R. JOHN ELLIS, JR., M.D. LAWRENCE A. SCHAPER, M.D. MARK G. SMITH, M.D. G. JEFFREY POPHAM, M.D. AKBAR NAWAB, M.D. MICHAEL L. SALAMON, M.D. MATTHEW R. PRICE, M.D.



DANIEL E. RUEFF, M.D. SEAN M. GRIFFIN, M.D. BRENT J. SINICROPE, M.D. EVAN RHEA, M.D. KELSI J. BARNES, PA-C JENNIFER R. STREET, PA-

# TOTAL SHOULDER ARTHROPLASTY PROTOCOL

#### Weeks 1-3

- Allow healing of soft tissue, monitor neurovascular status
- Independent with ADL's with modifications to protect joint replacement.
- Sling is to be worn full time outside of the home for 2-3 weeks, PRN in the home (may vary by M.D.)
- Sling to be removed 4 times a day to allow the elbow to fully extend and perform HEP.
- When lying in supine, a small pillow or towel roll should be placed under the elbow to position the shoulder in a more functional neutral position.
- Avoid weight bearing to the replaced joint, avoid extension beyond neutral, and avoid excessive ER to protect subscapularis repair.
- Begin gentle PROM:
  - Flexion and Abduction to tolerance
  - ER to 30-40° with elbow supported on towel roll for scapular plane(do not force ER to protect subscapularis repair)
  - o IR to 50° with elbow supported on towel roll for scapular plane
- Exercises
  - o Pendulums/Codman's exercises
  - Submaximal scapular AROM (elevation and retraction)
  - Submaximal shoulder isometrics if pain free (ER/Flexion/Abduction in neutral)
  - Elbow ROM
  - Wrist and hand AROM-Stress ball or pad that comes with sling
  - Table slides into flexion (no weight bearing through involved extremity)
  - Cervical AROM as needed
- Ice and modalities as needed for pain and swelling

#### Weeks 3-6

- Continue with elbow, wrist and hand AROM.
- Continue Pendulums/Codman's
- Continue shoulder isometrics in a pain-free range (avoid IR if painful as well as)
- Progress AAROM/PROM:
  - Pulleys for elevation into different planes to tolerance (once at least 120° in supine flexion is achieved)
  - o ER to 45-60° with elbow supported on towel roll for scapular plane
  - o IR to 60° with elbow supported on towel roll for scapular plane
  - Active IR behind back to the gluteal region only.
- Progress scapular strengthening as long as there is no increase in pain or symptoms.

## TOTAL SHOULDER ARTHROPLASTY PROTOCOL----page 2

- Monitor swelling, abnormal pain response, and increased night pain and modify accordingly
- Ice and modalities as needed for pain and swelling

### Weeks 6-9

- Progress supine passive range of motion
  - o Flexion and Abduction to tolerance
  - ER to 70-80° with shoulder abducted 90°
  - IR to 70° with shoulder abducted 45-60°
- Progress scapular exercises, Emphasize scapular stabilization, serratus anterior strengthening
- Begin light resistance exercise with theraband for ER, IR, EXT, ADD and Rows (avoid extension beyond neutral)
- Begin active flexion and scaption to 90° if scapular mechanics are good.
- Begin light biceps resistance as tolerated (hammer curls vs. supinated curls).
- Watch scapulo-humeral rhythm, emphasize concentric/eccentric phases
- May utilize posterior capsular mobilization by performing gentle horizontal adduction stretch with shoulder in 45-80° of flexion to avoid impingement of RC.
- May initiate low level closed chain strengthening below shoulder level (counter shines, ball rolls, etc)
- Ice and modalities as needed for pain.

## Weeks 9-12

- Progress strengthening and stretching exercises as tolerated focus on higher reps and lower resistance with bands/weights.
- Progress range of motion toward normal in all planes, including ER at 90° abduction
- If adequate range is achieved, may begin a prone core/scapular stabilization and cuff program. If adequate range is not yet achieved or the patient is not comfortable with a prone program, initiate with supine Theraband program (start at 90°-100°) and advance as tolerated.
- Multi-angle rhythmic stabilization

#### Weeks 12-24

- Progress to advanced strengthening program as tolerated
- Begin PNF patterns: limited range □ full range, proximal □ middle □ distal resistance
- Continue CKC on wall [] slideboard
- Maximize functional use of UE