Rehabilitation Guidelines for Post-Operative Shoulder Instability Repair

Please note that this is advisory information only. Your experiences may differ from those described. A fully qualified Physiotherapist must demonstrate all exercises to a patient.

We cannot be held liable for the outcome of you undertaking any of the exercises shown here independently of direct supervision from the RNOH.

Please read these guidelines with consideration to the specific physiotherapy discharge report that will be sent to the physiotherapist concerned. There may be individual variation that is patient specific in which case these general guidelines will have to be modified as appropriate by the local physiotherapist concerned.

The RNOH Shoulder and Elbow Unit have produced rehabilitation guidelines loosely based on the Matsen classification of shoulder dysfunction rather than for individual surgical procedures. The Matsen classification groups shoulder dysfunction into rough shoulders, unstable shoulders, weak shoulders and stiff shoulders.

At Stanmore, our emphasis is on patient-specific, not condition-specific rehabilitation, which encourages recognition of those patients who may progress slower than others. We also want to encourage clinical reasoning based on the continuum concept of shoulder rehabilitation. i.e. similar rehabilitation tools are used for each shoulder procedure but the time of intervention varies according to the status of the tissues at pre-op, at surgery and post-op restrictions.

Our hope is that this will promote an equitable rehabilitation service to all of our patients and improve the overall understanding of the unique challenges rehabilitation of the shoulder complex presents.

You will notice that the rehabilitation guidelines encourage rehabilitation at a slower rate than other guidelines e.g. GOST guidelines, Liverpool. This is a reflection of the complexity of patients treated here at Stanmore.

This guideline is for the rehabilitation of surgical stabilisations of the shoulder including anterior stabilisations e.g. antero-inferior capsular shift, Bankart repair, SLAP repair and posterior stabilisations. These surgical procedures enhance static stability therefore rehabilitation must focus on restoring dynamic stability to the shoulder complex.
Shoulder Instability Repair

Surgical Indications
- Recurrent traumatic/atraumatic structural instability in the absence of muscle patterning deemed suitable for surgical intervention.
- i.e. Stanmore classification Type I, Type I/II, Type II/I, Type II

Possible surgical surgery
- Recurrence of instability
- Neurovascular compromise
- Infection

Expected long-term outcome – may take up to 6-12 months to achieve
- Pain-free, stable shoulder, which allows return to moderate – heavy activities. May need to modify duties if requires heavy overhead work (anterior stabilization) or heavy pushing, upper limb weight bearing (posterior stabilization)

Milestone driven

These guidelines are milestone driven and designed to provide an equitable rehabilitation service to all of our patients. They will also limit unnecessary visits to the outpatient clinic at the RNOH by helping the patient and therapist to identify when specialist review is required.

If the patient and the therapist feel that rehabilitation is progressing satisfactorily and there are no concerns the patient may cancel and re-book their follow up for a later date.

Failure to progress or variations from the norm should be the main reason for clinic attendance. Both patients and therapists can book clinic visits by contacting the numbers given in this document.

It is essential you contact us if you have any concerns.

Useful Contacts

Physiotherapy Team 020 8909 5820/5519
Occupational Therapy Team 020 8909 5310
Consultant Team Secretary 020 8909 5456/5727
Rehabilitation Guidelines for Postoperative Shoulder Instability Repair

Post Op Care Plan

The RNOH Shoulder Physiotherapy Service follows this care plan prior to discharge.

Procedures: Anterior stabilization including Antero-inferior capsular shift, Bankart repair, SLAP repair and Posterior stabilization.

Goals:

1. To educate the patient on postoperative instructions and expected outcomes following surgical procedure.

2. To demonstrate application/removal of sling/brace as well as education on resting positions within post-operative restrictions.

3. To assess shoulder post operative ROM and to provide exercises/stretches within the post – op guidelines/restrictions. Teach scapular setting and hand/wrist/elbow ROM exercises (where appropriate).

4. To teach and ensure that the patient and/or carers are competent with the post operative exercise programme and can maintain the program post discharge.

5. To ensure all patients are given an appropriate outpatient referral prior to discharge and are aware that they can contact the Shoulder Service if local services fail to provide a timely appointment.

NOTE:

A. Patients who are having difficulty or are considered to be at high risk of losing ROM (Pain/Psychological state/Pre-op condition/existing pathology) should be considered for a delayed discharge and an URGENT referral to local outpatient and/or community services (if appropriate) must be provided.
Initial rehabilitation phase one discharge - 6 weeks

Goals:
1. Optimize tissue healing
2. Pain control

Restrictions:
1. No active movements of operated upper limb
2. Exercise that has been indicated should be relatively pain free

Treatment: SEE APPENDIX 1 FOR EXERCISE PROGRAM LINK

- SLING: polysling with waistband worn at all times over clothes for 6 weeks (some patients will wear the sling under their clothes for first 3 weeks). Patients undergoing a posterior stabilization may have an abduction pillow/wedge (see Appendix 1).

- PAIN RELIEF: Ice, resting positions

- PATIENT EDUCATION: Anatomy of the shoulder complex; postoperative restrictions; importance and nature of rehab process; importance of maintaining good posture; advice re: functional activities e.g.: dressing/washing – OT review.

- POSTURAL AWARENESS: Scapula positioning in neutral; relaxation of shoulder girdle; cervical spine ROM.

- EXERCISE:
  1. Elbow AROM from sling, (Extension to be performed in standing, in mid range pronation against the body).
  2. AROM wrist/hand

The following is only to be done if specifically indicated by the surgeon:
Anterior stabilization: AAROM external rotation to neutral, flexion to shoulder height in neutral rotation
Posterior stabilization: AAROM external rotation to 20 degrees; isometric external rotation.
Milestones to progress to phase Two:

1. Adequate pain control
2. Adequate scapula control
3. Achieved time specific individual goals

Failure to meet milestones:

1. Refer to/discuss with the Shoulder and Elbow Unit
2. Consider possible reasons for failure to progress and act accordingly (see page 2).
3. Delay progression to next phase of rehabilitation

Early recovery rehabilitation phase 6 weeks – 4 months:

Goals:

1. Increase ROM
2. Optimize dynamic stability provided by scapula and rotator cuff while encouraging normal movement patterning.

Restrictions:

1. No exercises/activities that increase pain, cause apprehension or reinforce abnormal muscle patterning.
2. No unassisted elevation/anti gravity work unless rotator cuff is stabilizing the humeral head adequately (i.e., no longer needs to hitch shoulder or compensate with scapulothoracic movement and scapula control is good).
3. Anterior stabilization: For first 12 weeks (longer if empty end feel) – no combined abduction/external rotation, avoid passive stretch beyond 30 degrees external rotation.
4. Posterior stabilization: no combined flexion/medial rotation, no hand across body, and no hand behind back.

Treatment: SEE APPENDIX 1 FOR EXERCISE PROGRAMME LINK

SLING: wean out of sling and wear only if necessary (fatigue/ in crowds).

PATIENT EDUCATION: Postural awareness; light use of arm at waist level; pacing activities, encourage normal movement patterns during functional activities; importance of developing dynamic stability of the shoulder.
EXERCISE:
1. Passive/ AA ROM- slowly gain range with respect to above restrictions.
   - Anterior stabilization: Emphasize flexion and external rotation within specified limits. Start abduction at 8-12 weeks.
   - Posterior stabilization: emphasize abduction/scaption and external rotation. Start flexion at 8-12 weeks. Allow medial rotation and cross body movements to return with normal use.
   Exercise caution if lacking firm end feel
   Emphasis on dynamic control of cuff and scapula if gaining range too quickly.

2. Rotator cuff-Start with isometric cuff in neutral with a stable scapula.
3. Scapula stabilizer rehabilitation start with setting in neutral
   When passive range has been achieved within the specified range with evidence of the rotator cuff snugging the humeral head into the glenoid on initiation of flexion progress to exercise below:

4. AAROM → AROM with rotator cuff progression from isometric through range to isotonic (eccentric/concentric). Progress through range as scapula stability allows. Watch out for inappropriate muscle sequencing of pectoralis major and latissimus dorsi compensating for poor rotator cuff control.

   Anterior stabilization: Emphasize subscapularis to exclusion of pectoralis major.
   Posterior stabilization: Emphasize abduction and external rotation to exclusion of latissimus dorsi.

5. KINETIC CHAIN/BALANCE- incorporating core stability and lower limbs as needed.
6. PROPRIOCEPTIVE WORK-
7. FUNCTIONAL ACTIVITIES – review functional goals, refer to OT if needed.

ACTIVITIES: Driving at 8-10 weeks if patient feels safe to do so. Swimming – Breaststroke at 10-12 weeks. Running at 10-12 weeks. Return to light work by 8-10 weeks. No other sports yet.
Milestones to progress to Phase Three;

1. Minimal pain
2. Anterior stabilization: achieved approximately 140 degrees active flexion, 20 degrees external rotation with arm abducted to 90 degrees.
3. Posterior stabilization: achieved approximately 120 degrees scaption, external rotation equal to contra lateral shoulder.
4. Scapular stability and cuff control throughout available ROM.
5. No recurrence of instability.

Failure to meet milestones:
1. Refer to/ discuss with Shoulder and Elbow Unit.
2. Consider possible reasons for failure to progress and act accordingly (see page2).
3. Delay progression to next phase of rehabilitation.

Late recovery rehabilitation Phase Three: 5 -12 months

Goal: Increase strength, endurance and ROM to the functional level required by the patient.

Restrictions:
1. No exercise/activities that increase pain, cause apprehension or reinforce abnormal muscle patterning.

Treatment: SEE APPENDIX 1 FOR EXERCISE PROGRAMME

PATIENT EDUCATION: Encourage paced return to normal activities and lifting, encourage normal movement patterns during functional activities; advise patients of ongoing improvements for up to 1 year.

EXERCISE:
1. Full ROM with controlled stretching to achieve functional range if necessary.
2. Advanced scapular stabilizer and rotator cuff rehabilitation through range – include speed and ballistic work as appropriate.
3. Kinetic Chain/ balance work incorporating core stability and lower limbs as needed.
4. Advanced proprioceptive work - include PNF to gain rotation control through range.
5. Functional activities – review functional goals, refer to OT if needed.
6. Ensure sports specific/work specific activities retrained. May need to consider graduated throwing programmed.
ACTIVITIES: return to moderate – heavy work. May need to modify duties if requires heavy overhead work (anterior stabilization) or heavy pushing, upper limb weight bearing (posterior stabilization). Swimming – all strokes. Return to sports e.g.: football, golf, racquet sports, and martial arts 6-8 months.

SUGGESTED EXERCISE REFERENCE: please see appendix 1.

Milestones for discharge:

1. Achieved time and patient specific functional goals.
2. Achieved 90-100% of contra lateral shoulder AROM.
3. Patient has a negative lag sign with dynamic rotation control at 0 degrees abduction, 45 degrees abduction, 90 degrees abduction
4. Patient has no apprehension with specific movements and activities.

Failure to meet milestones:

1. Refer to/discuss with Shoulder and Elbow Unit
2. Consider possible reasons for failure to progress and act accordingly (see page 2).
3. Continue with outpatient physiotherapy while patient is still making progress.

APPENDIX 1:

Rehabilitation guidelines and exercise programs are available on the RNOH website: Follow the links to “Clinical services” “Shoulder and Upper Limb”
The exercise programs on our website are for advisory information only. The exercise programs listed below are appropriate for shoulder instability rehabilitation; however it is still necessary for a fully qualified physiotherapist to assess each individual patient and to judge whether an exercise is appropriate for their patient. A fully qualified Physiotherapist must demonstrate all exercises to a patient. We cannot be held liable for the outcome of you undertaking any of the exercises shown here independently of direct supervision from the RNOH.

- Initial recovery rehabilitation phase 0-6 weeks
  - Postoperative supports
  - Neck exercises
  - Medi sak abduction brace exercises
• Early rehabilitation phase 6 weeks -4 months
  Early recovery rehabilitation phase
  Scapular setting
• Late recovery rehabilitation phase

**Failure to progress:** If a patient is failing to progress, then consider the following:

<table>
<thead>
<tr>
<th>Possible problem</th>
<th>Action</th>
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<tbody>
<tr>
<td>Pain inhibition</td>
<td>• Adequate analgesia</td>
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<tr>
<td></td>
<td>• Keep exercises pain-free</td>
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<td></td>
<td>• Return to passive ROM if necessary until pain controlled</td>
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<td></td>
<td>• Progressing too quickly – hold back</td>
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<td>• If severe night pain/resting pain – refer to Shoulder Unit</td>
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<tr>
<td>Patient exercising too vigorously</td>
<td>• Increase or reduce physiotherapy/ (HEP) (max 2-4x/day) for few days/weeks and assess difference</td>
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<tr>
<td>Patient not doing home exercise programmed (HEP) regularly enough</td>
<td>• Ensure HEP focuses on key exercises and link to function</td>
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<tr>
<td>Returned to activities too soon</td>
<td>Decrease activity intensity</td>
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<tr>
<td>Cervical/thoracic pain referral</td>
<td>Assess and treat accordingly</td>
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<tr>
<td>Unable to gain strength</td>
<td>Passive ROM may need improving</td>
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<tr>
<td>Altered neuropathodynamics</td>
<td>Assess and treat accordingly</td>
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<tr>
<td>Poor rotator cuff control</td>
<td>• Ensure passive range gained first</td>
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<tr>
<td></td>
<td>• Consider isometrics through range</td>
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<tr>
<td></td>
<td>• Rotation dissociation through range with decreasing support and increasing resistance</td>
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<tr>
<td></td>
<td>• Ensure not progressing through Therabands too quickly</td>
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<tr>
<td>Poor scapula control</td>
<td>Work on scapula stability through range without fixing with pectoralis major/latissimus dorsi</td>
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<tr>
<td>Poor core stability</td>
<td>Work on improving core stability</td>
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<td>Secondary frozen shoulder</td>
<td>• Maintain passive ROM as able</td>
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<tr>
<td></td>
<td>• Use physiological and accessory mobilizations, taking into account end feel and tissue healing times</td>
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</tbody>
</table>
It is essential you contact us if you have any concerns.

Useful Contacts

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Occupational Therapy Team 020 8909 5310
Consultant Team Secretary 020 8909 5456/5727

Many thanks for your help

The Shoulder and Upper Limb Unit

References:


- Very useful resource for sample exercises especially glenohumeral rotation control and closed kinetic chain. Contact Biomet-Merck for copies.


