<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>11:00 AM</td>
<td>Therapy Utilization in PDGM: Data Driven Decision Making</td>
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Therapy Utilization in PDGM: Data Driven Decision Making

Disclosures

- Dr. Falvey is a paid instructor for Medbridge, teaching course content on hospital readmissions
- Dr. Falvey has current or prior grant funding covering part of the content from
  - American Physical Therapy Association, Home Health Section
  - Foundation for Physical Therapy
  - National Institute on Aging, T32 AG 019134
Learning Objectives

1. Explain the value of therapy services in an outcomes driven environment.

2. Produce one (1) data supported example of interdisciplinary effectiveness.

3. Assess the readiness of the therapy team for practice in PDGM

Patient Driven Groupings Model

Claims Data

OASIS Data

Clinical Decision Making??
What Does CMS Say - PPS 2019 Final Rule

• We disagree that the PDGM diminishes or devalues the clinical importance of therapy. The musculoskeletal and neurological rehabilitation groups under the PDGM recognize the unique needs of patients with musculoskeletal or neurological conditions who require therapy as the primary reason for home health services.

• For the other clinical groups, we note that the 30-day base payment amount includes therapy services, even if the primary reason for home health is not for the provision of therapy. The functional impairment level adjustment in conjunction with the other case-mix adjusters under the PDGM, aligns payment with the costs of providing services, including therapy.

Therapy Track Record

<table>
<thead>
<tr>
<th>Pre PPS</th>
<th>Initial PPS</th>
<th>Revised PPS</th>
</tr>
</thead>
</table>
| • Low Therapy Use Overall  
  • < 10 | • Therapy Use Increases  
  • 10 - 13 | • Therapy Use Increases  
  • 14+ / 20+ |

*Significant change in PDGM = Confirmation*
NAHC Therapy Survey Results

How do you anticipate PDGM will impact therapy utilization in your agency?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stay the same</td>
<td>2%</td>
</tr>
<tr>
<td>Decrease more than 10%</td>
<td>16%</td>
</tr>
<tr>
<td>Decrease less than 10%</td>
<td>23%</td>
</tr>
<tr>
<td>Unsure</td>
<td>2%</td>
</tr>
<tr>
<td>Increase</td>
<td>25%</td>
</tr>
</tbody>
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485 Responses

PDGM and Patient-Centered Outcomes

The outcome of greatest interest to older adults recovering from acute medical events is often maintenance of functional independence.

Regaining functional independence requires:
- Staying in the community versus re-hospitalization
- Improvement in activities of daily living
- Facilitating successful community reintegration
Emerging Research: Rehabilitation and Readmits

- Home-based rehabilitation services are important, but largely understudied part of hospital readmission reduction as well

- Much current research on readmissions focuses on the role of nurses, or comprehensive agency wide strategies
  - Frontloading
  - Red, Yellow, Green

- Little research has evaluated the impact of rehabilitation services on readmissions

Emerging Research: Impact of HH Rehabilitation

Functional impairment is a strong predictor for hospital readmissions (Falvey, 2016)
- More strongly related to potentially preventable hospitalizations (Rose, 2016)

Functional deficits are poorly communicated between hospital and home health settings

Involving rehabilitation early and often for disabled older adults, especially those with substantial limitations, is likely to help stave off readmissions
Emerging Research: Impact of HH Rehabilitation

In a study of ~1300 HH patients, Wang et al (2018) found:

- Those who used more than 2.3 visits of therapy per week had 82% lower odds of hospital readmission compared to the no therapy group

- This effect was magnified for patients who entered HH with the highest functional disability levels

Rehabilitation and Patient-Centered Outcomes

Regaining functional independence during a home care episode is a major goal of rehabilitation

Yet, how much rehabilitation is optimal to promote these goals is unclear
Rehabilitation and Patient-Centered Outcomes

How do HH agencies decide on how much rehabilitation someone gets?
• OASIS measures and payment category?
• Patient goals?
• Therapist judgement?

Using only a single metric is likely shortsighted
• Predictions based on historical data and NOT best practices

Rehabilitation and Functional Recovery

• A small number of studies have shown relationships between use of therapy services and functional recovery in home health care
  – Few have evaluated dose-response

• Importantly, therapy improves many aspects of function that are not DIRECTLY measured by the OASIS tool
  – Gait speed and muscle strength
  – Balance and balance confidence
  – Self-efficacy

• These measures may INDIRECTLY influence other important outcomes, such as return to community and are patient centered (think, HHCAPS)
Rehabilitation and Functional Recovery

Across a variety of medical and surgical conditions, rehabilitation services consistently related to improved functional recovery

- Madigan (2012) found that patients with heart failure who used PT had significantly greater functional improvements than those who did not
  - Yet, only 49% of patients in this study had a PT consult
- Higher use of rehabilitation similarly was associated with better gait speed outcomes for older adults with CHF in home health
  - But no dose dependent effect of rehabilitation on ADLs

Rehabilitation and Functional Recovery

After total knee arthroplasty:

Compared to 0-5 visits (low utilization), in bivariate analysis
- 6-9 had 25% greater improvement
- 10-13 had 40% greater improvement
- 14+ had 50% greater improvement

Compared to 0-5 visits (low utilization), in multivariate analysis
- 6-9 had 12% greater improvement***
- 10-13 had 16% greater improvement
- 14+ had 16% greater improvement
Rehabilitation and Community Discharge

- 40% of readmissions that occur in the first 30 days after a home care episode concludes are potentially preventable
- Successful community discharge may depend on progress with rehabilitation

Functional Recovery and Successful Discharge

Failure to improve function during HH episode increases risk of poor return to community

For total joint replacement, the rate of readmission after episode **DOUBLES** if improvement not made in key ADLs during HH

Falvey et al (under review)
Functional Recovery and Successful Discharge

Higher functional status at HH discharge is associated with fewer potentially preventable hospitalizations

Middleton, 2019

Functional Recovery and Successful Discharge

<table>
<thead>
<tr>
<th>Mobility²</th>
<th>Reference</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartile 1 (most independent)</td>
<td>1.04 (1.00–1.07)</td>
<td>1.03 (0.99–1.07)</td>
</tr>
<tr>
<td>Quartile 2</td>
<td>1.03 (1.00–1.07)</td>
<td>1.05 (1.01–1.09)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Functional status</th>
<th>Reference</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartile 1 (most independent)</td>
<td>1.09 (1.05–1.13)</td>
<td>1.09 (1.05–1.12)</td>
</tr>
<tr>
<td>Quartile 2</td>
<td>1.34 (1.30–1.38)</td>
<td>1.33 (1.29–1.37)</td>
</tr>
<tr>
<td>Quartile 3</td>
<td>1.65 (1.50–1.89)</td>
<td>1.61 (1.56–1.66)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Functional status</th>
<th>Reference</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intact</td>
<td>1.21 (1.18–1.24)</td>
<td>1.04 (1.01–1.06)</td>
</tr>
<tr>
<td>Impaired</td>
<td>1.08 (1.05–1.10)</td>
<td>1.08 (1.05–1.10)</td>
</tr>
</tbody>
</table>

¹Odds ratios from multilevel models adjusted for patients' age, sex, race/ethnicity, dual eligibility, Medicare original season for entitlement, number of hospitalizations over the prior year, comorbidities (medical condition categories), and index hospitalization diagnosis category, primary procedure category (if applicable), length of stay, receipt of dialysis, and intensive or coronary care unit utilization. Complete listings of the odds ratios from the multilevel models presented are available in Supplemental Digital Content 2 (http://links.lww.com/MLR/B057).

²Mobility and self-care domains created using items from the Home Health Outcome and Assessment Information Set (OASIS). The mobility domain included 5 items related to transfers and ambulation/ locomotion. The self-care domain included 7 items related to feeding, preparing light meals, grooming, dressing, bathing, and toileting hygiene.

³Cognitive categories created using 2 items from the OASIS. Patients were categorized as "impaired" if they were scored as "alert-oriented, able to focus and shift attention, comprehends and recalls task directions independently" or the cognitive functioning item and as "expresses complex ideas, feelings, and needs clearly, completely, and easily in all situations with no observable impairment" on the speech/language expression item.

CI indicates confidence interval.
Using Historical Data to Guide Rehab Use?

Necessary, but not sufficient

• Using prediction models or other models based on prior historical data perpetuates biases ingrained from prior payment models

• These estimates are disconnected from physiology and may promote short-term savings at the expense of longer term outcomes

• Difficult to unpack the black box of therapy in administrative data

Conclusions

• Emerging research shows that therapy use in home health settings is high value

• Value is not limited to functional outcomes!

• Generate data on both quality and quantity of home care as agencies, and partner with researchers to leverage data maximally!
Determining Current State of Therapy

Frequency and Duration

Tests and Measures

Patient Specific Interventions

Relevant Goal Setting

Maintenance Therapy

---

Frequency and Duration - POC

- Take the 5 evaluations / SOC assessments conducted in the last 2 weeks
- Remove direct patient identifiers
  - Name
  - Address
- Ask therapist to identify the name of the patient after reviewing:
  - Assessment
  - Plan of Care
- IF that cannot be done – how intentional and specific is this plan?
Determining Patient Needs

Intrinsic
- Disease Process(es)
  - Acuity & Severity
  - Comorbidities
  - Level of independence with management
- Knowledge Deficits
  - Current condition(s)
  - Medications
  - Care procedures
- Functional/Safety
  - Mobility
  - Self care/ADLs

Extrinsic
- Support System
  - Caregivers
    - Availability, willingness
    - Ability to meet patient needs
- Environmental
  - Physical plant
    - Set up/compatibility
    - Accessibility & safety
- Equipment/Adjunct Services
  - Devices in care (i.e., IV, wound vac, walker, wheelchair, BSC)
  - Community involvement
    - Meals on Wheels, dialysis, transportation
Tests and Measures

Objective = Standardized & Validated

The Free Dictionary:  
"conforming to or constituting a standard of measurement or value; or of the usual or regularized or accepted kind"

The Free Dictionary:  
"check or prove the validity or accuracy of; support the truth or value of"
Measurement Options (just a few)...

- Arm Curl Test
- 30 Second Chair Stand Test
- 5 Times Sit to Stand
- Single Leg Stance
- Gait Velocity
- Borg Scale
- Goniometry
- Dynamometer Readings
- REAL Gait Distances

“Patient Specific” Interventions

• Physical Therapy
  – Gait Training
  – Transfer Training
  – Ther Ex

• Occupational Therapy
  – ADL Retraining
  – Self Care Training
  – Ther Ex

• Speech Language Pathology
  – Cognitive Retraining
  – Oral Motor Training
  – Diet Instruction

WHERE ARE THE PATIENT SPECIFIC DETAILS?

CAN YOU SEE THE CONNECTION TO THE ASSESSMENT FINDINGS?

Knowledge Assessment

Which of the following **not** an example of defensible skilled therapy documentation?

A. PT reviewed established HEP of #3 PREs for SLR, TKE in supine 2 x 15 reps, mini-squats 3 x 10 reps, standing heel raises x 15 reps
B. PNF to RLE in D1F pattern followed by pre-gait and progressive gait training on level surfaces to facilitate swing phase of gait cycle
C. OT provided patient and spouse instruction in use of resting L hand splint to include: fitting device, don/doffing, wear schedule and integumentary check post-wear
D. ST advanced patient to mechanical soft diet and provided education to spouse/caregiver in appropriate cueing of patient position during meals
Key Elements of Goals

- Look for all components to be present:

  - **Specific**
    - achievement of client specific learning or accomplished task
  - **Measurable**
    - level of assistance, tests and measures, frequency and duration of symptoms self-management and monitoring
  - **Attainable**
    - reasonable
  - **Relevant**
    - does it improve or stabilize health condition, activity or participation
  - **Time bound**
    - when do you expect goal to be achieved
Knowledge Assessment

- Which of the following is a well-written therapy goal for your home health patient?
  A. Patient will be safe and independent with individualized home exercise program (HEP) for lower extremity strengthening x 4 weeks
  B. Patient will demonstrate improved endurance as evidenced by ability to shower independently consistent with PLOF x 2 weeks
  C. Patient will demonstrate a 30% improvement in LE strength as evidenced by 30-sec Chair Stand Test score= 10 reps (WNL age/gender) to climb 12 steps in home to 2nd floor bedroom x 5 weeks
  D. Patient will increase balance as evidenced by score increase of > 4 points on Tinetti x 6 weeks

Is Maintenance Therapy Part of Care Delivery?

- EVERY agency is providing some degree of maintenance therapy – but most are not identifying it as such
  - G Code on claims
  - Clarity of documentation

- Course of care can go one of two ways:
  - Care initiated as a maintenance approach
  - Shift to maintenance after a course of restorative care

- Connection to partial denials due to lack of “improvement” over the last portion of visits provided in an episode of care.
  - All visits billed as restorative and no improvement present
  - Documentation content appearing “repetitive”
Skills of a qualified therapist are needed to restore function.

Patient’s condition requires a qualified therapist to design or establish a maintenance program.

Skills of a qualified therapist are required to perform maintenance therapy.

Choosing a Course of Skilled Therapy

- Therapy Assessment / Reassessment
  - Expectation of Improvement
    - Therapy Required
      - Restorative Focus of Care
    - Therapy NOT Required
      - No Additional Therapy
  - Anticipation of Decline
    - Therapy Required
      - Maintenance Focus of Care
    - Therapy NOT Required
      - No Additional Therapy
Assessing Maintenance Activities

• Review of "evaluation only" therapy cases
  – Could these have been maintenance patients?

• Analyze visit patterns for specific diagnosis groups
  – Is utilization different for chronic disease populations?

• Assess previous denials
  – Where these full or partial denials?

• Examine notes in the final 2 weeks of therapy care
  – Are the criteria for restorative still being met?

Determining Current State of Therapy

\[
\text{Frequency and Duration} \rightarrow \text{Tests and Measures} \rightarrow \text{Patient Specific Interventions} \\
\downarrow \\
\text{Relevant Goal Setting} \rightarrow \text{OASIS / Coding} \rightarrow \text{Maintenance Therapy}
\]
Time for Questions / Contact Information

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thank you!