

This tool provides information to facilitate the management of ankle sprain in adults

## Focused examination



### 1. Patient History

- Assess level of concern for major structural or other pathologies. If required, refer to an appropriate healthcare provider.
- Identify and assess other conditions and co-morbidities. Manage using appropriate care pathways.
- Address prognostic factors that may delay recovery.

Major structural or other pathologies may be suspected with certain signs and symptoms (red flags) including:

- Positive Ottawa Ankle Rules, children <12 years of age, elderly patients, erythema, warmth, fever, chills, prolonged pain, swelling, catching and/or instability of the ankle joint, pain at rest, awakening due to pain at night, bilateral pain

Examples of other conditions/co-morbidities:

- Physical conditions: patellofemoral pain, lumbar strain
- Psychological conditions: depression, anxiety
- Co-morbidities: diabetes (peripheral neuropathy), chronic venous insufficiency

Examples of prognostic factors that may delay recovery:

- Symptoms of depression or anxiety, passive coping strategies, job dissatisfaction, high self-reported disability levels, disputed compensation claims, somatization

### 2. Physical Examination

- Assess levels of concern regarding major structural or other pathologies.
- Rule out fracture using the Ottawa Ankle Rules
- Identify patient's baseline status relative to pain, function and disability, determine the patient's readiness to return to activities using appropriate assessments.

### 3. Management

- Offer information on nature, management, and the course of ankle sprain recovery.
- Discuss the range of effective interventions with the patient and, together, select a plan.
- Emphasize active rather than passive treatment options.

### 4. Reevaluation and discharge

- Reassess the patient at every visit to determine if: (1) additional care is necessary; (2) the condition is worsening; or (3) the patient has recovered.
- Monitor for any emerging factors that may delay recovery.

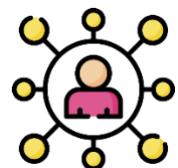
**Incorporate one or more valid and reliable outcome measurements when assessing and monitoring patients**

- Self-rated recovery question
- Lower Extremity Functional Scale (LEFS)
- Numeric Pain Rating Scale (NPRS)
- Berg Balance Scale (BBS)
- Pittsburgh Sleep Quality Index
- Patient Specific Functional Scale (PSFS)

*Visit our website for more outcome measurements*

### 5. Referrals and collaboration

- Refer the patient to an appropriate healthcare provider for further evaluation at any time during their care if they develop worsening symptoms or new physical or psychological symptoms.



## Grade I ankle sprain: partial tear of a ligament

- Mild tenderness and swelling, slight or no functional loss (patient is able to bear weight and ambulate with minimal pain), no mechanical instability

## Grade II ankle sprain: incomplete tear of a ligament, with moderate functional impairment

- Moderate pain and swelling, mild to moderate ecchymosis, tenderness over involved structures, some loss of motion and function (patient has pain with weight-bearing and ambulation), mild to moderate instability

## Grade III ankle sprain: complete tear and loss of integrity of a ligament

- Severe swelling (more than 4cm about the fibula), severe ecchymosis, loss of function and motion (patient is unable to bear weight or ambulate), mechanical instability

## Therapeutic Recommendations - Recent-onset ( $\leq 3$ months symptom duration)

**Provide** structured patient education (advice to stay active, reassurance, promote and facilitate return to work and normal activities, self-care advice)\*.

**Consider** one of the two interventions:

1. semi-rigid brace, semi-rigid boot or below-knee immobilization walking cast for grades II/III ankle sprains<sup>1</sup> or
2. mobilization of the distal and proximal tibiofibular joints, talocrural, and subtalar joints<sup>2</sup>

**Consider** appropriate home-based intervention(s):

- home-based exercise program<sup>3</sup>
- home-based cryotherapy for grades I/II ankle sprains<sup>4</sup>

**Do Not Offer** supervised progressive exercise program<sup>5</sup>

**Do Not Offer** low-level laser therapy<sup>5</sup>

\*The guidelines does not include interventions for which there is a lack of evidence of effectiveness. The ordering of interventions does not reflect superiority of effectiveness

<sup>1</sup>Semi-rigid brace during the daytime (4 weeks), semi-rigid boot during the daytime (4 weeks) or below-knee immobilization walking cast (10 days)

<sup>2</sup>The program should include 5 repetitions (30 seconds; grades I-IV mobilization at the provider's discretion), twice per week for 4 weeks

<sup>3</sup>The program should include therapeutic exercises with cryotherapy adapted from a standard protocol that includes: active circumduction mobility (20 repetitions), active plantar flexion/dorsiflexion mobility (20 repetitions); static muscle strengthening: eversion, inversion, plantar flexion, dorsiflexion (5 repetitions each); functional movement pattern (lower limb triple flexion/extension; 30 repetitions); and triceps surae stretch (3 repetitions) 4 times per week for 4 weeks

<sup>4</sup>The program should include standard application of 20 minutes of continuous ice treatment performed every two hours; or, ice applied for 10 minutes, the ankle is rested at room temperature for 7 minutes, ice is reapplied for 10 minutes and performed every two hours; over the first 72 hours.

<sup>5</sup>Based on evidence of no benefit to patients

## Therapeutic Recommendations - Persistent ( $> 3$ months symptom duration)

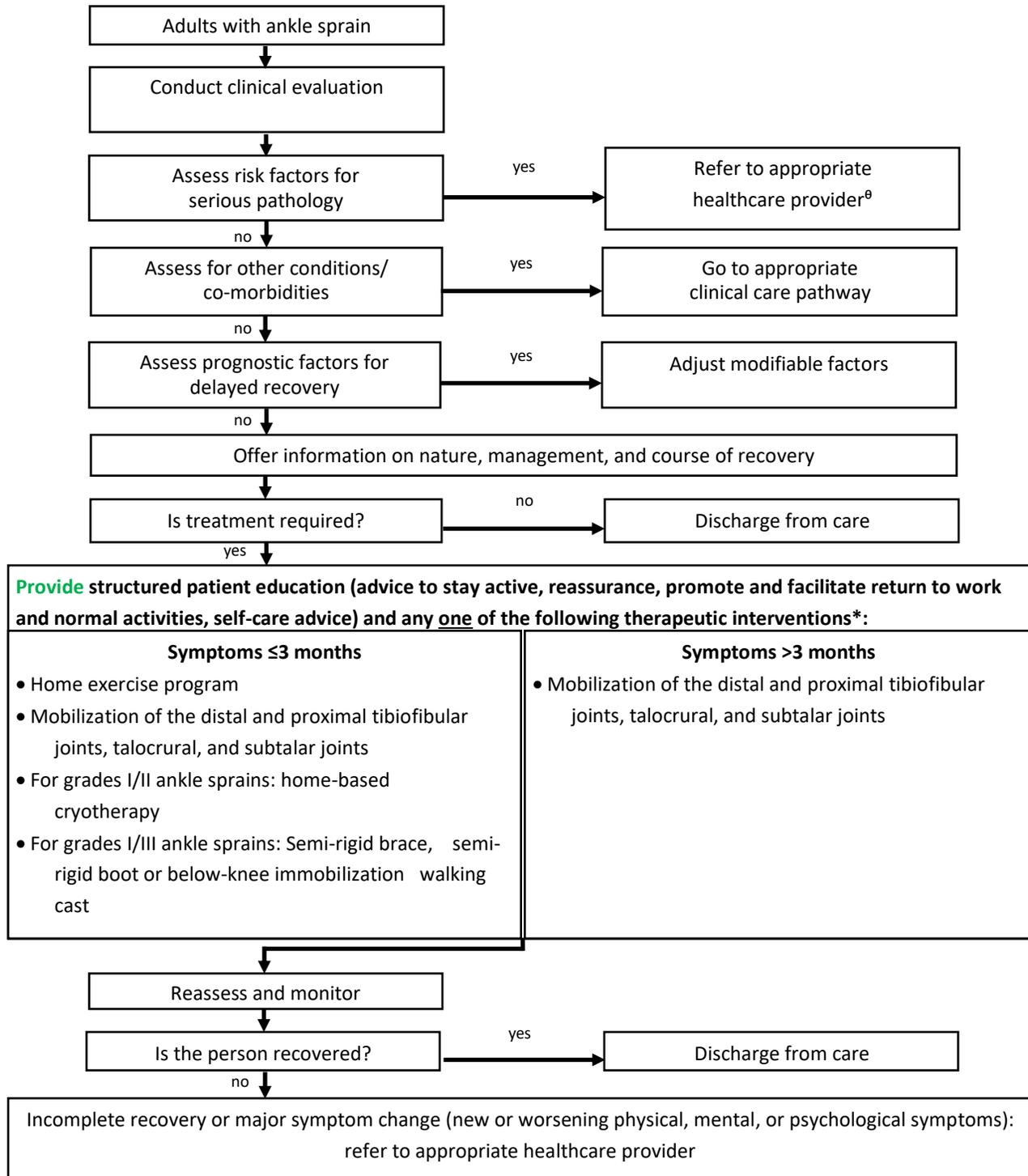
**Provide** structured patient education (advice to stay active, reassurance, promote and facilitate return to work and normal activities, self-care advice) and the following therapeutic intervention\*:

**Consider** mobilization of the distal and proximal tibiofibular joints, talocrural, and subtalar joints<sup>1</sup>

\*The guidelines does not include interventions for which there is a lack of evidence of effectiveness.

<sup>1</sup>The program should include 5 repetitions (30 seconds; grades I-IV mobilization at the provider's discretion), twice per week for 4 weeks

## Care pathway for the management of ankle sprain



<sup>o</sup>Referral to an appropriate healthcare professional who is authorized to take appropriate actions and initiate additional examinations

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