Being Confident With Maintenance Therapy in the Home Health Setting

Speaker(s): Jonathan Talbot, PT, MS, COS-C

Session Type: Educational Sessions
Session Level: Intermediate

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Being Confident With Maintenance Therapy in the Home Health Setting

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Disclosure

Jonathan Talbot has no financial relationship(s) that could reasonably be viewed as creating a conflict of interest, or the appearance of a conflict of interest, and/or might bias the content of the presentation.
Session Learning Objectives

After this session you will be able to:
1. Understand the history, background, and myths surrounding the provision of maintenance therapy services.
2. Understand the facts surrounding the Jimmo v. Sibelius Settlement Agreement
3. Understand the essential components for providing and documenting skilled therapy services, particularly as it relates to the provision of maintenance therapy.

Session Learning Objectives (cont’d)

After this session you will be able to:
4. Verbalize understanding of regulatory requirements surrounding the provision of maintenance therapy services.
5. Learn how to evaluate and identify patients appropriate for maintenance therapy services, using appropriate standardized tests.
6. Learn to develop, implement, and manage a maintenance therapy plan of care that meets Medicare coverage criteria.
Course Outline

I. History/Background of Maintenance Therapy
II. Jimmo v. Sibelius: The Lawsuit, Settlement, and Lessons
III. Defining Skilled Physical Therapy
IV. Maintenance Therapy: The Regulations
V. Maintenance Therapy: Identifying Need
VI. Maintenance Therapy: Objective Testing
VII. Maintenance Therapy: Plan Development
VIII. Maintenance Therapy: Implementation & Management
IX. Questions & Answers

History/Background of Maintenance Therapy
Physical Therapy in the News

*From the New York Times (Jaffe, 2013):*

Regarding 87-year old father: “Every time he stops going to physical therapy, he starts to backslide in terms of his balance, his strength and his mobility,”

--Concerned family member

(therapy stopped due to lack of improvement)

Physical Therapy in the News

*From the New York Times (Jaffe, 2013):*

“If someone isn’t making progress, I say, ‘Listen, I’m sorry but Medicare’s not going to cover this so you can come in for a few more sessions but then I have to let you go,’”

--Physical Therapist in Brooklyn

(unaware of the Jimmo settlement)
Our Ethical Code

_Principle #8:_ Physical therapists shall participate in efforts to meet the health needs of people locally, nationally, or globally. (Core Value: Social Responsibility)

8C. Physical therapists shall be responsible stewards of health care resources and shall _avoid overutilization or underutilization_ of physical therapy services.

Code of Ethics for the Physical Therapist
HODS06-09-07-12 (APTA)

APTA Code of Ethics—Principle 8

Does our fear of providing too much physical therapy exceed our concern for providing too little?

Overutilization  Underutilization
Medicare: A Social Security Benefit

- Social Security Act signed by FDR on August 14, 1935
  - Originally just paid retirement benefits to primary worker

- **1939**: added benefits for survivors, wife and children
- **1956**: added disability benefits
- **1965**: added health insurance benefit (Medicare)

(Frequently Asked Questions. Available at: [http://www.ssa.gov/history/hfaq.html](http://www.ssa.gov/history/hfaq.html))

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Medicare: A Social Security Benefit

**Text of Social Security Amendments of 1965 regarding coverage for health care services** (Section 1862):

“No payment may be made ... for any expenses incurred for items or services—

1) which are not reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member”

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Text of Social Security Amendments of 1965 regarding coverage for health care services (Section 1862):

“No payment may be made ... for any expenses incurred for items or services—1) which are not reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member”


Social Security Program Operations Manual

Maintenance Therapy:

“...the specialized knowledge and judgment of a qualified physical therapist may be required to establish a maintenance program if the program is to be safely carried out and the treatment aims of the physician achieved.”

Social Security Program Operations Manual, 1999
Social Security Program Operations Manual

Maintenance Therapy:
“In such situations, the *initial evaluation* of the patient's needs, the *designing* by the qualified physical therapist of a maintenance program which is *appropriate to the capacity and tolerance of the patient* and the *treatment objectives of the physician*, the *instruction of the patient or supportive personnel*, e.g., aides or nursing personnel (or family members where physical therapy is being furnished on an outpatient basis) in the *carrying out of such program* and *such infrequent reevaluations as may be required* would constitute physical therapy under the program.”

(emphasis added)

Social Security Program Operations Manual, 1999

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Social Security Program Operations Manual

Maintenance Therapy:
“Generally, the *repetitive services* required to maintain function do not involve the use of complex and sophisticated physical therapy procedures, and consequently the judgment and skill of a qualified physical therapist are not required for the safe and effective rendition of such services.”

Social Security Program Operations Manual, 1999
Medicare Coverage Before Jimmo Case

2011:
“In order for therapy services to be covered, one of the following three conditions must be met:”

1. The skills of a qualified therapist are needed to restore patient function
2. The patient’s condition requires a qualified therapist to design or establish a maintenance program
3. The skills of a qualified therapist are needed to perform maintenance therapy

Medicare Benefit Policy Manual—Chapter 7 (Rev. 144, 05-06-11)

Jimmo v. Sibelius: The Lawsuit, Settlement, and Lessons
About Glenda Jimmo

Patient:
At onset of lawsuit, was 76 y/o mother of four living in Vermont. Previously received home health physical therapy. Coverage for further home health PT was denied due to her being stable with no expectation for improvement.

Medical condition:
– Legally blind since age 19
– Above knee amputee (due to complications from diabetes)
– 4 toes amputated from opposite limb
– Wheelchair bound

(Miller, 2012)

The Lawsuit: Jimmo v. Sibelius

• Class-action lawsuit filed January 2011 by Center for Medicare Advocacy and Vermont Legal Aid with the following claims:

  – Medicare improperly denying coverage
  – “Sub-regulatory” rule-of-thumb used for decades (aka “Improvement Standard”)
  – Inappropriate coverage denials across multiple care settings

(Talaga, 2013)
The Settlement: Jimmo v. Sibelius

• Settlement agreement—January 24, 2013
• Terms of the settlement required that CMS:
  – Allow “re-review” of denied claims
  – Provide nationwide Education Campaign
  – Randomly sample non-coverage decisions

(Drummond-Dye, 2013)
(Center for Medicare Advocacy, 2013)

The Settlement: CMS Response

“Nothing in this Settlement Agreement modifies, contracts, or expands the existing eligibility requirements for receiving Medicare coverage.”

(CMS Transmittal 179, January 2014)
The Settlement: CMS Response

January 2014 CMS Transmittal:

– Coverage depends upon “whether skilled care is required” (i.e. services are reasonable and necessary)
– Documentation is the “means” to establish skilled care meets coverage criteria
– Cases in which maintenance needs can be addressed by non-skilled personnel are not covered by Medicare

(CMS Transmittal 179, January 2014)

The Settlement: CMS Response

January 2014 CMS Transmittal:

– Skilled maintenance therapy has long been a covered benefit
– Statutes and regulations have “never supported” the imposition of an “Improvement Standard”
– Coverage doesn’t depend upon “restoration potential”

(CMS Transmittal 179, January 2014)
Summary of Medicare Response

Medicare has long supported coverage for maintenance therapy

Why all of the coverage denials and confusion?

No policy supporting “Improvement Standard”

Possible Sources of Confusion

– Some provisions in the Medicare Benefit Policy Manual insinuated coverage denials may be appropriate “if a patient reaches a plateau or is not improving or is stable.”

– Medicare contractors
  * “maintenance services only”
  * “chronic”
  * “medically stable”

(Talaga, 2013)
Possible Sources of Confusion

• Other possible contributing factors:
  – Provider’s lack of understanding
  – Inadequate documentation
    o Failure to evidence skilled need or identify inherent complexity
    o Poor explanation of medical necessity
    o Lack of objectivity and assessment of response
    o Interventions lacking teaching & modifying
    o Goals not clearly outlined
    o Effectiveness not established

Enhanced Documentation Expectations

• The Medicare Benefit Policy Manual and LCD’s have been updated with clarification about what skilled care is (and isn’t)
  – Services require skills of qualified therapist (PT, not PTA)
  – Coverage does not depend on improvement potential, but rather on skilled need
  – “Specialized skills, knowledge, and judgment of a qualified therapist to demonstrate effectiveness”
  – “Tolerated treatment well” and “Continue plan of care” do not suggest skilled care.

(CMS Transmittal 179, January 2014)
APTA’s Position

• All patients have right to receive medically necessary physical therapy services
• Improvement ability never should be the sole factor in determining whether services of a physical therapist are needed
• Determination of whether services are “skilled” based upon the answers to 2 questions:
  1) Is a skilled professional needed to ensure that the therapy or nursing care provided is safe and effective?
  2) Is a qualified nurse or therapist needed to provide or supervise the care

(Drummond-Dye, 2013)

Lessons from Jimmo v. Sibelius

• Legal action may be necessary to enforce policy compliance
• Know the regulations—Knowledge is power!
• Advocate for patients who need services of a physical therapist
• Appeal for reimbursement for appropriately provided services (easier to do if clinicians document using ICF model)
• Improve documentation quality
Defining Skilled Physical Therapy

Therapy Coverage Trivia

How many times are the words “skilled” and/or “skills” found in Section 40.2.1 (Therapy Services) of the Medicare Benefit Policy Manual?
(Hint: 13 pages)

a) 16
b) 28
c) 37
d) 49
Therapy Coverage Trivia

How many times are the words “skilled” and/or “skills” found in Section 40.2.1 (Therapy Services) of the Medicare Benefit Policy Manual?
(Hint: 13 pages)

a) 16
b) 28
c) 37
d) 49

Skilled Therapy Services Defined

Section 40.2—Skilled Therapy Services

Skilled therapy is evidenced by services that:
• “Require skills of qualified therapist”
• “Must be reasonable and necessary for the treatment of the patient’s illness or injury”
**Additional Definition of Skilled Therapy**

“Development, implementation, management, and evaluation of a patient care plan based upon the physician’s orders ... when, because of the patient’s clinical condition, those activities require the specialized skills, knowledge, and judgment of a qualified therapist to ensure the effectiveness of the treatment goals and ensure medical safety.”

*Medicare Benefit Policy Manual—Chapter 7 (Rev. 179, 01-01-14)*

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**Skilled Need is Essential**

- “Key issue” for coverage is the presence or absence of documentation to support services
- Reasonable need for skilled care must be in the record, regardless of diagnoses
- Evidence of skilled need required for both restorative and maintenance therapy cases
- Additional documentation indicated for maintenance therapy cases

*Medicare Benefit Policy Manual—Chapter 7 (Rev. 179, 01-01-14)*
Plan Do Study Act (PDSA)

Patient-Centered PDSA
Care Plan Management (PDSA)

DEVELOP with physician order

IMPLEMENT plan of care

MANAGE teach measure

EVALUATE & modify

Condition, Goals, & Safety

Patient

Skilled Physical Therapist Plan of Care

INHERENT COMPLEXITY

DEVELOP with physician order

IMPLEMENT plan of care

SPECIALIZED SKILLS

MANAGE teach measure

JUDGMENT

EVALUATE & modify

KNOWLEDGE

Condition, Goals, & Safety

Patient
Unskilled Physical Therapist Plan of Care

Unskilled vs. Skilled Therapy

<table>
<thead>
<tr>
<th>Unskilled therapy is...</th>
<th>Skilled therapy is...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simply counting while patients exercise</td>
<td>Teaching patients which exercises to do, and clearly explaining the reasons why</td>
</tr>
<tr>
<td>Standing by during patient transfers</td>
<td>Teaching patients how to safely transfer</td>
</tr>
<tr>
<td>Merely walking with patients</td>
<td>Teaching patients how to walk safely with fewer deviations</td>
</tr>
<tr>
<td>Documenting assessment consisting of “Tolerated treatment well”</td>
<td>Thoughtfully comparing and explaining how objective measures prove effectiveness</td>
</tr>
<tr>
<td>Documenting plan after current visit as “Continue POC”</td>
<td>Documenting specific planned modifications for next visit</td>
</tr>
</tbody>
</table>
Can Unskilled Become Skilled?

Section 40.2.1

- “A service that is ordinarily considered unskilled could be considered a skilled therapy service in cases where there is clear documentation that, because of special medical complications, skilled rehabilitation personnel are required to perform the service.”
Documentation Using ICF

The International Classification of Functioning, Disability, and Health (ICF) was developed by the World Health Organization as a “universal classification of disability and health”

- Endorsed by APTA in 2008
- Payers (Palmetto GBA) educating providers to use ICF
- ICF documentation exhibits knowledge, judgment, and skill.

International Classification of Functioning, Disability, and Health (ICF)

Health Condition(s) Diagnoses

Body Functions & Structures (anatomical & physiological impairments)

Activity (task-specific functional limitations)

Participation (life situation restrictions)

Environmental Factors

Personal Factors

(adapted from World Health Organization, 2002)
Maintenance Therapy

The Regulations

Review: General Therapy Coverage Principles

Section 40.2.1
Covered home health physical therapy services require:

1. Eligibility (e.g. homebound, patient condition)
2. Inherent complexity
3. Reasonable & necessary
4. Sufficient documentation (knowledge, teach, measure, modify)

Medicare Benefit Policy Manual—Chapter 7 (Rev. 179, 01-01-14)
What Is Reasonable and Necessary?

Section 40.2.1: Reasonable and necessary services identify:

1. Nature and severity of illness/injury,
2. Specific medical needs of patient (clear purpose for services),
3. Amount, frequency, and duration of services,
4. Generally accepted standards of practice, including
   a) Specific treatment
   b) Safe treatment
   c) Effective treatment

Coverage for Maintenance PT—Criteria 2

Section 40.2.1 (d)(2)—PT uses skills, knowledge and judgment to design or establish a maintenance program that:

• Ensures patient safety and program effectiveness
• Pursues goals to prevent or slow further deterioration
• Teaches techniques, exercises, & precautions to treat condition
• Includes “periodic reevaluations” of the beneficiary and the maintenance program
• Generally develops program “during the last visit(s)” of restorative care, OR clearly explains why if the program is implemented later
Skilled Maintenance Therapy (Criteria 2)

**INHERENT COMPLEXITY**
- Develop with physician order
- Implement plan of care

**Patient**
- Condition, Goals, & Safety
- Evaluate & modify
- Periodic reevaluations

**KNOWLEDGE**
- Judgement

**SPECIALIZED SKILLS**
- Manage teach measure

**Overall medical condition, experiences, and home safety (ICF)**

Coverage for Maintenance PT: Criteria 3

Section 40.2.1 (d)(3)—PT may **perform maintenance therapy** if:

a) **Special medical complications** are identified & documentation clearly **explains** why PT must perform the program (particularly if it could otherwise be considered unskilled), OR

a) The level of complexity of the needed procedures requires the skills of a qualified therapist to perform them

Also, must:

- **Ensure patient safety and program effectiveness**
- Pursue goals to **prevent or slow further deterioration**
- **Document teaching/modifying** of program

Medicare Benefit Policy Manual—Chapter 7 (Rev. 179, 01-01-14)
Additional Documentation Guidance Specific to Maintenance Therapy

Section 40.2.1 (e) (emphasis added)

“When the skilled service is being provided to either maintain the patient’s condition or prevent or slow further deterioration, the clinical notes must also describe:

- a detailed rationale that explains the need for the skilled service in light of the patient’s overall medical condition and experiences,
- the complexity of the service to be performed, and
- any other pertinent characteristics of the beneficiary or home.”

Medicare Benefit Policy Manual—Chapter 7 (Rev. 179, 01-01-14)
Periodic Reevaluations

**Section 40.2.1**

- Reassessments required to “ensure” effectiveness of services.
- Reassessment minimally at least once every 30 days (prior date of eval/reassessment is day 0, and count from there)
- Reassessment visits must include:
  - Provision of ordered therapy service
  - Functional reassessment of the patient
  - *Compare* resultant measures to prior measures *(be objective)*
- Therapist must document a statement (determination) regarding effectiveness of services
- And…

Medicare Benefit Policy Manual—Chapter 7 (Rev. 179, 01-01-14)

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Reassessment Requirements for 2015

For episodes beginning on or after Jan 1, 2015…

no more 13/19 visit counting requirement!!!
Maintenance Therapy

Identifying Need

APTA Vision Statement

*Transforming society by optimizing movement to improve the human experience.*
Use ICF to Identify “Inherent Complexity”

– Health Condition(s), including history of re-hospitalizations / home health episodes
  • Prior level of function (be specific)
  • Primary diagnoses relevant to the PT plan of care?
  • Why does the patient have a cycle of health care needs?

– Body Functions & Structures, Activity, & Participation
  • Describe anatomical and physiological impairments
  • Explain relationship to activity limitations (tasks) and participation restrictions (life situations)

(World Health Organization, 2002)

Use ICF to Identify “Inherent Complexity”

– Environmental factors
  • Describe home safety concerns, attitudes/anxiety of family & caregivers, medications, etc
  • What do objective tests say about safety?
  • History of falls (describe when and how)

– Personal factors
  • Socioeconomic status
  • Cognition
  • Patient goals
  • Patient anxiety over pending discharge

(World Health Organization, 2002)
Additional Considerations

Other considerations for identifying need for maintenance therapy services:

1. Deterioration risk
2. Home exercise program (HEP) status
3. Goals
4. Discharge planning

Deterioration Risk

1. Identify risk for deterioration
   • How quickly would the expected deterioration occur without a PT maintenance plan of care?
   • How would the expected deterioration impact activity and participation? (think ICF)
   • Why is planned frequency & duration appropriate to slow/prevent further deterioration?
     (think about research and evidence-based practice)
2. Status of Home Exercise Program (HEP)
   – If in place, is it effective for maintaining? If not, why not?
   – Does the patient/caregiver feel confident that it will slow/prevent deterioration?
   – What needs to happen to establish that confidence?
   – Has the teaching by the skilled PT (for both patient and caregivers) been sufficient to establish an effective HEP?
   – Will the HEP need modification in the near future?
   – Would a scheduled “periodic reassessment” be sufficient to update the HEP, validate effectiveness, and ensure safety?
   – Is the dosage & frequency evidence-based?

3. Maintenance Therapy Goals:
   – What are the patient’s stated goals? Are they realistic? Are they still for restorative purposes?
   – What goal(s) would you establish for the program?
   – Do your goals address the patient’s greatest fear?
   – Are the goals sufficiently objective to demonstrate program effectiveness?
   – What if the deteriorating condition can’t be maintained, but deterioration can be slowed? How would you set goals?
Planning for Discharge

4. Discharge (DC) Planning
   – Have the goals and DC plan been discussed with the patient/family/caregiver?
   – What about the home environment for safety?
   – Discuss timelines and expectations
     • Highlight significance of objective measures for demonstrating effectiveness of maintenance program
     • Outline reassessment and discharge plan based upon expectation that program will be effective
     • Discuss plan to modify program if proven to not be effective towards goals

Maintenance Therapy

Objective Testing
Objective Testing: Critical Component

Objective Testing

Maintenance Therapy
Plan of Care

Objective Testing

Objective tests facilitate discussions about the following with the care team and patient/family:

- Current status and relevant history (compare normal values)
- Goals (associate key tests with goals)
- Purpose of interventions (prevent/slow deterioration)
- Rationale for frequency/duration of interventions
- Rationale for reassessment timing
- Expected outcomes (discharge planning)
Choosing Tests: Put Patient in a Box

<table>
<thead>
<tr>
<th>Ambulatory</th>
<th>Non-ambulatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Walking Speed</td>
<td>1. Functional ROM</td>
</tr>
<tr>
<td>2. Timed Up and Go</td>
<td>2. Sitting Balance (Forward &amp; Lateral Reach)</td>
</tr>
<tr>
<td>3. 30 Second Chair Stand Test</td>
<td>3. Timed Functional Tasks</td>
</tr>
</tbody>
</table>

Above are some examples of objective tests found to be useful for maintenance therapy patients, but this is not an exclusive list. The knowledge and judgment of the therapist should determine the appropriate tests for each patient.

Ambulatory Testing: Walking Speed

– Also known as gait speed or gait velocity
– Established research and normals (Fritz, 2009; Lusardi, 2003)
– Equipment: painter’s tape, tape measure and stopwatch
– May use 8 foot testing zone (Bohannon, 2008; Miller, 2009)
– Provides potential predictive value:
  • \( \leq 1.86 \text{ ft/sec} \) predicts falls & hospitalization \((\leq 1.97 \text{ ft/sec})\)
  • Valuable normative values to compare to patient status

**Easy home reference** (8 foot zone, comfortable speed):
• > 4.3 seconds to walk 8 feet is slower than 1.86 ft/sec
• May use > 5 seconds if easier to remember (equates to 1.6 ft/sec)
**Ambulatory Testing: Timed Up and Go**

- Established research and normal values (Bohannon, 2006)
- Equipment: chair, painter’s tape, tape measure and stopwatch
- Provides potential predictive value:
  - Times >13.5 seconds may indicate high fall risk
  - Provides perspective (normals are for community ambulators; evidences why our patients are homebound)

**Easy home reference** (for ages 80-99; male & female):
- >13 seconds (12.7) is < 25th percentile performance
- 11.3 sec = average for 80-99 year old (community ambulators)

**Ambulatory Testing: 30 Sec Chair Stand**

- Established research and normal values (Rikli & Jones, 1999)
- Great HEP component for maintenance program
- Equipment: chair, stopwatch
- No arms allowed if comparing to normal values
- Indicator of LE functional strength
- Indicator of fall risk (STEADI initiative by CDC) (Centers for Disease Control & Prevention, 2014)

**Easy home reference:**
- Below average if can’t do at least 8 reps (ages 60-89; male & female)
- “Should do 8 if 88 or younger” (male & female 85-89; normal = 8)
Non-ambulatory Testing: Functional ROM

- Compare ROM to established normal
  - Shows clinical knowledge
  - Be sure to measure using appropriate landmarks and fulcrum points if you are comparing to normals
- Use ICF framework
  - Explain how functional ROM deficits impair activities (daily tasks) and participation (life situations)
    - Example: “Difficulty standing for more than 5 minutes due to knee extension limited to -20 degrees. Difficulty with walking restricts patient from visiting her daughter’s home.”

Non-ambulatory Testing: Sitting Balance

- Normal values available (Thompson & Medley, 2007)
- Associated with functional tasks from bedside or in a chair
  - Think about Activity within ICF framework
- Equipment: Yardstick taped to wall, chair (feet on floor)
- Useful quick reference values (no cut-off predictive values)

**Easy home reference:**
- Men (ages 80-97)
  - Forward reach avg = 14 inches
  - Lateral reach avg = 9.7 inches
- Women (ages 80-97)
  - Forward reach average = 12.5 inches
  - Lateral reach avg = 7.8 inches
Non-ambulatory Testing: Timed Tasks

- Timed performance of routine functional tasks can be objective (getting out of bed, standing up from a chair, etc)
- Useful to provide baseline measure to discuss with patient and physician
- Useful to demonstrate effectiveness of maintenance program
- No normal values
- Document set-up with sufficient detail to maintain intra- and inter-rater reliability (e.g. which chair or bed, UE’s used or not, devices used)

Maintenance Therapy

Plan Development
International Classification of Functioning, Disability, and Health (ICF)

<table>
<thead>
<tr>
<th>Health Condition(s)</th>
<th>Body Functions &amp; Structures</th>
<th>Activity</th>
<th>Participation</th>
</tr>
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<tbody>
<tr>
<td>Diagnoses</td>
<td>(anatomical &amp; physiological impairments)</td>
<td>(task-specific functional limitations)</td>
<td>(life situation restrictions)</td>
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<tr>
<td>Environmental Factors</td>
<td>Personal Factors</td>
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(adapted from World Health Organization, 2002)
Be Confident!—PT Makes a Difference

Parkinson’s:
• Strategy training, musculoskeletal “sequelae”, promoting physical activity & fall prevention found effective (Morris et al, 2010)
• Exercises benefit physical functioning, health-related quality of life, strength, balance, and walking speed (Goodwin, 2008)

Multiple Sclerosis:
• Systematic review and meta-analyses found that PT:
  – improves walking mobility (Snook, 2009)
  – improves balance (Paltamaa, 2012)
  – improves quality of life (Motl, 2009)

What Is the Minimum Weekly Frequency to Maintain Strength?

UAB study (Bickel et al, 2011)
Subjects: 70 adults (31 in 60-75 age group, 39 in 20-35 age group)

Method:
Workout: 3 sets of 3 ex’s (LAQ, leg press, squats), 8-12 reps/set
Duration: 16 weeks
Then...(13 dropped out); 3 groups; biopsies every 4 weeks
1) 3x/week → No exercise
2) 3x/week → 1x/week, 3 sets of 8-12 reps/set
3) 3x/week → 1x/week, 1 set of 8-12 reps/set

Outcome:
Group #1→ lost strength gains
Groups #2-3→ 7-8% strength gains, but lost muscle mass.
Strength: 1/9 Dose Group (1x/week; 1 set)

Strengthening Implications

- Resistance training (RT) is a key intervention to reduce & control the effects of sarcopenia
- Muscle performance sustained in adults with 1x/week dosing
- More frequent dosing may be required to maintain muscle mass
  - Muscle mass impacts glucose homeostasis, fatty acid metabolism, aerobic capacity, and bone and joint health.
- Progressive RT recommended “indefinitely” for the health and functional status of all individuals
- This *does not mean* they need perpetual maintenance PT at home!
- This *does not mean* that 1x/wk is the most anyone should get while on maintenance therapy
- Provides guidance for appropriate exercise Rx
Case Scenarios

Case Scenario #1

- Patient is 97 y/o female with dementia (loss of short term memory), LE muscle weakness, and painful kyphoscoliosis. Recently moved into ALF community after another non-injury fall at home. Has supportive family, but they live out of state. She wants to be able to attend Bingo and exercise class, but requires assistance to walk there. Has used a walker for several years. Exhibits great difficulty standing up from her chair and with getting in/out of bed. Needs multiple rest breaks to walk 300’ from residence to the dining room. Unsteady turns. Recently completed 6 weeks of PT. Has difficulty with HEP and progress has plateaued. Patient & daughter want PT to continue to prevent her from deteriorating.

Current objective test scores:
TUG = 28 seconds, WS = 1.65 ft/sec
Maintenance Therapy Plan Development  
(Case #1)

1. Determine If Appropriate
2. Establish Goals & Interventions
3. Establish Frequency, Duration, & Re-eval Plan
4. Discharge Plan

Case Scenario #1

(adapted from World Health Organization, 2002)
Case Scenario #1

AMS, muscle weakness, postural deformity (kyphoscoliosis), fall hx

BODY FUNCTIONS
1) NM/Movement fxn's
   -- Muscle power (b730)
   -- Joint mobility (b710)
2) Mental--Memory (b144)

BODY STRUCTURES
1) Movement structures
   -- LE quads/calves (s750)
   -- T-vert / Trunk (s760)
2) Nervous System
   -- Brain (s110)

Impaired ability with:
1. Bed mobility
2. Transfers
3. Balance
4. Gait

1. Unable to attend exercise class
2. Requires assistance to attend Bingo with friends

New residence; uses DME (walker); Supportive daughter (lives out of state; anxious)

Short term memory deficit
Patient anxiety

(Adapted from World Health Organization, 2002)

Plan of Care Development (Case #1)
Determine If Appropriate

- Is the patient eligible for home care services? (e.g. homebound, identified skilled need)
- What are the inherent complexities for skilled care?
- Are there any teaching opportunities to explore?
- Are there any environmental concerns to address?
- Is he/she safe? If not, how would you evidence?
- Does the patient have an effective maintenance program?
- What do you expect would happen if we discharged?
- Is the reasonable and necessary standard met for maintenance therapy?
Proceed With Maintenance Therapy?

YES  NO

Criteria 2, Criteria 3, or Both?

Design or Establish  Perform maintenance therapy
Plan of Care Development (Case #1)
Establish Goals & Interventions

- What are the patient’s and daughter’s goals, and are they realistic?
- What objective goals could you set that would be realistic?
- Write one short term goal and one long term goal
  - STG: ______________________________________
  - LTG: ______________________________________
- What interventions are appropriate to achieve these goals?
  - STG intervention: __________________
  - LTG intervention: ________________

Plan of Care Development (Case #1)
Establish Goals & Interventions

- What are the patient’s and daughter’s goals, and are they realistic?
- What objective goals could you set that would be realistic?
- Write one short term goal and one long term goal
  - STG: Pt independent with HEP 3 days/week
  - LTG: Maintain pt walking speed > 1.65 ft/sec
- What interventions are appropriate to achieve these goals?
  - STG intervention: Teach HEP for LE strengthening and recruit ALF staff to assist with HEP & walking
  - LTG intervention: Gait training with cues to take longer steps, pacing with metronome
Plan of Care Development (Case #1)
Establish Frequency, Duration & Re-eval

- What is your recommended frequency & duration?

- Considering available evidence and best practice, what rationale would you give for this frequency/duration?

- How soon would you re-evaluate?

- When you re-evaluate, how will you evidence program effectiveness?

What is your recommended frequency & duration?

1w4 (4 total visits)

Considering available evidence and best practice, what rationale would you give for this frequency/duration?

Expectation that will learn HEP in 2 wks. Can modify HEP and prepare for DC in 2 more weeks

How soon would you re-evaluate? Weekly

When you re-evaluate, how will you evidence program effectiveness? Walking speed maintained, ability to do HEP as instructed
Plan of Care Development (Case #1)
Discharge Plan

- What is the best case discharge status for this patient?

- What will you do if she declines significantly more than expected?

- What does an unexpected deterioration say about the effectiveness of the maintenance therapy program?

- In the event of significant decline, would you consider a return to a restorative plan of care?

Doing HEP regularly, no anxiety from patient & daughter, assistance lined up to help her get to Bingo

Discuss with team and contact physician

Not effective

Reconsider frequency/duration, interventions, and even possible change back to restorative plan of care
Case Scenario #2

Patient is 76 y/o black male living alone at home. His wife recently passed away. He uses a manual wheelchair for mobility in his home due to LE paraplegia. Some sparing of the quadriceps and hip extensors bilaterally. He weighs 260 lbs and is currently performing difficult transfers from wheelchair to/from bed. He is unable to effectively perform any LE exercises without active assisted ROM techniques due to significant muscle weakness. Has parallel bars installed in his home, but can only safely use them with PT assistance. He realizes he probably won’t walk on his own again but this is motivating for him and helps him to maintain strength for safe transfers. He is worried that if he loses that ability he will not be able to live in his own home anymore. Vehicle transfers are too difficult for him to attend weekly church services.

**Objective measures:**

- Time for wheelchair to bed transfer: 98 sec
- Bilateral quadriceps & hip extensors grossly 2+/5

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Maintenance Therapy Plan Development (Case #2)

1. **Determine If Appropriate**
2. **Establish Goals & Interventions**
3. **Establish Frequency, Duration, & Re-eval Plan**
4. **Discharge Plan**
Case Scenario #2

B LE paraplegia with quad & hip flexor sparing (2+/5), obesity

**BODY FUNCTIONS**
1) Movement functions
   -- Muscle power (b730)
   -- Muscle tone (b735)
2) Digestive
   -- Weight (b530)

**BODY STRUCTURES**
1) Nervous system
   -- Spinal cord/PN (s120)
2) Movement structures
   -- Bilat LE’s (s750)

Impaired ability with:
1. Transfers (difficult) (sit to stand, w/c to bed, vehicle)
2. HEP (required AAROM)
3. Ambulation (only w/ skilled assistance)

Unable to attend church regularly
Very limited community access
Lives alone, manual w/c, parallel bars
Possible depression (widower), desire to remain at home motivates to exercise

(adapted from World Health Organization, 2002)
Plan of Care Development (Case #2)
Determine If Appropriate

- Is the patient eligible for home care services? (e.g. homebound, identified skilled need)
- What are the inherent complexities for skilled care?
- Are there any teaching opportunities to explore?
- Are there any environmental concerns to address?
- Is he/she safe? If not, how would you evidence?
- Does the patient have an effective maintenance program?
- What do you expect would happen if we discharged?
- Is the reasonable and necessary standard met for maintenance therapy?

Proceed With Maintenance Therapy?

- YES
- NO
Criteria 2, Criteria 3, or Both?

Design or Establish
Perform maintenance therapy

Criteria 2, Criteria 3, or Both?

Plan of Care Development (Case #2)
Establish Goals & Interventions

- What are the patient’s goals and are they realistic?
- What objective goals could you set that would be realistic?
- Write one short term goal and one long term goal
  - STG: _______________________
  - LTG: _______________________
- What interventions are appropriate to achieve these goals?
  - STG intervention: _________________
  - LTG intervention: _________________
Plan of Care Development (Case #2)
Establish Goals & Interventions

- What are the patient’s goals and are they realistic?
- What objective goals could you set that would be realistic?
- Write one short term goal and one long term goal
  - STG: Maintain quad/hip flexor strength ≥ 2+/5
  - LTG: Maintain w/c to bed transfer time < 100 sec
- What interventions are appropriate to achieve these goals?
  - STG intervention: AAROM exercises for UE’s/LE’s
  - LTG intervention: Assisted ambulation for strengthening; explore home equipment options to facilitate safe transfers and/or independent strengthening

Plan of Care Development (Case #2)
Establish Frequency, Duration & Re-eval

- What is your recommended frequency & duration?

- Considering available evidence and best practice, what rationale would you give for this frequency/duration?

- How soon would you re-evaluate?

- When you re-evaluate, how will you evidence program effectiveness?
Plan of Care Development (Case #2)

Establish Frequency, Duration & Re-eval

- What is your recommended frequency & duration? 2w9
- Considering available evidence and best practice, what rationale would you give for this frequency/duration?
  Only able to do isometric HEP in between sessions; largely sedentary individual; high risk for loss of strength & mobility
- How soon would you re-evaluate? Weekly
- When you re-evaluate, how will you evidence program effectiveness?
  Time w/c to bed transfers and LE manual muscle testing (objective since ≤ 3/5)

Plan of Care Development (Case #2)

Discharge Plan

- What is the best case discharge status for this patient?

- What will you do if he declines significantly more than expected

- In the event of significant decline, could you justify a return to a restorative plan of plan?
Plan of Care Development (Case #2)
Discharge Plan

- What is the best case discharge status for this patient?
  
  Enhanced home mobility equipment and ability to do HEP independently

- What will you do if he declines significantly more than expected?
  
  Increase frequency and/or consult with physician regarding restorative therapy plan of care

- In the event of significant decline, could you justify a return to a restorative plan of care?
  
  Yes

Maintenance Therapy

Implementation and Management
Show Off Your Skill

- Document that which distinguishes you as a skilled professional
  - Specialized skills
  - Knowledge
  - Judgment

- What do these words really mean?

Implement the Plan: Show Your Skill

<table>
<thead>
<tr>
<th>Task</th>
<th>Skilled Element(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use medical terminology liberally</td>
<td>Knowledge</td>
</tr>
<tr>
<td>Report on objective measures frequently</td>
<td>Judgment &amp; Specialized Skill(s)</td>
</tr>
<tr>
<td>Describe feedback given to patient/caregiver</td>
<td>Specialized Skill(s)</td>
</tr>
<tr>
<td>Explain decision-making that results in care plan modification(s)</td>
<td>Judgment</td>
</tr>
<tr>
<td>Elaborate on teaching/training provided to patients and caregivers.</td>
<td>Knowledge Specialized Skill(s)</td>
</tr>
<tr>
<td>Evaluate response to training</td>
<td>Judgment Specialized Skill(s)</td>
</tr>
</tbody>
</table>
Manage the Plan

**Prepare**—discuss goals & discharge plan with patient & team

**Rationale**—document safety concerns and complexity

**Objectivity**—evidence skill and effectiveness

**Validate**—reassess timely, frequently, and reaffirm rationale

**Educate**—teach, measure response, and modify interventions accordingly

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Summary of Key Points

- Maintenance therapy is a covered benefit for appropriate patients
- Know the regulations for both eligibility and maintenance therapy
- Follow a consistent process:
  - Use the ICF to identify appropriateness
  - Clearly document “reasonable and necessary”
  - Establish objective goals using the right tests (be realistic)
  - Implement evidence-based interventions
  - Evidence effectiveness (compare objective measures)
  - Be efficient (timely modifications to improve value)
  - Manage with a discharge plan
Questions & Answers

References

  http://newoldage.blogs.nytimes.com/2013/02/04/therapy-plateau-no-longer-ends-coverage/?_r=0.  

  Code of ethics for the physical therapist (HOD S06-09-07-12).  
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