Risks associated with long-term use of high-dose opioids

Clinical evidence suggests that long-term use of high-dose opioids is associated with notable risks. Patients may develop tolerance, dependency, or addiction to these medications. Other associated risks include heightened pain sensitivity and accidental death.[1-5]

It is important to note that long-term use of opioids may not improve physical function or pain management in chronic non-cancer pain. The following case studies reflect the current understanding of the risks associated with high-dose opioid use and the benefits achieved by significantly weaning total opioid doses.

Case 1

A worker sustained crush injuries 10 years ago when his leg was caught under a falling container. The injuries resulted in multiple surgeries involving cosmetic reconstruction and ongoing chronic pain. The worker had a history of smoking and depression and, prior to the injury, was on long-acting opioids for lower back pain. The patient's family history included two first-degree relatives with alcoholism.

Medication: Hydromorphone contin 80 mg t.i.d., up to ten 10 mg tablets hydromorphone instant release (IR), b.i.d. for breakthrough as needed, per day (all used, total morphine equivalent dose 1360 per day).

Function: "Does little—not able to do housework."

The prescribing physician rated the patient's function as 1–2 out of 10, pain level as 9–10 out of 10, and noted that the patient experienced excessive sweating, nausea, and daytime drowsiness.

An assessment by the WorkSafeBC Pain Management Program (PMP)[6] recommended tapering, which was complicated by the patient's reluctance and emerging mood swings. The worker left the PMP early, and the community GP completed tapering following recommendations from the program. At the end of the taper, which occurred over several months, the patient is now on hydromorphone contin only, 3 mg t.i.d., with no IR.

Following the huge reduction in opioid load, function was increased—the worker is now helping to care for his grandchildren. Current morphine equivalent dose is 27. The worker was also diagnosed and treated for bipolar mood disorder that was likely masked by opioids.

Case 2

This worker, now 72 years old, broke his leg 20 years ago. During his recovery, the worker developed complex regional pain syndrome (CRPS). He has not worked since.

Medication: Dilaudid dose, all IR, at 2073 morphine equivalent dose (IR because short-gut syndrome from unrelated medical comorbidities developed along the way). The dose gradually increased over time—significantly tied to stressful situations at home—when the patient perceived that more was needed.

Within a week in the PMP, the patient's total dose was reduced by one-third, then tapered down in 6 weeks to one-third of the original dose. After taking a break to deal with stress at home, the worker refused to return to the program. The community GP continued the taper, but could not reduce the dose to any lower than one-quarter of the original dose. The PMP switched the patient to low-dose methadone, which is absorbed in the liquid form, and the patient is now on methadone 5 mg t.i.d. His mood and sleep have improved with the longer-acting opioid. His function is unchanged and the risk of harm is greatly reduced.

For more information

Please view WorkSafeBC's Practice Directive C10-1, Claims with Opioids, Sedative-Hypnotics or Other Drugs of Addiction Prescribed online. (Go to www.worksafebc.com, click on Health Care Providers, then Physicians, and then Policy & Practice.)

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This article is the opinion of WorkSafeBC and has not been peer reviewed by the BCMJ *Editorial Board. The patient cases described are modeled on real cases, but have significant facts altered to protect patient confidentiality.*

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