



BRIGHAM AND WOMEN'S HOSPITAL

A Teaching Affiliate of Harvard Medical School
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Department of Rehabilitation Services

Occupational Therapy

Standard of Care: Inpatient Intervention for Total Hip Arthroplasty
ICD-9 (719.7, 719.1)

Case Type / Diagnosis:

This Standard of Care applies to patients who have undergone a Total Hip Replacement (THR), total hip arthroplasty (THA) or hip resurfacing. A THR/THA can be a new or revised replacement due to chronic disease (OA, RA, AVR) or traumatic structural changes.

The role of Occupational Therapy in the acute care setting with patients who have undergone a total hip arthroplasty is to help in the restoration of occupational functioning. Through activity analysis, the therapist assists the patient to reintegrate the involved hip into activity safely.¹

Indications for Treatment:

- Impaired ability to perform self care (bathing, dressing, grooming)
- Impaired ability to perform instrumental activities of daily living (IADL's) such as cooking, laundry, and home management
- Impaired ability to perform functional mobility/transfers
- Impaired lower extremity strength, ROM, limitations of weight bearing
- Impaired knowledge regarding postoperative limitations and how they need to be integrated into ADL's and IADL's
- Impaired endurance/tolerance for sitting/standing⁶

Contraindications / Precautions for Treatment:

- Do not see patients who have a hematocrit less than 20 and symptomatic
- Do not see patients with temperature greater than or equal to 102.0F
- Do not see patients with INR greater than 4.0
- If INR is greater than 3.0, clarify orders with MD

- Posterior dislocation precautions:
 - No hip flexion greater than 90 degrees
 - No combination of hip flexion greater than 90 degrees, abduction, and internal rotation for the operated leg²

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- Anterior dislocation precautions:
 - No hip extension beyond neutral
 - No bridging
 - Position in bed with large roll or abduction pillow between lower extremities (to prevent internal rotation of affected hip)
 - Head of bed to be raised to at least 30 degrees
 - Pt should use a 'step to' rather than step through in gait pattern
 - No hip external rotation (ER) beyond neutral
 - Position in bed with trochanter roll to prevent ER at lateral hip
- Trochanter Off precautions (Trochanter osteotomy):
 - No active hip abduction /clarify with MD if functional hip abduction is allowed
- Note through chart review and physician orders if a hip abduction brace is required
- List lower extremity weight (wt) bearing:
 - Non wt bearing (0% on operated limb)
 - Touch down wt bearing (10-15%)
 - Partial wt bearing (30-50%)
 - Full wt bearing (75-100%)¹

Evaluation

Medical History: (obtain via chart review and/or patient family interview)

History of Present Illness and/or Mechanism of Injury: (obtain via chart review)

Occupational Profile: (obtain via chart review and/or patient/family interview)

- Description of home environment, previously owned durable medical equipment, and potential environmental barriers
- Family/caregivers involved prior to admission and availability to assist upon discharge
- Level of function prior to admission with activities of daily living (ADL's), instrumental activities of daily living (IADL's), and functional mobility
- Leisure activities, vocational roles, and employment, social participation
- Daily routines, including performance patterns and activity demands
Patient's goals and priorities for returning to daily occupations

Analysis of Occupational Performance:

Motor Skills:

- ROM – Assess active range of motion (AROM)/ passive ROM measurements of bilateral upper extremities (UE)
- Strength – Assess upper bilateral UE strength
- Coordination – Assess manipulation of objects during functional activity, coordination of movements
- Functional Mobility – Assess functional transfers/mobility in patient's room, (indicate need for assistive device). Progress to higher level of function as appropriate
- Vision – Assess functional acuity (need for corrective lenses) and general fields of view
- Activity tolerance/endurance: Monitor for Shortness of Breath (SOB) with exertion, activity intolerance, and need for supplemental O₂⁴

Process, Communication/Interactive Skills:

- Cognition – Assess level of arousal, alertness, orientation, attention, ability to follow commands, memory, ability to learn new information, problem solving and insight into deficits, as well as best mode of learning.
- Communication – Assess the patient's ability to express and understand information

Performance in Areas of Occupation:

- Activities of Daily Living – Assess self-feeding, grooming, hygiene, bathing, dressing and toileting skills. Note the need for adaptive equipment or adaptive strategies to complete activity and how patient's recent surgery, pain, and endurance level may affect performance. Note participation in education, regarding family members who are present. Assess projectors of assistance required for ADL's in performance areas.²
- Provide written education, if needed, regarding adaptations of activities for hip precautions/safety

Patient Factors:

- Vision – Assess functional acuity (need for corrective lenses) and general fields of view
- Pain – Assess patient's pain using Visual Analog Scale, Numerical Pain or Faces Pain Scale. Indicate region of pain and how pain was managed, if present.
- Skin Integrity – Observe the incision and make any note of excess draining or redness. Observe for any skin breakdown.

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Assessment

Problem List :

- Decreased activity tolerance
- Decreased strength, ROM of upper extremities
- Decreased performance in ADL's
- Decreased performance in functional mobility
- Knowledge deficit regarding roles of OT, hip precautions, and adaptations for safety in activities
- Impaired coping skills

Prognosis and Expected Outcomes:

Anticipated hospital length of stay after a THR is three to four days. If family/social support is sufficient and all short term goals have been met by the patient while in-house, further skilled OT services are then not indicated. However, if the patient has not met the short term goals, or has minimal support at home, then the recommendation will be made for continued skilled OT after discharge from the acute setting. Continued skilled OT may be provided either in a rehabilitative setting or through skilled home OT to further progress the patient towards goals for safe, functional independence.

Age Specific Considerations:(none)

Goals

Short Term Goals: Anticipated to be met within one or two skilled OT sessions.

Appropriate goals include (but are not limited to):

-Patient will demonstrate independent Lower Extremity (LE) dressing, with use of adaptive equipment.

-Patient will demonstrate independent transfers to and from toilet with use of adaptive devices.

-Patient will demonstrate independent and safe hip precautions while completing IADL activity for ten minutes.

-Patient will demonstrate independence in knowledge of hip precautions during functional activities for home and for community.

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Long Term goals: These goals are anticipated to be met after the patient has completed all occupational therapy services for the episode of care (including rehabilitation, home care, and outpatient services). Appropriate goals include (but are not limited to):

- Within two to four weeks, pt will demonstrate independence, with use of appropriate devices, in order to complete all ADL's , IADL's , and functional mobility for home and community functional activities while adhering to hip precautions. ⁶

Treatment Planning / Interventions

Interventions most commonly used for this case type/diagnosis.

- ADL retraining/adaptive equipment training
 - Patients may require long handled equipment to perform lower body dressing/bathing activities secondary to limitations due to decreased hip ROM, hip precautions, and/or pain
- Endurance retraining
 - Patients' activity tolerance is often limited in the early post operative phase. Provide verbal education to patients regarding increasing time spent out of bed in a seated position, as this will assist with patients' abilities to perform grooming, bathing, and dressing activities.
- Functional Mobility retraining
 - Graded progress of activity from seated and ambulatory level with use of device must be accomplished with incorporation of hip precautions, body mechanics, and developed activity endurance
 - Provide verbal and written education for functional toilet and tub transfers
- Energy Conservation techniques
 - Provide verbal and written education regarding functional activities using energy conservation techniques (i.e. symptom recognition, pacing, and planning)
 - Provide verbal and written education regarding role of OT, importance of hip precautions, and use of adapted equipment
- Upper Extremity Strengthening activities/Range of Motion
 - Provide graded UE strengthening exercises to increase occupational endurance and increase functional independence

Frequency & Duration:

Initial evaluation is completed on post operative day three as medically appropriate. Follow-up is determined based on patients' evaluation and needs

Patient / family education

Provide verbal and written education as needed regarding adaptations of activities for hip precaution safety

Recommendations and referrals to other providers

Patients may be referred to other disciplines including nursing, care coordination, physical therapy, and other disciplines as required

Re-evaluation

Patients are re-evaluated every seven to ten days while at BWH to provide a current functional status and to update short term goals. If short term goals are not being met, the factors limiting progress should be identified in the documentation.

Discharge Planning

Discharge planning occurs on an individual basis for each patient and is dependent on medical, social, and functional needs at the time of discharge. If the patient requires continued skilled treatment in a structured setting, then the discharge destination is to a rehabilitation facility or a skilled nursing facility.

If the patient has met all the goals setup by the team, a home discharge is deemed appropriate. If 24-hour assistance of a caretaker is required for a safe discharge, it is documented and clearly communicated to the family/caretaker(s). Depending on further skilled needs, a patient may discharge home without further OT services, or with a home OT referral.

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