The Osteoarthritis (OA) Tool has been developed for primary care providers who are managing patients with new or recurrent joint pain consistent with OA in the hip, knee or hand. This tool will help clinicians identify symptoms and provide evidence-based, goal-oriented non-pharmacological and pharmacological management while identifying triggers for investigations or referrals.

### Section 1: History

**Question 1:** Where is your patient’s pain? (refer to Figure 1)
- If pain pattern matches blue joints, patient likely has osteoarthritis unless Question 2 & 3 are positive.
- If pain pattern matches orange joints, screen for inflammatory arthritis.

**Question 2:** Does your patient have morning stiffness in their joints that lasts greater than 30 minutes?
- If greater than 30 minutes, proceed to inflammatory screening.

**Question 3:** Is your patient’s joint pain generally related to activity?
- If yes, proceed to Question 4.
- If no, does your patient have pain with rest?
- If yes, proceed to Red Flags.

**Question 4:** How does your patient describe their pain experience?
- **Early**
  - Pain is characterized by occasional predictable sharp or other pain, usually brought on by a trigger (activity, repetition, sport) that eventually limited high impact or excessive activities, but has relatively little impact on daily activities.
- **Moderate**
  - Predictable pain is increasingly associated with unpredictable locking or buckling (knees) or other joint symptoms. The pain becomes more constant, and begins to affect daily activities, such as walking and climbing stairs.
- **Advanced**
  - Constant dull/aching pain is punctuated by short episodes of often unpredictable intense pain. This pattern of intermittent, intense and often unpredictable hip or knee pain results in significant avoidance of activities, including social and recreational activities.

**Question 5:** Is your patient avoiding ALL activities due to pain, stiffness or weakness?
- If yes, screen for Yellow Flags and administer PHQ-4.

**Question 6:** Is your patient experiencing symptoms of joint instability, such as ‘giving way’, locking or repeated clicking?
- If no, proceed with OA Tool assessment.
- If yes, perform a complete joint examination to rule out cartilage+/− ligament pathology.

**Question 7:** Does your patient have any chronic disease co-morbidities including sleep disorders and/or mood disorders?
- If yes, consider co-morbidities with any prescribed management.

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### Criteria for Inflammatory consideration
- Pain increased with rest or immobility
- Persistent joint swelling and tenderness
- Frequent joint warmth and/or erythema
- Morning stiffness greater than 30 minutes
- Three or more joints affected
- Unexplained weight loss

### RED FLAGS
Below is a list of serious pathologies to consider and rule out in assessing joint pain:

<table>
<thead>
<tr>
<th>Indication</th>
<th>Investigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infection</td>
<td>Fever, meningism, history of immunosuppression/intravenous drug use</td>
</tr>
<tr>
<td>Inflammatory</td>
<td>Rheumatoid arthritis, polymyalgia rheumatica, giant cell arteritis</td>
</tr>
<tr>
<td>Fracture</td>
<td>Osteoporotic fracture, traumatic fall with risk of fracture</td>
</tr>
<tr>
<td>Tumour</td>
<td>History of cancer, unexplained weight loss, significant night pain, severe fatigue</td>
</tr>
</tbody>
</table>

### YELLOW FLAGS
**Psychosocial Risk Factors for Developing Chronicity**
For those with joint pain lasting more than six weeks or non-responsive to treatment, consider asking:

<table>
<thead>
<tr>
<th>Questions to Ask</th>
<th>Look for</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Do you think your pain will improve or become worse?”</td>
<td>Belief that joint pain is harmful or potentially severely disabling</td>
</tr>
<tr>
<td>“Do you think you would benefit from activity, movement or exercise?”</td>
<td>Fear and avoidance of activity or movement</td>
</tr>
<tr>
<td>“How are you emotionally coping with your joint pain?”</td>
<td>Tendency to low mood and withdrawal from social interaction</td>
</tr>
<tr>
<td>“What treatments or activities do you think will help you recover?”</td>
<td>Expectation of passive treatment(s) rather than a belief that active participation will help</td>
</tr>
</tbody>
</table>

A patient with a positive Yellow Flag will benefit from education and reassurance to reduce risk of chronicity. If you are feeling symptoms of sadness or anxiety, this could be related to your condition and could impact your recovery, schedule a follow-up appointment.

---

June 2017

Section 2: Physical Examination

<table>
<thead>
<tr>
<th>Patient Vitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (kg):</td>
</tr>
<tr>
<td>Height (cm):</td>
</tr>
<tr>
<td>BMI (weight in kg/height in m^2):</td>
</tr>
<tr>
<td>Blood Pressure (mmHg):</td>
</tr>
</tbody>
</table>

See Management for related risks
Consider before prescribing medication

A. HIP AND KNEE EXAMINATION

Alignment/Deformities
Check the standing alignment pattern that describes your patient:

- Normal
- Knock knees (valgus)
- Bowleggedness (varus)

Gait:

- Does your patient limp when walking greater than 5 minutes?
- If yes, ask if your patient has pain with limp? Consider appropriate pain management. If limp is persistent, consider a single point cane.
- If no, may have occasional limp when initiating walking and then normalizes, consider more active breaks with prolonged positioning.

Knee Swelling (Bulge Test)
Palpate joint line for tenderness, while checking for swelling

<table>
<thead>
<tr>
<th>Minimal</th>
<th>Moderate</th>
<th>Large</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Minimal amount of fluid on joint</td>
<td>☐ Noticeable fluid wave with bulge test</td>
<td>☐ Fluid fullness is felt in compartment and does not easily move</td>
</tr>
</tbody>
</table>

Function & Strength: Sit to Stand Test

- Early: Able to complete greater than 15 repetitions in 30 seconds
- Moderate: Able to complete one to three repetitions in 30 seconds
- Advanced: Unable to complete one repetition where neurological and cardiac function are normal

Hip Flexion

- Early: > 115 degrees
- Moderate: > 90-115 degrees
- Advanced: < 90 degrees

Hip Internal Rotation

- Early: Normal range with pain
- Moderate: 5-10 degrees
- Advanced: Neutral position

Knee Flexion

Knee flexion can be assessed sitting, standing or laying. Patella joint pain is best assessed in the standing quarter flexion

- Early: > 115 degrees
- Moderate: > 90-115 degrees
- Advanced: < 90 degrees

If you suspect your patient has a leg length difference of greater than 1.5 cm, please validate with a screening measurement and refer if appropriate for shoe/insert modification.

If pain persists and/or gait is asymmetrical due to limited joint mobility, consider using a wheeled walker.
Function & Strength: Grip & Pinch

<table>
<thead>
<tr>
<th>Score</th>
<th>Muscle Response</th>
<th>Score Grip</th>
<th>Score Pinch</th>
<th>Osteoarthritis Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Maximum muscle contraction</td>
<td></td>
<td></td>
<td>Normal to early</td>
</tr>
<tr>
<td></td>
<td>Grip: Examiner cannot pull thumb away from patient grip</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pinch: Examiner unable to separate thumb pinch position</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Good muscle contraction</td>
<td></td>
<td></td>
<td>Early to moderate</td>
</tr>
<tr>
<td></td>
<td>Grip: Examiner can partially slide thumb from patient grip</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pinch: Examiner can partially separate thumb pinch position</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Moderate muscle contraction</td>
<td></td>
<td></td>
<td>Moderate</td>
</tr>
<tr>
<td></td>
<td>Grip: Examiner can slide thumb from patient squeeze</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pinch: Examiner can separate thumb pinch positions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Weak muscle contraction</td>
<td></td>
<td></td>
<td>Advanced</td>
</tr>
<tr>
<td></td>
<td>Grip: Patient unable to fully squeeze examiner’s thumb</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pinch: Patient unable to hold a circular position between thumb and finger</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Flicker of activity</td>
<td></td>
<td></td>
<td>Not consistent with osteoarthritis</td>
</tr>
<tr>
<td>0</td>
<td>No muscle contraction</td>
<td></td>
<td></td>
<td>Not consistent with osteoarthritis</td>
</tr>
</tbody>
</table>

Meniscus Testing: Use the Thessaly Test

- Screen for discrete meniscal pathology, may change management
- A positive test is indicated by reports of pain on the joint line or by joint locking or catching
- If positive do a full meniscal testing and imaging
- The Thessaly test has higher sensitivity and specificity compared to the sensitivity and specificity of the Apley’s test when assessing for meniscal tears

B. HAND EXAMINATION

Observations
Assess for bilateral deformities and atrophy.

Multiple joint involvement will affect grip strength, and first finger and thumb involvement will affect pinch.

<table>
<thead>
<tr>
<th>Swelling and/or Tenderness</th>
<th>Thumb</th>
<th>Index Finger (1st)</th>
<th>Middle Finger (2nd)</th>
<th>Ring Finger (4th)</th>
<th>Little Finger (5th)</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ CMC</td>
<td>☐ MCP</td>
<td>☐ PIP</td>
<td>☐ MCP</td>
<td>☐ MCP</td>
<td>☐ MCP</td>
</tr>
<tr>
<td>☐ MCP</td>
<td>☐ PIP</td>
<td>☐ DIP</td>
<td>☐ MCP</td>
<td>☐ MCP</td>
<td>☐ MCP</td>
</tr>
<tr>
<td>☐ PIP</td>
<td>☐ PIP</td>
<td>☐ DIP</td>
<td>☐ MCP</td>
<td>☐ MCP</td>
<td>☐ MCP</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Deformity</th>
<th>Thumb</th>
<th>Index Finger (1st)</th>
<th>Middle Finger (2nd)</th>
<th>Ring Finger (4th)</th>
<th>Little Finger (5th)</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ CMC</td>
<td>☐ MCP</td>
<td>☐ PIP</td>
<td>☐ MCP</td>
<td>☐ MCP</td>
<td>☐ MCP</td>
</tr>
<tr>
<td>☐ MCP</td>
<td>☐ PIP</td>
<td>☐ DIP</td>
<td>☐ MCP</td>
<td>☐ MCP</td>
<td>☐ MCP</td>
</tr>
<tr>
<td>☐ PIP</td>
<td>☐ PIP</td>
<td>☐ DIP</td>
<td>☐ MCP</td>
<td>☐ MCP</td>
<td>☐ MCP</td>
</tr>
</tbody>
</table>

Squeeze Test for Multiple Joint Pain

If painful, consider multiple joint etiology.

Rule Out De Quervain’s Tenosynovitis If Some Pain Is Present

Positive: Pain with ulnar deviation of the wrist
If positive, treat specifically and consider association with inflammatory arthritis.

Negative: No pain with ulnar deviation
If negative, proceed with osteoarthritis management.

Function & Strength: Grip & Pinch

Grip

Pinch

Meniscus Testing: Use the Thessaly Test

- Screen for discrete meniscal pathology, may change management
- A positive test is indicated by reports of pain on the joint line or by joint locking or catching
- If positive do a full meniscal testing and imaging
- The Thessaly test has higher sensitivity and specificity compared to the sensitivity and specificity of the Apley’s test when assessing for meniscal tears
Section 3: Diagnosis

It is helpful to diagnosis osteoarthritis by the joint affected and clinical stage. Patients have reported that they find it helpful to know what joint(s) are affected and clinical stage(s). ‘Staging’ is based on the clinical assessment of function, mobility and joint examination. Determining clinical stage may guide management principles and assist patients to understand the clinical severity of their osteoarthritis.

### Clinical Assessment of Osteoarthritis Stage

<table>
<thead>
<tr>
<th>Joint</th>
<th>Early</th>
<th>Moderate</th>
<th>Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hip</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Knee</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Hand</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

- **Hip:**
  - Early
  - Moderate
  - Advanced

- **Knee:**
  - Early
  - Moderate
  - Advanced

- **Hand:**
  - Early
  - Moderate
  - Advanced

### Imaging

Has your patient had previous x-rays or MRI of the affected joints?

- □ Yes
- □ Advanced

*Consider x-ray in the following circumstance*

- Failure to respond to evidence based management over 12 week period
- Referral to rheumatology or orthopedic surgery

### Kelgren and Lawrence Radiographic Criteria for Assessment of OA

Correlation between clinical diagnosis and radiological staging may be useful when patients are not responding to treatment or potential surgical planning is required.

<table>
<thead>
<tr>
<th>Radiographic grade</th>
<th>Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Normal</td>
<td>No features of OA</td>
</tr>
<tr>
<td>I</td>
<td>Doubtful</td>
<td>Minute osteophyte; doubtful significance</td>
</tr>
<tr>
<td>II</td>
<td>Mild</td>
<td>Definite osteophyte: normal joint space</td>
</tr>
<tr>
<td>III</td>
<td>Moderate</td>
<td>Moderate joint-space reduction</td>
</tr>
<tr>
<td>IV</td>
<td>Severe</td>
<td>Joint space greatly reduced; subchondral sclerosis</td>
</tr>
</tbody>
</table>

*Radiography does not reliably correlate with symptoms*

### Referral

- **Outpatient Rehabilitation Provider**
  - Any one of the following:
    - Absence of red flags
    - Patient whose medical pain management has been optimized to be able to engage in active exercises
    - Patient who is open to implementing new information and/or strategies into their management program (e.g., goal setting, self-management focus)

- **Sport & Exercise Medicine Physician**
  - Patients who require a complete assessment to evaluate musculoskeletal pathology
  - Patients who need an assessment of exercise capacity and recommendations
  - Patients who require an integrated rehabilitation strategy including pain management

- **Pain Specialist**
  - High constant pain levels that interfere with activities and function
  - Presence of Yellow Flags
  - Patient who identifies active goals for treatment and self-management
  - Patient who is open to implementing new information into their management program
  - Patient who is on escalating / high doses of pain medications (e.g., opioids)

- **Rheumatologist**
  - Patients at risk for inflammatory arthritis
  - Small and large joint polyarthritis symptoms
  - Systemic symptoms (weight loss, fatigue)
  - Non-articular features such as rash, inflammatory bowel disease, or psoriasis

- **Orthopaedic Surgeon**
  - Patients with escalating pain medication and/or reduced effectiveness of pain management
  - Patient with significant reduction of joint mobility impacting activities of daily living and quality of life.
  - Failure of a 12-week compliant evidence-based treatment program

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June 2017  [arthritissalliance.ca/en/osteoarthritis-toolbox](http://arthritissalliance.ca/en/osteoarthritis-toolbox)  [cfpc.ca/oatoolkit](http://cfpc.ca/oatoolkit)  [thewellhealth.ca/oa](http://thewellhealth.ca/oa)
### Hip & Knee

#### RECOMMENDED

**Weight Management**
- The relative risk is increased for BMI classified as overweight (1.8), obese (2.4) and very obese (3.2) as compared to normal weight\(^{12}\)
- Achieving a weight loss of 5% of total body weight for effective treatment
- Refer to dietician if needed \(^{12}\)

**Physical Activity**
- Recommend regular physical activity; promote activity as tolerated and if able, target 150 minutes total per week; aim for 30 minutes 5 days a week.\(^{13}\)
- Encourage maintenance of strength and cardiovascular fitness through exercise and daily activity with appropriate pain management.\(^{13}\)
- Choose activities that are easier for patient’s joint(s) and patient preference, for example:
  - Cardiovascular and/or resistance land based exercise (e.g., walking, biking)
  - Neuromuscular control (e.g., Yoga, Tai Chi)
- For advanced OA consider aquatic exercises like swimming, aqua fit or walking in a pool
- Consider fitness planning and exercise prescription by a qualified rehabilitation therapist.

#### Assistive Devices
- Walking aids as needed (e.g., cane, walker or walking poles)
- A cane can help reduce the weight load in persons but needs to be properly fitted and used on the side contralateral to the affected joint
- Shock absorbing shoes (e.g., gel or silicone insoles)
- Knee underloader brace may be used in patients where one side of the joint is less affected than the other side

#### Joint Protection\(^{24}\)
- Reduce risk of trauma with patient education
- Reduce the effort needed to do a task – use labour saving gadgets or equipment, avoid lifting heavy objects, reduce the weight on the affected joint
- Pace yourself, rest for 30-60 seconds every 5-10 minutes when stretching or moving joints
- Understand when the pain is worse during daily activities and suggest an action plan to minimize pain and increase daily activities
- Plan walks for places where there are benches to sit
- Keep joints in safe/neutral position, for example:
  - Avoid squatting, kneeling, twisting, low seats
  - Use raised toilet seats and raised bed
  - Reduce stress on joints while sleeping (e.g., firm mattress and pillow between the legs)

#### Self-Management
- Psychosocial interventions (e.g., cognitive behavioural therapy) may help with self-management of OA pain and function\(^{14}\)
- Refer to Mental Health Counselor if available

#### Thermal Therapy
- Heat pad: 10 minutes on, 10 minutes off or 15-20 minutes on
- Avoid heat therapy when a malignancy or acute injury (e.g., open wounds, areas of recent bleeding, acute dermatitis, psoriasis, infection) is present

### Hand

#### RECOMMENDED

**Assistive Devices**
- Hand or thumb splints can improve hand function and decrease pain, consider referral to therapies

**Neuromuscular Training**
- Aim for 8 repetitions of exercise, increase to 15-20 repetitions, 1-2 times per day
- Take a day off after strengthening
- Examples of hand Neuromuscular Training
  - Make a fist, spread fingers, opposing thumb to each fingertip

**Joint Protection\(^{24}\)**
- Reduce risk of trauma with patient education
- Reduce the effort needed to do a task – use labour saving gadgets or equipment, avoid lifting heavy objects, reduce the weight on the affected joint
- Pace yourself, rest for 30-60 seconds every 5-10 minutes when stretching or moving joints
- Understand when the pain is worse during daily activities and suggest an action plan to minimize pain and increase daily activities
- Distribute the weight over several joints for example spread the load between 2 hands
- Avoid putting strain on the thumb(s), repetitive thumb movements, and/or prolonged grip in one position
- Use a large grip as possible

**Self-Management**
- Psychosocial interventions (e.g., cognitive behavioural therapy) may help with self-management of OA pain and function\(^{14}\)
- Refer to a mental health counselor if available

**Thermal Therapy**
- Parrafin Wax\(^{25}\)
- Heat pad: 10 minutes on, 10 minutes off or 15-20 minutes on
- Avoid heat therapy when a malignancy or acute injury (e.g., open wounds, areas of recent bleeding, acute dermatitis, psoriasis, infection) is present
### Management Matrix – Pharmacological

<table>
<thead>
<tr>
<th>Hip &amp; Knee</th>
<th>Hand</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RECOMMENDED</strong></td>
<td><strong>RECOMMENDED</strong></td>
</tr>
<tr>
<td><strong>Topical</strong></td>
<td><strong>Topical</strong></td>
</tr>
<tr>
<td><strong>Topical NSAIDs</strong></td>
<td><strong>Topical NSAIDs</strong></td>
</tr>
<tr>
<td>• Knee OA Diclofenac sodium&lt;sup&gt;14,15&lt;/sup&gt;</td>
<td>• Hand OA Diclofenac diethylamine (1.16%, 2.32%) Dose: 2-4g applied tid-qid</td>
</tr>
<tr>
<td>• Dose: 50 drops per knee TID or 40 drops per knee qid</td>
<td>• Counterirritants Methyl Salicylate with Menthol or Camphor Apply tid-qid</td>
</tr>
<tr>
<td><strong>Analgesics</strong></td>
<td><strong>Acetaminophen</strong></td>
</tr>
<tr>
<td>• Acetaminophen is recommended as 1st-line therapy for hip/knee OA&lt;sup&gt;14,15,16,17&lt;/sup&gt;</td>
<td>• Acetaminophen provides minimal pain relief and improvement in function for hip/knee OA (statistically significant, but clinically unimportant)&lt;sup&gt;17,18&lt;/sup&gt;</td>
</tr>
<tr>
<td>• Acetaminophen provides minimal pain relief and improvement in function for hip/knee OA (statistically significant, but clinically unimportant)&lt;sup&gt;17,18&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td><strong>Oral NSAIDs</strong></td>
<td><strong>Opioids</strong></td>
</tr>
<tr>
<td>• NSAIDs and COX-2 inhibitors are recommended for patients without contraindications (renal impairment, severe liver impairment, history of asthma or allergic-type reaction after taking NSAIDs or ASA, severe uncontrolled heart failure, active gastric duodenal or peptic ulcers and inflammatory disease, cerebrovascular bleeding and other bleeding disorders, or hyperkalemia)&lt;sup&gt;14,15&lt;/sup&gt;</td>
<td>• Tramadol is recommended for hand OA if it is in keeping with the patients’ values and preferences&lt;sup&gt;14,15&lt;/sup&gt;</td>
</tr>
<tr>
<td>• NSAIDs and COX-2 inhibitors are recommended for patients without contraindications (renal impairment, severe liver impairment, history of asthma or allergic-type reaction after taking NSAIDs or ASA, severe uncontrolled heart failure, active gastric duodenal or peptic ulcers and inflammatory disease, cerebrovascular bleeding and other bleeding disorders, or hyperkalemia)&lt;sup&gt;14,15&lt;/sup&gt;</td>
<td>• Non-tramadol opioids (oral oxycodone, transdermal buprenorphine, oral tapentadol, oral codeine, oral morphine, oral oxymorphone, transdermal fentanyl, and oral hydromorphone) have a small effect on pain or physical function with more side effects&lt;sup&gt;20,21&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>SNRI</strong></td>
<td></td>
</tr>
<tr>
<td>• Duloxetine is recommended for knee OA&lt;sup&gt;18&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td><strong>Corticosteroids</strong></td>
<td><strong>Corticosteroids</strong></td>
</tr>
<tr>
<td>• Intrarticular corticosteroid injections may provide short term pain relief for hip or knee OA&lt;sup&gt;14,15&lt;/sup&gt;</td>
<td>• Intrarticular corticosteroid injections are not recommended for hand OA.13</td>
</tr>
<tr>
<td><strong>NOT RECOMMENDED</strong></td>
<td><strong>NOT RECOMMENDED</strong></td>
</tr>
<tr>
<td>• Capsaicin is not recommended for hip or knee OA&lt;sup&gt;14,15&lt;/sup&gt;</td>
<td>• Intra-articular corticosteroid injections are not recommended for hand OA.13</td>
</tr>
<tr>
<td>• Glucosamine not appropriate for disease modification but for symptom relief, the evidence is uncertain.</td>
<td>• Glucosamine not appropriate for disease modification but for symptom relief the evidence is uncertain.15</td>
</tr>
<tr>
<td>• Chondroitin not appropriate&lt;sup&gt;15&lt;/sup&gt;</td>
<td>• Chondroitin not appropriate&lt;sup&gt;15&lt;/sup&gt;</td>
</tr>
<tr>
<td>• Neuropathic pain modulators not recommended&lt;sup&gt;15&lt;/sup&gt;</td>
<td>• Neuropathic pain modulators not recommended&lt;sup&gt;15&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>INCONCLUSIVE</strong></td>
<td><strong>INCONCLUSIVE</strong></td>
</tr>
<tr>
<td>• Hip OA – no recommendation regarding the use of topical NSAIDs&lt;sup&gt;13,14&lt;/sup&gt;</td>
<td>• There are no recommendations for the use of Intrarticular hyaluronates for hand OA due to inconsistent conclusions among the meta-analyses&lt;sup&gt;14,15&lt;/sup&gt;</td>
</tr>
<tr>
<td>• There are no consensus recommendations for the use of Intrarticular hyaluronates, Platlet Rich Plasma and Stem Cell therapy for hip or knee OA due to inconsistent conclusions among the meta-analyses&lt;sup&gt;14,15&lt;/sup&gt;</td>
<td>• Herbal remedies and supplements-inconclusive evidence for the use of these in the management of OA</td>
</tr>
<tr>
<td>• Herbal remedies and supplements-inconclusive evidence for the use of these in the management of OA</td>
<td></td>
</tr>
</tbody>
</table>

**Legend**

tid-qid - 3 to 4 times a day
**EVALUATING RESPONSE TO TREATMENT**

Once appropriate management has been initiated, the patient should be re-assessed between 2-4 weeks initial to determine next steps to reach optimal function. The response to goal-oriented treatment can be used as a guide for further clinical decision-making.

<table>
<thead>
<tr>
<th>Improvement</th>
<th>No Change</th>
<th>Worsening</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Reduce pain medications</td>
<td>• Re-assess Red Flags and Yellow Flags</td>
<td>• Re-assess Red Flags and consider referral criteria to rheumatologist. Evaluate need for investigations</td>
</tr>
<tr>
<td>• Reinforce appropriate activity/exercise</td>
<td>• Review exercise/activity to avoid overuse or excessive repetition and schedule frequent breaks and recovery positions</td>
<td>• Re-assess Yellow Flags and if positive, consider referral to Pain Specialist/Pain Clinic. Reassess orthopaedic referral criteria for possible surgical assessment</td>
</tr>
<tr>
<td>• Gradual progressive increase in exercise/activity to achieve activity goals</td>
<td>• Review medication dosing, duration and consider next line of drug choice</td>
<td>• Review all elements in “No Change” column and look for patient compliance or comprehension gaps</td>
</tr>
<tr>
<td>• Engage in comprehensive self management strategies</td>
<td>• Consider referral criteria for goal oriented outpatient rehabilitation provider</td>
<td>• Set treatment priority goals and focus on one goal at a time to modify activities and progress at a slower pace</td>
</tr>
<tr>
<td>• Advise to return for care if experiencing persistent swelling, pain or stiffness</td>
<td>• Re-assess Yellow Flags and if positive, consider referral to Pain Specialist/Pain Clinic. Evaluate need for investigations</td>
<td></td>
</tr>
</tbody>
</table>

**References**


[19] Canadian Pharmacists Association, SNRIs, e-therapeutics.ca, access February 2, 2017


This Tool was developed in collaboration with the Arthritis Alliance of Canada ("AAC"), the College of Family Physicians of Canada ("CFPC") and the Centre for Effective Practice ("CEP"). Clinical leadership for the development of the tool was provided by Dr. Julia Alleyne MD, CAC(SEM), FCFP, in collaboration with a Clinical Working Group of subject matter experts. The tool was reviewed by other relevant target end users and key stakeholders. This Tool was funded by the AAC and the CFPC.

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