LOTHIAN PHYSIOTHERAPY ORTHOPAEDIC GUIDELINES

Total Hip Replacement

Introduction

Surgery: total hip replacement, hip arthroplasty

Indications for surgery: pain, decreased mobility, decreased function

Expected Length of Stay: 2 days

Scope of Practice

These guidelines are designed to guide the physiotherapist when treating patients following a total hip replacement. These guidelines were produced by a process systematic review of the current evidence based literature and medical and peer consultation. They were correct at the time of writing. The guideline should be used in conjunction with the clinical reasoning skills of the physiotherapist and patients should always be treated on a case-by-case basis.

Aim

The aim of these guidelines is to provide physiotherapy staff with a series of recommendations from the current evidence base to assist them in the management of patients' following total hip replacement surgery.

Literature review question

What is an appropriate rehabilitation program following a total hip replacement from day of surgery, through outpatient physiotherapy and return to function and sport in order to maximise outcome?

Search process

The databases below were searched from January 2008 to January 2018. The titles and abstracts of all identified studies were assessed to determine whether they were pertinent to the research question. The search results were combined to ensure articles were not duplicated.

Total number of articles selected: 11

Total Hip Replacement MSK Guidelines

Date: Nov 2020

Authors: Spire Hospitals (Contact Alison Bell), Reviewed by Gill Stewart & Claire Edmiston

Data bases:

	Dates	Limitations
Cochrane	2008-2020	English
Proquest via Athens	2008-2020	English
Pubmed	2008-2020	English

Key words:

Total hip replacement	
Rehab	
Physiotherapy	
Hydrotherapy	
Post-operative rehabilitation	
Hip precautions	

Results

Early mobilisation (day 0 or day 1), reduces overall length of stay and reduces postop complications. It also increases patient satisfaction.

A physiotherapy led functional exercise programme can lead to patients having significant functional improvement following THR and therefore achieving optimal function.

In the immediate post-operative period patients that receive twice daily physiotherapy as opposed to once per day usually attain earlier achievement of functional milestones.

Key Points

- Please note that timescales are approximate and rehabilitation should be guided, at each stage, by minimal swelling, resolution of pain, good muscle recruitment and a good gait pattern.
- Lack of good quality studies on rehabilitation following total hip replacement.
- Rates of recovery may vary for THR patients, particularly in the early postoperative period.
- Reduction of hip precautions- avoid combination of flexion, internal rotation and adduction with the posterior/ lateral approach.

Total Hip Replacement MSK Guidelines

Date: Nov 2020

Authors: Spire Hospitals (Contact Alison Bell), Reviewed by Gill Stewart & Claire Edmiston

Recommendations

Phase 1

Immediate post-op: 0-7 days

Goals	
	Recommendations
Achieve independent mobility with appropriate walking aids.	Ice therapy for swelling management as required
Independent all transfers	Lie supine for time period daily to aid swelling management and ROM.
Stairs assessment	
Home exercise programme consisting of bed, chair and standing	

Phase 2

Early rehab:1-6 weeks

Goals	Recommendations
Increase mobility	Gait re-education
Increase independence	Functional rehabilitation
Increase joint ROM	Exercise Programme
Increase muscle strength	Decrease use of walking aids.

Phase 3

Late rehab: 6-12weeks

Goals	Recommendations
Independent mobility without walking	Continue gait- re-ed as required
aids if appropriate.	
Gait	Sports/ activity specific rehab
Rom achieved	

Total Hip Replacement MSK Guidelines

Date: Nov 2020

Authors: Spire Hospitals (Contact Alison Bell), Reviewed by Gill Stewart & Claire Edmiston

Return to exercise as	
appropriate with guidance	

References

- Ashley W et al, (2017) Recall and Patient Perceptions of Hip Precautions 6 weeks after Total Hip Arthroplasty. Acta Orthopaedica; 88 (5): pp496-499
- Blake C et al, Randomised Controlled Trial to evaluate a Physiotherapy- led functional exercise programme after total hip replacement. *Physiotherapy*; 103 (3): pp 283-288
- Brauer S, (2009) A Specific Inpatient Aquatic Physiotherapy Program Improves Strength After Total Hip or Knee Replacement Surgery: A Randomized Controlled Trial. Archive Physical Medical Rehabilitation; 90 pp745-755
- Chua M et al, (2017) Early Mobilisation after Total Hip or Knee Arthroplasty: A Multicentre Prospective Observational Study. PLOS ONE pp 1-15
- Danelina E, Elena M, Maya S, (2017) Rehabilitation of Patients with Hip Joint Arthroplasty. *Folia Medica*; *59* (2) *pp217-221*
- Herbold, J et al, (2011) Rehabilitation Following Total Knee Replacement,
 Total Hip Replacement, and Hip Fracture: A Case- Controlled Comparison.
 Journal of Geriatric Physical Therapy. 34 (4) pp155-60
- Hung J, (2004) Effects of a Home Program on Strength, Walking Speed, and Function After Total Hip Replacement. Archive of Physical Medical Rehabilitation; 85: pp1943-1951
- Mengerson K, and Stockton K, (2009) Effect of Mutiple Physiotherapy Sessions on Functional Outcomes in the Initial Postoperative Period After Primary Total Hip Replacement: A Randomized Controlled Trial. Archive Physical Medical Rehabilitation; 90: pp 1652-1657
- Monaco M et al, (2009) Rehabilitation after Total Hip Arthroplasty: a systematic review of controlled trials on physical exercise programmes. European Journal of Physical and Rehabilitation Medicine; 45 (3):pp303-317
- Smith S, and Trudelle-Jackson E, (2004) Effects of a Late-Phase Exercise Program After Total Hip Arthroplasty: A Randomized Controlled Trial. Archive Physical Medical Rehabilitation; 85 pp1056-1062
- Ververeli, P et al, (2009) Evaluation of Reducing Postoperative Hip Precautions in Total Hip Replacement: A Randomized Prospective Study. Orthopaedics; 32 (12): pp889-895
- C Faldini et al (2018) How to prevent dislocation after revision total hip arthroplasty: a systematic review of the risk factors and a focus on treatment options

Total Hip Replacement MSK Guidelines

Date: Nov 2020

Authors: Spire Hospitals (Contact Alison Bell), Reviewed by Gill Stewart & Claire Edmiston

- Marj Brit Hanson et al (2018) Effects of supervised exercise compared to nonsupervised exercise early after total hip replacement on patient-reported function, pain, health-related quality of life and performance-based function - a systematic review and meta-analysis of randomized controlled trials
- Roger et al (2019) Interest of enhanced recovery programs in the elderly during total hip arthroplasty A systematic review
- Has et al (2018) Effectiveness of a weekend physiotherapy service on shortterm outcomes following hip and knee joint replacement surgery: a quasiexperimental study
- Hoffman et al (2018) The Role of Physical Activity and Rehabilitation Following Hip and Knee Arthroplasty in the Elderly
- Wijnen et al (2018) The therapeutic validity and effectiveness of physiotherapeutic exercise following total hip arthroplasty for osteoarthritis: A systematic review
- Dietz et al (2019) Posterior Hip Precautions Do Not Impact Early Recovery in Total Hip Arthroplasty: A Multicenter, Randomized, Controlled Study
- Temporiti et al (2020) Does walking the day of total hip arthroplasty speed up functional independence? A non-randomized controlled
- Joint replacement (primary): hip, knee and shoulder. NICE guideline NG157; Published 04 June 2020.