Upper Extremity Injuries Demonstration Project

The Demonstration Project for Upper Extremity Injuries uses an evidence-based health care delivery plan that describes treatments shown to be effective for patients diagnosed with a rotator cuff pathology or lateral epicondylitis or carpal tunnel syndrome. It is based on a "Program of Care" developed for the WSIB in collaboration with health professionals, employer and employee representatives and reflects the most up-to-date clinical evidence.

Rotator Cuff Pathology includes the following injuries to the shoulder:

- Minor tears of the rotator cuff tendons caused by vascular, traumatic or degenerative factors or a combination thereof;
- Rotator cuff tendinitis
- Impingement syndrome
- Bursititis of the shoulder

Lateral Epicondylitis is defined as an inflammation of the common origin of the extensor muscles of the wrist and hand

Carpal Tunnel Syndrome is the neuropathy caused by compression of the median nerve within the wrist canal. Clinical features include numbness and tingling in the thumb, index and middle fingers and, in advanced cases, muscle wasting and weakness.

The Focus

For all three injuries the Program of Care consists of:

- Assessment for treatment planning
- Delivery of evidence-based interventions
- Identification and monitoring of red and yellow flags throughout the POC
- Timely reporting/communication with employers, patients and any other treating health professionals
- Outcome measurement using the QuickDASH©
- Common forms including the Initial Assessment Form and Care and Outcomes Summary Form

Objectives

The OATA wishes to use this Demonstration Project to ensure ATs' practices are consistent with the best clinical practices and hopefully to demonstrate that ATs are at least as cost effective in assessing and treating Upper Extremity Injuries as other health care professions. More specifically, our objectives are to:

- Assist the injured patient to return to pre injury ADL and quality of life
- Facilitate safe, early and sustained return to work for injured patients in the program
- Facilitate timely identification of surgical candidates
- Achieve patient satisfaction with quality of care.

Eligibility Criteria

The Program of Care is appropriate for up to 12 weeks post-injury for injured patients who:

- Have a diagnosis of partial tears of the rotator cuff and rotator cuff tendinitis, impingement syndrome, bursitis of the shoulder, or lateral epicondylitis or carpal tunnel syndrome determined to be workplace-related
- Have no indication for immediate surgical intervention
- Can safely participate in the treatment approaches described in the Program of Care
- Are not hospitalized
- Have no clinical evidence of red flags.

If the AT determines that an injured patient is clinically inappropriate for the Program of Care, the injured patient should be managed according to the AT's judgement.

Initial Assessment

An initial assessment for treatment planning is conducted at the start of the POC. The assessment may include the taking of a complete history and a subjective evaluation of the primary complaints related to the injury and a thorough physical examination. The patient must be assessed for the presence of red or yellow flags. If a patient is appropriate for the UEI POC, the AT proceeds with treatment as per the POC.

Red Flags

Presence of any of the following red flags is cause to exclude or discharge the patient from the Program of Care and refer for appropriate intervention:

- Any clear indicators for immediate surgical intervention
- Acute inflammatory arthropathy, infection or fracture at site of injury, neoplasm, significant weight loss, advancing neurologic deficits, major tear (RC), dislocation

Yellow Flags

Unlike red flags, the presence of any yellow flags is not necessarily cause to immediately exclude or discharge the patient from the Program of Care. If yellow flags become a significant barrier to participation in the Program of Care, the patient should be discharged and referred for appropriate care. Otherwise, yellow flags should be monitored and addressed as appropriate:

- Believes hurt equals harm
- Prefers passive treatments
- Fears/avoids activity
- Home environment concerns
- Low mood/social withdrawal
- Work environment concerns

It is expected that the treating AT will continue to monitor injured patients for the existence/emergence of red and yellow flags throughout the UEI POC.

Outcome Measurement

The QuickDASH Outcome Measure is to be used as the outcome measurement tool regardless of the upper extremity injury being treated. ATs are to complete the QuickDASH (11 questions) and the Quick-DASH Work Module (4 questions).

Results of QuickDASH will provide the baseline for assessing the success of treatment.

Copies of QuickDASH are available on the OATA website.

Discharge Report

As soon as the patient is discharged from the Program of Care, ATs must submit a Discharge Report, which is a summary of the patient's achieved recovery and when necessary, recommendations for further treatment.

Initial Assessment Form: baseline data collected to enable treatment planning.

The AT is responsible for communication with the patient throughout the POC.

POC for Rotator Cuff Pathology

Definition

For purposes of the Upper Extremity Injuries Program of Care, Rotator Cuff Pathology includes the following injuries to the shoulder:

- Minor tears of the rotator cuff tendons caused by vascular, traumatic or degenerative factors or a combination thereof
- Rotator cuff tendinitis
- Impingement syndrome
- Bursitis of the shoulder

Symptoms

Pain in the shoulder with overhead activities and maintaining certain postures. Patient may or may not have night pain. Weakness is usually evident with external rotation and is correlated with the extent of pathology.

Program Duration & Discharge Criteria

The POC for rotator cuff pathology describes up to 12 weeks of treatment from the date of diagnosis with discharge occurring at any time during the program. Discharge criteria are:

- Resolution of symptoms, or
- End of 12 weeks of treatment, or
- Emergence of red flags, or
- Emergence of significant yellow flags that prohibit participation in the interventions described in the POC.

Recommended Treatment Interventions

A. Exercise

An exercise program consisting of a mix of supervised and home exercise programs focusing on stretching and strengthening of the shoulder.

B. Manual Care

Soft tissue mobilization and massage for increased mobility and for pain management.

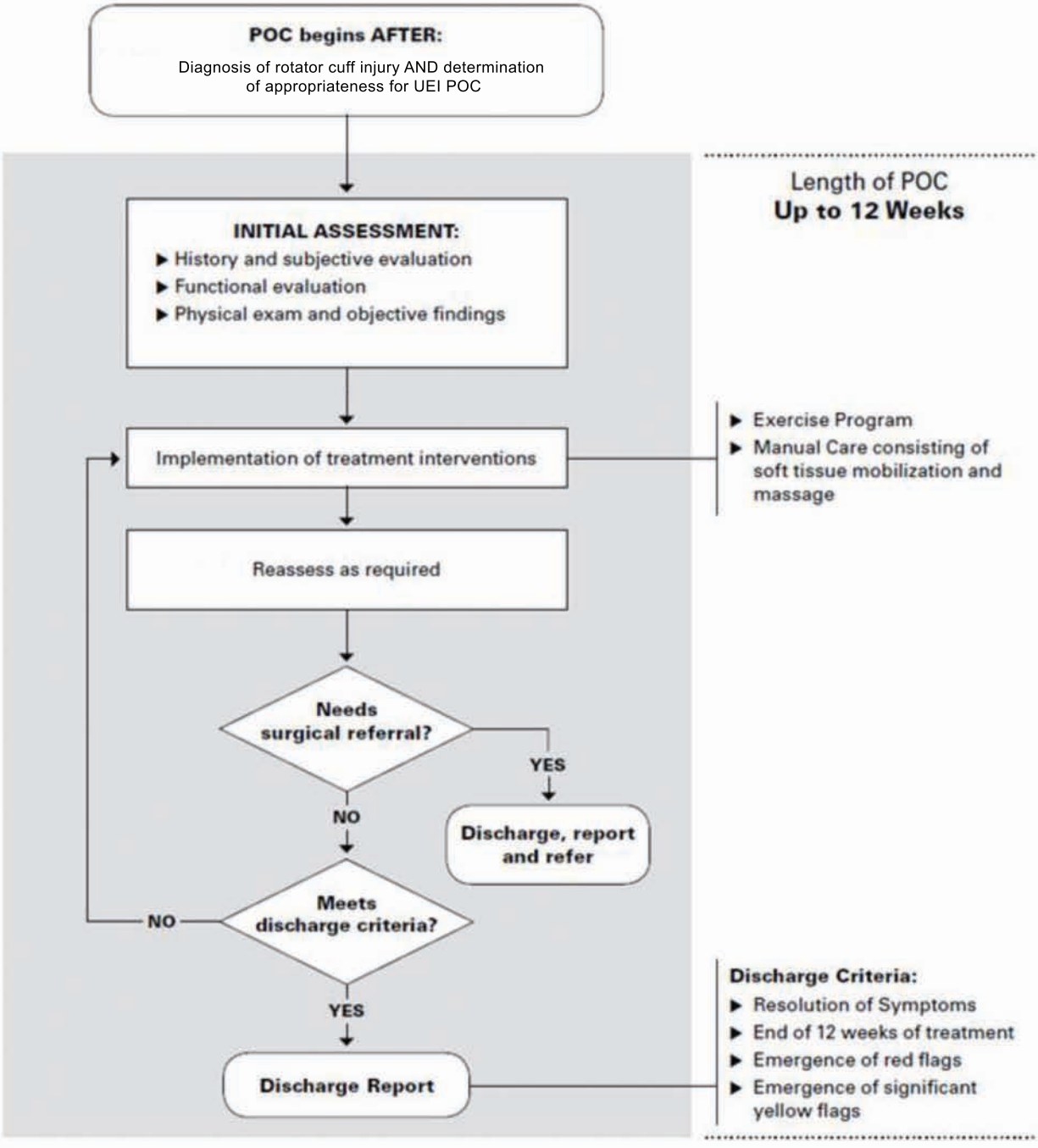
Interventions Not Recommended

There is insufficient evidence in the literature that the following interventions are effective in the treatment of rotator cuff pathology:

- Acupuncture
- Electromagnetic Therapy
- Electrotherapy
- Laser
- Needle Aspiration
- Shock Wave Therapy

These interventions may be used if, in your clinical judgement, they are in the best interest of your patient.

Algorithm: Rotator Cuff Pathology



POC for Lateral Epicondylitis

Definition

Lateral epicondylitis is defined as an inflammation of the common origin of the extensor muscles of the wrist and hand.

Symptoms

Pain and tenderness over lateral epicondyle. Pain is worsened by gripping or rotation of the wrist and forearm. Patient may have weakness in grip strength.

Program Duration & Discharge Criteria

The POC for lateral epicondylitis describes up to 12 weeks of treatment from the date of diagnosis with discharge occurring at any time during the program. Discharge criteria are:

- Resolution of symptoms, or
- End of 12 weeks of treatment, or
- Emergence of red flags, or
- Emergence of significant yellow flags that prohibit participation in the interventions described in the POC

Recommended Treatment Interventions

A. Exercise

Progressive stretching and strengthening program combined with task-specific exercises should reduce pain and increase grip strength. Exercise should be a core component for all patients throughout the POC.

B. Ultrasound

Ultrasound is recommended for short and medium-term pain relief as a potential intervention supporting an active exercise program.

C. Manipulation and/or Mobilization

During the active exercise component of the Program of Care, manipulation and/or mobilization of the elbow joint may reduce pain and increase grip strength.

D. Acupuncture

Acupuncture may be used as a non-pharmacological pain management strategy to facilitate the integration of active treatment and return to work programs. ATs are reminded that acupuncture constitutes part of a controlled act and, therefore, may be performed only by ATs who have been trained to perform the procedure safely and effectively and only under a lawful delegation from a member of a health care profession who is authorized to perform acupuncture himself/herself.

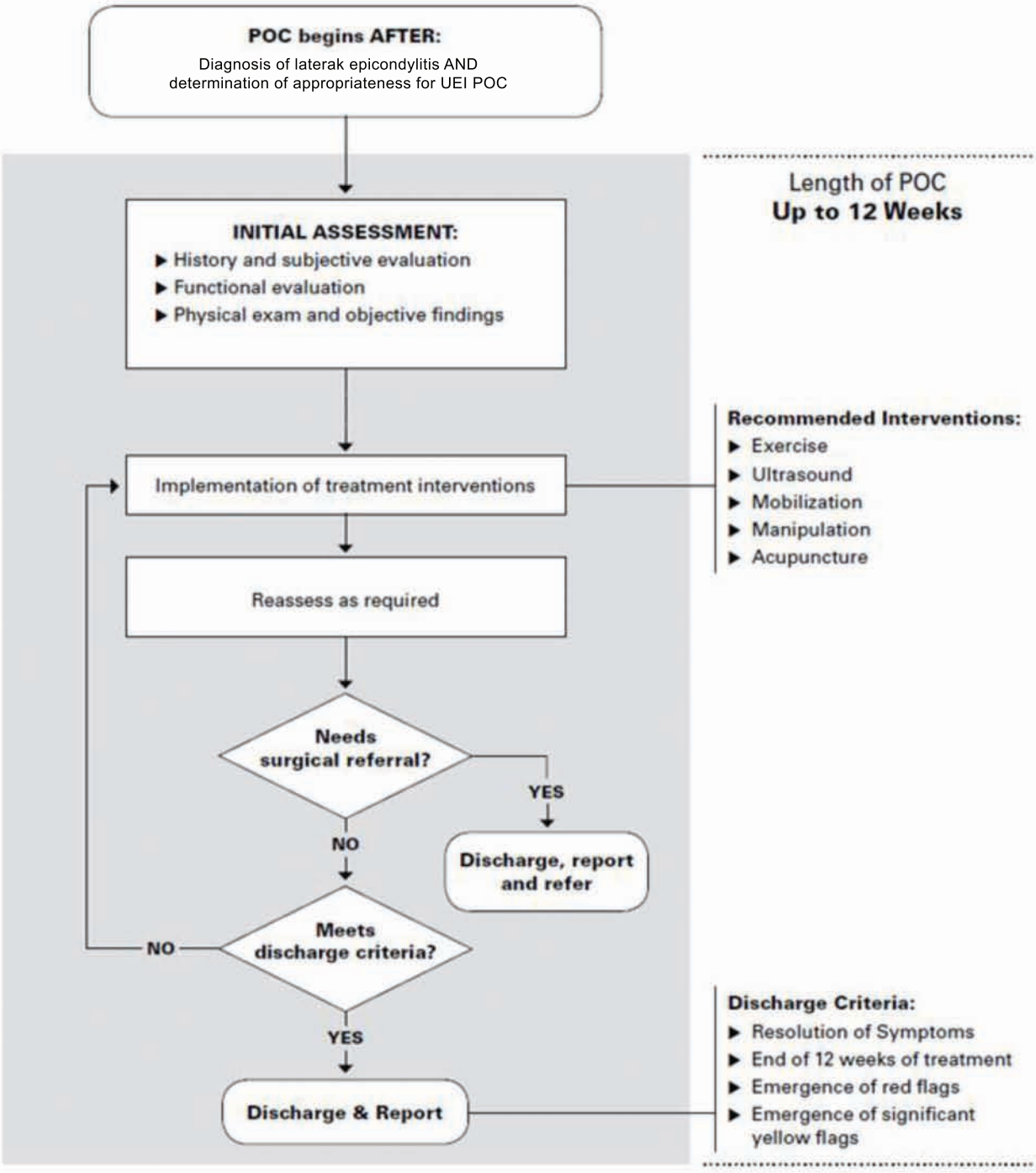
Interventions Not Recommended

There is insufficient evidence in the literature that the following interventions are effective for the treatment of lateral epicondylitis:

- Ionization
- Pulsed Electromagnetic Field
- Laser
- Rebox

These interventions may be used if, in your clinical judgement, they are in the best interest of your patient.

Algorithm: Lateral Epicondylitis



POC for Carpal Tunnel Syndrome

Definition

Neuropathy caused by compression of the median nerve within the wrist canal. Clinical features include numbness and tingling in the thumb, index and middle fingers and, in advanced cases, muscle wasting and weakness.

Symptoms

Numbness, burning, tingling, and a prickly pin-like sensation over the palm surface of the hand, and into the thumb, forefinger, middle finger, and half of the ring finger. Patients may have shooting pain in the forearm or hand. Muscle weakness will develop in more chronic cases.

Program Duration & Discharge Criteria

The POC for carpal tunnel syndrome describes up to 12 weeks of treatment from date of diagnosis with discharge occurring at any time during the program. Discharge criteria are:

- Resolution of symptoms, or
- End of 12 weeks of treatment, or
- Emergence of red flags, or
- Emergence of significant yellow flags that prohibit participation in the interventions described in the POC

Recommended Treatment Interventions

A. Night Splinting

A wrist support worn only at night minimizes unwanted pressure on the median nerve and subsequent symptoms of carpal tunnel syndrome are prevented.

B. Ultrasound

Ultrasound is not intended as a stand-alone treatment, but rather as a non-pharmacological pain management strategy.

C. Manipulation and/or Mobilization

Manipulation and/or mobilization is not intended as a stand-alone treatment, but rather as a non-pharmacological pain management strategy.

Interventions Not Recommended

There is insufficient evidence in the literature that the following interventions are effective for the treatment of carpal tunnel syndrome.

- Acupuncture
- Low Level Laser
- Braces
- Magnets
- Full time splinting

- Nerve Gliding Exercises

These interventions may be used if, in your clinical judgement, they are in the best interest of your patient.

Algorithm: Carpal Tunnel Syndrome