Guidelines & Protocols Advisory Committee

Osteoarthritis (OA) Medications Table

Effective Date: September 15, 2008

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

www.BCGuidelines.ca

Ministry of Health Services

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

Drug	DOSE	APPROX. COST/MONTH MAR 06	PHARMACARE COVERAGE	SERIOUS SIDE EFFECTS
NON-NARCOTIC ANALGESICS Acetaminophen is as effective as oral NSAIDs for pain relief according to evidence[1].				
acetaminophen generics available	650-1000 mg q4-6h OR SR caps 1300 mg q8h; max 4000 mg/day	$5-$13	full coverage for OA only via special authority	rare elevations of INR when using warfarin anticoagulants, liver toxicity
mefenamic acid generics available	250 mg PO q 6h prn (generally 7 day max)	$0.34/tab	full coverage for lowest cost brand	Similar to NSAID risks below
NSAIDs Acetaminophen is the first choice. Trials have not demonstrated any consistent superiority of one NSAID over another[2]				
acetylsalicylic acid (enteric-coated) generics available	2600-5400 mg PO daily, divided q4-6h	$3-$6	full coverage	The side-effects listed below apply to NSAID class of drugs: • GI ulceration, perforation with or without bleeding • severe diarrhea • hepatotoxicity • renal impairment • cardiovascular events • CHF; angina; hypertension; arrhythmia; bronchospasm; pulmonary edema • blood dyscrasias • thrombocytopenia • erythema multiforme • symptoms of aseptic meningitis • blurred or diminished vision • fluid retention
ibuprofen generics available	200-500 mg bid-tid up to 1500 mg 24hr	$3-$10	full coverage	
naproxen generics available	250-500 mg bid-tid max 1500 mg/day	$10-$14	full coverage	
diclofenac generics available	50 mg PO bid-tid or 75mg bid; max 150 mg/day	$24-$40	partial coverage or full coverage with special authority	
diflunisal generics available	250-500 mg PO q12h	$27-$32	partial coverage or full coverage with special authority	
flurbiprofen generics available	50-100 mg PO bid-tid; max 300 mg/day	$16-$32	partial coverage or full coverage with special authority	
indomethacin generics available	25-50 mg bid-tid; max 200 mg/day	$5-$15	partial coverage or full coverage with special authority	
ketoprofen generics available	75 mg PO tid or 50 mg PO qid; max 300 mg/day	$21	partial coverage or full coverage with special authority	
meloxicam generics available	7.5-15 mg PO od	$17-$20	no coverage (full coverage with special authority)	
nabumetone generics available	500 mg	$30-$60	no coverage (full coverage with special authority)	
piroxicam generics available	20 mg PO qd	$22	no coverage (full coverage with special authority)	
sulindac generics available	150-200 mg PO bid; max 400 mg/day	$24-$30	no coverage (full coverage with special authority)	
tiaprofenic acid generics only for 300 mg	Either 300 mg bid or SR 600 mg od	$25-$40	no coverage (full coverage with special authority)	
tolmetin generic available	200-600 mg PO tid; max 1800 mg/day	$40-$80	no coverage (full coverage with special authority)	
etodolac generics available	300 mg PO bid	$51	no coverage	GI bleed, erythema multiforme, bronchospasm, hepatotoxicity
ketorolac generics available	10 mg PO q4-6h; max 40 mg/day; short-term use only	$59	no coverage	peptic ulcer, with/without bleeding; fatalities in the elderly

Drug	DOSE	APPROX. COST/MONTH MAR 06	PHARMACARE COVERAGE	SERIOUS SIDE EFFECTS
COX 2 inhibitors				
celecoxib (no generics)	200mg PO od or 100 mg bid	$42	no coverage; full coverage with special authority	as above in NSAIDs
NSAIDs (Topicals)				
diclofenac sodium	40 drops, applied qid	$50	no coverage	colitis, arrhythmia, 1% may develop hepatitis
Other Topicals				
menthol	apply tid-qid	$7.40/50g tube	no coverage	allergic skin reaction
capsaicin	apply tid-qid to unopened skin	$20-$40	no coverage	skin irritation; sun sensitivity
INTRA-ARTICULAR MEDS (injection): steroids				
triamcinolone	2.5-40 mg intra-articularly	$2.60-$5.50 /injection	full coverage	anaphylaxis, masking of infections
NARCOTICS (oral)				
codeine* generics available	15-60 mg PO	$13-$18	full coverage *Requires a controlled prescription form when prescribed as a single entity or when included in preparations with > 60mg codeine	common: CNS depression; constipation; sweating; nausea and vomiting major: respiratory depression; circulatory depression; cardiac arrest; hypersensitivity other: arrythmias; syncope; headache; dysphoria; agitation; seizure; urinary retention; blood dyscrasias; potential for dependency; serious outcomes when combined with CNS depressants (e.g., alcohol), acetaminophen: liver toxicity
acetaminophen with codeine 15 mg and 30 mg (Emtec® acetaminophen 300 + codeine 30 mg, no caffeine)	1-2 tabs PO q4h PRN; max 12 tabs/day	$0.06-$0.13/tab	full coverage	
ASA with codeine 15 mg or 30 mg	individualized	$0.07-$0.18/tab	full coverage	
oxycodone with acetaminophen 5mg/325mg 2.5mg/325mg	individualized	$0.13 $0.61/tab	full coverage	
hydromorphone*	PO: 2-4 mg q4-6h	$30-$90	full coverage for immediate release–controlled release (long-acting) is special authority	
morphine*	PO initial dose: 10 mg q4h OR 30 mg SR q12h; titrate dose appropriately	$33-$52	full coverage	
oxycodone*	PO initial dose: 5-10 mg q6h OR 10-20 mg SR q12h; titrate dose appropriately	$51-$506	full coverage for immediate release–controlled release (long-acting) is special authority	
tramadol with acetaminophen (Tramacet®) 37.5mg/325mg OR single entity controlled release (Zytram XL®) 150 mg, 200 mg, 300 mg, 400 mg	Tramacet®: 1-2 tabs q4-6h PRN; max 8 tabs/day; max 5 days of treatment Zytram XL®, PO initial dose: 150 mg q24h; titrate dose appropriately	Tramacet®: $77-$153 Zytram XL®: $48-$120	no coverage	seizures (esp. with antidepressants); convulsions; allergic reactions; respiratory depression; addiction; cancer; pregnancy issues; dizziness; nausea

Drug	DOSE	APPROX. COST/MONTH MAR 06	PHARMACARE COVERAGE	SERIOUS SIDE EFFECTS
Viscosupplementation (Devices as per Health Canada)				
hyaluronic acid Durolane®, Hyalgan®, Orthovisc®, Ostenil®, Neovisc®, Synvisc®	1-3 injections	$200-$400 per vial	no coverage	allergic reaction

Herbals and supplements: not recommended

Products with a DIN (Drug Identification Number) have been supported by good-quality studies for safety and effectiveness. Products with a NPN (Natural Health Product Number), USP number (US Pharmacopeia), Consumers Lab logo, or NSF™ international certification may ensure quality but do not ensure effectiveness.

chondroitin sulphate	200-400 mg bid–tid	$10	no coverage	unknown and may have serious interactions with other drugs
glucosamine sulphate	500 mg tid	$50	no coverage	
methylsulfonylmethane (MSM)	1-3 grams bid	$10-$48	no coverage	
s-adenosylmethionine (SAMe)	400 mg tid-qid 200 mg tid	$120	no coverage	

*Requires the use of a Controlled Prescription Program Form (formerly triplicate prescription program) 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 and NSAIDS

"Health Canada acknowledges the panel's view that, as a group, selective COX-2 inhibitors are associated with an increased risk of cardiovascular events, a risk that is similar to those associated with most NSAIDs [The cardiovascular safety concerns associated with the traditional NSAIDs are not extended to aspirin[3]]. The panel noted that this risk is present for all patients taking anti-inflammatory agents and that it increases with longer-term use and when other risk factors, such as cardiovascular disease, are present."[4]

References

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, 2007.
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, 2007.
3. Health Canada Health Products and Food Branch Marketed Health Products Directorate and Therapeutic Products Directorate. Report on the cardiovascular risks associated with COX-2-selective non-steroidal anti-inflammatory drugs. 2006 June. Available at URL: http://www.hc-sc.gc.ca/dhp-mps/prodpharma/activit/sci-consult/cox2/cox2_cardio_report_rapport_e.html. Accessed October 25, 2007.
4. Health Canada Health Products and Food Branch Marketed Health Products Directorate and Therapeutic Products Directorate. Panel on the safety of COX-2 NSAIDs. 2005 June 9-10; Ottawa. Available at URL: http://www.hc-sc.gc.ca/dhp-mps/prodpharma/activit/sci-consult/cox2/index_e.html. Accessed October 29, 2007.

Resource Documents

Canadian Pharmacists Association. Compendium of Pharmaceuticals and Specialties. Ottawa: Canadian Pharmacists Association; 2008 Canadian Pharmacists Association, Therapeutic Choices. 2008. Drug Prices: obtained from PharmaNet, for prescription medications, and at various Victoria, BC retail outlets for non-prescription medications.

Notes:

A. If a medication has a generic equivalent, the drug cost is for the generic product.
B. For prescription medications, the price does not include professional fees.
C. For non-prescription medications, the price does not include applicable sales taxes.
D. Where a price range is indicated, this reflects the cost based on minimum and maximum dose ranges.