SHOULDER MANIPULATION UNDER ANESTHESIA (MUA) POST OPERATIVE PROTOCOL

	Time Frame (Weeks)	Guidelines	Goals
PHASE I	0 to 2	 EXERCISE PROGRESSION Ice and modalities to reduce pain and inflammation. Cervical ROM, basic deep neck flexor activation (chin tucks) Progress to full range of motion flexion and external rotation as tolerated. Use a combination of wand, pulleys, wall walks or table slides to ensure compliance. Gradual introduction to internal rotation shoulder extensions (stick off back). Active elbow, hand and wrist range of motion. Active shoulder retraction. Walks, low intensity cardio exercise to promote healing MANUAL INTERVENTION STM – global shoulder and CT junction. Graded GH mobilizations. ST mobilizations. 	 Reduce inflammation Decrease pain Progress to full ROM Postural education Sling comfort only
PHASE II	2 to 4-6	 EXERCISE PROGRESSION Progress to full range of motion using a combination of passive and active ROM strategies. Serratus activation; Ceiling punch (weight of arm) may initially need assistance. Scapular strengthening – prone scapular series (rows and I's). Emphasize scapular strengthening under 90°. External rotation on side (no resistance). Sub-maximal isometrics. Cervical ROM as needed to maintain full mobility. DNF, proper postural positioning with all RC/SS exercises. Low/moderate cardio work; Elliptical okay, no running. MANUAL INTERVENTION STM – global shoulder and CT junction. Scar tissue mobilization when incisions are healed. Graded GH mobilizations. ST mobilizations. Gentle sub-maximal isometrics to achieve ROM goals. 	 Discontinue sling as instructed. Postural education. Full ROM all planes.
PHASE III	4-6 to 12	 EXERCISE PROGRESSION Continue combined P/AROM program to push full ROM. Internal rotation with thumb up back and sleeper stretch. Continue with ceiling punch adding weight as tolerated. Sub-maximal rotator cuff isometrics (no pain). ER/IR isotonics at 0°. Active ER at 90° adding resistance as able. Advance prone series to include T's and Y's as tolerated. Add seated rows and front lat pulls. Biceps and triceps PRE (6-8 weeks BR and BT). Scaption; normalize ST arthrokinematics. CKC progression – Quadruped, ball compression, counter weight shift, knee scapular push-ups, knee push-ups; all as tolerated. Therapist directed RS and perturbations in quadruped – bilateral progressing to unilateral-tri pod position. Supine progressing to standing PNF patterns, with resistance as appropriate. MANUAL INTERVENTION STM and Joint mobilization to CT junction, GHJ and STJ as needed. CR/RS to gain ROM while respecting repaired tissue. Manual perturbations. PNF patterns. 	 Full AROM Normalize GH/ST arthrokinematics. Activate RC/SS with isometric and isotonic progression.

	Time Frame (Weeks)	Guidelines	Goals
PHASE IV	12 to 24	 EXERCISE PROGRESSION Full range of motion all planes – emphasize terminal stretching. Advance strengthening at or above 90° with prone or standing Y's and 90/90 as scapular control and ROM permit. Patient health, physical condition and goals/objectives determine. Gym strengthening program; gradual progression with pressing and overhead activity. Progress closed kinetic chain program to include push-up progression beginning with counter, knee then – gradual progression to full as appropriate. Continue with closed chain quadruped perturbations; add open chain as strength permits. Initiate plyometric and rebounder drills as appropriate. MANUAL INTERVENTION STM and Joint mobilization to CT junction, GHJ and STJ as needed. CR/RS to gain ROM while respecting repaired tissue. Manual perturbations. PNF patterns. CRITERIA FOR RETURN TO PLAY Progress RC and scapular strengthening program. Advance gym strengthening program. RTS testing for interval programs (golf, tennis etc.) using microfet dynamometer. Follow-up examination with the physician (4-6 months) for release to full activity. 	Begin RTA progression. Evaluation with physician for clearance to full activity.