



Appendix B: Medications Used in Palliative Care for Pain Management

Tailor dose to each patient; those who are elderly, cachectic, debilitated or with renal or hepatic dysfunction may require reduced dosages; consult most current product monograph for this information: <http://www.bc-sc.gc.ca/dhp-mps/prodpharma/databasdon/index-eng.php>

ACETAMINOPHEN, NSAIDs						
Generic Name	Trade Name	Available Dosage Forms	Standard Adult Dose ^A	Drug Plan Coverage ^B		Approx. cost per 30 days ^C
				Palliative Care	Fair PharmaCare	
acetaminophen	Tylenol [®] , Panadol [®] , G (OTC)	IR tabs, caplet: 325, 500 mg	325 to 650 mg PO q4-6 h (max: 4000 mg daily)	Yes, LCA	No	\$2-5 (G) \$10-30
		SR tabs: 650 mg	650 to 1300 mg PO q8h (max: 4000 mg daily)	Yes	No	\$11-22
		Supps: 325, 650 mg	650 mg PR q4-6h (max: 4000 mg daily)	Yes	No	\$103-155 (G)
celecoxib	Celebrex [®] , G	Caps: 100, 200 mg	100 to 200 mg PO bid	Yes, LCA	Special Authority, LCA	\$9-18 (G) \$46-91
diclofenac	Voltaren [®] , G	IR tabs: 25, 50 mg	75 mg daily in 3 divided doses (max: 100 mg daily)	Yes, LCA	Yes, RDP	\$5-13 (G) \$69
		SR tabs: 75, 100 mg	75 to 100 mg PO once daily (max: 100 mg daily)	Yes, LCA	Yes, RDP	\$8-13 (G) \$39-56
		Supps: 50, 100 mg	50 mg PR bid (max: 100 mg daily)	Yes, LCA	Yes, LCA	\$28 (G) \$104
ibuprofen	Advil [®] , Motrin [®] , G	Tablets: 200 ^D , 300 ^D , 400 ^D , 600 mg	200 to 400 mg PO q4h (max: 2400 mg per day)	Yes, LCA	Yes, LCA	\$16-20 (G) \$19-35
indomethacin	G	Caps: 25, 50 mg	25 to 50 mg PO tid	No	Yes, RDP	\$8-14 (G)
		Supps: 50, 100 mg	50 to 100 mg PR bid	No	Yes	\$57 (G)
ketorolac	Toradol [®] , G	Tablets: 10 mg	10 mg PO qid (max duration: 5 days)	No	No	\$10 (G) \$15 per 5 days
		Inj: 10, 30 mg per mL	10 to 30 mg IM/IV ^E /SC ^E q6h (max duration: 2 days)	No	No	\$6-18 (G) \$11-32 per 2 days
naproxen	Naprosyn [®] , G	IR tabs: 250, 375, 500 mg	250 to 500 mg PO bid	Yes, LCA	Yes, LCA	\$7-14 (G)
		EC tabs: 250, 375, 500 mg		Yes, RDP	Yes, RDP	\$7-14 (G) \$71
		SR tab: 750 mg	750 mg PO daily	Yes, RDP	Yes, RDP	\$48
		Supps: 500 mg	500 mg PR bid	Yes, LCA	Yes, LCA	\$68 (G)
naproxen sodium	Aleve [®] , G (OTC)	Tablets: 220 mg	220 mg PO bid	No	No	\$4 (G) \$8

Abbreviations: caps capsules; EC enteric coated; G generics; IM intravenous; Inj injection; IR Immediate Release; IV intravenous; LCA subject to Low Cost Alternative Program; max maximum dose; PO by mouth; PR per rectum; OTC over the counter (non-prescription); RDP subject to reference drug program; SR slow release; SC subcutaneous; supps suppositories (rectal); tabs tablets

^A Preferred route of administration for acetaminophen and NSAIDs is oral or rectal.

^B PharmaCare coverage as of October 2016 (subject to revision). Obtain current coverage, eligibility, and coverage information from the online BC PharmaCare Formulary Search page at pharmacareformularysearch.gov.bc.ca

^C Cost as of October 2016 and does not include retail markups or pharmacy fees. Generic and brand name cost separated as indicated by (G).

^D Available OTC

^E This route of administration is used in practice, but not approved for marketing for this indication by Health Canada.

OPIOIDS

Generic Name	Trade Name	Available Dosage Forms	Standard Adult Dose ^A	Drug Plan Coverage ^B		Approx. cost per 30 days ^C
				Palliative Care	Fair PharmaCare	
fentanyl ^D	Duragesic MAT [®] , G	Patch: 12, 25, 37, 50, 75, 100 mcg per hour	12 to 100 mcg/hour applied to skin every 72 hours	Yes, LCA	Special Authority, LCA	\$24–130 (G) \$71–552
	G	Inj: 50 mcg per mL	25 to 100 mcg sublingual* per dose PRN Patient must be alert and able to hold liquid under tongue for 3–5 minutes.	Yes	No	\$3–6 (G) per dose
	Abstral [®] , Fentora [®]	Sublingual tablets: 100, 200, 300, 400, 600, 800 mcg	Titrate using the following doses 100, 200, 300, 400, 600, and 800 mcg with at least 2 hours between doses until adequate analgesia with tolerable side-effects is obtained within 30 minutes. (max: 800 mcg per dose)	No	No	\$12–31 per single tablet dose
hydromorphone	Dilaudid [®] , G	IR tabs: 1, 2, 4, 8 mg	2 to 8 mg PO q4h	Yes, LCA	Yes, LCA	\$18–68 (G) \$26–65
	Hydromorph Contin [®]	SR caps: 3, 4.5, 6, 9, 12, 18, 24, 30 mg	3 to 30 mg PO q12h	Yes	Special authority	\$47–272
	Jurnista [®]	SR tabs: 4, 8, 16, 32 mg	4 to 64 mg PO once daily	Yes	Special authority	\$43–688
	G	Inj: 2, 10, 20, 50, 100 mg per mL	2 to 10 mg SC q4h	Yes, LCA	Yes, LCA	\$381–1900 (G)
morphine	MS-IR [®] , Statex [®]	IR tabs: 5, 10, 20, 25, 30, 50 mg	5 to 60 mg PO q4h	Yes, LCA	Yes, LCA	\$21–88
	MS Contin [®] , G	SR tabs: 15, 20, 30, 60, 100, 200 mg	15 to 200 mg PO q12h	Yes, LCA	Yes, LCA	\$9–71 (G) \$46–351
	M-Eslon [®] E	SR caps: 10, 15, 30, 60, 100, 200 mg	10 to 200 mg PO q12h	Yes, LCA	Yes, LCA	\$17–71
	Kadian [®]	SR tabs: 10, 20, 50, 100 mg	20 to 400 mg once daily	Yes	Yes	\$21–319
	G	Inj: 1, 2, 5, 10, 15, 25, 50 mg per mL	2 to 25 mg SC q4h	Yes	Yes	\$46–291
methadone	Metadol [®]	Tabs: 1, 5, 10, 25 mg	varies widely	Yes	No	\$60–343
	Methadose [®]	Oral solution: 10 mg per mL	varies widely	Yes	Yes	\$8–58
	Compounded	Oral solution: up to 50 mg per mL	buccal or rectal use only dosage varies widely	Special authorization	Special authorization	\$30–60
oxycodone	Oxy-IR [®] , Supeudol [®] , G	IR tabs: 5, 10, 20 mg	5 to 20 mg PO q4h	Yes, LCA	Yes, LCA	\$25–36 (G) \$52–135
	OxyNEO [®] (tamper resistant formulation)	SR tabs: 10, 15, 20, 30, 40, 60, 80 mg	10 to 80 mg PO q12h	Yes	No	\$59–284
	G (not tamper resistant)	SR tabs: 5, 10, 15, 20, 30, 40, 60, 80 mg	5 to 80 mg PO q12h	No	No	\$20–137

OPIOIDS

Generic Name	Trade Name	Available Dosage Forms	Standard Adult Dose ^A	Drug Plan Coverage ^B		Approx. cost per 30 days ^C
				Palliative Care	Fair PharmaCare	
sufentanil^F	G	Inj: 50 mcg per mL	For incident pain: 12.5 mcg sublingualG /dose PRN; incremental doses titrated q2h PRN up to 75 mcg Patient must be alert and able to hold liquid under tongue for 3–5 minutes.	Yes	Yes	\$15 (G) per dose
buprenorphine	BuTrans [®]	5, 10, 20 mcg per hour	5 to 20 mcg/hour applied to skin every 7 days	No	No	\$55–182

Abbreviations: **caps** capsules; **EC** enteric coated; **G** generics; **IM** intravenous; **Inj** injection; **IR** Immediate Release; **IV** intravenous; **LCA** subject to Low Cost Alternative Program; **max** maximum dose; **PO** by mouth; **PR** per rectum; **OTC** over the counter (non-prescription); **RD** subject to reference drug program; **SR** slow release; **SC** subcutaneous; **supps** suppositories (rectal); **tabs** tablets

^A Dosage requirements may go beyond range shown in table i.e. there is no maximum dose for opioids, unless limited by side effects or toxicity.

^B PharmaCare coverage as of October 2016 (subject to revision). Obtain current coverage, eligibility, and coverage information from the online BC PharmaCare Formulary Search page at pharmacareformularysearch.gov.bc.ca

^C Cost as of October 2016 and does not include retail markups or pharmacy fees. Generic and brand name cost separated as indicated by (G).

^D Fentanyl transdermal patches should only to be initiated in patients using at least 60 mg morphine equivalents per day for at least one week.

^E M-Eslon[®] capsules may be open and the contents sprinkled over soft food (e.g., pudding or apple sauce)

^F Sufentanil is a potent opioid; initiation by a primary care provider for opiate naïve patients is not recommended, instead refer for Palliative Care Consult. Sublingual sufentanil may be considered for patients receiving at least 60 mg PO morphine equivalents over the last 7 days. Refer to Fraser health Hospice Palliative Care Program Principles of Opioid Management, http://www.fraserhealth.ca/media/HPC_SymptomGuidelines_Opioid.pdf

^G This route of administration is used in practice, but not approved for marketing for this indication by Health Canada

NEUROPATHIC PAIN ADJUVANTS

Generic Name	Trade Name	Available Dosage Forms	Standard Adult Dose	Drug Plan Coverage ^A		Approx. cost per 30 days ^B
				Palliative Care	Fair PharmaCare	
cannabidiol, D-9-T	Sativex [®]	Buccal spray: single combination product strength	1 spray buccally/sublingual BID, increase by 1 spray per day up to 8 to 12 sprays per day	No	No	\$588–882
clonazepam^C	Rivotril [®] , G	Tabs: 0.25, 0.5, 1, 2 mg	0.5 mg PO at bedtime, up to 2 mg qid	Yes, LCA	Yes, LCA	\$2–11 (G) \$8–52
desipramine^C	G	Tabs: 10, 25, 50, 75, 100 mg	10 to 25 mg PO at bedtime; increase q3–7 days up to 150 mg per day	Yes, LCA	Yes, LCA	\$12–59 (G)
dexamethasone^C	G	Tabs: 0.5, 0.75, 2, 4 mg	2 mg PO/SCE daily to 8 mg bid (am & noon)	Yes, LCA	Yes, LCA	\$16–124 (G)
		Inj: 4, 10 mg per mL		Yes, LCA	Yes, LCA	\$6–22 (G)
duloxetine^C	Cymbalta [®]	Caps: 30, 60 mg	30 to 60 mg PO daily	No	No	\$62–126
gabapentin^C	Neurontin [®] , G	Tabs: 100, 300, 400, 600, 800 mg	300 to 1200 mg PO tid	Yes, LCA	Yes, LCA	\$18–63 (G) \$44–380
nabalone^C	Cesamet [®] , G	Caps: 0.25, 0.5, 1 mg	0.5 mg PO at bedtime, increase q7 days up to 1 mg bid	No	Yes, LCA	\$25–101 (G) \$108–403
nortriptyline^C	Aventyl [®] , G	Caps: 10, 25 mg	10 to 150 mg PO at bedtime	Yes, LCA	Yes, LCA	\$4–43 (G) \$7–87
pregabalin^C	Lyrica [®] , G	Caps: 25, 50, 75, 150, 225, 300 mg	75 mg PO bid, increase q7 days up to 300 mg bid	No	No, LCA	\$81–112 (G) \$112–154
topiramate^C	Topamax [®] , G	Tabs: 25, 100, 200 mg	25 mg PO daily, increase q7 days up to 200 mg bid	No	Yes, LCA	\$8–46 (G) \$43–243
		Sprinkle caps: 15, 25 mg		No	Yes	\$42–675
valproic acid^C	Depakene [®] , G	Caps: 250, 500 mg	250 mg PO at bedtime increase q3 days up to 500 mg tid	Yes, LCA	Yes, LCA	\$9–54 (G) \$19–113

Abbreviations: caps capsule; G generics; Inj injection; LCA subject to Low Cost Alternative Program; PO by mouth; SC subcutaneous; tabs tablets; D-9-T Delta-9-Tetrahydrocannabinol

^A PharmaCare coverage as of October 2016 (subject to revision). Obtain current coverage, eligibility, and coverage information from the online BC PharmaCare Formulary Search page at pharmacareformularysearch.gov.bc.ca

^B Cost as of October 2016 and does not include retail markups or pharmacy fees. Generic and brand name cost separated as indicated by (G).

^C This indication (i.e. neuropathic pain) not approved by Health Canada.

^D This route of administration is used in practice, but not approved by Health Canada.

Generic Name	Trade Name	Available Dosage Forms	Standard Adult Dose	Drug Plan Coverage ^A		Approx. cost per 30 days ^B
				Palliative Care	Fair PharmaCare	
ANTISPASMODICS						
belladonna & opium	G	Supps: Belladonna 15 mg, Opium 65 mg	1 supp PR qid	Yes	Yes	\$620 (G)
hyoscine butylbromide	Buscopan [®]	Tabs: 10 mg	10 mg PO qid up to 60 mg per day	Yes	Yes	\$45–68
	Buscopan [®] , G	Inj: 20 mg per mL	10 to 20 mg SC q6h (max: 100 mg per day)	Yes	Yes, LCA	\$697 (G) \$732
SKELETAL MUSCLE RELAXANTS						
baclofen	Lioresal [®] , G	Tabs: 10, 20 mg	5 mg PO bid increase q3 days up to 20 mg tid	Yes, LCA	Yes, LCA	\$5–30 (G) \$27–157
cyclobenzaprine	G	Tabs: 10 mg	5 mg PO tid to 10 mg qid	No	Yes, LCA	\$18–48 (G)
tizanidine	G	Tabs: 4 mg	2 mg PO daily increase q3-4 days up to 4 to 12 mg tid	No	Special Authority, LCA	\$11–201 (G)

Abbreviations: **G** generics; **inj** injection; **LCA** subject to Low Cost Alternative Program; **max** maximum dose; **PO** by mouth; **SC** subcutaneous; **supps** suppositories (rectal); **tabs** tablets

^A PharmaCare coverage as of October 2016 (subject to revision). Obtain current coverage, eligibility, and coverage information from the online BC PharmaCare Formulary Search page at pharmacareformularysearch.gov.bc.ca

^B Cost as of October 2016 and does not include retail markups or pharmacy fees. Generic and brand name cost separated as indicated by (G).

GASTRIC CYPROTECTION and DYSPEPSIA						
Generic Name	Trade Name	Available Dosage Forms	Standard Adult Dose	Drug Plan Coverage ^A		Approx. cost per 30 days ^B
				Palliative Care	Fair PharmaCare	
Pantoprazole magnesium	Tecta [®] , G	EC Tabs: 40 mg	40 mg PO once daily	Yes, LCA	Special Authority, RDP, LCA	\$6 (G) \$24
rabeprazole	Pariet [®] , G	EC Tabs: 10, 20 mg	10 to 20 mg PO once daily	Yes, LCA	Special Authority, RDP, LCA	\$4–8 (G) \$28–56
pantoprazole	Pantoloc [®] , G	EC Tabs: 20, 40 mg	40 mg PO once daily	Yes, LCA	Special Authority, RDP, LCA	\$12(G)
		Inj: 40 mg	40 mg IV once daily	No	No	\$355 (G)
ranitidine	Zantac [®] , G	Tabs: 75 ^c , 150 ^c , 300	150 mg PO bid or 300 mg PO at bedtime	Yes, LCA	Yes, RDP, LCA	\$12 (G) \$12
		Inj: 25 mg per mL	50 mg SC ^d q8H	Yes, LCA	Yes, LCA	\$272 (G) \$276
lansoprazole	Prevacid [®] , G	DR Caps: 15, 30 mg	15 to 30 mg PO once daily	No	Special Authority, RDP, LCA	\$13 (G) \$65
		Fas Tabs: 15, 30 mg				\$65
omeprazole	Losec [®] , G	DR Caps: 10, 20 mg	20 mg PO once daily	No	Special Authority, RDP, LCA	\$13–26 (G) \$37
Omeprazole magnesium	Losec [®] , G	DR Tabs: 10, 20 mg	20 mg PO once daily	No	Special Authority, RDP, LCA	\$13–35 (G) \$61–77
esomeprazole	Nexium [®] , G	DR Tabs: 20, 40 mg	20 to 40 mg PO once daily	No	Special Authority, RDP, LCA	\$16 (G) \$71
		DR Granules: 10 mg		No	No	\$141–285
misoprostol	G	Tabs: 100, 200 mcg	100 to 200 mcg PO qid	No	Yes, LCA	\$34–57 (G)

Abbreviations: **caps** capsule; **DR** delayed release; **EC** enteric coated; **FasTabs** delayed-release tablets; **G** generics; **Inj** injection; **IV** intravenous; **LCA** subject to Low Cost Alternative Program; **PO** by mouth; **RDP** subject to Reference Drug Program; **SC** subcutaneous; **tabs** tablets

^A PharmaCare coverage as of October 2016 (subject to revision). Obtain current coverage, eligibility, and coverage information from the online BC PharmaCare Formulary Search page at pharmacareformularysearch.gov.bc.ca

^B Cost as of October 2016 and does not include retail markups or pharmacy fees. Generic and brand name cost separated as indicated by (G).

^C Available OTC

^D This route of administration is used in practice, but not approved for marketing for this indication by Health Canada

BONE PAIN ADJUVANTS for Nociceptive bone pain (without hypercalcemia)

For treating malignancy related hypercalcemia see www.bccancer.bc.ca/HPI/ChemotherapyProtocols/SupportiveCare/default.htm

Generic Name	Trade Name	Available Dosage Forms	Standard Adult Dose	Drug Plan Coverage ^A		Approx. cost per 30 days ^B
				Palliative Care	Fair PharmaCare	
calcitonin	Calcimar [®]	Inj: 200 units per mL (2 mL multi-dose vial)	Nociceptive bone pain: 50 units SC at bedtime up to 200 units bid	No	Yes	\$232-3717
clodronate	Bonefos [®] , Clasteon [®]	Caps: 400 mg	800 mg PO bid or 1600 mg PO daily (max: 3200 mg per day)	Yes, LCA	Yes, LCA	\$157 (Clasteon [®]) \$254 (Bonefos [®])
denosumab	Xgeva [®]	Inj: 120 mg per 1.7 mL	120 mg SC once every 4 weeks	Yes	No	\$360
pamidronate	Aredia [®] , G	Inj: 90 mg per 10 mL	90 mg IV monthly	Yes, LCA	Special Authority, LCA	\$281 (G) \$541
zoledronic acid	Zometa [®] , G	Inj: 4 mg per 5 mL	4 mg IV monthly	Yes, LCA	No	\$314 (G) \$616

Abbreviations: caps capsule; G generics; Inj injection; IV intravenous; LCA subject to Low Cost Alternative Program; max maximum dose; PO by mouth; SC subcutaneous

^A PharmaCare coverage as of October 2016 (subject to revision). Obtain current coverage, eligibility, and coverage information from the PharmaCare Benefits Lookup website at <https://pcbl.hlth.gov.bc.ca/PharmaCare/benefitslookup/>

^B Cost as of October 2016 and does not include retail markups or pharmacy fees. Generic and brand name cost separated as indicated by (G).

► References

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