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REVERSE TOTAL SHOULDER ARTHROPLASTY POSTOPERATIVE REHABILITATION

Note: This protocol is designed to serve as a guide to rehabilitation. Indications for progression should be based on patient's complete operative procedure, functional capacity and response to treatment.

Typical outpatient PT may begin at post-operative week 2 and physician preference may range from utilization of home health PT to family instruction in PROM techniques by referring surgeon. Surgeon may request specific start date, and specifically may request a more conservative rehab in appropriate situations. In all cases, appropriate inflammation control, PROM, patient education and appropriate shoulder protection and care is focus.

Abduction Pillow:

-Use and recommendation will be case specific

Sling Wear:

-Week 1-2 with abduction pillow and sling, 24 hours/day
-Week 2-4, sling at 24 hours/day
-Gradual wean from sling between weeks 4-6
-During PT and during exercise, sling purposefully removed
-May be extended in case of a complication or in revision RTSA case

Movement Precaution (12 weeks)

-No extension beyond neural
-No Adduction + IR combined motions
-No Extension + IR combined motions

Mobilizations:

-With RTSA, No mobilizations through GH junction directly at any time throughout rehabilitation

-Anatomical center of rotation shifted and convex/concave rule for arthrokinematics are not applicable, so standard mobilizations are not appropriate

Exceptions:

-Poor Bone Stock: Will delay start of protocol second to surgeon's assessment of repair integrity

Acute Phase Post-Op – Days 1 to 5

Goals: Promote patient comfort by controlling pain, promote joint healing, specifically soft tissues such as the deltoid

-Patient/family independence with joint protection, PROM, assisting with on/off of clothing, modalities and assistance with prescribed

HOME EXERCISE PROGRAM

-Gradual increase PROM of shoulder
-Restore AAROM of elbow/wrist/hand
-Postural awareness
-No AROM, lifting, sudden movements, stretching of operative extremity
-Modalities:
    o Ice application 4 to 5 times/day for 15 to 20 minutes

Sub-acute Phase Post-Op – Days 5 to 3 Weeks

Goals: Promote patient comfort by controlling pain, promote joint healing, specifically soft tissues such as the deltoid

-PROM continued, manual therapy for general shoulder PROM
-Appropriate progression of A/AAROM of elbow, wrist, hand
-Supine Self PROM into flexion
-Sub-maximal periscapular isometrics initiated
-Reinforce patient education with regard to use of abduction pillow
-Cervical AROM program with emphasis on maintenance of neutral posture
-Modalities: continue PRN

Protective Phase Weeks 3 to 6

Goals: Facilitate healing of soft tissues local to joint, protect deltoid and restore/maintain PROM

-Range of Motion:
    o PROM guidelines – Scapular plane elevation not to exceed 120, ER at 30° abduction to 30-45° , IR at 30° abduction to 30-45° grade I-II scapular mobilization, all planes
    o May initiate light AAROM activities, including pulleys/wand

Therapeutic Exercise:

    o Submaximal RC and periscapular stabilizer isometrics

-Modalities:
    o Interferential electrical stimulation and cryotherapy for pain modulation
    o FES for muscle re-education
    o Ultrasound/phonphoresis for control of inflammation
-Weeks 5 to 6
    o May progress AAROM activities, including wand/pulleys, initiate UBE AAROM
      Ensure continued HEP compliance and wean from utilization of Immobilizer, as tolerated

Strengthening Phase Weeks 6 to 12

Goals: Initiate light strengthening, proprioception and periscapular stabilization, control pain/swelling

-Range of Motion:
    o Continue PROM scapular plane elevation to 130+°, ER/IR to tolerance at 30° abduction, grade II-III scapular mobilization, all plane
-Therapeutic exercises:
    o Isotonic periscapular progression, light isotonic RC progression with high volume and low intensity, remember that minimal isolated IR/ER will exist to neutral position
- Considerations: avoid hyperextension
-Modalities: continue PRN

Functional Phase Weeks 12+

Goals: Focus on progressive strengthening to restore force couple mechanics, enhance dynamic stabilization/ neuromuscular control and increase strength, power and endurance to promote optimal tolerance to functional activity

-Range of Motion:
  - o Continue PROM scapular plane elevation to tolerance, ER/IR to tolerance at 30° abduction, grade III scapular mobilization all planes

-Therapeutic Exercise:
  - o Progression of AA exercises (UBE, proprioception and CKC mobility exercises, e.g., bodyblade, physioball)
  - o Progression of periscapular activation with Theraband
  - o Progression of gentle GH IR and ER isotonic strengthening
  - o Progression of deltoid strengthening exercises
  - o Progression wrist/hand/elbow exercises with resistance -maintain high volume and gradually increase intensity levels

-Modalities: continue PRN

Discharge Criteria

-Patient to complete HEP 3 to 4x a week
-Painless AROM to be grossly WNL's compared contralaterally
-MMT grade grossly 4/5 with flexion, abduction strength minimally, ideally 4+ to 5/5

Return to Activity:

-Sedentary job – 4 to 6 weeks
-Stationary bike for exercise – 3 weeks
-Treadmill/walking aggressive for exercise – 9 weeks
-Driving – as early as 6 to 9 weeks
-Swimming – breaststroke 9 weeks, depending on progress
-Tennis, golf 12 weeks, depending on progress
-Running at 12 weeks

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