Physical Therapy

*Total Hip  *Total Knee

*Weight-bearing restrictions

ORTHOPAEDICS IN MOTION 2014
Objectives

- Cite the role of Physical Therapy in recovery from total hip and total knee replacement in the hospital and after discharge
- Explain indications for part-, full-, or non-weight bearing for orthopaedic patients
Role of Physical Therapy: THA and TKA

- Education
- Treatment
- Discharge
Education – Total Hip

- Begins at initial evaluation with Physical Therapist (PT)
  - Patient is oriented to the plan of care including treatment plan and estimated length of stay
  - Hip precautions education (depending on the approach used by the surgeon)
  - Caregiver training
    - Orientation to hip precautions
    - Home Exercise Program frequency and intensity
    - Assisting a patient with transfers, such as sit<>stand, sit<>supine, car and floor
  - Outpatient physical therapy if warranted
    - Young patients who want to return to labor jobs, physical recreation, etc.
    - Any age patient who demonstrates delayed healing, strength, flexibility, or slow return to PLOF after the first 4-6 weeks of acute recovery period in which only the home exercise program was prescribed
Education – Total Hip

BID treatments with PT or PTA

- Continue education
  - Daily review of hip precautions, home exercise program, transfers, pain management, gait mechanics, use of AD, etc.
  - Address patient and caregiver questions and concerns
  - Relaying pertinent information to pt’s nurse, MD, case manager, and others of interdisciplinary team
Treatment – Total Hip

Initial evaluation - Subjective

○ PT gains knowledge of pt’s PLOF
  • If patient resides at a nursing home (more common for hemiarthroplasties), then PT/OT calls nursing home directly to discuss pt’s PLOF with an RN.
  • The goal of pTx is to regain PLOF and ability to return home
    - If goals cannot be met, PT and PTA are concerned that pt will not be able to return home without an additional rehab stay at a nursing home, swingbed, or inpatient rehab facility.

○ Home environment
  • PT is concerned mostly about stairs in the acute stage
    - How many to enter the house or access bedroom/bathroom

○ Pain
  • Pain level: 0-10 scale
  • Pain tolerance and management
Treatment – Total Hip

Initial Evaluation – Objective

○ Pre- and post-vitals
  • Important to determine orthostatic hypotension, hypertensive urgency, and activity tolerance, etc.

○ Transfers
  • Always performed with 2-person assistance during evaluation for patient and staff safety.
    - PT is alert to monitor symptoms of lightheadedness, dizziness, nausea, dyspnea, pain tolerance, hip dislocation, etc.
    - CNA is called to assist with linen change if available

○ Gait
  • Determine appropriate 2-handed device for protected weight-bearing
  • Educate patient to perform step-to gait pattern and AD management

○ Therapeutic exercise
  • A/AROM to increase motor control and ROM, AROM to increase strength, isometrics to increase strength and circulation, eccentric contraction to improve motor control for functional activities such as stand>sit and descending stairs.
Treatment – Total Hip

BID treatment sessions (usually 4 total before patients discharge)
  ○ Increase distance and fluency of gait
    • Transition patient to step-through gait pattern, heel-contact, toe-off, and continuous steps
  ○ Decrease assist level for transfers and gait
  ○ Increase independence with hip precautions, walker management, and home exercise program
  ○ Stair negotiation
    • ascend leading with “good” leg and descend leading with “bad” leg
    • placement of AD
    • use of railing as available, PT may recommend a railing be installed
  ○ Car/floor transfer training
    • back and recline the car seat as far as possible
    • ride in the car with abduction wedge (for posterior surgical approach)
    • Floor transfer: scoot on hands and bottom, push with feet, reach an object to assist up to sitting or standing upright
  ○ Make patient independent in his/her room and on the unit, if appropriate
    • patient must demo consistent safety awareness and independence with functional transfers and gait
Discharge – Total Hip

- PT, OT, and PTA keep open communication with case managers, RNs, and social workers in order to assist with discharge planning

  - Factors that effect discharge location
    - Pt's physical capability and independence
    - Pain tolerance and management
    - Age
    - Co-morbidities
    - Caregiver/family support
    - Home set-up and accessibility
    - Activity tolerance
      - ARU candidates must be able to tolerate 3 hours of therapy per day
      - Household ambulation: 50 feet
      - Community ambulation: at least 150 feet
      - Supplemental O2 needs, O2 tubing management
    - Fall risk
      - History of falls, current functional balance, pt's cognition, alertness, and safety awareness
  
  - Discharge options
    - Skilled nursing facility
    - Home with home health physical therapy
    - Hospital swingbed
    - Home with Outpatient physical therapy (prn)
      - Pts with hip replacement may enter an outpatient physical therapy program once cleared by surgeon and hip precautions are no longer active
Education, Treatment and Discharge

The roles of Physical Therapy for patients with Total Hip Arthroplasties and Total Knee Arthroplasties are essentially identical (aside from Hip Precautions and Outpatient physical therapy)
Total Knee

Role of physical therapy
Education – Total Knee

- Educate pt on the importance of
  - Pain management in order to participate with physical therapy
  - Stretching to regain ROM early
  - Compliance with performing HEP in order to regain strength (especially quadriceps)
  - Ambulating with fluency to avoid long-term limitation and gait deviations (limping)
    - Symmetrical step-length
    - Heel contact to increase knee extension
    - Toe-off to increase knee flexion
    - Upright posture
Treatment – Total Knee

- 5 Treatments: Initial Evaluation (PT) and 4 treatment sessions (PT or PTA)
- Perform, review, and reinforce
  - Pain management
    - Pain medication 1 hour before
    - Ice pack for 15-20 min immediately after therapy
  - ROM
    - Continuous passive movement (CPM) machine
      - Pt starts at 0-60 degrees after surgery
      - Goal is 0-90 degrees before hospital discharge
      - Goal is at least 0-120 degrees final ROM
  - Exercise and HEP review
  - Transfers
    - Simulate as closely as possible to pt’s home set-up, starting Treatment 1 and continuing to progress until Treatment 5
  - Stairs
    - At least the number of steps to access the pt’s house
  - Gait
    - To improve fluency, mechanics and activity tolerance
**Discharge – Total Knee**

- **Home with outpatient physical therapy**
  - Patient is SBA-ind with transfers, gait, HEP, and stairs to access the house and bedroom/bathroom

- **Home with home health physical therapy**
  - Pt does well with household distances (50 feet)
  - More common in different states/cities, and with other surgeons

- **Hospital swingbed**
  - Pt is from out of town and continues to demo a need for assistance with gait, transfers, pain management, ADLs, etc.

- **Skilled nursing home**
  - Age is a factor, but not a major one!
  - Pt lives at home alone and still needs at least supervision for safety
  - Pt continues to need assist with gait, transfers, pain management, ADLs, etc.

- **Acute Rehab Unit (inpatient rehab)**
  - if patient has qualifying co-morbidities
  - Pt must tolerate at least 3 hours of PT and OT (also Speech if necessary)
Weight-bearing restrictions
Weight-bearing Status

- Total hip replacement
  - Protected weight-bearing
- Total knee replacement
  - Weight-bearing as tolerated
- Otherwise specified weight-bearing restrictions
  - Non-weight bearing (NWB)
    - Absolutely no placement of foot on the ground
  - Toe-touch weight-bearing (TTWB)
    - Placement of toes on the ground only for balance
  - Partial weight-bearing (PWB)
    - MD may specify a % such as 10% or 50% of pt’s total body weight
    - May use a scale to measure amount of pressure pt is using
    - If pt has difficulties maintaining weight-bearing status, remember less is safer than more
  - Weight-bearing as tolerated (WBAT)
    - As much weight as able per pt’s pain tolerance
  - Full weight-bearing (FWB)
    - No restrictions
Questions??

Thank you!