

Opioid Wisely – Canadian Association of Hospital Dentists, Choosing Wisely Canada, and the Institute for Safe Medication Practices Canada partner to promote safe use of opioids after wisdom teeth removal

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Opioids and teenagers can be a bad combination. No one knows this better than Dr. Omar Abubaker, Chair, Oral & Maxillofacial Surgery at Virginia Commonwealth University. He lost his 21-year old son Adam after he overdosed on a mixture of drugs, including heroin (1). It is believed that Adam's addiction began when he was given an opioid prescription after a shoulder procedure. Dr. Abubaker is now a passionate advocate, educating patients, health care professionals, the public and future dentists and oral surgeons about the risks of substance abuse.

Amy Ma, patient advisor with Choosing Wisely Canada (CWC), knew of the possible harms associated with powerful opioid medications and was aware of the recommendation of the Canadian Association of Hospital Dentists (CAHD) (2) to avoid or limit opioid medication following dental surgery. She questioned the opioid prescription given to her son after routine wisdom tooth surgery and ultimately began collaborating with CAHD and the Institute for Safe Medication Practices (ISMP) Canada to promote the safe use of opioids for these patients.

Adolescents are often prescribed opioids for pain management related to sports injuries and wisdom teeth removal. In the US, dentists are the leading source of opioid prescriptions for children and adolescents aged 10 to 19 years, accounting for 31 per cent of opioid prescriptions in this age group in 2009 (3). Alarming, dental opioid prescriptions per 1,000 dental patients aged 11 through 18 years increased from 99.7 in 2010 to 165.9 in 2015 (4), an increase of 66 per cent. In a recent US study, young people who received an opioid prescription after wisdom tooth extraction were three times more likely to be using opioids three months, and one year later, as compared to their peers who did not receive an opioid (5). Persistent opioid use was also positively associated with depression, anxiety and other mental health issues in this study, but not with the degree of difficulty (soft tissue, partial or bony impaction) of the surgery (5).

Although Canadian data specific to dental opioid prescribing in the pediatric population is limited to a few provinces, the existing evidence suggest dentists are responsible for a significant proportion of first-time exposure to opioids (6-8). In a large population-based study in Ontario, dental prescriptions for first-time opioid use was the highest (23.2 per cent) for all clinical indications studied, including other post-surgical pain, trauma, musculoskeletal pain and cancer pain/palliative care (9).

Adolescence is a critical time in the life span for risk of drug abuse. Brain development before and during adolescence helps to explain why teens are more susceptible to the “pleasure” effect of opioids and are at higher risk for problems with misuse, illicit use and recreational experimentation (10).

Physiologic susceptibility to substance use is intensified by environmental factors such as peer pressure, boundary pushing, rebellion and emerging mental health issues (10).

Through its Opioid Stewardship campaign, ISMP Canada develops resources for patients and families to become better-informed about opioids and to help reduce and prevent harm. Teaming up with CWC and CAHD, a handout (11) was developed for patients who have been prescribed an opioid after wisdom teeth removal (Figure 1). The handout, developed with financial support from the Canadian Patient Safety Institute, encourages patients to try non-opioid drugs such as ibuprofen and acetaminophen for pain management first, and, if an opioid is required, to limit duration of use. Advice is given regarding the risks, benefits and side effects, as well as the proper storage and disposal of opioid medications. The handout has been endorsed by a number of Canadian health care organizations, including the Canadian Dental Association and the Canadian Dental Regulatory Authorities Federation.

Recent studies have shown that simple interventions can reduce opioid use significantly after surgery. General surgeons at one Canadian hospital had previously worked with ISMP to develop a handout similar to the one for wisdom teeth (11). Over a three month period, the number of opioid pills prescribed decreased by 56 per cent (12). Another recent Canadian study (13) evaluated the STOP Narcotics intervention for outpatient general surgery. This bundled intervention consists of multi-pronged patient and prescriber education, as well as intra- and post-operative multimodal pain management strategies. The study found that the overall amounts of opioids prescribed decreased by 50 per cent and only 45 per cent of patients actually filled their opioid prescription, compared to 95 per cent in the control group. There was no difference between the two groups in terms of requests for prescription renewals. Appropriate disposal of excess opioid medication improved from seven per cent in the control group to 23 per cent in the STOP Narcotics group. The levels of reported post-operative pain were the same in both groups, but the study group scored higher on patient satisfaction scales.

Pain after wisdom teeth removal is common. However, there are effective options for pain control outside of opioids and when opioids are needed, strategies to mitigate risk of opioid misuse while offering good pain management are effective. You can help in the fight against opioid misuse by discussing pain management with your patients and their parents and, if an opioid is indicated, by providing the ISMP-CWC-CAHD handout after third molar surgery.

13. Hartford LB, Van Koughnett JA, Murphy PB, Vogt KN, Hilsden RJ, Clarke CF, Allen LJ, Gray SD, Parry NG, Gray DK, Leslie KA. Standardization of Outpatient Procedure (STOP) Narcotics: a prospective non-inferiority study to reduce opioid use in outpatient general surgical procedures. *Journal of the American College of Surgeons*. 2019 Jan 1;228(1):81-8.