Latarjet Procedure

Weeks One to Three	Weeks Three to Six
Initial Evaluation	**Evaluate**
➢ Posture and position of the shoulder girdle ➢ PROM ➢ Inspect incision for integrity and infection ➢ Assess RTW and sport expectations ➢ Assess distal neurovascular supply	➢ PROM ➢ Effusion ➢ Inspect incision for integrity and infection
Patient Education	**Patient Education**
➢ Support Physician prescribed medications ➢ Discuss frequency and duration of treatment (2x/week for 12-16 weeks is anticipated) **<u>Precautions:</u>** ➢ No AROM ➢ Sling x4 weeks ➢ No resisted elbow flexion or ER for at least 6 weeks (radiographs to confirm osseous healing)	➢ Wean from sling at week 4 ➢ Continue to avoid AROM and lifting of involved arm until strength allows for proper mechanics ➢ Avoid anterior-directed forces (typically combined ABD/ER) ➢ Avoid activities that place stress on shoulder, including but not limited to: reaching in back seat of car, throwing, sawing, raking, vacuuming, pull starts
Therapeutic Exercise	**Therapeutic Exercise**
➢ Cervical, wrist, and elbow AROM ➢ Gripping, shoulder shrugs, scapular retractions ➢ Pendulums or "cradle the baby," cane assisted IR/ER in open packed position, and table slides	➢ Initiate AROM without resistance or compensation at week 4: prone, sidelying, and supine table exercises that limit stress on the biceps, coracobrachialis, and subscapularis ➢ Continue self-ROM activities: pendulums, table slides, cane exercises ➢ Initiate submaximal pain free isometrics gradually at week 4 (neutral positioning): ER, flexion, extension, ADD and ABD *Avoid IR
Manual Techniques	**Manual Techniques**
➢ No GH mobilization given that underlying issue is lack of stability ➢ PROM within tolerance (ABD in plane of scapula, ER/IR in open packed position) *Limit shoulder extension to protect biceps brachii and coracobrachialis attachments *Carefully progress into gaining ER to avoid disrupting anterior capsule and subscapularis healing ➢ Mobilization of incision as appropriate	➢ Initiate gentle rhythmic stabilization ➢ Continue PROM within tolerance *ABD in plane of scapula, ER/IR in open packed position *ER return is intended to be gradual
Modalities	**Modalities**
➢ Any modalities as indicated for reduction of symptoms and effusion	➢ Any modalities as indicated for reduction of symptoms and effusion
Goals	**Goals**
➢ Protect the repair and optimize osseous healing at the coracoid transfer site ➢ Control pain ➢ Restore PROM ➢ Reduce inflammation ➢ Independence with post-operative precautions	➢ Protect the repair and optimize osseous healing at the coracoid transfer site ➢ Control pain ➢ Restore PROM ➢ Initiate controlled AROM

Weeks Six to Ten	Weeks Ten to Sixteen
Evaluate	**Evaluate**
➢ PROM ➢ AROM ➢ Compensatory patterns: early scapular migration, winging, substitution	➢ AROM ➢ Compensatory patterns
Patient Education	**Patient Education**
➢ Correction of abnormal movement patterns and posture ➢ Continue avoiding anterior-directed forces and activities that place stress on shoulder	➢ Continue education regarding correction of abnormal movement patterns and posture ➢ Continue avoiding anterior-directed forces and activities that place stress on shoulder
Therapeutic Exercise	**Therapeutic Exercise**
➢ Initiate UBE ➢ Pain free isotonic exercise for periscapular and rotator cuff musculature ➢ Progress self-ROM exercises: wall climbs, pulleys, and gentle ER/IR self-stretching	➢ Add closed chain proprioceptive exercises ➢ Incorporate trunk stabilization where able: planks, quadruped activities, partial wall or plinth push-up avoiding wide hand positioning ➢ Continue isotonic exercise for periscapular and rotator cuff musculature *Progress to shoulder height and above when indicated
Manual Techniques	**Manual Techniques**
➢ Gentle GH mobilization as indicated ➢ Rhythmic stabilization ➢ PNF patterns	➢ Gentle GH mobilization as indicated ➢ Rhythmic stabilization ➢ PNF patterns
Modalities	**Modalities**
➢ Any modalities as indicated	➢ Any as indicated
Goals	**Goals**
➢ Full PROM *Mild ER limitation is acceptable ➢ No pain with ADLs ➢ Normal tissue mobility of incision	➢ 4+/5 strength throughout ➢ Full AROM without compensatory movement is anticipated by week 12

Weeks Sixteen to Discharge	Precautions and Concerns
Evaluate ➢ Any deficits limiting RTW or sport goals ➢ HEP compliance **Patient Education** ➢ Encourage participation in the CFA **Return to Sport:** ➢ Throwing and overhead athletics are not to be completed until 4 months post-op and only with Physician approval ➢ Consider long-term avoidance of wide grip bench press, military press, and lat pull downs behind the head **Therapeutic Exercise** ➢ Continue isotonic exercise for periscapular and rotator cuff musculature ➢ Progress closed chain activities ➢ Continue with self-stretching as needed ➢ Establish independent HEP **Manual Techniques** ➢ Any as indicated **Modalities** ➢ Any as indicated **Goals** ➢ Normal strength ➢ RTW or sport ➢ Independence with HEP	The intent of a Latarjet procedure is to restore anterior stability to the glenohumeral joint. This procedure is often warranted in cases where there is loss of glenoid bone due to trauma, recurrent dislocation, or congenital factors. In cases where there is significant glenoid loss, Bankart and other capsular procedures become ineffective. **L**atarjet involves osteotomizing the distal aspect of the coracoid and attaching it with screws to the anterior/inferior aspect of the glenoid. In order to perform this procedure, the pectoralis minor and coracoacromial ligament attachments are typically divided, and the subscapularis muscle will typically be split along its length. Most importantly, the biceps and coracobrachialis tendons retain their original attachment on the coracoid which has been moved to the anterior/inferior aspect of the glenoid. This relationship allows the biceps and coracobrachialis to function as the inferior glenohumeral ligament would have originally. The "sling" effect of the (IGHL) is restored, giving anterior stability when the arm is abducted and externally rotated. Early post-operative therapy must protect the subscapularis, and the bony union of the coracoid to the glenoid. Since the biceps and the coracobrachialis remain attached to the new bony union, stretching and activation of these groups must be controlled in early therapy. During the strengthening phase, biceps and coracobrachialis strengthening should be addressed specifically. Avoid aggressive shoulder extension and combined extension with external rotation in early therapy. Passive external rotation should be performed in the open packed position, and we should strive for gradual return of this motion. A portion of this population may be left with slightly less external rotation. Bear in mind, most of these patients had excessive external rotation over a prolonged timeframe, and "normal" will often feel tight to them.

References
- McHale KJ, Sanchez G, Lavery KP, Rossy WH, Sanchez A, Ferrari MB, Provencher MT. Latarjet Technique for Treatment of Anterior Shoulder Instability With Glenoid Bone Loss. *Arthrosc Tech*. 2017 Jun; 6(3):e791-e799. doi: 10.1016/j.eats.2017.02.009
- Pereira J, Ahmed AM, Kumar P, Shenoy RM. Functional outcome of latarjet's procedure for recurrent shoulder dislocation. *International Journal of Orthopaedics Sciences*. 2019; 5(3): 28-32. doi: 10.22271/ortho.2019.v5.i3a.1502
- Huxel Bliven KC, Parr GP. Outcomes of the Latarjet Procedure Compared With Bankart Repair for Recurrent Traumatic Anterior Shoulder Instability. *Journal of Athletic Training.* 2018; 53(2):181-183. doi: 10.4085/1062-6050-232-16

Updated 03/24/2020