Improve Productivity
- Use of the Rehab Aide
- 3 FT Aides during the week
- 1 – 2 Aides during the weekend
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**Strategies to Improve Productivity**

**Use of the Rehab Aide**

- What else do the aides do?
  - Assist with Patient Satisfaction initiatives
  - Keep department statistics

**Strategies to Improve Productivity**

**Ongoing Communication**

- Monthly emails detailing individual monthly productivity, year to date productivity, department monthly and year to date productivity
- Development monthly based on email of barriers to productivity and strategies to address

**What Happens When Productivity Standards are not Met?**

- Coaching/Counseling Sessions
- Action Plan developed
- Performance Agreement
- Potential Termination

**Triage**

Reducing Waste in Acute Care

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**Definition**

- **Triage:** The sorting and prioritizing of patients for treatment based on need, often related to type of injury/illness and the severity.

  Right patient, right provider, right time.

**Who we are**

- Located in SE Minnesota
- Two Hospitals:
  - St Marys – 800 beds
  - Methodist – 400 beds
- Academic Medical Center
  - with rotating students & residents
- Triage principles apply
Inappropriate Referrals

- Medically unstable
- Having multiple tests
- Discharge plan in place and patient leaving shortly
- Patient is at their baseline

A Centralized, Systematic Process

- All new therapy orders from General Medical floors are triaged
- Held in a queue until reviewed
- Reviewers trained in standardized approach

Patient’s Chart Reviewed

- Patient demographics (age, weight, etc)
- Admission Notes (chief c/o, diagnoses, LOS, etc)
- Tests (imaging, labs, etc)
- History (medical, social, living environment, etc)
- Prior level of function (mobility, ADL’s, etc)
- Pain levels, Fall risk assessments
- Nursing POC (current activity level)
- Any discharge plans (if applicable)

Questions to ask…

1) Plans to discharge to SNF in next 48 hours?
2) Have there been attempts to mobilize patient?
3) Will therapy be relevant to return to function?
4) Is the patient able to participate in therapy?
5) Is the patient at his/her baseline of function?

Hold or Cancel?

- Hold: Documented & reassessed
- Cancel: Discussed with referring service, then documented

15-20% of new referrals are either Held or Cancelled.
The balance

Pros:
- Saves therapist time
- One process = efficient
- Provides a consistent message
- Reduces frustration

Cons:
- It takes someone's time
- Creates a small delay
- Decisions made via chart review
- Can lead to challenging discussions

The Business Case

- With pressures to manage volumes, be timely, and gain efficiencies...

  Triage takes 2-5 minutes of chart review vs.

  Therapist time for inappropriate consult = ???

  - Chart review
  - Finding & discussing with nurse
  - Possible face-to-face with patient
  - Documentation

Anchors

- Therapists who are consistently anchored in practice areas are more efficient.
  - Themselves
  - Colleagues
  - Triage “on the go”

Bibliography


Thank you!

Innovative models of care redesign in the acute hospital setting

Patrick Tarnowski, PT, MBA, SCS
Director, Sister Kenny Rehabilitation Institute, Minneapolis, MN
Patrick.tarnowski@allina.com
Sister Kenny Rehabilitation Institute

- Rehabilitation Clinical Service Line for Allina Health
  - Acute care - 9 hospitals
  - Acute rehab – 2 hospitals
  - Comprehensive outpatient therapies – 9 hospitals
  - Musculoskeletal therapy clinics – 23 locations
  - Spine centers – 3 locations
  - Pediatric rehabilitation – 4 locations
  - Provider practice – 16 MDs, 6 NPs
  - Research Center
  - Foundation

Current state:

- Despite strong clinical evidence of the value of therapies in the acute care setting, there is limited, robust data supporting impact of acute therapy upon current key financial drivers (overall hospital LOS and readmission)

  - Pashikanti, March 2012 Clinical Nurse Specialist: standardizing mobility programs improves outcomes
  - Morris, et al, Critical Care Medicine, Aug 2008: shorter LOS in ICU
  - Morris, et al Am J Medical Science May, 2011: Tracheostomy, female gender, higher Charlson Comorbidity Index and lack of early ICU mobility were associated with readmissions or death during the first year.

Acute care problem:

- "It's nice to be popular, but…"
  - Requests for acute care therapy services continue to rise
  - 15% annual volume growth (2009-September, 2012)
  - ICU, acute neuro, cardiac, joints, spine,
  - Demand outpacing supply
  - DRG based payment
  - System pressure to control FTE creep
  - Requires new care models

Problem Statement

- Patients with orders for therapy left unseen at end of day
  - Impact:
    - Patient, provider, nursing, therapist dissatisfied
    - Decreased clinical impact (mobility, safety, cognition, LOS, etc.)

Ensuring Timely and Routine Initial and Subsequent Rehabilitation Treatment in Acute Care at United Hospital

Allina Advanced Training Program
Stakeholder Forum - Results

Cause & Effect - Root Cause - 5 Whys

Plan – Do – Study - Act

• As a result of the PI process, 4 actions rose to the top:
  - Primary Unit Assignment
  - Flash Rounds
  - Point of Service Documentation
  - Template Use Standardization

What did we accomplish?

Care Delivery

• Decrease number of PT and OT acute care patients not seen subsequently per day by 50%
• Did not adversely impact timeliness of initial assessments
• Improved communication and engagement across disciplines (therapies, nursing, hospitalists)

Documentation time

Project #2 Reduce duplication of therapy services in post op cervical spine fusion

• Approximately 80 C-spine fusions annually at Allina quaternary hospital
• Standardized post op order sets included PT + OT
• Few require both services, but SKRI therapy team was obligated to fill

PI Process and Results

• Process
  • Deliberate cross discipline team (physical, nursing, surgery, PT)
  • If myopathy, radiculopathy or assistive device, occupational therapy completes assessment prior to physical therapy
  • If OT determines PT is not necessary, consult with RN and PT
  • If PT concurs, fill a last note and complete the order.
  • If PT does not concur, care delivered as ordered

Next Steps

• Tie to readmission and hospital LOS
• Launch flash rounds and unit based staffing across all hospitals

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Interdisciplinary Patient Mobility Programs for Optimal Utilization of Skilled PT Services

Jane K. Oeffner, PT, DPT, MBA
Site Manager, Good Shepherd Penn Partners at Penn Presbyterian Medical Center
Jane.oeffner@uphs.upenn.edu

Our Issue

• Therapists being pulled to mobilize patients not on therapy caseload or who have already received therapy intervention
• An expectation from MDs to ambulate/mobilize patients several times per day

Our Concerns

• Ability to provided skilled services to those most indicated
• Decreased productivity/efficiency
• Frustration regarding role and practice of PT and OT

Our Goal

• Change the culture so that all care providers “own” mobility
• Use the literature
  * Covinsky KE, Perluissi E, Johnston BC. Hospitalization-Associated Disability. JAMA 2011; 306: 1782-1793
  * ....and hit the campaign trail!

A Culture of Mobility The 5th P: Promote Function!
Process

• Find a champion on the unit/floor and create an interdisciplinary program identifying the right patient, provider, time and intervention
• Collect data, implement, collect outcomes
• Share the wins, learn from the failures
• Revise, implement, collect outcomes
• Success on one unit/floor leads to interest on others and you are on your way!

Outcomes of an Acute Care Patient Ambulation Program for Patients Post-operative Thoracic Surgery
Nawawi A., Fagan L., Oeffner J., Dekerlegand J.L.

Goals of Patient Ambulation Program (PAP)

• Create a cohesive interdisciplinary team focused on providing the appropriate level of care
• Increase patient, surgeon and physical therapist satisfaction
• Improve communication between all caregivers using a simple visual tool
• Provide continuity of care seven days per week
• Optimize utilization of skilled physical therapy services

Patient Ambulation Program

• An education module was developed by the therapy department and nurse educator for the certified nursing assistants (CNAs).
• PTs performed an initial evaluation and completed a pre-ambulation checklist to provide the CNA’s with information for safe mobilization.
• This checklist was updated as the patient progressed with skilled physical therapy interventions.

Communication

• A communication tool, updated daily, was posted on the patient’s door to guide the CNA.
  • “Safe to Walk by CNA”, designated by green or red colored circle
  • “Walking Icon” documented the number of walks completed
  • Other icons included the “W”, indicating the need for daily weights and the “B”, indicating a bath was completed

Results

After three months:
• Physical therapist efficiency improved from 82.1% to 100%
• Falls did not increase; in fact a decrease was noted from a monthly average of 4 to 1.
• Press Ganey Scores improved from 72.9-85.4 to 100 for all four questions.

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Discussion

- Increased frequency of daily patient mobilization on a postsurgical nursing unit.
- Therapists maintained role in returning patients to their prior functional status, while delegating non-skilled care to more appropriate personnel and improving productivity.
- Greater collaboration between the nursing and therapy staff, and promotion of patient and family participation in care and recovery.
- Visual tool improved communication with the patients and their caregivers by overcoming visual, cognitive, language, literacy and memory barriers.

Orthopedic Out of Bed Program

- Goal of the interdisciplinary program is for patient to be OOB BID for no longer than 2 hours.
- Patients receive 1-2 sessions of therapy/day.
- Documentation should occur 4 times per day detailing each transition in and out of bed.

ACE Mobility Program

- Hybrid of 2 previous programs due to wide range of functional levels.
- Equipment, education of nurses and CNAs, documentation.
- Outcomes

What’s next?

- Increase standardization of programs across hospital.
- Programs on every unit.
- Mobility techs 7 days per week.
- Mobility order sets.

Panel Discussion

Time to share your questions, challenges, solutions and successes!