

# Acute Pain Update

**Dr Conrad Engelbrecht**

**Specialist Anaesthetist and Pain Specialist, Waikato Hospital**

Prior to Covid-19, the opioid epidemic was arguably one of the greatest modern day health challenges for first-world countries, and in New Zealand we have witnessed a steady increase in opioid prescribing that coincided with a 33% increase in opioid-related deaths.

In Acute Pain Update 2021, we will look at the World Health Organisation's (WHO's) top health priorities and how New Zealand compares to other first world countries in relation to the opioid problem.<sup>1-6</sup>

Opioid free anaesthesia (OFA), in the context of the current opioid epidemic, has been promoted as a strategy that could have a meaningful influence on the problem. However, despite a surge in research on opioid free anaesthesia, it is still not clear if OFA is any better or safer than an opioid permissive balanced anaesthetic. There are many OFA 'recipes' in use and we will look at how it compares to a more 'middle of the road' approach. Studies have suggested that over prescribing of opioids was not only a common problem, but likely a significant contributor to opioid availability in the community. There is also encouraging evidence emerging of effective analgesic modalities that are opioid sparing.<sup>7-14</sup>

In 2015, I presented on Methadone and its perioperative utility. Since that presentation, the landscape for the use of long-acting opioids within the first 24h after surgery has changed, and its use is no longer recommended.<sup>15,16</sup>

A surge in accidental deaths involving Fentanyl caused regulators to restrict the indications for the use of Fentanyl patches, which will likely pave the way for future changes to opioid regulation; including box warnings, smaller pack sizes and changes to the wording in packet inserts of opioids.<sup>17</sup>

We will also turn our attention to non-steroidal anti-inflammatory drugs as part of an opioid minimizing strategy. 2021 has seen the launch of the 5<sup>th</sup> edition of Acute Pain Management: Scientific Evidence and we will examine some of the new and strengthened learning points that answers a number of questions around their use.<sup>16</sup>

We will also briefly look at interactions between commonly used analgesics and anti-emetics and the implications for clinical practice.<sup>16,18</sup>

There is continued debate on the effect of opioids on cancer and the literature remains conflicting. More recent studies and a meta-analysis has not been able to provide conclusive evidence or recommendations beyond those in existence.<sup>19,20</sup>

## References:

1. <https://www.who.int>
2. Ahmad FB, Rossen LM, Sutton P. Provisional drug overdose death counts. National Center for Health Statistics. 2021.
3. Shipton EE, Shipton AJ, Williman JA, *et al*. Deaths from opioid overdosing: implications of coroners' inquest reports 2008-2012 and annual rise in opioid prescription rates: a population-based cohort study. *Pain Ther* 2017;6:203-15
4. <https://www.health.govt.nz>
5. Gillian Robb, Elizabeth Loe, Ashika Maharaj, Richard Hamblin, Mary E Seddon. Medication-related patient harm in New Zealand hospitals. *New Zealand Medical Journal* 2017 Aug 11;130(1460):21-32.

6. Jiayi Gong, Alan Forbes Merry, Kebede A Beyene, Doug Campbell, Chris Frampton, Peter Jones, John McCall, Matthew Moore, Amy Hai Yan Chan. Persistent opioid use and opioid-related harm after hospital admissions for surgery and trauma in New Zealand: a population-based cohort study. *BMJ Open* 2021 Jan 19;11(1):e044493.
7. Anamourlis PC. Opioid free anaesthesia: A paradigm shift. *South African Family Practice* 2019; 61(2):S21-S24
8. Clarke H, Soneji N, Ko DT, Yun L, Wijeysondera DN. Rates and risk factors for prolonged opioid use after major surgery: population based cohort study. *BMJ*. 2014;348:g1251.
9. Alam A, Gomes T, Zheng H, Mamdani MM, Juurlink DN, Bell CM. Long-term analgesic use after low-risk surgery: a retrospective cohort study. *Arch Intern Med*. 2012;172:425–30.
10. Sun EC, Darnall BD, Baker LC, Mackey S. Incidence of and risk factors for chronic opioid use among opioid-naive patients in the postoperative period. *JAMA Intern Med*. 2016;176:1286–93
11. Hill MV, McMahon ML, Stucke RS, Barth RJ Jr. Wide variation and excessive dosage of opioid prescriptions for common general surgical procedures. *Ann Surg*. 2017;265:709–14.
12. Beloeil H, Laviolle B, Menard C, Paugam-Burtz C, Garot M, Asehnoune K, Minville V, Cuvillon P, Oger S, Nadaud J, Lecoq S, Chanques G, Futier E; SFAR research network. POFA trial study protocol: a multicentre, double-blind, randomised, controlled clinical trial comparing opioid free versus opioid anaesthesia on postoperative opioid-related adverse events after major or intermediate non-cardiac surgery. *BMJ Open*. 2018 Jun 30;8(6):e020873.
13. Theodore H. Stanley. The Fentanyl Story. *The Journal of Pain*, Vol 15, No 12 (December), 2014: pp 1215-1226
14. Wiremu S Macfater Weisi Xia, Ahmed W H Barazanji, Nicholas J Lightfoot, Maree Weston, Darren Svirskis, Andrew G Hill. Intravenous Local Anesthetic Compared with Intraperitoneal Local Anesthetic in Laparoscopic Colectomy: A Double-Blind Randomized Controlled Trial. *Ann Surg* 2021 Jan 15.
15. <https://www.anzca.edu.au/getattachment/d9e2a7c5-0f17-42d3-bda7-c6dae7e55ced/Position-statement-on-the-use-of-slow-release-opioid-preparations-in-the-treatment-of-acute-pain>
16. Schug SA, Scott DA, Mott JF, Halliwell R, Palmer GM, Alcock M; APM:SE Working Group of the Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine (2020), *Acute Pain Management: Scientific Evidence* (5th edition), ANZCA & FPM, Melbourne.
17. <https://www.tga.gov.au/prescription-opioids-what-changes-are-being-made-and-why>
18. L Ramirez, J Cros, B Marin, P Boulogne, A Bergeron, G E de Lafont, F Renon-Carron, M-A de Vinzelles, V Guignonis, N Nathan, P Beaulieu. Analgesic interaction between ondansetron and acetaminophen after tonsillectomy in children: the Paratron randomized, controlled trial. *Eur J Pain* 2015 May;19(5):661-8.
19. Oscar Diaz-Cambronero, Guido Mazzinari, Juan P Cata. Perioperative opioids and colorectal cancer recurrence: a systematic review of the literature. *Pain Management* 2018 Sep 1;8(5):353-361.
20. Daniel I Sessler, Lijian Pei, Yuguang Huang, Edith Fleischmann, Peter Marhofer, Andrea Kurz, Douglas B Mayers, Tanja A Meyer Treschan, Martin Grady, Ern Yu Tan, Sabry Ayad, Edward J Mascha, Donal J Buggy, Breast Cancer Recurrence Collaboration. Recurrence of breast cancer after regional or general anaesthesia: a randomised controlled trial. *Lancet* 2019 Nov 16;394(10211):1807-1815.