Total Shoulder Arthroplasty/Hemiarthroplasty

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Pre-op

The patient should purchase:

Over the door pulley
3 pack of theraband: yellow, red, green

The patient should be instructed in the following exercises to be done post op TID until their first PT visit:

Supine cane flexion
Pulleys flexion only
Sitting or standing PROM cane ER to neutral or as directed by surgeon
Elbow and wrist AROM
Grip Strength: squeezing tennis ball or putty

Phase 0: POD 0-10: BID-TID

Pulleys for flexion only
Pendulums

Phase I: Initiate PT POD 10-14 through 4 weeks if not on home CPM

Immediate concerns and precautions to review with patient:

- Sling should be worn continuously for 3-4 weeks
- While lying supine, a small pillow or towel should be placed behind the elbow to avoid shoulder hyperextension/anterior capsule stretch/subscapularis stretch for 4-6 weeks
- Avoid shoulder AROM, and restrict active IR for 4-6 weeks secondary to subscapularis repair
- No lifting of objects
- No excessive shoulder motion behind back, especially into internal rotation (IR)
- No excessive stretching or sudden movements, particularly external rotation (ER)
- No supporting of body weight by hand on involved side
- Keep incision clean and dry (no soaking for 2 weeks)
- No driving until out of sling and off narcotics

General Considerations: The patients underlying pathologies will have an influence on outcome and ROM expectations. The protocol should be considered a general guideline and the progression to the next phase should be based on meeting the clinical criteria. The time frames should be considered merely as an approximate guide for progression and not the progression criteria itself.

If on home CPM for weeks 0-4, will start PT at 3 1/2 weeks post-op

Exercises:

Ensure independence with HMP.

Therapeutic exercise:

PREs: Biceps, triceps, all wrist and forearm movements with weight as tolerated

PROM forward flexion as tolerated, abduction to 90°, ER (to neutral at 2 weeks, increase 10° per week), IR to chest

Active forward flexion no weight to patient tolerance

Isometric flexion, abduction, extension, and ER. NO IR due to subscapularis protection.

UBE with high seat or standing to patient tolerance

Closed chain: Table wash, ball rolling

Criteria for progression to the next phase

- Tolerates PROM program
- Achieves at least 90° PROM flexion
- Achieves at least 90° PROM abduction
- Achieves at least 20° PROM ER in plane of scapula
- IR to stomach/chest

Phase II: 4-6 weeks post-op

Precautions:

- Sling should only be used for sleeping and removed gradually over the course of the next 2 weeks
- Continue to use a small pillow or towel placed behind the elbow to avoid shoulder hyperextension/anterior capsule stretch/subscapularis stretch
- Avoid repetitive shoulder AROM exercises/activity against gravity in standing in the presence of poor shoulder mechanics
- No heavy lifting of objects (no heavier than a coffee cup)
- No supporting of body weight by hand on the involved side
- No sudden jerking movements

Immediate concerns:

Continue to restrict active IR until 6 weeks post-op, unless otherwise instructed by physician.

Shoulder flexion should be 120° at 4 weeks.

ER should be 20° at 4 weeks

Therapeutic exercise

AAROM pulleys (Flexion and Abduction), as long as greater than 90° of PROM

Isometrics - continue and add IR.... submax and painfree

PREs

Progress as tolerated: biceps, triceps, UBE, forearm, wrist and hand

AROM:

forward flexion and abduction

Rockwood theraband except IR

Manual therapy

Supine manual resistance

Multi-directional isometric rhythmic stabilization

PROM

Continue shoulder flexion, abduction, IR, ER as previous.
Begin gentle extension stretch.

Closed chain

Begin WB exercises: weight shifting on UEs on table all directions, wall push up as tolerated, weight shifting in 4 point and 3 point, wall push up with plus, rocker board, UE step-ups

Criteria for progression to the next phase:

- Tolerates PROM/AAROM, isometric program
- Achieves at least 120° PROM flexion
- Achieves at least 90-100° PROM abduction
- Achieves at least 20° PROM ER in plane of scapula
- IR to stomach/chest
- Able to actively elevate shoulder against gravity with good mechanics to 100°

Phase III: 6 weeks post-op

Goals: Sling completely weaned off, gradually restore full Passive ROM, gradually restore Active motion, Re-establish dynamic shoulder stability. Gradual restoration strength, power, endurance, optimize neuromuscular control, gradual return to functional activities

Precautions:

- Avoid exercise and functional activities that put stress on the anterior capsule and surrounding structures (no combined ER and Abduction above 80° of abduction)
- Ensure gradual progression of strengthening

Therapeutic Exercise:

All as previous, advance patient as tolerated with weights and functional stabilization exercises.

Begin subscapularis strengthening:

Yellow theraband, manual resistance to tolerance

Stretching all directions as needed

ER – increase to full ER ROM per patient tolerance

Continue to progress closed chain, rhythmic stabilization exercises, address return to function.

Long Term ROM Goals:

- Tolerates AA/AROM
- Achieved AROM FF 140 supine
- Achieved AROM Abd 120 supine
- Achieved AROM ER 60+ in plan of scapula supine
- Achieved AROM IR 70 in plane of scapula supine at 30 degrees abduction
- Able to actively elevate shoulder against gravity with good mechanics to 120
- Extension should be approaching normal ROM.

Phase IV: (typically 4-6 months postoperative**)**

- Return to recreational hobbies, gardening, sports, golf, doubles tennis