Rotator Cuff Repair Protocol

Applicability: Physician Practices	**Date Effective:** 11/2016
Department: Rehabilitation Services	**Date Last Reviewed / or Date Last Revision:** 11/2016
Supersedes: Rotator Cuff Repair (Beattie)	
Administration Approval: Amy Putnam, VP Physician Services	

Purpose: Define the protocol to be followed for all patients referred from Northwestern Orthopedics after the above procedure has been performed.

Policy Statement: Treatment will follow the defined protocol below and be carried out by Physical Therapist, Athletic Trainer and/or Physical Therapy Assistants.

Background: The following is an outlined progression for rehab. Time tables are approximate and advancement from phase to phase as well as specific exercises performed should be based on each individual case, communication with the surgeon and sound clinical judgement by the rehab professional. Operative report should be read to determine the extent of rotator cuff involvement, integrity of the articular surface, involvement of the biceps tendon and glenoid labrum.

The rotator cuff is a slow healing structure due to poor blood supply. Healing occurs at a rate of 10% per month. There are two major post-operative risks, #1 re-tear and #2 frozen shoulder. Re-tear is by far the greatest risk and therefore protection of the repair is by far the focus of the rehabilitation process.

Definitions: AROM=Active Range of Motion
AAROM= Active Assisted Range of Motion
PROM= Passive Range of Motion
ER= External Rotation
IR= Internal Rotation
PT= Physical Therapist

Procedure: **<u>IMMEDIATE POSTOP PHASE</u>**
Small tear: 0-1 week
Medium-Large: 0-2 weeks
Massive: 0-4 weeks

Goals: Protect the anatomic repair
Prevent negative effects of immobilization
Diminish pain and inflammation

SLING use:

Small tear- 2-3 weeks (educate that patient should continue to avoid active shoulder motion even when out of the sling until allowable by protocol)
Medium to Large- 4-6 weeks (educate that patient should continue to avoid active shoulder motion even when out of the sling until allowable by protocol)
Massive- 6-8 weeks

Immediate POSTOP PHASE

First outpatient physical therapy scheduled for post-op day 2-3 for all groups

Dressing:therapist will remove post op dressing at initial PT visit. Wound will be cleansed and band-aids applied. If aquacel AG is used by surgeon this will be removed in PT at post-op day 7.

Pt. education: encourage frequent ice use, postural awareness, wound care, compliance with precautions, use of sling, proper dressing and washing techniques to maintain precautions.

Edema Control:

Ice/cryocuff
Kinesiotape if indicated
Estim- if indicated

Suggested exercises:

Hand, wrist, forearm, elbow AROM and isometrics.
Cervical AROM
Passive shoulder pendulum
PROM ER in supine with wand (elbow at side- neutral to less than 20 degrees abduction)

- *Variance if subscapularis repair- No ER past neutral x 6 weeks, forward elevation in scapular plane with shoulder in IR only x 6 weeks, no abduction x 6 weeks, no resisted IR x 12 weeks, 6-12 weeks limit ER to 30 degree.*
- *If biceps repair- no resisted elbow flexion or forearm supination x 6 weeks, no lifting greater than coffee cup x 6 weeks.*

POST-OP Phase 1

Small tear:1 week
Medium-Large: 2 weeks
Massive: 4 weeks

Goals: Protect the anatomic repair
Prevent negative effects of immobilization
Diminish pain and inflammation
PROM goals flexion 100, ER 20, abduction 60

Edema Control:

Ice/cryocuff
Kinesiotape if indicated
Estim- if indicated

Pt. education: encourages frequent ice use, postural awareness, compliance with precautions, use and weaning from sling depending upon repair size.

Sling Use:
Small tear- 2-3 weeks (educate that patient should continue to avoid active shoulder motion even when out of the sling until allowable by protocol)
Medium to Large- 4-6 weeks (educate that patient should continue to avoid active shoulder motion even when out of the sling until allowable by protocol)
Massive- 6-8 weeks

Suggested Exercise:
Gentle shoulder PROM in all directions, do not force IR
Passive pulleys-all directions, do not force IR.
Scapular isometrics: retraction and depression
Hand, wrist, forearm, elbow AROM and isometrics
Conditioning: Cardiovascular exercise that does not stress the repair or put patient at risk of falling. Stationary biking, walking for example.

- *Variance if subscapularis repair- No ER past neutral x 6 weeks, forward elevation in scapular plane with shoulder in IR only x 6 weeks, no abduction x 6 weeks, no resisted IR x 12 weeks, 6-12 weeks limit ER to 30 degrees.*
- *If biceps repair- no resisted elbow flexion or forearm supination x 6 weeks, no lifting greater than coffee cup x 6 weeks.*

POST-OP Phase 2
Small tear: 4 weeks
Medium-Large: 6 weeks
Massive: 8 weeks
Goals: Protect the anatomic repair
Prevent negative effects of immobilization
Promote proprioception and scapula-humeral rhythm
Diminish pain and inflammation
PROM goals-flexion 130, ER 40, abduction 75
Grade I/II shoulder joint mobilizations

Pt. education: may return to sedentary work with elbow at side, no resistive activity/lifting, avoid repetitive abduction
Suggested exercises:
Submaximal shoulder isometrics in neutral
Shoulder AAROM progressed to AROM. Start with gravity reduced positions and progress to against gravity as tolerated.
Scapular row and shoulder extension
Grade I/II shoulder joint mobilizations
Hand, wrist, elbow resisted exercises in all directions

- *Variance if subscapularis repair- No ER past neutral x 6 weeks, forward elevation in scapular plane with shoulder in IR only x 6 weeks, no abduction x 6 weeks, no resisted IR x 12 weeks, 6-12 weeks limit ER to 30 degrees.*

- *If biceps repair- no resisted elbow flexion or forearm supination x 6 weeks, no lifting greater than coffee cup x 6 weeks.*

POST-OP Phase 3
Small tear: 6 weeks
Medium-Large: 12 weeks
Massive: 16 weeks

Goals: Protect the anatomic repair
Restore functional use of the involved UE
Promote dynamic stability and proprioception
PROM goals-flexion 140, ER 50, abduction 80
Restore AROM

Pt education: waist high functional activities no overhead lifting
Suggested exercises:

Shoulder PROM in all directions
Shoulder AAROM and AROM in all directions
Shoulder isometrics in all directions
Shoulder progressive resistive exercises: for rotator cuff and scapular stabilization with focus on shoulder strengthening below 90 degrees.

- Theraband/weights for resistance
- Scapular stabilization activities in varying positions: supine, sitting, standing
- Prone Exercises: scapular row, extension, horizontal abduction and scaption with progressive resistance
- UBE
- Closed chain activities with shoulder below 90 degrees

- *Variance if subscapularis repair- No ER past neutral x 6 weeks, forward elevation in the scapular plane with shoulder in IR only x 6 weeks, no abduction x 6 weeks, no resisted IR x 12 weeks, 6-12 weeks limit ER to 30 degrees.*

POST-OP Phase 4 12-24+ weeks

Goals: Full AROM
Restore function

Small:12 weeks
Medium-Massive:18 weeks

PROM and stretching for full ROM
Progress strengthening for rotator cuff and scapular muscles in all directions.
Progress as tolerated open chain, closed chain, functional exercises.

Weeks 18-24: ALL

PROM and stretching for full ROM
Progress strengthening for rotator cuff and scapular muscles in all directions.

Progress as tolerated open chain, closed chain, functional exercises.
Throwing- initially limit flexion to 90 degrees and then progress
Conditioning- biking, running, golf (short game), swimming, tennis (ground strokes), skiing

24 weeks + ALL:

PROM and stretching for full ROM
Progress strengthening for rotator cuff and scapular muscles in all directions.
Progress as tolerated open chain, closed chain, functional exercises.
Progress towards full throwing motion

Note Well: Variances will be communicated by the surgeon directly to Rehabilitation Services.

If Subscapularis repair- No ER past neutral x 6 weeks, forward elevation in the scapular plane with shoulder in IR only x 6 weeks, no abduction x 6 weeks, no resisted IR x 12 weeks, 6-12 weeks limit ER to 30 degrees.

If biceps repair- *no resisted elbow flexion or forearm supination x 6 weeks, no lifting greater than coffee cup x 6 weeks.*

Note Well: Variances will be communicated by the surgeon directly to Rehabilitation Services.
Monitoring Plan: Rehab Chart Audit
Related Policies: N/A
References: N/A
Reviewers: Rehab and Ortho

A. **Key Stakeholders:** Michael Barnum, Ortho Medical Director
B. **Committees: N/A**
C. **Key Process Owner (KPO):** Kristy Cushing, Manager Rehab Services. Karen Staniels Director of Ortho and Rehab

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Not part of policy: **[ADD Key words for policy search if end user didn't know the name]**