Oxford University Hospitals
NHS Foundation Trust

OUTPATIENT POST-OPERATIVE PHYSIOTHERAPY GUIDELINES

Total Shoulder Replacement, Hemiarthroplasty and Cap replacement

Please remember, individual patients will progress differently and progression onto the next level should be based on clinical judgement.

This protocol is for use with patients who have had a total shoulder or hemiarthroplasty replacement. If a patient has atypical findings or any additional procedures, post-operative notes will need to be adhered to (i.e. no longer 'routine')

The procedure can involve replacement of the glenoid and humeral components (Total Shoulder Replacement) or just the humeral component (Hemiarthroplasty). The hemiarthroplasty maybe chosen due to lack of glenoid bone stock, and or the rotator cuff musculature is not functional. Some of the subscapularis will have been detached to enter the joint and re-sutured and this needs protection up to 6 weeks. Reading the post op notes to see which muscle have been split/detached/attached will help to guide rehabilitation. The operation is done primarily for pain relief. Active movement gained **will primarily depend on the status of the rotator cuff**.

General guidelines for rehabilitation

Patients maybe on treatment for over 4 months, to help optimise range and activity of the shoulder. Improvements can be seen for up to 2 years (Wilcox et al). Appointments maybe infrequent, but contact to assess and progress the exercise programme is indicated to maximise the effect of surgery. Many will have had many months or years of problems with pain and disuse contributing to stiffness and muscle atrophy. Rehabilitation can be slow.

Week 0 – 3

Aims	Suggested Treatment
• Begin passive range of movement • Begin passive abduction – maintain shoulder in medial rotation • Active assisted range of movement – supine to sitting. • Begin isometric strengthening all muscle groups except medial rotation • Reduce pain and inflammation	• Neck ROM • Active elbow, wrist and hand exercises • Scapular elevation and retraction • Pendular exercises: flex/ext, abd/add • Table slides • Pulleys – into elevation through flexion and scaption avoiding abduction – short lever. • Assisted external rotation to surgical range. • Patient education on positioning and

Aims	Suggested Treatment
	joint protection e.g. When lying down have a small towel rolled up to support the humerus. • Short lever active assisted flexion in supine

Restrictions	Key Milestones to Achieve
• Protect subscapularis repair by avoiding excessive external rotation. • Avoid isometric/isotonic medial rotation. • Avoid forced extension (e.g. getting out of a chair) • No lifting of objects	• Good pain control • Confidence with shoulder positioning and sling management.

Week 3-6

Aims	Suggested Treatment
• Regaining active assisted range of movement • Wean out of sling • Facilitate movement i.e. regain antigravity elevation. This will depend on the status of the rotator cuff. • Progress active assisted movement to active. This may be supine initially +/- weights • Functional use of arm at waist height – light tasks	• Functional tasks at waist height e.g. eating, drinking and self care • Continue PROM and AAROM • Progress to active assisted flexion, abduction, ER and IR. • AAROM flexion and abduction • Supine to sit/standing short lever • Start isometric medial rotation (if pain free) • Exercises in water • AAROM with pulleys • Pain free submaximal shoulder isometrics in neutral • Place a small towel under humerus when lying supine. • Begin active elevation in supine.

Restrictions	Key Milestones to Achieve
• Continue to protect subscapularis by avoiding abduction and external rotation. • No heavy lifting of objects (no heavier than a coffee cup)	• Increased passive ROM • Confident with AAROM exercises • Regain anti gravity elevation. • Be able to carry out functional activities at waist height.

Restrictions	Key Milestones to Achieve
• No supporting of body weight on affected side. • No sudden movements.	

Week 6 – 12

Aims	Suggested Treatment
• Complete wean from sling • Improve quality of movement and endurance • Maximise active movements – correct abnormal patterning if able • Regain external rotation range • Increase use of arm for functional tasks gradually at waist height • Progress strengthening – all muscle groups • Avoid provoking night pain and rest pain. • Relate rehabilitation to functional demands	• Continue PROM as needed to maintain maximal ROM. • Begin general strengthening exercises. • Resisted ER and IR. • Progress AROM exercises as appropriate • Wall slides • Initiate IR rotation behind back stretch e.g. extension, wide grip, narrow grip. • Progress functional activities • Progress supine active elevation strengthening with weights, if rotator cuff deficient. • Begin gradual weight bearing • Progress IR stretch

Restrictions	Key Milestones to Achieve
• No heavy lifting • No sudden lifting or pushing activities • No sudden jerking motions	• Improve function of shoulder • Increased muscle activation • Regain active antigravity range of movement in supine.

12 Weeks onwards

Aims	Suggested Treatment
• Maintain comfortable AROM • Enhance functional use of upper extremity • Improve muscular strength, power and endurance • Progress weight bearing exercises as appropriate.Gradual return to more advanced functional activities	• HEP 3-4 times per week • Gradually progress strengthening (e.g. theraband, free weights) • Gradually return to moderately challenging functional activities.

Restrictions	Key Milestones to Achieve
• Avoid heavy use of arm and lifting if muscular strength is NOT adequate	• Patient able to maintain non painful AROM • Maximised functional use of upper extremity.

Advice on Return to Activity

- **Driving**: When adequate ROM and safe to control the car. Able to react in the event of an emergency i.e. able to perform an emergency stop. This will normally be at about 6-8 weeks. It maybe longer if the left arm has been operated on because of the gear stick/handbrake.

- **Work**: Those in desk based roles should be able to return to work when comfortable and able to perform duties (with agreed modifications from the employer, if necessary). This may be at 6-8 weeks. Those in more manual work with heavy or overhead lifting are advised not to for 3-6 months.

- **Swimming**: Movement in water can be very helpful. However 'swimming' is likely to be modified – doggy paddle, modified breast stroke. This will be dependent on range of movement and pain levels but 'swimming' may be after 6 weeks.

- **Non – Contact sports** (e.g. golf, tennis, badminton or squash): This will be dependent on range of motion, control and strength in relation to the tasks wishing to be undertaken. After 4-6 months.

- **Bowls**- after 3-6 months.

References

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