

**SUMMARY OF GUIDELINE**

Effective Date: September 15, 2008

**Osteoarthritis in Peripheral Joints – Diagnosis and Treatment**

For full Guideline please go to website: <http://www.BCGuidelines.ca>

**DIAGNOSIS**

- OA is a clinical diagnosis
- Consider history, physical exam, exclusion of other diagnoses and impact of disease
- Early diagnosis is important for modifiable factors (weight loss, exercise programs and self-management)

**INVESTIGATIONS**

- No test is reliable for diagnosis
- X-rays may indicate OA, but may not relate to symptoms
- X-rays are generally not useful except for alternate diagnosis or orthopaedic referral
- When x-rays are necessary, specify they are for OA\*
- Lab tests do not diagnose OA and are used mainly to monitor medications
- Joint aspirations may be used to rule out other conditions

**MANAGEMENT**

**Patient education**

- Explain OA as a chronic disease process
- Encourage self management & provide resources
- Encourage weight loss and diet plan if needed

**Rehabilitation**

- Recommend exercise programs (ROM, strengthening & aerobic) with joint protection
- Recommend assistive devices when needed

**Medications**

- There is no evidence that NSAIDs alter the natural course of arthritis. They provide symptom relief but are associated with some risks (GI & CV). Avoid long-term daily NSAID therapy
- Begin with monotherapy PRN and add/substitute medications depending on response and side effects
- Mild or moderate symptoms:
  - Acetaminophen max 4 g/day (lower dose where there is liver disease, alcohol abuse and for the elderly)
  - NSAIDs/Cox-2 inhibitors. Match adverse effects with patient history. Avoid long term daily use
  - Consider risks and benefits of gastroprotection
  - Joint aspiration and/or hyaluronic acid injections
  - Topicals (capsaicin or NSAIDs)
- Severe symptoms:
  - Use combination therapy as above and reassess
  - Intra-articular corticosteroid injections
  - In complex or difficult cases, consider referral to a rheumatologist for assistance with medication and analgesia titration, complex aspiration/injection procedures, and/or corticosteroid or hyaluronic acid injections

**Indications for Referral:**

- Internist or Rheumatologist – for red flag conditions, complex/difficult cases, complications
- PT– for assessment and specific exercise recommendations
- OT– for assistive devices and home or work adaptations
- Dietician – for weight management
- Orthopaedic Surgeon – failure of non-operative program, increasing function restrictions, significant abnormal findings on exam, progression of disease on x-ray, considering use of opiates & intra-articular injections. The indications for arthroscopic knee surgery in patients with OA are similar to patients without arthritis.

Follow-up regularly and coordinate care

\* Indicate that the x-rays are for OA – For knees they must include standing AP, lateral, and skyline. For hip, specify OA hip series including lateral view of the affected hip and upper 1/3 of femur.

## Osteoarthritis (OA) Medications Table

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This Medication Table pertains to the Guideline *Osteoarthritis in Peripheral Joints – Diagnosis and Management*  
www.BCGuidelines.ca

Regularly review current listings of Health Canada advisories, warnings and recalls at: [http://www.hc-sc.gc.ca/ahc-asc/media/advisories-avis/index\\_e.html](http://www.hc-sc.gc.ca/ahc-asc/media/advisories-avis/index_e.html)

DRUG	DOSE	APPROX. COST/MONTH	PHARMACARE COVERAGE	SERIOUS SIDE EFFECTS
<b>Non-Narcotic Analgesics – There is no strong evidence to support that oral NSAIDs differ from paracetamol/acetaminophen in pain relief<sup>1</sup></b>				
acetaminophen	650-1000 mg q4-6h OR SR caps 1300 mg q8h; max 4000 mg/day	\$5 - \$13	full for OA only via SA	rare elevations of INR when using warfarin anticoagulants, liver toxicity
mefenamic acid <sup>√</sup>	250 mg PO q6h prn (generally 7 day max.)	\$0.34/tab		Similar to NSAID risks below
<b>NSAIDs – Acetaminophen is the first choice. Trials have not demonstrated consistent superiority of one NSAID over another<sup>2</sup></b> ← →				
acetylsalicylic acid (enteric-coated) <sup>√</sup>	2600-5400 mg PO daily, divided q4-6h	\$3-\$6	full	The side-effects listed below apply to NSAID class of drugs: <ul style="list-style-type: none"> <li>• GI ulceration, perforation with or without bleeding;</li> <li>• severe diarrhea</li> <li>• hepatotoxicity</li> <li>• renal impairment</li> <li>• cardiovascular events</li> <li>• CHF; angina; hypertension; arrhythmia; bronchospasm; pulmonary edema</li> <li>• blood dyscrasias</li> <li>• thrombocytopenia</li> <li>• erythema multiforme</li> <li>• symptoms of aseptic meningitis</li> <li>• blurred or diminished vision</li> <li>• fluid retention</li> </ul>
ibuprofen <sup>√</sup>	300-800 mg PO tid-qid; max 2400 mg/day	\$3-\$10	full	
naproxen <sup>√</sup>	250-500 mg bid-tid max 1500 mg/day	\$10-\$14	full	
diclofenac <sup>√</sup>	50mg PO bid-tid or 75mg bid; max 150 mg/day	\$24-\$40	PC or full with SA	
diflunisal <sup>√</sup>	250-500 mg PO q12h	\$27-\$32	PC or full with SA	
flurbiprofen <sup>√</sup>	50-100 mg PO bid-tid; max 300 mg/day	\$16-\$32	PC or full with SA	
indomethacin <sup>√</sup>	25-50 mg bid-tid; max 200 mg/day	\$5-\$15	PC or full with SA	
ketoprofen <sup>√</sup>	75 mg PO tid or 50 mg PO qid; max 300 mg/day	\$21	PC or full with SA	
meloxicam <sup>√</sup>	7.5-15 mg PO od	\$17-\$20	PC or full with SA	
nabumetone <sup>√</sup>	500 mg	\$30-\$60	PC or full with SA	
piroxicam <sup>√</sup>	20 mg PO qd	\$22	PC or full with SA	
sulindac <sup>√</sup>	150-200 mg PO bid; max 400 mg/day	\$24-\$30	PC or full with SA	
tiaprofenic acid generics only for 300 mg	Either 300 mg bid or SR 600 mg od	\$25-\$40	PC or full with SA	
tolmetin <sup>√</sup>	200-600 mg PO tid; max 1800 mg/day	\$40-\$80	PC or full with SA	
etodolac	300 mg PO bid	\$51	none	
ketorolac <sup>√</sup>	10 mg PO q4-6h; max 40 mg/day; short-term use only	\$59	none	peptic ulcer, with/without bleeding; fatalities in the elderly
<b>Cox 2 inhibitors</b>				
celecoxib (no generics)	200 mg PO od or 100 mg bid	\$42	none; full with SA	as above in NSAIDs
<b>NSAIDs &amp; Other Topicals</b>				
diclofenac sodium	40 drops, applied qid	\$50	none	colitis, arrhythmia, 1% may develop hepatitis
menthol	apply tid-qid	\$7.40/50g tube	none	Allergic skin reaction
capsaicin	apply tid-qid to unopened skin	\$20-\$40	none	Skin irritation; sun sensitivity
<b>Intra-Articular Medications (injection): steroids</b>				
triamcinolone	2.5-40 mg intra-articularly	\$2.60-\$5.50 per injection	full	anaphylaxis, masking of infections
<b>Viscosupplementation (Devices as per Health Canada)</b>				
hyaluronic acid	1-3 injections	\$200-\$400 per vial	none	allergic reaction

<sup>√</sup> Generics available

Pharmacare coverage: full= full coverage, PC=partial coverage, SA=special authority, none=no coverage

\*Special Authority criteria and forms are available on the PharmaCare Web site at <http://www.health.gov.bc.ca/pharme/sa/criteria/formsindex.html>

Note: Cardiovascular risk with NSAIDs and Cox-2 inhibitors and GI risk with NSAIDs\*

\*References presented in full guideline

1. Tanna, S. Osteoarthritis opportunities to address pharmaceutical gaps. 2004. Available at URL: <http://mednet3.who.int/prioritymeds/report/background/osteoarthritis.doc>. Accessed October 30, 2008.
2. The University of British Columbia Therapeutics Initiative. Should we be using NSAIDs for the treatment of Osteoarthritis and "Rheumatism". Therapeutics Letter 1995;4:1-4. Available at URL: <http://www.ti.ubc.ca/PDF/4.PDF>. Accessed October 30, 2008.