THE ROBERT JONES AND AGNES HUNT ORTHPAEDIC HOSPITAL NHS FOUNDATION TRUST

REHABILITATION GUIDE FOLLOWING ANATOMIC TOTAL SHOULDER REPLACEMENT
(This is not an exhaustive list of all rehabilitative techniques or therapies and this should not over rule any clinical judgement)

Indications
Post-trauma or severe osteoarthritis and rheumatoid arthritis where predominant feature is pain

Procedure
To replace the articular surfaces of the humeral head and glenoid with prosthetic implants
Some patients will receive an interscalene block whilst under anaesthetic for pain relief which will last 12 - 36hrs but this will also result in temporary muscle paralysis.

Post Operative Protocol Summary
Sling 3/52 – 6/52 (only remove for exercise and washing)
Forward flexion allowed in plane of scapula 90-120º (refer to safe zone in notes)
NO resisted internal rotation 6/52 (protect subscapularis)
NO external rotation beyond neutral 3/52, not beyond 30º for 6/52 (refer to safe zone)
NO extension 3/52
NO abduction until 3/52 then commenced with **care**

TIMESCALE	REHABILITATION EXERCISES	GOALS
Day 1 – 3	• Wrist, hand, elbow exercises • Shoulder girdle/ neck exercises • Scapula setting and postural correction • Active assisted flexion in scapula plane, using table • External rotation to neutral in sling	• **Check if specific post-operative instructions have been given and amend the guide accordingly** • Good understanding of post- operative rehabilitation • No complications following surgery • Control of pain with adequate pain relief • Teach sling application and axillary hygiene • Sling to be worn (except when washing or exercising) • Normal sensation returned to limb • Ice therapy/ cryocuff 3-4 times a day if dressing allows

		• Discharge with advice sheets and ensure follow up appointment is made
Day 3 - 3 weeks	• Continue with active assisted movements into forward flexion, no Ext rot beyond neutral • Appropriate level 1 exercises as comfort allows • Proprioceptive exercises leaning on table • Scapula stabilisation	• Continue to protect in sling • Continue ice therapy 3 – 4 times a day • Commence scar tissue management after 10 days • ADL below shoulder level (eating and drinking) • Aim for 50% pre-op AROM by 3/52 • Normal elbow, wrist and hand range of movement • Encourage daily walk or light lower limb/ CV work
3 - 6 weeks	• Begin extension and consider abduction (keep arm in IR) • Progress external rotation to 30º (still protect subscapularis) • Continue with appropriate level 1 exercises as able, ensuring good gleno-humeral movement not scapulo-thoracic • Commence sub-maximal isometric cuff exercises **(NO subscapularis)** • Introduce appropriate level 2 exercises as protocol permitted	• Gradually wean out of sling 3 – 6 weeks • Functional use behind back, no stretching • Low levels of shoulder discomfort • Maintain CV fitness • Progress LL, Trunk and core exercises as appropriate
6 - 8 weeks	• Encourage active movements into all ranges, including HBB - **DON'T FORCE**, with some gentle self-stretch at end of range • Add isometric internal rotation • Progress scapula stabilisation programme • Introduce appropriate level 3 exercises if good scapula and G/H control established • External rotation into range but avoid	• PROM = pre-op level by 6/52 • Return to driving 6/52 safe from surgical perspective but competency to drive is the responsibility of the individual patient • Swimming breast stroke 6 - 8/52 • Light lifting 6/52 • Return to sedentary work 6/52 • Standing low load wall press

	overstretching	
8 – 12 weeks	• Increase subscapularis function • Progress strength through range • Progress stretches aiming for per operative range • Soft tissue mobilisations if required • Emphasise correct movement patterns in activities of daily living • Emphasise inferior cuff control and endurance • Dynamic strengthening • Use kinetic chain	• Stability is equally important as ROM in these patients. Any acute loss (sudden change) in active ROM or failure to achieve milestones seek advice from Clinical Specialist or Consultant • AROM = Pre-op level by 12/52 • Able to have good scapula control in 4pt kneeling • Swimming freestyle 12/52 • Golf 12/52 • Heavy lifting 6/12 • Manual work guided by surgeon • Jamar grip strength test measures correlates with global UL strength • Oxford shoulder score • Constant-Murley score

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PATIENT GUIDELINE

- Initially you will wear your sling continuously other than to wash or exercise.
- In hospital, you will be visited by the physiotherapist, who will teach you the appropriate exercises to work on at home until you are seen by your local physiotherapist.
- You will be working on neck, hand, wrist and elbow movements regularly.
- You will also be encouraged to shrug your shoulders regularly.
- You will be taught to rest the hand of your operative arm on a table or sink, to support the weight of the arm, as you wash your armpit. This is important because the armpit can become sweaty when the arm is not as mobile as usual. It is important that the axilla does not become sore, so please wash and dry it regularly.
- Once your dressings have been reduced you can apply ice to the shoulder for up to 15/20 minutes 3 or 4 times a day. It is important to perform the exercises you have been taught regularly and research shows that taking adequate pain relief assists with this.
- Initially, rehabilitation is aimed at protecting the shoulder, allowing healing but avoiding stiffening.
- It will take approximately 3 months to get useful active movement of the shoulder. The shoulder will continue to improve for 12-24 months.

MILESTONES	
50% of pre op active R.O.M	3 weeks
Passive R.O.M equal to pre op level	6 weeks
Active R.O.M to pre op level	12 weeks
Driving	6-8 weeks
Swimming Breaststroke	8 weeks

	Freestyle	12 weeks
Golf		3 months
Lifting	Light	6 weeks
	Heavy	6 months
Return to work	Sedentary	6 weeks
	Manual guided by surgeon	