Prescription opioid abuse

What is the real problem and how do we fix it?

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Several recent publications have drawn attention to the problem of prescription opioid abuse and associated morbidity and mortality in Canada.[1-4] Unfortunately, some of these publications might leave the impression that it is the general medical use and availability of opioids that is the problem.[1-3] These perspectives might lead to overly simplistic analyses and to interventions that crudely aim for limited availability of and access to prescription opioid medications. This approach is problematic, as prescription opioids are among the most effective pharmacotherapeutic tools available for treatment of severe and chronic pain.

For example, one study suggested opioid-related harm could be reduced by increasing restrictions on the number of opioid prescriptions family doctors could write.[2] This solution was offered while acknowledging that the study did not assess the appropriateness of the prescriptions that were written.

A second study stated that opioid-related mortality in Ontario had increased markedly from 1991 to 2004 and was associated with the introduction of a particular opioid (slow-release oxycodone) to the provincial formulary.[1] In real numbers, this amounted to an increase from 13.7 opioid related deaths per million in 1991 to 27.2 per million in 2004. This is an increase of 1 death per million per year over the study period. The loss of any life is unquestionably of great concern, but to conclude that there were "large and sustained increases in opioid prescribing and in opioid related mortality" is a matter of debate—especially when one considers that the death rate caused by nonsteroidal anti-inflammatory drugs was 1 in 1200 in a systematic review of 43 trials involving 1.3 million patients who had taken nonselective nonsteroidal anti-inflammatory drugs for 2 months or longer.[5]

This is compounded by the fact that other relevant data within the study[1] were not given the attention they deserved. For example, the study did not adequately address the fact that the coroner had identified suicide as the cause of death in almost 25% of the cases.[1] Most of the patients had been seen by physicians within 4 weeks before death, and the median number of outpatient visits in the previous year was 15. Analysis of the physician claims revealed that mental health problems (eg, anxiety, depression, or drug dependence) and pain-related complaints were the most common reasons for medical care sought.[1] These comorbidities and the ineffective attention they might have received could have been crucial contributors to the fatal outcomes. It is tragic, yet also incredibly important, to note that the medical system did not provide the appropriate care these patients needed.

Complex problem

A Liaison Committee on Pain and Addiction was formed in the United States in 1999 to encourage collaboration between pain and addiction specialists on issues of common interest regarding prescription opioids, including research, education, clinical care, and policy development. This committee clarified the importance of clear and unambiguous communication related to addiction, consistent with current scientific and clinical understanding of pain, addiction, and the nature of opioid pharmacology. Fundamental concepts were identified that must inform the field of pain management. This includes the fact that addiction is a multidimensional disease with neurobiological and psychosocial dimensions and that although opioid drugs produce pleasurable reward, critical determinants of addiction also rest with the user.[6] In other words, addiction is not caused by the drug alone—it is a complex multifactorial disease that requires appropriate assessment and treatment.

The same can be said for chronic pain, which is a growing public health problem, affecting 1 in 10 Canadians aged 12 to 44 years of age[7] and 1 in 5 Canadians overall.[8] The magnitude of the problem is increasing. The prevalence of chronic pain increases with age, and many people with diseases such as cancer, HIV and AIDS, and cardiovascular disease are now surviving their acute illnesses with resultant increases in *quantity* of life but, in many cases, with poor *quality* of life. This is due in large part to persistent pain caused by the ongoing illness; nerve damage caused by the disease; or the treatments, such as surgery, chemotherapy, or radiotherapy, needed to treat the disease.[9] Chronic pain is associated with the worst levels of quality of life, along with high rates of depression and suicidal thoughts, compared with other chronic diseases, including advanced coronary artery disease.[10]

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Issues of access

At present there is a considerable lack of access to appropriate pain treatment in Canada. This includes both acute and chronic pain, with wait times of longer than 1 year at more than a third of publicly funded pain clinics and vast areas of the country with no service at all. There are only 5 interdisciplinary pain facilities for children, leaving most Canadian children without access to best-practice pain care.[9] Veterinarians get 5 times more training in pain medicine than physicians do. This lack of training, in addition to lack of access to interdisciplinary consultation services for their patients, leaves family doctors uncertain as to what dosage and type of analgesics to prescribe and with very few resources to assist their patients.[9]

Inadequate information

There is reason to suspect that prescription opioid abuse is increasing in Canada; however, we currently do not know the full extent of the problem. A recent study has identified an increase in the number of prescription opioid–related treatment admissions to publicly funded addiction treatment services in Ontario.[11] On the other hand, the recent Canadian Alcohol and Drug Use Monitoring Survey found that although 22% of respondents reported prescription opioid use in the past year, only 0.5% reported nonmedical prescription opioid use in the same period.[12] This figure, however, could be a substantial underestimation based on the limited definition of *nonmedical use* used in the survey, and further study will be necessary. The Canadian multisite cohort study of illicit opioid and other drug users (OPICAN) documented that heroin use had decreased significantly between 2001 and 2005 ($P<.001$) while prescription opioid use increased in most study sites, suggesting that addicts have been switching to prescription opioids from traditional illicit street drugs.[13] It has been suggested that there might be public health benefits to this.[14] Clearly there are many variables to consider in order to determine the full extent and details of opioid abuse in Canada overall and the risk populations involved. In order to get the answers and develop appropriate solutions we need more information.[4]

Avoiding undertreatment

While Canada has one of the highest levels of prescription opioid use in the world, prescription opioid abuse is not going to disappear by universally decreasing access to opioids or by overregulating family doctors. Prescription opioids are one of the most effective medical tools we have for moderate to severe pain, and they need to remain available and accessible for these problems. The Canadian Guideline for Safe and Effective Use of Opioids for Chronic Non-Cancer Pain has been developed by consensus collaboration among physicians treating pain and those treating addiction. These guidelines have drawn attention to the need for a "watchful" dose of daily opioids for noncancer pain and provide guidance on the safe use of opioids in chronic noncancer pain patients.[15] While there might be room for a reduction in opioid use for pain that is not severe, the possibility of addiction should not be a categorical barrier to the use of opioids.

The bottom line is that we need more information about the determinants, characteristics, and outcomes of prescription opioid abuse in Canada. Once that information is available, appropriate strategies and interventions for its management can be developed. In the meantime, evidence supports that we have a growing epidemic of undertreated pain in Canada and we need a national strategy that works toward reducing pain, including focusing on treatment, nonmedication approaches, education, and research.[9] The prescription opioid misuse problem must not be solved by measures that undermine or worsen the problem of undertreated pain in Canada.

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Competing interests
None declared

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References

1. Dhalla IA, Mamdani MM, Sivilotti ML, Kopp A, Qureshi O, Juurlink DN. Prescribing of opioid analgesics and related mortality before and after the introduction of long-acting oxycodone. *CMAJ* 2009;181(12):891-6. Epub 2009 Dec 7.
2. Dhalla IA, Mamdani MM, Gomes T, Juurlink DN. Clustering of opioid prescribing and opioid related mortality among family physicians in Ontario. *Can Fam Physician* 2011;57:e92-6. Available from: **www.cfp.ca/content/57/3/e92.full.pdf+html**. Accessed 2011 Sep 20.
3. Gomes T, Juurlink DN, Dhalla IA, Mailis-Gagnon A, Paterson JM, Mamdani MM. Trends in opioid use and dosing among socio-economically disadvantaged patients. *Open Med* 2011;5(1):213-22.
4. Fischer B , Rehm J, Goldman B, Popova S. Non-medical use of prescription opioids and public health in Canada. *Can J Public Health* 2008;99(3):182-4.
5. Tramèr MR, Moore RA, Reynolds DJ, McQuay HJ. Quantitative estimation of rare adverse events which follow biological progression; a new model applied to chronic NSAID use. *Pain* 2000;85(1-2):169-82.
6. Savage SR, Joranson DE, Covington EC, Schnoll SH, Heit HA, Gilson AM. Definitions related to the medical use of opioids: evolution towards universal agreement. *J Pain Symptom Manage* 2003;26(1):655-67.
7. Statistics Canada. *Study: chronic pain in the age group 12 to 44.* Ottawa, ON: Statistics Canada; 2010. Available from: **www.statcan.gc.ca/daily-quotidien/101215/dq101215b-eng.htm**. Accessed 2011 Sep 20.
8. Moulin DE, Clark AJ, Speechley M, Morley-Forster PK. Chronic pain in Canada—prevalence, treatment, impact and the role of opioid analgesia. *Pain Res Manag* 2002;7(4):179-84.
9. Lynch ME. The need for a Canadian pain strategy. *Pain Res Manage* 2011;16(2):77-80.
10. Choinière M, Dion D, Peng P, Banner R, Barton PM, Boulanger A, et al. The Canadian STOP-PAIN project—part 1: who are the patients on the waitlists of multidisciplinary pain treatment facilities? *Can J Anaesth* 2010;57(6):539-48.
11. Fischer B, Nakamura N, Rush B, Rehm J, Urbanoski K. Changes in and characteristics of admissions to treatment related to problematic prescription opioid use in Ontario, 2004-2009. *Drug Alcohol Depend* 2010;109(1-3):257-60. Epub 2010 Mar 1.
12. Fischer B, Nakamura N, Ialomiteanu A, Boak A, Rehm J. Assessing the prevalence of nonmedical prescription opioid use in the general Canadian population: methodological issues and questions. *Can J Psychiatry* 2010;55(9):606-9.
13. Fischer B, Rehm J, Patra J, Cruz MF. Changes in illicit opioid use profiles across Canada. *CMAJ* 2006;175(11):1385-7.
14. Fischer B, Gittins J, Kendall P, Rehm J. Thinking the unthinkable: could the increasing misuse of prescription opioids among street drug users offer benefits for public health? *Public Health* 2009;123(2):145-6. Epub 2009 Jan 20.
15. National Opioid Use Guideline Group. *Canadian guideline for safe and effective use of opioids for chronic non-cancer pain.* Hamilton, ON: McMaster University; 2010. Available from: **http://nationalpaincentre.mcmaster.ca/opioid/cgop_a00_executive_summary.html**. Accessed 2011 Sep 20.