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Duality of Interest:

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Editor -We read with interest the special and insightful article by Soffin and co-workers on the prescription opioid crisis.¹ They carefully examine many of the drivers for subsequent opioid dependence after surgery and provide suggestions on how practice can and should be improved. As proponents of enhanced recovery programmes, we acknowledge that with reduced postoperative length of stay, and with the increased utilisation of ambulatory/day surgery, patients are no longer being fully weaned off their analgesics by the time of hospital discharge. Thus, surgery is now a risk factor for subsequent opioid dependence, which may be as high as 6.5% in previously opioid naïve patients.²

We too are concerned with the dearth of robust data to guide: the optimal type and duration of discharge analgesia medication; effective deprescribing strategies; and safe disposal of excess opioid medication with the aim of preventing both opioid dependence in the patient and others through illicit diversion. This lack of clarity further fuels the problem of prescribed postoperative opioid dependence.

At the 6th World Congress of the Enhanced Recovery After Surgery (ERAS®) Society in May 2018, we asked delegates to complete an online survey on postoperative opioid stewardship at their institution. Of the 585 international and multidisciplinary delegates, 199 returned the forms. Whilst 47% of the respondents felt that opioids were overprescribed in their country, 76% of respondents' hospitals still measured pain purely by pain intensity scales, e.g. the numerical pain score (NPS). Only 30% of delegates reported that their patients were explicitly told to avoid repeat/refill prescriptions and only 29% of the respondents' hospitals promoted safe opioid disposal on discharge. The use of simple analgesics on discharge was variable, as was the duration of the discharge opioid prescription. Encouragingly, 36% of the respondents' hospitals had a protocolised pathway for prescribing discharge medication, however some delegates' institutions advocated routine use of modified/sustained-release opioids preparations on discharge.

Our data further demonstrate the unwarranted variation in practice, and in order to reduce the burden of the prescribed opioid crisis we concur with the stance of the article that the

durations of opioid prescriptions need to be limited, as there is substantial evidence that this is a risk factor for subsequent opioid dependence.^{3,4} We also concur that postoperative use of simple analgesics needs to be encouraged, both for inpatients and after discharge from hospital. This is because there is considerable evidence that the use of multimodal analgesia improves outcomes and has the dual effect of promoting functional return and simultaneously limits opioid consumption and their side effects.⁵

In addition to the strategies identified by Soffin and colleagues,¹ we recognise that the sole use of the numerical pain score drives opioid administration such that functional activity scores should be used to monitor pain and guide opioid administration.⁶ As sustained/modified-release opioid preparations have been identified as the major risk factor for subsequent opioid dependence,⁴ several North American and Antipodean organisations have now recommended that these preparations should not be used in the management of acute pain.⁷ Thus, there is no place for their routine use in the surgical pathway, and especially as part of discharge medications.⁷

As there is now irrefutable evidence that once an opioid becomes a repeat/refill prescription the risk of subsequent opioid dependence increases,^{3,4} it is essential that all opioid naïve patients are explicitly counselled to avoid repeat/refill opioid prescriptions after discharge. If there is ongoing pain, alternative diagnosis and strategies must be sought and utilised.

Recent evidence from the UK highlights that weak opioids (e.g. codeine, co-codamol) are not innocuous; the risk of subsequent addiction in some instances is higher with weak opioids than with strong opioids.⁸ It is, therefore, essential that patients are counselled about the increased risks when using these drugs, and medical practitioners need to be aware of the increased risks too. This study⁸ provides further evidence that the use of the terms strong and weak opioids is not appropriate in the setting of acute postoperative pain management, and that as perioperative physicians we should avoid the use of these terms. More importantly, we need to acknowledge that all opioids have the potential for causing subsequent opioid dependence.

As well as the harm to the individual patient caused by subsequent opioid dependence, it is becoming increasingly recognised that poor opioid stewardship also leads to opioid diversion, and subsequent opioid dependence in the community.⁹ –Currently, there are scant recommendations for safe opioid disposal once patients are discharged from hospital in the UK. Further social harm from opioid use/misuse arises from Drug Driving. In 2015, Drug Driving finally became a criminal offence in the UK, however it has been argued that the UK legislation is too lenient. In line with Australian guidance, UK patients should be advised not to drive within 4 weeks of opioid dose adjustment.¹⁰

In summary we agree with the thrust of the review article and that further evidence is urgently required to guide opioid deprescribing strategies. In the meantime, in addition to the strategies presented by Soffin and colleagues,¹ we advocate:

- Postoperative opioid administration guided by functional activity scores, and not by the Numerical Pain Score.
- Opioids prescribed to opioid naïve surgical patients should explicitly not become repeat prescriptions
- The duration of the opioid prescription needs to be realistic and generally less than 5 days
- Sustained/modified -release opioid preparations (including transdermal) should be avoided in the management of acute pain
- Patients need to be given explicit advice on why and how to dispose of excess medication, and be informed how to taper/ wean their post-operative analgesia
- Patients need to be warned about the dangers of drug driving.

References

- 1 Soffin EM, Lee BH, Kumar KK, Wu CL. The prescription opioid crisis: role of the anaesthesiologist in reducing opioid use and misuse. *Br J Anaesth*-2018 Dec 28 [Epub ahead of print].
- 2 Brummett CM, Waljee JF, Goesling J, Moser S, Lin P, Englesbe MJ, Bohnert AS, Kheterpal S, Nallamothu BK. New persistent opioid use after minor and major surgical procedures in US adults. *JAMA Surg* 2017;152:e170504.
- 3 Brat GA, Agniel D, Beam A, Yorkgitis B, Bicket M, Homer M, Fox KP, Knecht DB, McMahill-Walraven CN, Palmer N, Kohane I. Postsurgical prescriptions for opioid naïve patients and association with overdose and misuse: retrospective cohort study. *BMJ* 2018;360:j5790
- 4 Shah A, Hayes CJ, Martin BC. Characteristics of initial prescription episodes and likelihood of long-term opioid use-United States, 2006-2015. *MMWR Morb Mortal Wkly Rep*-2017;66:265-9
- 5 Cozowicz C, Poeran J, Zubizarreta N, Liu J, Weinstein SM, Pichler L, Mazumdar M, Memtsoudis SG. Non-opioid analgesic modes of pain management are associated with reduced postoperative complications and resource utilisation: a retrospective study of obstructive sleep apnoea patients undergoing elective joint arthroplasty. *Br J Anaesth* 2019;122:131-40
- 6 Levy N, Sturgess J, Mills P. "Pain as the fifth vital sign" and dependence on the "numerical pain scale" is being abandoned in the US: Why?. *Br J Anaesth*-2018;120:435-8.
- 7 Levy N, Mills P. Controlled-release opioids cause harm and should be avoided in the management of post-operative pain in opioid naïve patients. *Br J Anaesth*- 2018. Doi <https://doi.org/10.1016/j.bja.2018.09.005>
- 8 Higgins C, Smith BH, Matthews K. Incidence of iatrogenic opioid dependence or abuse in patients with pain who were exposed to opioid analgesic therapy: a systematic review and meta-analysis. *Br J Anaesth* 2018;120:1335-44
- 9 Kharasch ED, Brunt LM. Perioperative opioids and public health. *Anesthesiology* 2016;124:960-5.
- 10 Macintyre PE, Huxtable CA, Flint SL, Dobbin MD. Costs and consequences: a review of discharge opioid prescribing for ongoing management of acute pain. *Anaesth Intensive Care* 2014;42:558-74.