

Deaths related to the use of prescription opioids

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∞ See related research article by Dhalla and colleagues, page 891

Dhalla and colleagues¹ report that the number of annual deaths related to oxycodone use in Ontario increased about 5-fold between 1999 and 2004 and that there was a 41% increase in all opioid-related deaths (i.e., deaths from prescription and illegal opioids). Their paper adds to the evidence showing that the substantial increase in morbidity and mortality from the use of prescription opioids is a major public health challenge in Canada.² Here we offer an interpretation of Dhalla and colleagues' results as well as propose implications for interventions.

Although oxycodone is associated with a rising number of overdose deaths in Ontario, it is not the only prescription opioid analgesic associated with substantial mortality. In fact, Dhalla and colleagues show that a substantial proportion of deaths related to prescription opioid use in the observation period were associated with prescription opioids other than oxycodone. This has also been reported by other recent studies in Ontario.³ In the United States, where oxycodone-related deaths have also increased sharply, the involvement of many opioid formulations, such as codeine, fentanyl, hydrocodone and methadone, illustrates the wide range of prescription-opioid products linked with an increasing number of deaths.⁴

Most deaths related to the use of prescription opioids occur in conjunction with (i.e., are likely co-caused by) one or more nonprescription-opioid substances. In the case of oxycodone-related deaths in Ontario, 92% involved a non-opioid depressant of the central nervous system (e.g., alcohol, benzodiazepines, cyclic antidepressants or a combination of these).¹ Thus, the preeminent risk in most deaths was from the use of multiple drugs involving prescription opioids and other substances that are widely and legally dispensed. This is of importance for targeted prevention. Furthermore, prescription pharmaceuticals are now involved in more overdose deaths than either heroin or cocaine in North America.⁴ This may also have shifted the distribution of the socio-demographic profiles of the dead from marginalized populations more toward "middle class" individuals, although conclusive data on this are lacking. These realities are clearly not in sync with the emphasis of current federal drug policy efforts on the enforcement of "illicit drugs."⁵ If disease burden and public health are supposed to be guiding lenses, it appears that some refocusing is necessary.

We need to reflect on wider dynamics behind the observed mortality associations. Although oxycodone is a powerful analgesic that can easily cause death in an adult if taken in

Key points

- The number of deaths related to the use of oxycodone and other prescription opioids has increased substantially in Ontario in recent years.
- Most of these deaths also involve a nervous system depressant (e.g., benzodiazepines, alcohol).
- The study by Dhalla and colleagues suggests that the increase in the number of deaths involving prescription opioids corresponds with increases in their prescribing.
- Preventive interventions for morbidity and mortality related to prescription opioid use should involve a reduction of their use in areas that do not compromise effective care for severe or chronic pain.

excessive quantities or in problematic combinations with other drugs, the rise of oxycodone-related deaths in Ontario may simply reflect a volume effect. Specifically, the quantitative increase in the volume of oxycodone prescriptions in Ontario — as shown by Dhalla and colleagues¹ — corresponds to the rise in mortality from overdoses. In fact, other studies have shown that trends in morbidity indicators related to prescription opioid use (e.g., admissions to emergency departments or treatment facilities for substance use) in North America are closely correlated with volume changes in the consumption of prescription opioids.⁶ A simple comparison of the rate of overdoses related to prescription opioid use in Ontario and the US in 2002 shows that the overall death rates adjusted to the rates of per capita prescription-opioid use in these jurisdictions are very similar.^{4,7}

This observation is important for policy development, especially given that North America has the world's highest consumption of medical prescription opioids and that these consumption levels have doubled in the US and Canada in the past decade.⁸ Thus, emphasis should be given to the questions of why these extensive increases in the use of prescription opioids — resulting in "prescription-opioid-rich" environments — have occurred, whether these compounds are neces-

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sary for the intended health outcomes and what may be done to reduce the use of prescription opioids to maximize public health without undue collateral damage.

Specifically, the aim of regulation and policy development for the use of prescription opioids and the related harms poses distinct and complex challenges. Prescription opioid analgesics are essential therapeutic tools primarily in pain medicine, a field in which progress has been made in the past few decades mainly by increasing the availability and dosing of medications, especially for severe and chronic pain.⁹ The quick and possible “chilling effects” (i.e., a sudden decrease in physicians’ willingness to prescribe such medications and hence a reduction in available care) of tightened regulatory control measures for psychotropic drugs (e.g., prescription-monitoring programs, rescheduling of prescription-opioid substances) are well documented.¹⁰ Yet regardless of what interventions are initiated, the achieved standards of access and quality in pain medicine involving prescription opioids must not be compromised.

There is probably room in Canada to ease the heavy reliance on prescribing prescription opioids, especially in patients with pain that is not severe or chronic. For example, Canada, on a per capita basis, currently uses five times the amount of prescription opioids used in the United Kingdom.⁸ This enormous discrepancy cannot be explained by differences in the prevalence of pain alone. A reduction in the use of prescription opioids for nonsevere pain alone would probably reduce the volume of overall consumption of prescription opioids and hence reduce the number of deaths associated with the use of prescription opioids in Canada.

Further emphasis needs to be given to prevention and education.² Given the rising number of deaths associated with prescription opioids and other prescription drugs, simple multimedia education campaigns about the risks of extensive or combination use of prescription drugs may be beneficial in increasing awareness.

Misuse of prescription drugs and related harms — including overdose mortality — have emerged in Canada as important challenges related to substance use, pain care and public health. It is time for governmental leadership and a concerted prevention strategy with closely monitored outcomes.

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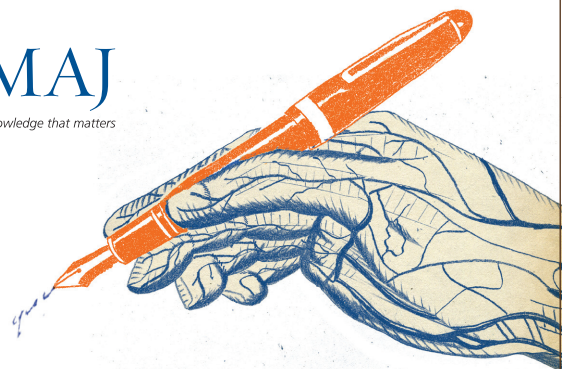
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