

Electronic Supplementary Material

eFig. 1 Prescribing an opioid pain medication: hospital poster

Prescribing an opioid pain medication?

Here are some tips when discussing opioids as part of pain management with your patients:



Patient understanding

Discuss patient's pain expectation and set goal for tolerable pain and NOT zero pain.



Alternatives

Consider combination of acetaminophen, ibuprofen and/or other multimodal analgesia, as well as, non-pharmacological therapies such as heat and/or cold therapy.



Indications

Not all pain needs to be treated by opioids and some types of pain might not even respond to an opioid. When possible, choose oral administration instead of intravenous



Necessary quantity only

For acute pain a duration of 3 days or less is often sufficient. If a duration more than 7 days is indicated a follow up pain management assessment should be arranged. Consider part-fill prescriptions with expiry dates.

eFig. 2 Opioids for pain after surgery: patient handout. Adapted from ISMP Canada

Opioids for pain after surgery: Your questions answered

1. Changes?
You have been prescribed an opioid.
 Opioids reduce pain but will not take away all your pain. Ask your prescriber about other methods of reducing pain including using ice, stretching, physiotherapy, or non-opioid drugs like acetaminophen or ibuprofen. Know your pain control plan and work closely with your prescriber if your pain does not improve.

2. Continue?
Opioids are usually required for less than 1 week after surgery.
 As you continue to recover from your surgery, your pain should get better day by day. As you get better, you will need less opioids. Consult your healthcare provider about how and when to reduce your dose.

3. Proper Use?
Use the lowest possible dose for the shortest possible time.
 Overdose and addiction can occur with opioids. Avoid alcohol and sleeping pills (e.g. benzodiazepines like lorazepam) while taking opioids. Do not drive while taking opioids.

4. Monitor?
Side effects include: sedation, constipation, nausea and dizziness.
 Contact your healthcare provider if you have severe dizziness or inability to stay awake.

5. Follow-Up?
Ask your prescriber when your pain should get better.
 If your pain is not improving as expected, talk to your healthcare provider.

To find out more, visit: OpioidStewardship.ca and DeprescribingNetwork.ca

It is important to:

Never share your opioid medication with anyone else.

Store your opioid medication in a secure place out of reach and out of sight of children, teens and pets.

Ask about other options available to treat pain.

Take unused medications back to a pharmacy for safe disposal.
 Talk with your pharmacist if you have questions. For locations that accept returns: 1-844-535-8880 healthsteward.ca

Did you know?

About 16 Canadians are hospitalized each day with opioid poisoning.
—Canadian Institute for Health Information, 2017

Examples of opioids used for pain after surgery:

hydromorphone	morphine	codeine	oxycodone	tramadol
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Notes:

International Society for
Muscle Pain Relief

Canadian
Deprescribing
Network

Canadian Pain Society /
International Canadian
Society for Pain Relief

Choosing
Wisely
Canada

Sino
Health
System

CADTH

Canadian Society of
Hospital Pharmacists

Canadian Association des
pharmaciens d'Ontario

CANADIAN
NURSES
ASSOCIATION

CANADIAN
HOSPITAL AND
HEALTH CARE
ASSOCIATION

eTable Step selection model

		Estimate (MME)	95% CI	Pr(> t)
Main effects	(Intercept)*	95.6	82.8 to 108.5	<0.001
	Surgery year: 2019	-72.6	-76.5 to -68.7	<0.001
	Multiple gestation: yes	-4.2	-12.1 to 3.8	0.31
	Parity: 2 or more	-2.5	-7.8 to 2.9	0.37
	Cesarean delivery number: 2 or more	1.2	-4.4 to 6.8	0.68
	Length of stay (days)	-1.2	-2.4 to 0.1	0.06
	Incision type: midline or T	7.4	-4.7 to 19.4	0.23
	Incision type: high transverse	-0.5	-10.3 to 9.3	0.92
	Opioid use in-hospital: yes	2.8	-0.7 to 6.3	0.12
	Month of surgery: July	1.5	-11.4 to 14.4	0.82
	Month of surgery: August	1.6	-11.3 to 14.5	0.81
	Month of surgery: September	5.2	-7.7 to 18.1	0.43
	Month of surgery: October	3.6	-9.2 to 16.5	0.58
	Month of surgery: November	1.0	-11.9 to 13.9	0.88
Month of surgery: December	6.0	-6.9 to 19.0	0.36	
Effect modifiers for 2019	Multiple gestation: yes	7.6	-3.4 to 18.6	0.18
	Parity: 2 or more	6.7	-1.4 to 14.7	0.10
	Cesarean delivery number: 2 or more	-8.1	-16.5 to 0.3	0.06
	Incision type: midline or T	12.2	-6.1 to 30.6	0.19
	Incision type: high transverse	6.5	-7.1 to 20.1	0.35
	Opioid use in-hospital: yes	22.6	17.5 to 27.7	< 0.001

The step selection model was generated with the ordinary least squares regression using the lm() package in R statistical software. Each of these variables was allowed to interact with the intervention period. The penalty term was set to $k = 1.074$, which is equivalent to a P value threshold of 0.3 for variable inclusion at each step of the algorithm. Coefficient estimates and Wald-test P values for the final model are reported in this table.

CI = confidence interval; MME = morphine milliequivalents.

* refers to discharge opioid prescription in morphine milliequivalents in June 2018 with all categorical variables set to their respective reference categories, and all continuous variables centered and scaled to 0.