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The Physical Therapy Management of a Patient with Chronic Shoulder Dislocations and Chronic Inflammatory Demyelinating Polyneuropathy: A Case Report

Lindsey Umapathy, BS

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The patient signed an informed consent allowing the use of medical information for this report and received information on the institution’s policies regarding the Health Insurance Portability and Accountability Act.

The author acknowledges Mike Fillyaw, PT, MS for assistance with this case report conceptualization with case report as well as Amy Bottomley, PT, DPT for assistance and supervision with the patient’s care during the clinical practicum, and the patient for compliance and participation with case report.
ABSTRACT

Background and Purpose: While current literature has studied the role of physical therapy interventions when treating multi-directional shoulder instability, most evidence has focused on younger athletes with no co-morbidities. There is less research on older adults with shoulder instability, and no research on the effects of a fatigue dominant progressive neuropathy, such as Chronic Inflammatory Demyelinating Polyneuropathy (CIDP), on the management of recurrent shoulder dislocations. The purpose of this case report is to describe the physical therapy management and recovery of an individual with chronic shoulder instability/dislocations and CIDP.

Case Description: The patient was a 62-year-old female who came to physical therapy initial examination at a hospital based outpatient rehabilitation clinic with complaints of pain and decreased function in the right shoulder following her 5th humerus dislocation one month ago. The physical therapy plan of care included upper extremity active assistive range of motion, active range of motion, upper extremity strengthening and scapular stabilization.

Outcomes: After 12 visits, the patient showed increased shoulder range of motion, upper extremity strength, and decreased levels of pain. She also reported significantly higher levels of function with daily life activities such as cleaning, dressing, and bathing.

Discussion: This case report supports the use of upper extremity range of motion and strengthening exercises and scapular stabilization for a patient with recurrent shoulder dislocations. Further research is recommended to examine a greater variety of interventions, specifically therapeutic exercise utilizing shoulder abduction and external rotation planes of motion, and their role in the care of patients with chronic shoulder dislocations and CIDP.

Word Count: 3121
BACKGROUND and PURPOSE

Chronic shoulder dislocation is a severe disabling condition that can significantly decrease an individual’s quality of life. This condition often results after neglected acute dislocations, after surgery, or with the presence of unidirectional or multi-directional shoulder instability. Shoulder instability is one of the most common shoulder diagnoses, especially in younger athletes.¹

Reverse total shoulder arthroplasty is one method to fix shoulder instability, provide strength, and improve the quality of life in patients affected.² While recent literature supports the use of reverse total shoulder arthroplasty, the most commonly recommended treatment for multi-directional shoulder instability is exercise.¹

Overall, current literature supports exercise as an intervention for multi-directional shoulder instability, however the quality of evidence is low. A systematic review by Eljabu, Klinger, and Knoch³ reviewed eight articles related to shoulder instability, and found only four were high quality studies (evidence level 1 and 2).

A randomized controlled trial by Warby, Ford, & Pizzari, et. al⁴ examined the effects of two different multidirectional shoulder instability rehabilitation programs. The Rockwood Program involves rotator cuff and deltoid exercises at lower levels of abduction, and the Watson program focuses on scapula control and exercises progressed into functional ranges. Forty-one participants between the ages of 12 and 35 years attended 12 weekly physical therapy sessions following one of the two programs. Primary outcome measures used at 12 and 24 weeks included the Lelburne Instability Score and Western Ontario Shoulder Index. Secondary measures included The Orebro Musculoskeletal Pain Questionnaire, Pain Scale, muscle strength, scapula upward rotation angles, scapula coordinates, global rating of change score, satisfaction
scales, limiting angle in abduction range, limiting factor in abduction range and incidence of dislocation. Overall, participants in the Watson Program showed more improvement, supporting specific scapula retraining and the progression of exercise drills into functional ranges in conservative multi-directional shoulder instability rehabilitation.

Chronic Inflammatory Demyelinating Polyneuropathy (CIDP) is a neurological disorder characterized by progressive weakness and impaired sensory function in the legs and arms. The disease is caused by damage to the myelin sheath of the peripheral nerves, and presents with symptoms that include tingling/numbness, weakness of the arms and legs, areflexia, fatigue and abnormal sensation. Physical therapy for patients with CIDP can help a patient minimize pain, increase strength and endurance, prevent secondary complications and overuse damage to muscles and joints and improve balance/mobility to restore function at home and work.

A case series by Bussmann, Garssen, Van Doorn and Stam evaluated the effects of exercise in severely fatigued patients with Guillain-Barre syndrome (GBS) and CIDP. Twenty patients with GBS and CIDP participated in a 12-week physical exercise program, and five domains were studied: physical fitness, fatigue, mobility, perceived physical function, and perceived mental functioning. After 12 weeks, a small percentage of significant relationships was found between the physical fitness domain and the other 4 domains, while more significant relations were found between perceived mental functioning and actual mobility, and perceived mental functioning and perceived physical functioning. This study is significant as it suggests there are additional effects of participating in an exercise program that are not directly related to increasing fitness. However, current literature lacks specific research on the effects of a progressive neuropathy on the outcomes of the physical therapy management of a patient with CIDP and shoulder
instability/ chronic shoulder dislocation. Therefore, the purpose of this case study is to describe
the physical therapy management and recovery of an individual with chronic shoulder
instability/dislocations with CIDP.

Case Description

Patient History and Systems Review

The patient was a 62-year-old female who came to physical therapy at a hospital based
outpatient rehabilitation clinic with complaints of pain and decreased function in the right
shoulder following her 5th humerus dislocation one month ago. She described a situation in
which she was sitting on her recliner watching TV, reaching her right shoulder out to the side for
the remote control, and immediately feeling an intense pain. Several hours later, she went to the
emergency room, and an X-ray confirmed dislocation of the humerus. In the hospital, she was
put on moderate/conscious sedation and a traction/counter traction and manipulation maneuver
was performed to relocate the humerus.

The patient’s medical history included CIDP, diagnosed in spring 2014. She had been receiving
intravenous immunoglobulin (IVIg) therapy every six weeks since December 2014. The patient
also had a history of sacroiliac/lumbar pain and radiculopathy.

At the time of physical therapy initial evaluation, the patient’s chief complaint was right shoulder
pain and lack of upper extremity function. She reported her pain as a 5 on a 0-10 scale, and did
not report any radicular symptoms. A sling across her right shoulder restricted her from moving
her shoulder into external rotation and/or abduction until further notice due to risk of recurrent
dislocation. Due to her pain and limited motion, she noted difficulty with activities such as
cleaning, dressing and washing hair, and used her left (non-dominant) arm in order to accomplish many of these tasks. She lived with her boyfriend who was very supportive and able to help her. She also reported difficulty with finding a comfortable position to sleep. Her goals for physical therapy included decreasing pain and being able to complete household and self-care activities independently with use of right shoulder. She noted a follow up appointment in a few months with the orthopedic physician to discuss potential surgery options to decrease the risk of shoulder dislocation in the future.

Clinical Impression 1

Based on information from the history and systems review, it was determined that the patient presented with impairments of the musculoskeletal system secondary to a primary diagnosis of chronic right shoulder dislocation. Relevant to this problem is the patient’s history of CIDP. It was hypothesized that the CIDP may be contributing to her recurrent dislocations, as well as decreased upper extremity range of motion, strength and increased levels of pain. This patient presented as an excellent candidate for a case report. Current literature has focused on chronic shoulder instability in patients with athletic backgrounds and lack of co-morbidities. This patient did not have an athletic background but did have CIDP. The effects of a progressive neuropathy such as CIDP on shoulder instability and its rehabilitation have not yet been determined. The patient was motivated to participate in physical therapy to alleviate her symptoms, and enthusiastic to be part of a case report.

Examination – Tests and Measures

Based on the patient history and impairments of the musculoskeletal system found during the systems review, a number of tests and measures were performed. Right and left upper extremity active range of motion (AROM) was measured using goniometry, as described by Norkin,

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gross resisted isometrics were used to compare right and left upper extremity strength. In a study by Fieseler, Molitor, Laudner, et al, intrarater reliability values of shoulder and elbow AROM using a goniometer varied from 0.94 to 0.97. Bilateral grip strength was measured using handheld dynamometry. According to Bohannon, grip strength can provide an indication of an individual’s overall strength, and recent literature supports the use of hand-held grip dynamometry as an element of physical examination.

The numeric pain rating scale (NPRS) was used to quantify the patient’s current level of pain. The NPRS is self-reported measure that measures the patient’s level of pain from 0-10. According to Michener, Snyder & Leggin, the NPRS shows high responsiveness in patients experiencing shoulder pain.

The patient completed the Upper Extremity Functional Scale (UEFS) and Shoulder Pain and Disability Index (SPADI) in order to quantify current level of function. The UEFS is a self-reported outcome measure for quantifying upper extremity function, that has previously been used in studies of people with upper extremity musculoskeletal problems. According to Chesworth, Hamilton & Walton, the UEFS is a reliable and valid way to measure function in patients with upper extremity musculoskeletal impairments. The SPADI is a self-reported questionnaire designed to measure the impact of shoulder pathology on pain and disability in an outpatient setting. According to Thoomes-De Graaf et. Al., the SPADI displays high levels of responsiveness and interpretability. The results of the initial examination are in Table 2.

Clinical Impression 2
Data gathered during the initial examination revealed signs and symptoms consistent with the referring diagnosis of chronic shoulder dislocation. Findings included decreased right shoulder AROM and strength, and increased levels of pain. As a result, the patient was unable to use her right shoulder to perform cleaning and self-care activities independently.

Diagnosis

The patient’s PT diagnosis based on the International Classification of Disease- tenth edition (ICD-10) was determined to be M24.411 Recurrent dislocation, Right Shoulder. The decision was made to proceed with the plan of care, which included therapeutic exercises, a home exercise program, and patient education. The therapists determined further consultation with the orthopedic physician would be beneficial to determine if surgery was a potential option in the future as humeral dislocation was a chronic problem for the patient. Regardless of the decision made, it was determined physical therapy interventions would be beneficial to help the patient reach the highest level of function as soon as possible. The patient continued to be appropriate for the case due to her musculoskeletal impairments, co-morbidities, and overall decreased level of function.

Prognosis

The patient’s prognosis was determined to be favorable due to her support at home, compliance with home exercise programs in the past, and motivation to return to prior level of function. Negative prognostic factors included previous humeral dislocations and secondary diagnosis of CIDP. Current literature has not determined the effect of progressive neuropathy on joint instability, but it was hypothesized that the fatigue associated with CIDP treatment may interfere with the patient’s compliance and attendance with outpatient physical therapy services.
Plan of Care

The Plan of Care (POC) was to see the patient twice a week for 10-12 weeks. The program was focused on increasing upper extremity range of motion and strength in order to help patient return to prior level of function. In addition to interventions performed at the clinic, the patient was to complete her home exercise program (HEP) on the days she did not have physical therapy. The patient would be re-evaluated periodically to measure functional improvements using goniometry, MMT, NPRS, UEFI and SPADI. Goals were discussed with the patient.

Intervention

Coordination, Communication, and Documentation

Coordination was established with the patient’s referring physician to provide updates on the patient’s progress. Formal progress notes documenting improvements in range of motion, strength and pain levels were sent to the physician at or before every 10th visit, as well as prior to follow up appointments. Communication between the student physical therapist and supervising physical therapist was established to discuss the patient’s plan of care. Therapeutic exercises were provided by the student physical therapist and supervising physical therapist, and monitored to ensure the patient was utilizing proper body mechanics and technique. All documentation utilized EPIC software throughout the entire episode of care.

Patient/Client Related Instructions

The patient was educated on the plan of care, expected outcomes and functional goals at the initial examination. The initial home exercise program focused on shoulder AAROM exercises and activation of musculature. Restriction of shoulder external rotation and abduction range of
motion was emphasized per orders from the referring physician until further notice, in order to
decrease the risk of recurrent dislocation. The HEP was updated periodically as the patient
showed improvements in range of motion and strength and demonstrated proper form with
minimal cueing. The HEP was to be completed on days when the patient did not have physical
therapy or IVIg therapy, as this treatment adversely affected her energy levels. The patient
demonstrated compliance to the POC and HEP throughout the course of treatment, as well as
motivation to reach functional goals.

Procedural Interventions

The patient was scheduled for two physical therapy sessions a week for 10-12 weeks. The
therapists explained that the duration of therapy may be shorter or longer depending on
achievement of functional goals. Procedural interventions emphasized increasing the patient’s
right shoulder range of motion and strength to help prevent future shoulder dislocation, and to
reach goals of returning to prior level of function.

At the first visit, the patient was evaluated and given shoulder active assistive range of motion
(AAROM) and elbow active range of motion (AROM) exercises to perform at home. The patient
had been wearing a strap around her right arm to prevent shoulder abduction and external
rotation, and reported using her left upper extremity for most tasks. For this reason, it was
deemed important to encourage mobilization of the right upper extremity immediately. Due to
this recent period of disuse, right shoulder flexion isometric strengthening was introduced as well
to encourage activation of musculature.
At the second physical therapy session, additional shoulder AAROM exercises such as the upper extremity reacher (Figure A.) were introduced, as well as supine shoulder AROM. The patient was instructed to move as far as possible within limits of pain, and continually reminded to stay out of the planes of abduction and external rotation. According to Kisner & Colby, active range of motion exercises provide benefits such as maintaining physiological elasticity and contractibility of participating muscles, providing a sensory feedback from contracting muscles, increasing circulation, and helping to develop coordination and motor skills for functional activities. Isometrics were progressed to include shoulder extension, adduction, abduction and external rotation. Verbal cueing was necessary at this time to ensure proper movement patterns and activation of musculature. Based on the patient’s response, the interventions were gradually progressed in parameters such as repetitions, resistance, and duration. A chronology and progression of specific procedural interventions can be found in Table 3.

Supine scapular stabilization exercises were introduced early in the plan of care as the scapula is the point of origin for muscles that dynamically stabilize the glenohumeral joint in almost all ranges of motion. Current literature suggests that muscle strength can be increased by as much as 24% off a stabilized scapula, and therefore it is believed that a stable base is requirement for maximal activation of rotator cuff and deltoid muscles. Furthermore, optimal scapular position and motion are required to limit loads on ligaments and other passive constraints in the joint, and it has been shown that increased scapular protraction creates excessive loads on the anterior inferior glenohumeral ligament, increasing the risk of glenohumeral instability. Scapular stabilization exercises were progressed over time to include standing exercises such as ball on the wall and wall wash activities (Figures 1A &1B ). Verbal and tactile cueing was used to ensure the patient was using correct form with all exercises.
By the third session, the upper body ergometer was introduced as an active warm up prior to using the shoulder in more complex tasks. Traditional rotator cuff exercises such as open chain elevation, scaption, external rotation, and horizontal abduction are most successful in stabilization of the shoulder after scapular control has been achieved. The patient was restricted in motion when physical therapy began, however, upper extremity and periscapular strengthening was able to be progressed to include bicep curls and shoulder flexion with weight and theraband resistance band exercises such as bilateral shoulder flexion, extension and rowing. Repetitions and weight/theraband resistance were increased over time within patient tolerance.

OUTCOME

Upon discharge, the patient’s SPADI score improved to 29% from 55%, which indicates a decrease in disability. According to instrument review, the established minimally clinically important difference (MCID) for the SPADI is 13.2 points for musculoskeletal upper extremity problems. Normally, the total score for the SPADI is 130 points, however, the patient was unable to answer all items on the questionnaire due to restrictions in motion. The results were recorded as a percentage out of 100, rather than the points scored out of 130. The change in these scores from initial evaluation to discharge (26%) is larger than the MCID of 13.2/130.

The patient’s UEFI score improved to 69/80 from 39/80, which indicates an improvement in function. The literature reports a MCID of 9-10 points on the UEFI in patients with upper extremity musculoskeletal impairments. Her NPRS score improved from a 5/10 to 0/10, which indicates decreased levels of pain. The MCID on the NPRS for patients presenting to the
emergency room with acute pain is 1.3 points. However, no formal NPRS MCID for pre-operative patients with recurrent shoulder dislocations has yet been established.

Right shoulder flexion AROM increased from 94 degrees to 161 degrees, and right shoulder extension AROM increased from 26 degrees to 38 degrees, as measured at time of discharge. Resisted isometrics showed an increase in right shoulder flexion strength to 5/5 and right shoulder extension strength to 4+/5. Increases in upper extremity range of motion and strength helped the patient to achieve her goals of being regaining full independence with activities of daily living (ADLs). Objective measures taken at initial evaluation and discharge can be found in Table 2.

DISCUSSION

The patient responded well to the course of physical therapy treatment as measured by functional outcome measures and clinical judgment. At discharge, the patient showed increased upper extremity range of motion and strength and decreased pain. The purpose of this case report was met and all long term goals established at initial evaluation were achieved.

One limitation to this study was the physician imposed restriction against right shoulder abduction and external rotation. This restriction was placed as this combined movement pattern preceded the patients prior shoulder dislocations. If a patient did not have such restrictions, physical therapy interventions such as therapeutic exercise and scapular stabilization could have been progressed further and included a larger variety of exercises. However, the results of this case study suggest that favorable outcomes may still occur even with such movement restrictions in place.
This patient had numerous positive prognostic factors such as high motivation and compliance participating in physical therapy, compliance with HEP, and social support at home. The patient had several pertinent co-morbidities such as CIDP, but they did not appear to interfere with her improvement. The patient was undergoing immunoglobulin (IVIg) therapy during the episode of care, which often resulted in severe fatigue. However, the patient scheduled physical therapy appointments with adequate time in between to recover from previous treatment.

The results of this case report suggest that physical therapy consisting of upper extremity range of motion and strengthening as well as scapular stabilization are beneficial to a patient with recurrent shoulder dislocations. While it is inappropriate to infer cause and effect between these physical therapy interventions and one particular patient, this patient showed significant functional improvements as evident in SPADI and UEFI scores and it is likely these interventions were a factor in clinical improvement. Further research is still necessary to determine the most beneficial treatment plan for patients presenting with a combined diagnosis of shoulder instability and CIDP.
REFERENCES


**Table 1. Systems Review**

<table>
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<th>Systems Review</th>
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<tbody>
<tr>
<td><strong>Cardiovascular/Pulmonary</strong></td>
<td>Unimpaired</td>
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<tr>
<td><strong>Musculoskeletal</strong></td>
<td>R UE AROM: Impaired</td>
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<td></td>
<td>Impaired/Limited Shoulder Flexion &amp; Extension</td>
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<td></td>
<td>R UE Gross Strength: Impaired</td>
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<tr>
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<td>L UE: Unimpaired</td>
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<td><strong>Neuromuscular</strong></td>
<td>Unimpaired</td>
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<tr>
<td><strong>Integumentary</strong></td>
<td>Unimpaired</td>
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<td><strong>Communication</strong></td>
<td>Unimpaired</td>
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<tr>
<td><strong>Affect, Cognition, Language, Learning Style</strong></td>
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<td>Language: English</td>
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<td></td>
<td>Learning Style: verbal, demonstration</td>
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Right (R), left (L), upper extremity (UE), active range of motion (AROM)
### Table 2. Tests and Measures

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<th>Tests &amp; Measures</th>
<th>Initial Evaluation</th>
<th>Final/Discharge</th>
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<tr>
<td></td>
<td>Right Upper Extremity</td>
<td>Left Upper Extremity</td>
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<td>Active Range of Motion</td>
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<tr>
<td>Shoulder Flexion</td>
<td>94°</td>
<td>178°</td>
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<tr>
<td>Shoulder Extension</td>
<td>26°</td>
<td>26°</td>
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<tr>
<td>Resisted Isometrics</td>
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<tr>
<td>Shoulder Flexion</td>
<td>3/5</td>
<td>5/5</td>
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<tr>
<td>Shoulder Extension</td>
<td>2/-5</td>
<td>5/5</td>
</tr>
<tr>
<td>Grip Strength</td>
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<td>37 lbs</td>
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<tr>
<td>Numeric Pain Rating Scale</td>
<td>5/10</td>
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<tr>
<td>Upper Extremity Functional Scale</td>
<td>39/80</td>
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<tr>
<td>Shoulder Pain and Disability Index</td>
<td>55%</td>
<td></td>
</tr>
</tbody>
</table>

*Patient unable to answer all questions on SPADI due to restrictions on motion*
Figure 1.

A. Upper Extremity Reacher: Used for shoulder AAROM

B. Wall Wash Exercise: Used for shoulder AAROM
### Table 3. Procedural Interventions

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Rx Day 1</th>
<th>Rx Day 2</th>
<th>Rx Day 3</th>
<th>Rx Day 4</th>
<th>Rx Day 5</th>
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<tr>
<td><strong>Shoulder AROM</strong></td>
<td>R Shoulder Flexion: Dowel x 10 reps x 1 set; Supine.</td>
<td>R Shoulder Flexion: Dowel x 10 reps x 1 set; Supine.</td>
<td>R Shoulder Flexion: Dowel x 20 reps x 1 set; Supine.</td>
<td>R Shoulder Flexion: Dowel x 20 reps x 1 set; Supine.</td>
<td>R Shoulder Flexion: Dowel x 20 reps x 1 set; Supine.</td>
<td>R Shoulder Flexion: Dowel x 20 reps x 1 set; Supine.</td>
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<td><strong>Biceps Curl</strong></td>
<td>R Biceps AROM x 10 reps x 1 set</td>
<td>R Biceps Curl: 1# x 15 reps x 1 set</td>
<td>R Biceps Curl: 2# x 15 reps x 1 set</td>
<td>Bilateral Biceps Curl: 2# x 15 reps x 1 set</td>
<td>Bilateral Biceps Curl: 2# x 10 reps x 2 sets.</td>
<td>Bilateral Biceps Curl: 3# x 15 reps x 1 set.</td>
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<tr>
<td><strong>Upper Extremity Isometrics</strong></td>
<td>R Shoulder Flexion x 10 reps x 1 set; 25% strength</td>
<td>R Shoulder Flexion, Extension, Adduction: x 10 reps each, 5s holds.</td>
<td>R Shoulder Flexion, Extension, Adduction: x 10 reps each, 5s holds.</td>
<td>R Shoulder Flexion, Extension, Adduction: x 10 reps each, 5s holds</td>
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<td><strong>Shoulder AROM</strong></td>
<td>Supine R Shoulder Flexion: 15 reps</td>
<td>Supine R Shoulder Flexion: 10 reps x 2 sets.</td>
<td>Supine R Shoulder Flexion: 10 reps x 2 sets.</td>
<td>Supine R Shoulder Flexion: 10 reps x 2 sets.</td>
<td>Supine R Shoulder Flexion: 10 reps x 2 sets.</td>
<td>Supine R Shoulder Flexion: 10 reps x 2 sets.</td>
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<tr>
<td><strong>Upper Extremity Reacher</strong></td>
<td>AAROM R Shoulder x 10 reps</td>
<td>AAROM R Shoulder x 15 reps</td>
<td>AAROM R Shoulder x 15 reps</td>
<td>AAROM R Shoulder x 15 reps</td>
<td>AAROM R Shoulder x 15 reps</td>
<td>AAROM R Shoulder x 15 reps</td>
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<td><strong>Supine Scapular Stabilization</strong></td>
<td>Bilateral Up/Down Pulses 30s, Lateral/Medial Pulses 30s</td>
<td>Bilateral Up/Down Pulses 30s, Lateral/Medial Pulses 30s</td>
<td>Bilateral Up/Down Pulses 30s, Lateral/Medial Pulses 30s</td>
<td>Bilateral Up/Down Pulses 45s, Lateral/Medial Pulses 45s</td>
<td>Bilateral Up/Down Pulses 40s, Lateral/Medial Pulses 40s, 1# dumbbells</td>
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<tr>
<td><strong>Theraband Exercises</strong></td>
<td>Bilateral Rows, Peach TB x 15 reps x 1 set</td>
<td>Bilateral Rows, Shoulder Extension, Shoulder Flexion Peach TB x 15 reps x 1 set each.</td>
<td>Bilateral Rows, Shoulder Extension, Shoulder Flexion Peach TB x 15 reps x 1 set each.</td>
<td>Bilateral Rows, Shoulder Extension, Shoulder Flexion Peach TB x 15 reps x 1 set each.</td>
<td>Bilateral Rows, Shoulder Extension, Shoulder Flexion Peach TB x 15 reps x 1 set each.</td>
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<tr>
<td><strong>Upper Body Ergometer (UBE)</strong></td>
<td>Forward x 5 minutes</td>
<td>Forward x 7 minutes</td>
<td>Forward x 5 minutes</td>
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<td>Forward x 5 minutes</td>
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<td><strong>Standing Scapular Stabilization</strong></td>
<td>Ball on Wall: R Up/Down, Side to Side, Clockwise Circles, Counterclockwise circles: 30s each</td>
<td>Wall Wash: R x 15 reps x 1 set</td>
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<td>R Shoulder Flexion: Finger Ladder x 15 reps x 1 set</td>
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<td>Biceps Curl</td>
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<td>AAROM R Shoulder x 25 reps x 1 set</td>
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<td>Upper Extremity Reacher</td>
<td>AAROM R Shoulder x 20 reps x 1 set</td>
<td>AAROM R Shoulder x 25 reps x 1 set</td>
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<tr>
<td>Supine Scapular Stabilization</td>
<td>Bilateral Up/Down Pulses 40s, Lateral Medial Pulses 40s; 1# dumbbells</td>
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<td>Theraband Exercises</td>
<td>Bilateral Rows, Shoulder Extension, Shoulder Flexion Peach TB x 10 reps x 2 sets each.</td>
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<td>Upper Body Ergometer</td>
<td>Forward x 6 minutes</td>
<td>Forward x 6 minutes</td>
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<td>Standing Scapular Stabilization</td>
<td>Ball on Wall: R Up/down, Side to Side, Clockwise Circles, Counterclockwise circles: 40s each, Wall Wash: R x 15 reps x 1 set</td>
<td>Ball on Wall: R Up/down, Side to Side, Clockwise Circles, Counterclockwise circles: 45s each, Wall Wash: 1# dumbbell, R x 15 reps x 1 set</td>
<td>Ball on Wall: R Up/down, Side to Side, Clockwise Circles, Counterclockwise circles: 45s each, Wall Wash: 1# dumbbell, R x 10 reps x 2 sets</td>
<td>Ball on Wall: R Up/down, Side to Side, Clockwise Circles, Counterclockwise circles: 45s each, Wall Wash: 1# dumbbell, R x 10 reps x 1 set, 2# dumbbell, R x 10 reps x 1 set, 2# dumbbell, R x 10 reps x 1 set, 2# dumbbell, R x 10 reps x 1 set</td>
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<tr>
<td>Shoulder Flexion</td>
<td>Bilateral Shoulder Flexion: Standing; 1# x 10 reps x 2 sets</td>
<td>Bilateral Shoulder Flexion: Standing; 1# x 10 reps x 2 sets</td>
<td>Bilateral Shoulder Flexion: Standing; 1# x 10 reps x 2 sets</td>
<td>Bilateral Shoulder Flexion: Standing; 1# x 10 reps x 2 sets</td>
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</tbody>
</table>

482 Right (R), Active Assisted Range of Motion (AAROM), Active Range of Motion (AROM) Repetitions (Reps)

483 Theraband (TB)

484 Theraband Resistance: Peach (level one) Orange (level two) Green (level three)