Health System PT's Leading the Transition to Value-Based Health Care

2016 Combined Sections Meeting

Speaker(s): Ed Dobrzykowski, PT, DPT, ATC, MHS
Matt Elrod, PT, DPT, MEd, NCS
Michael Friedman, PT, MBA
Jose Kottoor, MS, PT
Mary Stilphen, PT/DPT

Session Type: Educational Sessions
Session Level: Intermediate

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Health System PTs innovating for Value Based Health Care

Jose Kottoor, MS, PT
System Program Director

Introduction: Participants

• M. Stilphen - Cleveland Clinic
• M. Elrod – APTA Practice
• E. Dobrzykowski – St Elizabeth
• M. Friedman – John Hopkins
• J. Kottoor - Beaumont Health
Objectives:

• Recognize the transition to value based health care financing and population health management.
• Describe the physical therapy profession’s work to define the value of physical therapy.
• Learn strategies for increasing value in multiple practice environments from physical therapist leaders in health care organizations.
• Identify future needs for sustaining value in physical therapy.

Value-Based Health Care Delivery

• Value is created in caring for a patient’s medical condition over the full cycle of care

• Value = Outcome that matters to the patient
  Cost of delivering the outcome
Creating a Value Based Health Care Delivery
The Strategic Agenda

1. Organize Care around Patient Conditions, into Integrated Practice Units (IPUs)
2. Create Value for patients (Outcome/Cost)
3. Move to Bundled Payments for Care Cycles
4. Integrate Multi-site Care Delivery Systems
5. Expand Geographic Reach To Drive Excellence
6. Build an Enabling Information Technology Platform

Integrated Practice Units (IPUs)

- Interdisciplinary clinic developed for a patient medical condition
- Comprised of a dedicated, multidisciplinary team who involves in care of these patients
- Full cycle of care for the condition - inpatient, outpatient, rehab, nutrition, social work, behavioral health.
- Incorporates patient education, engagement, and follow-up
Measure Outcomes and Costs for Every Patient

• What matters to the patient
• Outcomes include mortality, safety, service, access, fewer complications, less rework, return to work or functionality
• It is the ability or productivity in different groups, e.g., individual, workforce, military, student
• Total Cost is spending over a defined time for a particular patient, a condition, a population, or a payer.

Measure Outcomes and Costs for Every Patient –Contd.

• Cost is aggregated over the complete care for the patient’s medical condition, not for departments, services, or line items.
• Cost depends on the actual use of resources involved in a patient’s care process (personnel, facilities, supplies)
• The time devoted to each patient by these resources
• The support costs required for each patient facing a resource
Move to Bundled Payments for Care Cycles

• Single payment covers full care cycle
• Condition base, not procedure or care site based
• Payment for the entire pay cycle, which incentivizes providers to innovate.
• Payment adjusted for complexity
• Payed for managing chronic conditions and for prevention

Integrate Multi-site Care Delivery System

• Specialty services at the right facility.
  – Based on medical condition, acuity level, resource intensity, cost level and need for convenience
• Service locations the provider can achieve excellence in value
• Deliver the right care at the right facility for the right outcomes and right cost
Expand Geographic Reach To Drive Excellence

- Expanding best practices to wider geographic area
- Hub-Spoke model
- Clinical affiliation to expand geographic capture

Build an Enabling Information Technology Platform

- Value in health care is advanced by a supporting IT platform
- Major elements:
  - Data focused on patient flow
  - Common data definitions
  - Access
  - User friendly
How does these principles apply to PT

• Stroke Care IPUs, Movement disorder clinic
• LEF gain: Best Practice – Site - Therapist
• Bundled payment
• Specialty sites for Women’s Care, Spine, Neuro Rehab, Acute care team etc.
• PT net work
• IT platform, dash board to look at outcomes, cost, access etc.
Lower Extremity Functional Score

Percentage improvement
Best Practice among OP Sites

<table>
<thead>
<tr>
<th>Clinic</th>
<th>Count of Patient ID #</th>
<th>Sum of # therapy sessions</th>
<th>Average of # therapy sessions</th>
<th>Average of Initial score</th>
<th>Average of Discharge score</th>
<th>Average of Improvement in score</th>
<th>Average of % improvement</th>
<th>Average of % improvement per therapy sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site 1</td>
<td>35</td>
<td>492</td>
<td>14.1</td>
<td>340</td>
<td>51.0</td>
<td>17.0</td>
<td>108.5%</td>
<td>0.40%</td>
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<tr>
<td>Site 2</td>
<td>61</td>
<td>843</td>
<td>15.8</td>
<td>363</td>
<td>51.5</td>
<td>15.2</td>
<td>66.2%</td>
<td>0.20%</td>
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<tr>
<td>Site 3</td>
<td>70</td>
<td>806</td>
<td>11.5</td>
<td>373</td>
<td>52.4</td>
<td>15.2</td>
<td>77.7%</td>
<td>0.00%</td>
</tr>
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</table>

Avg # Therapy Sessions vs Avg % Improvement in LEFS by Clinic
<table>
<thead>
<tr>
<th>Therapist</th>
<th>Count of Patient ID #</th>
<th>Sum of # therapy sessions</th>
<th>Average of # therapy sessions2</th>
<th>Average of Initial score</th>
<th>Average of Discharge score</th>
<th>Average of Improvement in score</th>
<th>Average of % improvement</th>
<th>Average of % improvement per session</th>
</tr>
</thead>
<tbody>
<tr>
<td>Therapist 1</td>
<td>10</td>
<td>144</td>
<td>14.4</td>
<td>29.7</td>
<td>45.7</td>
<td>16.0</td>
<td>171.1%</td>
<td>19.1%</td>
</tr>
<tr>
<td>Therapist 2</td>
<td>5</td>
<td>69</td>
<td>13.8</td>
<td>36.6</td>
<td>60.2</td>
<td>23.6</td>
<td>88.8%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Therapist 3</td>
<td>12</td>
<td>157</td>
<td>13.1</td>
<td>29.0</td>
<td>50.3</td>
<td>21.3</td>
<td>111.9%</td>
<td>9.6%</td>
</tr>
<tr>
<td>Therapist 4</td>
<td>5</td>
<td>61</td>
<td>12.2</td>
<td>42.4</td>
<td>61.8</td>
<td>19.4</td>
<td>139.2%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Therapist 5</td>
<td>13</td>
<td>144</td>
<td>11.1</td>
<td>41.2</td>
<td>50.9</td>
<td>9.7</td>
<td>43.1%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Therapist 6</td>
<td>9</td>
<td>96</td>
<td>10.7</td>
<td>25.8</td>
<td>41.8</td>
<td>16.0</td>
<td>79.3%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Therapist 7</td>
<td>6</td>
<td>56</td>
<td>9.3</td>
<td>38.3</td>
<td>59.8</td>
<td>21.4</td>
<td>84.0%</td>
<td>10.3%</td>
</tr>
<tr>
<td>Therapist 8</td>
<td>16</td>
<td>125</td>
<td>7.8</td>
<td>38.8</td>
<td>53.1</td>
<td>14.4</td>
<td>48.1%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Therapist 9</td>
<td>5</td>
<td>36</td>
<td>7.2</td>
<td>38.6</td>
<td>46.6</td>
<td>8.0</td>
<td>17.7%</td>
<td>3.8%</td>
</tr>
</tbody>
</table>
Continuity Assessment Record and Evaluation (CARE) Tool

• Standard data collection tool
• Proposed for use in:
  – Acute care hospitals
  – Post-acute care settings
    • Long-Term Care Hospitals (LTCHs)
    • Inpatient Rehabilitation Facilities (IRFs)
    • Skilled Nursing Facilities (SNFs)
    • Home Health Agencies (HHAs)
## CARE Tool as tool for predicting Discharge destination

<table>
<thead>
<tr>
<th>Average Score</th>
<th>Discharge Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>54</td>
<td>Sub Acute</td>
</tr>
<tr>
<td>53</td>
<td>IPR</td>
</tr>
<tr>
<td>83</td>
<td>Home with HHC</td>
</tr>
<tr>
<td>91</td>
<td>Home with OP Therapy</td>
</tr>
<tr>
<td>100.41</td>
<td>Home with no therapy</td>
</tr>
</tbody>
</table>

---

### Women’s Urology Center

*A comprehensive five-day pelvic pain retreat*

An individualized program for pelvic pain management

Presented by The Woman’s Urology Center
Why is it important for PT

- Rehab is a major component in Integrated Practice Units
- We are a major part neuro-musculo-skeletal care, cardiovascular care etc.
- Many outcome measures are mobility related functional outcomes
- Early PT interventions lead improved value
Why is it important for PT – Contd.

• Physical therapists provide care to optimize recovery process and help to return to their previous function
  • Less complications
  • Better outcomes
  • Reduced LOS
  • Non Surgical Vs Surgical intervention

How do we prepare PTs for VBHC

• Identify Best Practices
• Adopt Best Practices
• Measure Provider Performance
• Evaluate cost effectiveness

Jewell, D. V., Moore, J. D., & Goldstein, M. S. (2013). Delivering the physical therapy value proposition.
References:

Health Care Spending as a Percentage of GDP, 1980–2013

* 2013

Note: GDP refers to gross domestic product. Both U.S. and Swiss data are for current spending only, and exclude spending on health care provision.
Source: OECD Health data 2015.

Historically

2014 APTA House of Delegates:
TOOLS TO NEGOTIATE PRODUCTIVITY AND PERFORMANCE
STANDARDS IN PHYSICAL THERAPIST

Triple aim
• Improving and satisfying the patient experience of care (including quality and satisfaction)
• Improving the health of populations
• Reducing the per capita cost of health care

Value
value = outcomes / cost or resources

References:
Volume vs Value

Transforming society by optimizing movement to improve the human experience.
Value Equation

\[ \text{Value} = \frac{\text{Outcome (Varies)}}{\text{Cost (All resources)}} \]

Outcomes

Since value depends on results, not inputs, value in health care is measured by the outcomes achieved, not the volume of services delivered, and shifting focus from volume to value is a central challenge. – Porter, NEJM 2010
Utilization of Outcomes Measures to Demonstrate Value of Physical Therapy Throughout the Healthcare Continuum

Mary Stilphen PT, DPT
Senior Director
Cleveland Clinic Rehab and Sports Therapy
- Unified Organizational and Leadership Structure
- Standard Operational and Clinical Procedures
- Increased Productivity, Efficiency, and Cost Structure

Cleveland Clinic Rehabilitation & Sports Therapy

Consistency of Service

Care Pathways

Centralized Recruiting

Outcomes Measurement

Cleveland Clinic Rehab and Sports Therapy

Therapy Locations

• Cleveland Clinic Main Campus and 8 regional hospitals
• 60 IRF beds
• 85 SNF beds
• 47 Outpatient locations

Rehab Team

• 350 Physical Therapists
• 100 PTA’s
• 135 OT’s
• 25 COTA’s
• 35 SLP’s
• 50 ATC’s
Journey at the Cleveland Clinic

Uniform outcome data collection in all settings

Use information from large uniform data sets to make decisions.

The ability to collect, aggregate and display data is critical in driving system change.

Use of a standardized measure

Collect uniform data upon which both clinical and operational decisions are made.
Measuring patient reported functional outcomes longitudinally across an episode of care

Outcome Data Collection - History/Goals

- Collect meaningful discrete outcome data with every patient encounter

- Utilize discrete patient data to drive clinical decisions, and guide resource utilization in the hospital

- Use data to devise a more objective way to determine the appropriate discharge disposition from acute care
What is Cleveland Clinic’s 6 Clicks?

- Short form of the AM-PAC (Activity Measure for Post Acute Care)
  - Patient Reported Outcome Tool
  - 25 years in development
  - Validated across all levels of care
  - 269 items – 3 domains
  - Can be shortened, and answered by surrogates

- Used in Acute Hospital

- PT/OT complete 6 Clicks for every patient at Every visit

6 Clicks

6 Clicks - On evaluation and every follow up visit each discipline completes a functional measure assessment.

PT evaluates the patient’s abilities in:
1. Turning over in bed
2. Supine to sit
3. Bed to chair
4. Sit to stand
5. Walk in room
6. 3-5 steps with a rail

OT evaluates the patient’s abilities in:
1. Feeding
2. O/F hygiene
3. Dressing Uppers
4. Dressing Lowers
5. Toilet (toilet, urinal, bedpan)
6. Bathing (wash/rinse/dry)

Scale:
1= Unable (Total Assist) 2= A Lot (Mod/Max Assist)
3= A Little (Min Assist/Supervision) 4= None (Independent)
Physical Therapy 6 Clicks Documentation in EPIC

<table>
<thead>
<tr>
<th>6 Clicks</th>
<th>Score</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty Turning Over In Bed</td>
<td>3-A little</td>
<td>3-A little</td>
</tr>
<tr>
<td>Difficulty Lying On Back To Sitting</td>
<td>3-A little</td>
<td>3-A little</td>
</tr>
<tr>
<td>Help From Another Person Moving To And From Bed To Chair</td>
<td>3-A little</td>
<td>3-A little</td>
</tr>
<tr>
<td>Difficulty Sitting Down And Standing Up From Chair With Arms</td>
<td>3-A little</td>
<td>3-A little</td>
</tr>
<tr>
<td>Help From Another Person To Walk In Hospital Room</td>
<td>2-A lot</td>
<td>2-A lot</td>
</tr>
<tr>
<td>Help From Another Person Climbing 3-5 Steps With A Railing</td>
<td>2-A lot</td>
<td>2-A lot</td>
</tr>
</tbody>
</table>
| PT 6 Clicks Score                                                       | 16    | 16 (calculate...)

Mobility Scale Score Table for AM-PAC

<table>
<thead>
<tr>
<th>Raw Score</th>
<th>Scale Score</th>
<th>Scale Score Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>23.55</td>
<td>4.57</td>
</tr>
<tr>
<td>7</td>
<td>26.42</td>
<td>4.33</td>
</tr>
<tr>
<td>8</td>
<td>28.58</td>
<td>4.04</td>
</tr>
<tr>
<td>9</td>
<td>30.88</td>
<td>3.69</td>
</tr>
<tr>
<td>10</td>
<td>32.29</td>
<td>3.42</td>
</tr>
<tr>
<td>11</td>
<td>33.86</td>
<td>3.22</td>
</tr>
<tr>
<td>12</td>
<td>35.31</td>
<td>3.08</td>
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<td>13</td>
<td>36.74</td>
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<td>14</td>
<td>38.10</td>
<td>2.85</td>
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<td>2.73</td>
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<td>40.78</td>
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<td>42.13</td>
<td>2.52</td>
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<td>18</td>
<td>43.63</td>
<td>2.39</td>
</tr>
<tr>
<td>19</td>
<td>45.44</td>
<td>2.26</td>
</tr>
<tr>
<td>20</td>
<td>47.07</td>
<td>2.14</td>
</tr>
<tr>
<td>21</td>
<td>50.29</td>
<td>2.02</td>
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<td>22</td>
<td>53.28</td>
<td>1.90</td>
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<td>23</td>
<td>56.91</td>
<td>1.81</td>
</tr>
<tr>
<td>24</td>
<td>61.14</td>
<td>1.73</td>
</tr>
</tbody>
</table>
6 Clicks Data Volume – CCHS Hospitals
July 2011 – June 2015

<table>
<thead>
<tr>
<th>Occupational Therapy</th>
<th>399,296</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Therapy</td>
<td>657,040</td>
</tr>
</tbody>
</table>

Power of Data

Value in health care is advanced by a supporting IT platform
What did we learn from the data?

- Hospital/Therapy Operations
  - Therapy Utilization
  - “Culture of Mobility”
- Discharge Recommendations

**Physical Therapy** 6 Clicks Distribution on Evaluation January – December 2015 (all Hospitals)
Using Data to Create a “Culture of Mobility”

• Be able to clearly articulate to all members of the interprofessional team the benefits of mobility and harmful affects of immobility while the patient is in the hospital setting.

• Identify opportunities to integrate “Culture of Mobility” concepts within existing hospital initiatives (e.g. LOS, ICU, readmissions)

• Physician and nursing support – Identify engaged physician and nurse champions with influence over practice with their peer groups

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RESOURCE UTILIZATION

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Patients with a 6-Clicks score of '24' (highest level of function):
Therapist Discharge Recommendation - Combined

<table>
<thead>
<tr>
<th>Inpatient Rehab</th>
<th>Home care</th>
<th>Home - with outpatient PT/OT</th>
<th>Home - without skilled needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>80%</td>
<td>10%</td>
<td>10%</td>
<td>1%</td>
</tr>
<tr>
<td>2%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>PT (N = 5419)</td>
<td>OT (N = 3075)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Decrease Inappropriate Consults

• How did we do it?
  - Change from “Order” to “Consult”
  - Focused on patients with a 6 Clicks score of “24”
  - Physician Champions
  - Physician Education
Consult to PT/OT in EPIC

Measure % of patient that have a “24” at Evaluation
Creating Value

- **Outcome** - Re-purposing of therapist from “24’s” to lower functioning patients allowed us to increase therapy activity in ICU by 40%

- **Cost** - Ability to get to the right patient and improvement in therapist productivity resulted in a 26% decrease cost/visit.
GUIDE DISCHARGE RECOMMENDATION
Using 6 Clicks Basic Mobility Score to Guide Discharge Recommendations

Data over the past three years has been consistent

Home with no services – 19.48
Home with home care – 17.81
SNF/IRF – 13.95 – 14.0
LTAC – 11.25

Research Report

AM-PAC “6-Clicks” Functional Assessment Scores Predict Acute Care Hospital Discharge Destination

Diane U. Jette, Mary Sulphen, Vinod K. Ranganathan, Sandra D. Passik, Frederick S. Frost, Alan M. Jette

Background. Physical therapists and occupational therapists practicing in acute care hospitals play a crucial role in discharge planning. A standardized assessment of patients’ function could be useful for discharge recommendations.

Objectives. The study objective was to determine the accuracy of “6-Clicks” basic mobility and daily activity measures for predicting discharge from an acute care hospital to a home or institutional setting.

Design. The study was retrospective and observational.
6 Clicks Predicts D/C Destination

• 83% of patients had recommendation and actual d/c placement match

• ROC analysis allowed us to define the best cutoff score for determining discharge to home on the basis of the highest sensitivity and specificity associated with the various scores.

• Cutoff scores of 42.9 (17.5) for basic mobility and 39.4(18.5) for daily activity at the first visit provided fair to good accuracy for predicting discharge destination.

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Use of 6 Clicks to Assist with Discharge Planning

• At the top of every PT/OT note

• Populates Huddle tool for use by all members of the medical team

• Case Managers use that information along with other information to begin D/C planning early in patients stay.
Measuring patient reported functional outcomes longitudinally across an episode of care

- Acute Hospital
- Skilled Nursing
  - Hospital Based SNF’s
  - Connected Care Units
- Home Care
- Outpatient

Outcome Tools

**Acute Hospital**
- 6 Clicks Basic Mobility
- 6 Clicks Daily Activity
- Mini Cog

**SNF’s / Connected Care Units**
- AM-PAC Basic Mobility Adapted
- AM-PAC Basic Mobility Adapted with w/c
- AM-PAC Daily Activity Adapted
SNF/Connected Care

- Compare LOS,
- # visits,
- Patient’s functional change

---

SNF/Connected Care AM-PAC

<table>
<thead>
<tr>
<th></th>
<th>O'Neill Healthcare North Olmsted</th>
<th>Villa St. Joseph</th>
<th>Total - All SNF Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Patients</td>
<td>47</td>
<td>128</td>
<td>625</td>
</tr>
<tr>
<td>Avg. SNF LOS</td>
<td>21.54</td>
<td>18.44</td>
<td>23.79</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>OT</th>
<th>PT</th>
<th>OT</th>
<th>PT</th>
<th>OT</th>
<th>PT</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Patients</td>
<td>39.00</td>
<td>42.00</td>
<td>114.00</td>
<td>116.00</td>
<td>446.00</td>
<td>478.00</td>
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<tr>
<td>Avg Initial Scale Score</td>
<td>43.25</td>
<td>45.92</td>
<td>38.37</td>
<td>44.79</td>
<td>39.79</td>
<td>44.35</td>
</tr>
<tr>
<td>Avg Final Scale Score</td>
<td>49.02</td>
<td>52.06</td>
<td>43.57</td>
<td>52.79</td>
<td>46.48</td>
<td>52.27</td>
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<tr>
<td>Avg Change in Scale Score</td>
<td>5.77</td>
<td>6.15</td>
<td>7.20</td>
<td>8.00</td>
<td>6.99</td>
<td>7.92</td>
</tr>
<tr>
<td>Avg Therapy Days</td>
<td>17.38</td>
<td>18.02</td>
<td>16.61</td>
<td>16.88</td>
<td>21.61</td>
<td>21.43</td>
</tr>
<tr>
<td>Therapy Efficiency</td>
<td>0.33</td>
<td>0.34</td>
<td>0.43</td>
<td>0.47</td>
<td>0.31</td>
<td>0.37</td>
</tr>
</tbody>
</table>
6 clicks – Value Opportunities

• Continuing to collect in hospital
  - Discharge recommendation
  - Improve mobility
  - Therapist utilization

• Predictive Modeling
  - Right time to move to next level of care
  - Have a consistent functional measure in all settings to merge with other data sources to paint a more complete picture of the patient

• Readmissions
  – How does level of function impact readmissions

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Thank you
Facilitating Function to Drive Value across the Health System

Center for Activity and Mobility Promotion
Dept. of Physical Medicine and Rehabilitation
e-mail: mfried26@jhmi.edu
Twitter: @mkfrdmn

Hospital: Activity and Mobility

1. Inpatients spend most of their time in bed.

2. After discharge, patients experience Post-Hospital Syndrome – an acquired period of vulnerability for adverse health events.
   Krumholz NEJM 2013 368:100-2

3. Especially in elders and patients with chronic diseases, hospital-acquired physical impairment result in increased:
   • Hospital LOS
   • Hospital re-admissions
   • Hospital-acquired complications
   • Nursing home and in-patient rehab stay
   • Impaired physical functioning even years after hospitalization.
Why is promoting activity and mobility important?

Body Systems:
- Cardiovascular (orthostatic hypotension, thrombus)
- Musculoskeletal (atrophy and contractures)
- Urinary elimination (infection and dehydration)
- Bowel elimination (constipation and dehydration)
- Psychosocial (depression)
- Respiratory (hypostatic pneumonia)
- Integumentary (pressure ulcers)
- Metabolic (fluid and electrolyte imbalance)

The Activity and Mobility Promotion Initiative (AMP)
The Catalyst…
Critical Care Rehabilitation Quality Improvement Project 2008

• Shown decrease in:
  – average length of stay in the MICU (4.9 vs. 7.0 days) and
  hospital (14.1 vs. 17.2) compared to the prior year.


Potential Benefits to Hospital

Why so many empty MICU beds?
patients are awake and moving, patients are better

Versus same 4-month period in 2006:
  • 20% increase in MICU admissions
  • 10% reduction in hospital mortality
  • 30% (2.1 day) reduction in MICU LOS
  • 18% (3.1 day) reduction in hosp LOS

For details on ICU Financial Modeling see:
Readmissions, Acquired Harms, and Length of Stay

TAKING ON HOSPITAL WIDE MOBILITY TO SCALE

Impact of Functional Status on 30-day Readmissions

- Patients with functional status impairments have increased odds of readmission.
- Medicine (v. neuro/ortho) pt w/ low functional status highest readmission rate of 33%
Making Mobility a Priority – “Create a Culture of Mobility”

Set the Expectation - Patient and Family Messaging

Function as a Vital Sign

Baseline Reconciliation Surveillance

Mobility Risk Identification, Progression Protocol, Goals, Barriers and Plan

Surgery Pre-op Inpatient Post-Acute and Ambulatory

The Activity and Mobility Promotion (AMP) Bundle

QI Project: RN Directed Mobility Promotion on 2 General Medicine Units

Key Interventions:
- Interdisciplinary champions (physicians, nurses, managers, therapists)
- Barriers identified with a survey instrument
- Execute RN to mobilize 3 x daily and
- Metric created to measure mobility milestones (Johns Hopkins Highest Level of Mobility) in the hospital as part of nurse documentation.
- Education provided to RNs in form of:
  - Daily huddles with PT/OTs
  - Unit-based presentations
  - Online modules
  - Hands-on training
- Feedback of data provided to unit managers
- The project was highlighted in the nursing-Magnet assessment visit.

Pronovost et al., BMJ 2008; 337:a1714
• 120 Nurses and PT/OTs working on general medicine units surveyed at JHH and Suburban Hospital.

• Summary of perceived barriers were:
  – Similar between the two hospitals (p=0.25)
  – Higher for staff with less experience (p=0.02)
  – 95% of nurses think that if patients mobilized 3xdaily they will have better outcomes.

Developed Mobility Metric:
Johns Hopkins Highest Level of Mobility (JH-HLM)

<table>
<thead>
<tr>
<th>MOBILITY LEVEL</th>
<th>WALK</th>
<th>STAND</th>
<th>CHAIR</th>
<th>BED</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>250+ FEET</td>
<td>≥1 MINUTE</td>
<td>TRANSFER TO CHAIR</td>
<td>TURN SELF/Bed Activities*</td>
</tr>
<tr>
<td></td>
<td>25+ FEET</td>
<td></td>
<td></td>
<td>ONLY LYING</td>
</tr>
<tr>
<td></td>
<td>10+STEPS</td>
<td></td>
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</table>

Hoyer et al. (in prep)

Patient on JHH medicine unit

JHH d/c with re-admit within 1 week

Highest Level of Mobility

Hospital Course

Apr 11 Apr 13 Apr 15 Apr 17 Apr 19
Outcomes of 12 month Early Mobility QI Project

A) % of patients walking increased.

B) Improved mobility while in hospital.

Outcomes of 12 month Early Mobility QI Project on LOS

**LOS decreased** during QI project vs. prior year, even when controlling for clinical/demographic variables in linear regression analysis.

Compared to control medicine units during same period, QI project was most effective in reducing patients who were expected to have long LOS (>6 days).
Injurious Fall rate did not increase during QI project
Interdisciplinary Reliability

Reducing Therapy Consult on Adult Neurology/Stroke: **Process Map**

**Therapy Request Timeline: Events and Interventions**

1. **Resident Education:** Appropriate Therapy Assessment Requesting
2. **When Ordering:** Specific Request Estimated Discharge

- **Nursing:** If AMPAC > 24 and therapy assessment requested, page resident score and confirm therapy needed. If < 24, and not ordered, page resident.
- **Therapist:** If AMPAC > 24, order still present, DC planned for that day. Therapist to confirm with residents.

**Multi-3 Rounds:**

1. **Review pending requests, with AMPAC > 24 ask SAR if assessments needed.**
2. **Cancel or Add PIN**

**Nurses document AMPAC on day of admission and Mon/Wed/Fri**
Reducing Therapy Consults for Adult Neurology/Stroke Pts with No Impairments

Number of OT/PT visits per patient stay increased from 3.8 to 4.6 per patient hospitalization.

Percent of Initial OT/PT visits for AMPAC 21-23 reduced from 12.4% to 10.8%

Call Bells and Burden of Care
At Risk Populations

AMBULATORY SURVEILLANCE

Post treatment oncology patient concerns:

2300 participants:

- **Energy** - 56% did not receive care
- **Concentration** - 83% did not receive care
- **Sexual function** – 71% did not receive care
- **Neuropathy** - 60% did not receive care
- **Pain** - 37% did not receive care
- **Lymphedema** – 33% did not receive care
- **Incontinence** – 69% did not receive care
- **Lungs** – 47% did not receive care
- **Heart** – 32% did not receive care

Questions to ask yourself

• Do you systematically assess function?
• Do you systematically communicate function across disciplines?
• How do you identify at risk patients?
• Who intervenes?
• When and how do they intervene?
• How do you measure successful interventions?

Functional Reconciliation

The comparison of a patient's functional ability prior to hospitalization with their current status.

Function as a Vital Sign

The Problem

Functional Reconciliation: Post-Hospital Syndrome

[Diagram showing functional level over time with expected and actual trajectories, and a note indicating a patient at risk for poor outcome]
Functional Reconciliation: Gradual Decline

Johns Hopkins Hospital Functional Assessment Strategy – Tool Selection

- Interdisciplinary
- Efficient documentation
  - EMR design
  - Regulatory requirements
- Meaningful across settings
- Drive Intervention
- Meaningful across initiatives
- Composite and specific measures
  - Meaningful clinical difference
  - Ceiling and floor
Expected Performance at Each Stage

Basic Mobility Domain

- Cannot do
- A lot difficulty
- Some/little difficulty
- None difficulty

**Sports**
- Vigorous activity
  - Muscle activity
  - 1 mile walk, no w.

**Inside**
- Walking several blocks
- Bending/standing/stepping (up/down 12-14 steps)
- Bending/standing/stepping (up/down 12-14 steps)
- Walk same level, no w.
- Walk around 1 floor, no w.

**Chair/Bed**
- Sitstand from low chair
- Reach overhead
- Walk in hallways
- Walk in one room
- Walk around 1 floor, with w.

**Within 90°**
- Move between bed/chair
- From lying to sitting up
- Positioning in bed
- Use bathroom

**Cut Score**

- Stage 1: Chair/Bed
- Stage 2: Room
- Stage 3: Home
- Stage 4: Community
- Stage 5: Sport

**Rehab, Anemone**

- How much difficulty does the patient currently have in cleaning up spills on the floor with a mop?

**Mobility Outpatient**

- Raw Score (calculated)
- Standardized T-Score

**Abbreviations**

- CMS 0-100 Score (calculated)
Additional Value Based Mobility Projects

- Pre-habilitation
- Remote Monitoring
- Interdisciplinary Mobility Assessment Reliability, Validity and Feasibility
- Homecare functional reconciliation
- Predictive modeling and goal setting
- Nurse burden of care

Demonstrate Return

- Readmission Cost
- Emergency Admission Cost
Resources

Center for Activity and Mobility Promotion:
http://www.hopkinsmedicine.org/physical_medicine_rehabilitation/education_training/activity_mobility_program.htm

5th Annual Johns Hopkins Critical Care Conference
Track: Activity and Mobility Promotion and Quality Improvement
Date: Saturday, November 3-5, 2016

Twitter:
@Rehabhopkins
@mkfrdmn

Email for Permissions to use JH-HLM or Barriers survey

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Health System PT’s Leading the Transition to Value Based Care

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EdDobrzykowski@yahoo.com
@rehableader.com
Disclosures

- Independent contractor: Cross Country Education
- Relationship with Focus on Therapeutic Outcomes (FOTO)

St. Elizabeth Healthcare
www.stelizabeth.com

- Three hospitals in northern KY (1200 beds)
- Rehab and Sports Medicine: acute, SNF, OP
- Carelines: Cardiology, Oncology, Orthopedics/Sports, Women’s Health, Obstetrics/NICU, Neurology
- 7400 Associates, and 350+ Employed Physicians (PCPs, Hospitalists, Specialists)
- Care Network Partner with Mayo Clinic
Continuum of Care

Post Acute Care Expenses

- Grew from $26.6 B in 2001 to $63.5 B in 2011
- Geographic variation: as much as 73% of the differences!
- 38.7% of Medicare beneficiaries had acute hospital stay
  - 52% with HH episode; 2% with LTAH episode

Identify the conditions seen in acute care that are frequently discharged to PAC

Post Acute Care Expense ($B)

PAC Costs Contain Intermingled Episodes

DeJong, G. Are We Asking the Right Question About Post Acute Settings of Care? APMR 2014;95:218-21
"Merely aligning financial incentives between providers of acute and post-acute care will not improve quality and reduce costs for episodes of care. True coordination of care is required to ensure the best possible outcomes."

Ackerly DC and Grabowski DC. Post-Acute Reform: Beyond The ACA. NEJM 2014;370(8):689-691
PAC “Silos”

Proposed Solutions:
- Bundled payments (ACO, BPCI, Episodes)
- Common patient assessment instrument (C.A.R.E. – B tool)
- Development of risk adjusted outcome based quality measures
- Alignment of readmission policies

MedPac Report to Congress Medicare Payment Policy March 2013; 7: 151-3

Is the Rate of Rehospitalization Lower Among Patients Discharged to SNFs in Which a Hospital Has a Strong Linkage?

Increase proportion of hospital discharges to a SNF by 10 percentage points, the likelihood of patients treated by that Hospital-SNF pair to be re-hospitalized within 30 days declines by 1.2 percentage points

Are There Differences in Outcomes of Patients Across Three Post-Acute Rehabilitation Settings?

Discharge Functional Status for Patients After Lower-Extremity Joint Replacement Surgery

Discharge to HH: patients healthy with social support

Sicker patients: need 24 hour medical and nursing care


Selection of Post-Acute Care Site

Assessed impact of post-acute care site on stroke outcomes

Patients may make more functional gains when post acute care includes an IRF

Guiding Post Discharge Placement

- Is it feasible to categorize patient placement into four categories:
  - 1) Home with no services
  - 2) Home with services
  - 3) IPR or 4) SNF
- Descriptive analysis of 2,738 patients with Stroke or TIA; Standardized PT and OT assessments; Cluster analysis
- Results: patients may be placed into meaningful groups


Effect of Home Based Exercise Program on Patients Post Hip Fracture

- 232 randomized patients (2008-2012)
  - 195 completion
- Standard rehabilitation
- Baseline, six and nine months
  - Short Physical Performance Battery
  - AM-PAC mobility and daily activity
- Results: modest improvement in physical function after six months

Natham N.K. et al. Effect of a Home Based Exercise Program On Functional Recovery Following Rehabilitation After Hip Fracture A Randomized Clinical Trial. JAMA 2014 Feb 19; 311(7); 700-708
Post Acute Care Patient Assessment

Development of a Standardized Patient Assessment Tool:
Continuity Assessment Record and Evaluation (CARE-B)

C.A.R.E Tool/B-Care

- Continuity Assessment Record and Evaluation:
  Standardized patient assessment instrument to measure patient severity in hospitals and post acute care settings
- Four domains:
  - Medical severity
  - Physical functional impairments
  - Cognitive functional impairments
  - Social support/environmental factors
Where Are We Headed?

Transformation underway to value based healthcare purchasing profoundly impacts current financing paradigms

Ambulatory patient management will be key for population health management

What Is Our Value Proposition?
## Patient Population

- Chronic
- Relatively healthy-active
- Relative healthy-inactive
- Some Disease Factors

Adapted from Advisory Board

- Diabetes
- Congestive Heart Failure (CHF)
- Chronic Obstructive Pulmonary Disease
- Multiple Sclerosis
- Parkinson’s
- Osteoarthritis
- Obesity

## Scorecard: St. Elizabeth Healthcare

Scorecard, 12 Month Period Ending: 09/2015 FIN AL

<table>
<thead>
<tr>
<th>Group</th>
<th>Clinician</th>
<th>Care Type</th>
<th>Intakes</th>
<th>High</th>
<th>Expect</th>
<th>Low</th>
<th>Rank</th>
<th>FS Change</th>
<th>Predicted</th>
<th>Rank</th>
<th># Visits</th>
<th>Predicted</th>
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<tr>
<td>68660</td>
<td>Ortho: All</td>
<td>All</td>
<td>8161</td>
<td>42</td>
<td>36</td>
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<td>34</td>
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<td>Ortho: Cervical</td>
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<td>933</td>
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<td>35</td>
<td>24</td>
<td>72</td>
<td>11.54</td>
<td>13.44</td>
<td>14</td>
<td>8.11</td>
<td>11.06</td>
</tr>
<tr>
<td>68660</td>
<td>Ortho: Lumbar</td>
<td>Lumbar</td>
<td>2416</td>
<td>40</td>
<td>36</td>
<td>24</td>
<td>72</td>
<td>11.12</td>
<td>13.44</td>
<td>14</td>
<td>8.11</td>
<td>11.06</td>
</tr>
</tbody>
</table>
Does Practice Setting Influence Clinical Outcomes and Efficiency in Outpatient Services?

Patient outcomes data abstraction (FOTO) over 12 months in 2011-2012

Results suggest that patients experience more efficient care when receiving physical therapy in hospital outpatient settings compared to private practice settings.

Limitation: difference in improvement between settings is less than the MCID of 9 points.

Childs JD et al. Implications of Practice Setting on Clinical Outcomes And Efficiency of Care in the Delivery of Physical Therapy Services. JOSPT 2014;44(12):955-963

Quality Improvement and Delivering Higher Value

- 47,755 patients in 32 OP clinics (2010-2014)
- Quality Improvement- adult learning and change management:
  - Care delivery expectations
    - Facilitate peer-led operational teams
    - Foster learning environment
    - Collection and analysis of outcomes
- Results: Improved outcomes; decreased utilization; increased adherence to exercise based therapy

Post Acute System integration underway for enhancing patient health management and efficiency

Focus on demonstration of personal and professional value in all levels of care

Fluctuating patient volumes, with potential for decreased payments