

EDITORIALS

Opioid cessation: another teachable moment

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The opioid epidemic is now among the leading causes of death in the USA. More than 47 000 Americans died in 2017 consequent to opioid overdose, and 40% of opioid overdose deaths involved prescription opioids.¹ The epidemic of opioid deaths has been a consequence of a large increase in opioid prescribing that is associated with diversion, addiction, and overdose.² Opioids are most often prescribed for postoperative pain and chronic pain syndromes. Most chronic opioid users need surgery at some point. Anaesthesiologists are therefore increasingly caring for surgical patients who routinely use opioids. A recent study reported that a quarter of patients having elective surgery used opioids routinely.³

Chronic opioid users present distinct challenges to clinicians, including tolerance, physical dependence, addiction, and opioid-induced hyperalgesia which can augment pain sensitivity by about 50%.⁴ Additional challenges include fear of overdose from the high doses needed in tolerant patients; patients being stigmatised as 'drug seekers'; and confusion about opioid equivalent doses which, at best, are rough estimates and ignore kinetics. Consequently, inadequate analgesia and related suffering is common among surgical patients who are chronic opioid users. Most studies of perioperative opioid use are restricted to opioid-naïve patients, with chronic opioid users implicitly and wrongly considered lost causes. We congratulate Jivraj and colleagues⁵ for focusing on chronic opioid users.

Jivraj and colleagues⁵ reported recently that a third of chronic opioid users discontinued opioids 1 yr after surgery. This result is interesting and contrasts with the common and untrue belief that chronic opioid users continue using opioids forever.⁶ A recent study using insurance database in orthopaedic procedures determined that chronic opioid users ceased opioid use by 31–50% after surgery.⁷ Available evidence thus indicates that opioid discontinuation after surgery is possible in chronic users. In contrast, non-surgical patients appear to discontinue chronic opioid use less often, with reported quit rates ranging from 8% to 35%.⁸ Quit rates depend on various factors. For example, as pointed out by Jivraj and colleagues,⁵ patients who use relatively low preoperative opioid doses are more likely to discontinue use. Most of their patients took moderate doses of opioids, suggesting use for legitimate indications, presumably at least sometimes related to surgical pathology, which increased their chance of discontinuation when the underlying condition resolved.

The second major finding that Jivraj and colleagues⁵ report is that surgical patients had 34% increase in the hazard for ceasing opioid use (or at least opioid prescriptions) compared with reference medical patients. This hazard corresponds to an absolute 7.5% increase in opioid discontinuation in surgical patients after 1 yr. The investigators selected operations that are not usually performed to relieve pain. In some cases, that

was clearly the case, as for bariatric surgery. However, some of the operations the investigators included may well ameliorate pre-existing pain, including inflammatory bowel resections, hernia repairs, and hysterectomies. It would therefore hardly be surprising that 7.5% of their patients experienced substantial pain relief, which would completely explain the higher quit rate in surgical than medical patients.

There is, though, a more optimistic explanation for higher quit rates in surgical than medical patients. It is well established that surgery is an important health event that motivates people to examine health-related life choices, including exercise, diet, and smoking. The term ‘teachable moment’⁹ is promoted by the ASA as an opportunity to encourage healthful behaviours. Use of the perioperative teachable moment to promote smoking cessation might equally well be used to promote opioid cessation.

Because Jivraj and colleagues⁵ conducted a retrospective analysis, it is impossible to know to what extent clinicians may have promoted opioid cessation. However, it is certainly possible that some of the 6% difference in the quit rate between surgical and medical patients resulted from clinicians using the perioperative teachable moment to promote opioid cessation. This is consistent with the observation that opioid cessation was more likely when an acute pain team was involved, because pain team members are especially likely to be aware of opioid risks and have the opportunity and knowledge to discuss alternatives with patients. As perioperative intervention works for smoking, it probably does for opioids as well. Anaesthesiologists should take advantage of this opportunity to promote long-term health.

The third important finding of Jivraj and colleagues⁵ is that patients who took oxycodone were less likely to discontinue chronic opioids than those given other opioids. Oxycodone is widely prescribed in the USA; for example, there were more than 55 million prescriptions written for the drug in 2017.¹⁰ The drug is used much less in other countries, and many other countries have not suffered the sort of opioid crisis that the USA has. Oxycodone has distinct euphoric properties, effects reported to be strikingly similar to heroin. For example, Comer and colleagues¹¹ compared the likability of oxycodone, fentanyl, buprenorphine, and morphine with that of heroin. Oxycodone scored most favourably. Available data thus suggest that oxycodone may be a poor choice, especially in patients at high risk for addiction, including those with current or past histories of substance abuse, psychiatric disorders, younger age, or difficult social or family environments.

Successful opioid cessation is enhanced when patients are engaged and decision-making is shared.¹² Medication-based treatments should be considered when clinicians are counselling perioperative opioid cessation; methadone and buprenorphine appear to be especially effective interventions. Gabapentin might also facilitate opioid withdrawal.¹³ However, it is obvious that even the most thoughtful perioperative discussion will not by itself suffice, and multiple modalities, including pre-habilitation, preoperative weaning, intraoperative opioid-sparing techniques, and postoperative follow-up are also likely to help.^{14,15} To make the most of the perioperative teachable moment, patients need to be connected with mental health and addiction specialists who can provide ongoing support that will almost always be necessary. Specialist follow-up is especially important for the large fraction of opioid users who are depressed, because so many self-medicate with opioids rather than using effective and far less toxic antidepressants.

Patients who use opioids present unique challenges to perioperative clinicians. However, these patients also present us with an opportunity to provide lasting health improvements by prescribing wisely and by using the perioperative teachable moment to guide patients towards opioid cessation.

Authors’ contributions

Concept formulation: both authors.

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Approval of final article: both authors.

Declarations of interest

The authors declare that they have no conflicts of interest.

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Airway management equipment and practice: time to optimise institutional, team, and personal preparedness

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When the coronavirus 2019 (COVID-19) pandemic struck much of the world in late February 2020, this editorial was in final draft form. Now in early June, as the worst of the first epidemic surge wanes in the UK, we have reflected and updated its content accordingly below.

Ensuring success when managing unexpected airway difficulty relies on being adequately prepared. A ‘prepared airway practitioner’ has been described as one who ‘*performs safe airway management, displaying skill, knowledge and a full awareness of human factors, within a culture of safety ...*’, and such practitioners ‘*should aim for expertise rather than mere competence*’.¹ This statement highlights the three main components of preparedness: the culture of safety relating to institutional preparedness, human factors relating to team preparedness, and skill, knowledge, and expertise relating to personal preparedness. Without all of these, an airway practitioner’s ability to achieve reliable success when managing unexpected airway difficulty will be impaired.

One important facet of preparedness is optimising equipment and its use. The 4th National Audit Project (NAP4) highlighted equipment issues—the appropriate range of equipment, its immediate availability, and the skills and experience to use it—as significant contributors to adverse outcomes in airway management.² Whilst in most countries there is broad consensus around the types of equipment that should be available when encountering airway difficulty, there is less clarity about availability and preparation to ensure it can be skilfully deployed. We explore here how we can use airway equipment, and importantly its routine availability, to optimise our institutional, team, and personal preparedness.

The education gap and routine use of ‘rescue’ airway equipment

Competence in using the equipment required for managing unexpected airway difficulty is an expected minimum of a prepared airway practitioner, and expertise is the goal. For trainees, the route to competence may be obvious, with detailed and specific curricula to follow.³ Even then, trainees are often exposed to equipment with little or no official training.¹ However, for those who are no longer in training, who form the majority of practitioners, the task may be more challenging, with limited guidance on how to maintain competence with existing equipment or to achieve it when new equipment is introduced. To address this, the Australian and New Zealand College of Anaesthetists have made some strides towards mandating triennial airway rescue training,⁴ but in practice this can be avoided by choosing other educational options and there is a strong argument that, in focusing only on the front-of-neck airway techniques, the wrong skill set is being emphasised.⁵ In many other countries there is no process for mandating skills retention or acquisition whatsoever. In the UK barely half of trained anaesthetists get any locally delivered skills training.⁶

The adage ‘*practice makes perfect*’ is relevant here: ‘*reinforcement learning*’ has been studied by neurobiologists in some detail. In simple terms, neuronal circuits are either ‘*actors*’ (those that produce an action/behaviour) or ‘*critics*’ (those that relay feedback on the outcome of that action/behaviour) to fine tune motor skills and behaviours.⁷ These interactions reinforce adjustments that bring the action or behaviour closer to the desired outcome until it is honed. Consequently, in addition to other benefits such as