Opioid prescribing in dentistry is there a problem?

Leanne Teoh

Dentist and Pharmacist, Melbourne

Lecturer in Dental Therapeutics, University of Melbourne

Keywords

drug misuse, non-steroidal anti-inflammatory drugs, opioids, paracetamol

Aust Prescr 2020;43:144-5 https://doi.org/10.18773/ austprescr.2020.056

In light of Australia's opioid crisis, it is important to recognise the role of dental prescribing in the context of this serious public health issue.

There is little role for opioids in dentistry given that there are established superior analgesics. Identifying and addressing the cause of pain by active dental treatment is the best pain management - analgesia plays an adjunctive role only.

In a survey, 16-27% of dentists preferred prescribing an opioid or paracetamol over a non-steroidal antiinflammatory drug (NSAID) as first choice for dental pain.¹ The most commonly prescribed opioids in dentistry are codeine 30 mg (with paracetamol 500 mg), oxycodone and tramadol. Paracetamol combined with codeine accounts for around 96% of these prescriptions.² This is of concern since in 2016 codeine products (both over-the-counter and prescription) were the most commonly misused pharmaceutical products, followed by oxycodone and tramadol.³

Numerous studies have found that NSAIDs are superior to opioids for dental pain. They attenuate the inflammatory process, which occurs after procedures such as a tooth extraction, while opioids only block the perception of pain. Randomised controlled trials have also shown that codeine does not provide additional pain relief when combined with standard doses of ibuprofen and paracetamol after surgical wisdom teeth removal.⁴ Various dose combinations of paracetamol with ibuprofen provided superior pain relief compared with paracetamol and codeine combinations after impacted third molar extractions.⁵

When presented with patients experiencing dental pain, education should focus on the importance of local dental treatment and the recommended analgesics NSAIDs and paracetamol. If opioids need to be prescribed, the lowest dose for the shortest duration of oxycodone should be used (maximum of 3 days) as recommended by Therapeutic Guidelines, Oral and Dental.⁶ Patients should also be warned about the adverse effects. tolerance and dependence potential of opioids.

Codeine is no longer recommended by the Therapeutic Guidelines.⁶ It was rescheduled to a prescription-only medicine in February 2018.7 Since then, codeine misuse and sales appear to have reduced overall.8 However, there was an increase in dental prescriptions of codeine 30 mg (with paracetamol 500 mg) and oxycodone by 21% and

24% respectively one year after the rescheduling in comparison to the previous year.9

There is evidence that people can become dependent on opioids as a result of codeine initiated for dental pain.¹⁰ In the United States a pre-filled opioid prescription, given for the extraction of wisdom teeth, has been found to be an independent risk factor for persistent opioid use.¹¹

Dentists may also be targets of 'doctor shopping', in which drug-dependent people seek drugs for misuse from multiple prescribers.¹² Including dentists in realtime prescription monitoring programs would allow them to make more informed prescribing decisions. These monitoring systems can currently only be accessed by pharmacists, doctors and nurses.

As it is established that the most common source of drugs for misuse is leftover pills from legitimate prescriptions, it is of concern that dentists are able to prescribe standard Pharmaceutical Benefit Schedule pack sizes when often fewer tablets would be sufficient. In light of this, the Pharmaceutical Benefits Advisory Committee has recently recommended that some immediate-release opioid pack sizes be reduced with increased restricted listings and smaller maximum quantities.13

The early identification of people at higher risk of developing drug dependence would assist prescribers in clinical practice. Characteristics of opioiddependent individuals include pre-existing chronic pain, mental health conditions and a history of any substance misuse.¹⁰ If a dentist suspects a patient is seeking opioids for non-medical use, they should avoid prescribing opioids and focus on providing active dental treatment and recommend NSAIDs and paracetamol (if appropriate and when indicated).

Given the established misuse of pharmaceutical opioids, their limited efficacy in dental pain and their potential for misuse, opioids should only be prescribed for dental pain if NSAIDs and paracetamol have not been effective or cannot be tolerated. Clinicians should ensure that a therapeutic need exists, prescribe minimal quantities to avoid leftover pills and be aware of people intentionally seeking to acquire drugs for misuse. Also, education about the abuse potential of opioids should include dentists to reduce unnecessary prescribing when superior options exist.

Conflict of interest: none declared

REFERENCES

- Teoh L, Marino RJ, Stewart K, McCullough MJ. A survey of prescribing practices by general dentists in Australia. BMC Oral Health 2019;19:193. https://doi.org/10.1186/ s12903-019-0882-6
- Teoh L, Stewart K, Marino RJ, McCullough MJ. Part 2. Current prescribing trends of dental non-antibacterial medicines in Australia from 2013 to 2016. Aust Dent J 2018;63:338-46. https://doi.org/10.1111/adj.12613
- Australian Institute of Health and Welfare. National Drug Strategy Household Survey 2016: detailed findings. Drug Statistics series no. 31. Cat. No. PHE 214. Canberra: AIHW; 2017. www.aihw.gov.au/reports/illicit-use-of-drugs/ndshs-2016-detailed/contents/table-of-contents [cited 2020 Sep 1]
- Best AD, De Silva RK, Thomson WM, Tong DC, Cameron CM, De Silva HL. Efficacy of codeine when added to paracetamol (Acetaminophen) and ibuprofen for relief of postoperative pain after surgical removal of impacted third molars: a doubleblinded randomized control trial. J Oral Maxillofac Surg 2017;75:2063-9. https://doi.org/10.1016/j.joms.2017.04.045
- Daniels SE, Goulder MA, Aspley S, Reader S. A randomised, five-parallel-group, placebo-controlled trial comparing the efficacy and tolerability of analgesic combinations including a novel single-tablet combination of ibuprofen/paracetamol for postoperative dental pain. Pain 2011;152:632-42. https://doi.org/10.1016/j.pain.2010.12.012
- Oral and dental. In: eTG complete [digital]. Melbourne: Therapeutic Guidelines Limited; 2020. www.tg.org.au [cited 2020 Sep 1]
- Roberts DM, Nielsen S. Changes for codeine [editorial]. Aust Prescr 2018;41:2-3. https://doi.org/10.18773/ austprescr.2018.006

FURTHER READING

Boyles P. Real-time prescription monitoring: lessons from Tasmania. Aust Prescr 2019;42:48-9. https://doi.org/10.18773/ austprescr.2019.007

Dobbin M, Liew DFL. Real-time prescription monitoring: helping people at risk of harm. Aust Prescr 2020;43:164-7. https://doi.org/10.18773/austprescr.2020.050

- Cairns R, Schaffer AL, Brown JA, Pearson SA, Buckley NA. Codeine use and harms in Australia: evaluating the effects of re-scheduling. Addiction 2020;115:451-9. https://doi.org/ 10.1111/add.14798
- Teoh L, Hollingworth S, Marino R, McCullough MJ. Dental opioid prescribing rates after the up-scheduling of codeine in Australia. Sci Rep 2020;10:8463. Epub 2020 May 21. https://doi.org/10.1038/s41598-020-65390-6
- Nielsen S, Murnion B, Dunlop A, Degenhardt L, Demirkol A, Muhleisen P, et al. Comparing treatment-seeking codeine users and strong opioid users: findings from a novel case series. Drug Alcohol Rev 2015;34:304-11. https://doi.org/ 10.1111/dar.12224
- Harbaugh CM, Nalliah RP, Hu HM, Englesbe MJ, Waljee JF, Brummett CM. Persistent opioid use after wisdom tooth extraction. JAMA 2018;320:504-6. https://doi.org/10.1001/ jama.2018.9023
- 12. Weiner SG, Griggs CA, Langlois BK, Mitchell PM, Nelson KP, Friedman FD, et al. Characteristics of emergency department "doctor shoppers". J Emerg Med 2015;48:424-431.e1. https://doi.org/10.1016/j.jemermed.2014.11.008
- Pharmaceutical Benefits Scheme. Recommendations made by the PBAC – December 2019. Australian Government Department of Health; 2020 Feb 13. http://www.pbs. gov.au/info/industry/listing/elements/pbac-meetings/ pbac-outcomes/recommendations-made-by-the-pbacdecember-2019 [cited 2020 Sep 1]

James J. Dealing with drug-seeking behaviour. Aust Prescr 2016;39:96-100. https://doi.org/10.18773/austprescr.2016.022