Altru Advanced Orthopedics

Total Shoulder Arthroplasty/Hemiarthroplasty/Reverse Total Shoulder Arthroplasty without subscapularis repair Protocols

The intent of this protocol is to provide the therapist with a guideline for the post-op rehab of a patient who has had a total shoulder arthroplasty, hemiarthroplasty, or a reverse total shoulder arthroplasty without subscapularis repair. It is not intended to be a substitute for appropriate clinical decision making regarding the progression of a patient’s rehab. The actual therapy plan of care must be based on the surgical approach, physical exam and findings, individual progress, any post-op complications, and/or co-morbidities. If a therapist needs assistance or has questions regarding the progression of a patient post surgically they should consult the referring surgeon.

Post-op Day 1 (Hospital)

- PROM flex in supine to tolerance
- PROM for ER gently in scapular plane through available range
- PROM IR to chest
- AROM elbow, wrist, hand
- Pendulums
- Cryotherapy
- Pt education regarding positioning and shoulder protection techniques

PHASE I: 0–6 Weeks

Precautions:

- Avoid undue stress on anterior capsule
- Protect subscapularis for 6 weeks, avoid strengthening IR and ER
- ER in scapular plane to minimize anterior strain
- No backwards extension
- No excessive stretching or sudden movements
- No supporting body weight by hand on involved side

Goals:

- Gradual increase PROM
- Decrease pain and inflammation
- Allow for soft tissue healing
- Restore elbow, wrist, and hand AROM
- Protect subscapularis repair
- Independent ADLs with modifications

Immobilization:
Sling/immobilizer should be worn continuously for 6 weeks, except for exercise and personal hygiene

Therapeutic Exercise:

1. PROM
   - Gradually progress PROM in all planes as tolerated
     - IR and ER in scapular plane
     - Abduction in supine with 0° of rotation
2. AAROM
   - Begin AAROM for flex, abd, ER, IR in scapular plane as tolerated
     - flexion to tolerance with cane or table slides
3. AROM
   - Elbow, wrist, and hand AROM
   - Cervical and thoracic spine AROM
4. Scapular stabilization
   - Scapular pinch, Sternal lifts, Lawn mower done in sling

Manual Therapy:

- Grade I and II joint mobilizations

Modalities:

- Cryotherapy prn
- E-stim prn

Criteria for progression to Phase II:

- Minimal pain and tenderness
- 90° PROM flexion and abduction
- 45° PROM ER in scapular plane
- 70° PROM IR in scapular plane

PHASE II: 7-12 Weeks

Precautions:

- Do not overstress healing anterior shoulder tissue
  - In supine place pillow or towel under elbow to avoid shoulder hyperextension
- ER in scapular plane to minimize anterior strain
- If poor shoulder mechanics avoid repetitive shoulder AROM exercises/activities against gravity
- No heavy lifting (no heavier than a coffee cup)
- No supporting body weight by hand on involved side
- No sudden jerking movements

Goals:

- Gradual restoration of full PROM
• 45° ER at 8-10 weeks
  • Control pain and inflammation
  • Allow continued soft tissue healing
  • Gradually restore active motion
  • Re-establish dynamic shoulder stability

Immobilization:
  • D/C sling after 6 weeks

Therapeutic Exercise:
  1. Continue previous exercises as needed
  2. PROM
     • Advance all motions as tolerated
     • Advance ER in scapular plane gradually to 45° by 10 weeks post-op
     • PROM – sleeper posterior capsular stretch if IR limited beginning at 10 weeks
  3. AAROM and AROM - progress as tolerated in all planes in pain free ROM
  4. Submax, pain-free isometrics in neutral
  5. Progress to open-chain strengthening with bands then light weights
  6. Progress scapular stabilization - closed chain
     • Scapular clock
     • Weight shifting
  7. Initiate rhythmic stabilization

Manual Therapy:
  • Grades I-III inferior, posterior joint mobilizations, and scar tissue mobilization PRN

Modalities:
  • Cryotherapy prn
  • E-stim prn

Criteria for progression to Phase III:
  • Tolerates PROM/AAROM, and isometric program
  • 140° PROM flexion
  • 120° PROM abduction
  • 70° PROM IR in scapular plane
  • 60° PROM ER in scapular plane
  • AROM shoulder elevation against gravity to 100° with good mechanics

**PHASE III: 13-18 weeks**

Precautions:
  • No lifting greater than 5 lbs
  • No sudden lifting or pushing activities
  • No sudden jerking movements
Goals:
- Increase active ROM of shoulder
- Gradual restoration of shoulder strength
- Optimize neuromuscular control
- Gradual return to functional activities with operative UE

Therapeutic Exercise:
1. Continue with Phase II exercises as needed
2. Continue PROM and AA/AROM as needed to maintain ROM, advance to stretching as appropriate
   - Begin assisted IR behind back stretch
3. Begin shoulder IR and ER strengthening in scapular plane
4. Progress deltoid strengthening
   - Begin supine with light weight at variable degrees of elevation
5. Progress axial loading and scapular stabilization
   - Wall push-up, wall washes, rocker board, BOSU

Manual Therapy:
- Grades I-III inferior, posterior joint mobilizations, and scar tissue mobilization PRN

Modalities:
- Cryotherapy prn
- E-stim prn

Criteria for progression to Phase IV:
- Tolerates AROM and strengthening
- 140° AROM flexion in supine
- 120° AROM abduction in supine
- 70° IR in supine in scapular plane
- 60° ER in supine in scapular plane
- Active shoulder elevation to at least 120° against gravity with good mechanics

PHASE IV: Week 19 to 6 months

Precautions:
- Avoid exercises and functional activities that stress anterior capsule and soft tissues, e.g., combined ER and abduction
- Gradual progression of strengthening
- Gradually return to more challenging functional activities

Goals:
- Maintain full non-painful AROM
- Improve strength, power, and endurance
• Improve tolerance of functional activities
• Progress closed chain exercises as appropriate

Therapeutic Exercise:

1. Continue with Phase III exercises as needed
2. Resistive exercises (GENTLE PROGRESSION)
   • Initiate overhead resistance with front lat pull down and overhead press
3. Plyometric exercises
   • Ball toss, rebounder, eccentric control
4. HEP strength, mobility, and function 3-4 times per week for 1-year post-op
5. 4-6 months return to recreational hobbies, gardening, sports, etc.

Criteria for D/C from PT:

• Pt able to maintain nonpainful AROM
• Pt has maximal functional use of UE
• Pt has maximal muscle strength, power, and endurance
• Pt has returned to advanced functional activities