

## Opioid agonist therapy

We thank Srivastava and colleagues for their comprehensive review of the available treatments for opioid use disorder in the March issue of *Canadian Family Physician*, and for emphasizing the importance of accessibility of pharmacotherapy in the primary care setting.<sup>1</sup> As they noted, opioid use disorder has a considerable public health effect in terms of morbidity and mortality, and it is essential that eligible patients are offered opioid agonist therapy, given the high risk of relapse and overdose associated with abstinence-based treatment.

Srivastava and colleagues<sup>1</sup> propose that methadone should be recommended over buprenorphine-naloxone for injection opioid users, with the rationale that a full opioid agonist might be more effective in relieving withdrawal symptoms and promoting treatment retention than a partial opioid agonist is. In our clinical settings, however, we have had success in treating patients who inject opioids with buprenorphine-naloxone. Individuals who do not respond to optimized doses of buprenorphine-naloxone in the office-based setting are typically offered methadone or referred to a higher level of care depending on their specific needs. Based on our clinical experience and the recent literature, we would like to advocate for the role of buprenorphine-naloxone as another first-line treatment option for injection opioid users.

There are limitations to using the route of opioid use to guide clinical decision making when offering treatment for opioid use disorder. There are few data comparing outcomes of opioid agonist therapy in injection versus noninjection opioid users. Indeed, the systematic review cited by the authors echoes this point.<sup>2</sup> Buprenorphine's high affinity for the  $\mu$ -opioid receptor, as well as its long "functional" half-life, make its efficacy similar to methadone with regards to treating withdrawal, and both are effective options.<sup>3</sup>

Several studies have specifically explored the role of buprenorphine as a treatment for injection opioid users.<sup>4-7</sup> While some studies have found similar treatment retention rates between buprenorphine and methadone,<sup>8-9</sup> others have shown higher attrition in groups treated with buprenorphine.<sup>2,10-11</sup> A recent review comparing the effectiveness of methadone and buprenorphine concluded that while low- or flexible-dose buprenorphine is associated with greater treatment dropout, medium or high fixed-dose buprenorphine performs similarly to methadone in terms of retention and suppression of illicit opioid use.<sup>12</sup> More important, attrition rates seem to be independent of the route of opioid use. Furthermore, the lack of information regarding participants' reasons for discontinuing treatment limit our ability to draw conclusions that can inform treatment protocols. Recent clinical guidelines put forth by the British Columbia Ministry of Health recommend

buprenorphine-naloxone as a first-line option for opioid use disorder, regardless of route of use.<sup>13</sup>

Recommending the type of opioid agonist therapy based on the route of drug use when the evidence to support its clinical utility is not clear might have unintended consequences. Social stigma associated with substance use is already a considerable barrier to care for many individuals; further stratifying treatment options by injection versus noninjection use can affect both how forthcoming patients might be in disclosing their use patterns, as well as how comfortable they might feel engaging in methadone treatment.<sup>14</sup>

As Srivastava and colleagues explain,<sup>1</sup> multiple factors should be taken into consideration when helping a patient decide on the appropriate treatment for opioid use disorder. While methadone maintenance programs can provide the structure of observed dosing and have improved treatment retention for a wider range of dosing, the increased risk of overdose, greater medication interactions, and potential for QT-interval prolongation should be considered. While buprenorphine maintenance might have a more favourable safety profile and greater flexibility for patients who are unable to present for daily care, treatment retention can be a challenge. To our knowledge, there are no standardized criteria that guide the decision between both forms of opioid agonist therapy. Ultimately, similar approaches to overdose prevention are needed for patients taking both forms of agonist therapy, as sedation can occur in both cases when medications are combined with other central nervous system depressants. The patient's comorbid medical and psychiatric conditions, as well as their life circumstances and preferences, must be taken into consideration when discussing treatment options. Providing patients with both options regardless of route of opioid use through a discussion of informed consent will increase timely access to opioid agonist therapy, which can be life-saving.<sup>15</sup> Furthermore, an individualized patient-centred approach can improve treatment engagement regardless of the type of opioid agonist therapy offered.<sup>16</sup>

—Kathleen Broad MD FRCPC

—Hector Ahmed Colon-Rivera MD

—Lamia Haque MD MPH

New Haven, CT

### Competing interests

None declared

### References

1. Srivastava A, Kahan M, Nader M. Primary care management of opioid use disorders. Abstinence, methadone, or buprenorphine-naloxone? *Can Fam Physician* 2017;63:200-5 (Eng), e153-9 (Fr).
2. Connock M, Juarez-Garcia A, Jowett S, Frew E, Liu Z, Taylor RJ, et al. Methadone and buprenorphine for the management of opioid dependence: a systematic review and economic evaluation. *Health Technol Assess* 2007;11(9):1-171.
3. Schuckit MA. Treatment of opioid-use disorders. *N Engl J Med* 2016;375(4):357-68.
4. Fiellin DA, Moore BA, Sullivan LE, Becker WC, Pantalon MV, Chawarski MC, et al. Long-term treatment with buprenorphine/naloxone in primary care: results at 2-5 years. *Am J Addict* 2008;17(2):116-20.
5. Hillhouse M, Canamar CP, Ling W. Predictors of outcome after short-term stabilization with buprenorphine. *J Subst Abuse Treat* 2013;44(3):336-42.

6. Hser YI, Saxon AJ, Huang D, Hasson A, Thomas C, Hillhouse M, et al. Treatment retention among patients randomized to buprenorphine/naloxone compared to methadone in a multi-site trial. *Addiction* 2014;109(1):79-87. Epub 2013 Oct 9.
7. Potter JS, Marino EN, Hillhouse MP, Nielsen S, Wiest K, Canamar CP, et al. Buprenorphine/naloxone and methadone maintenance treatment outcomes for opioid analgesic, heroin, and combined users: Findings from Starting Treatment with Agonist Replacement Therapies (START). *J Stud Alcohol Drugs* 2013;74(4):605-13.
8. Johnson RE, Chutuape MA, Strain EC, Walsh SL, Stitzer ML, Bigelow GE. A comparison of levomethadyl acetate, buprenorphine, and methadone for opioid dependence. *N Engl J Med* 2000;343(18):1290-7.
9. Strain EC, Stitzer ML, Liebson IA, Bigelow GE. Comparison of buprenorphine and methadone in the treatment of opioid dependence. *Am J Psychiatry* 1994;151(7):1025-30.
10. Bell J, Trinh L, Butler B, Randall D, Rubin G. Comparing retention in treatment and mortality in people after initial entry to methadone and buprenorphine treatment. *Addiction* 2009;104(7):1193-200.
11. Fischer G, Gombas W, Eder H, Jagsch R, Peterzell A, Stühlinger G, et al. Buprenorphine versus methadone maintenance for the treatment of opioid dependence. *Addiction* 1999;94(9):1337-47.
12. Mattick RP, Breen C, Kimber J, Davoli M. Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. *Cochrane Database Syst Rev* 2014;6(2):CD002207.
13. British Columbia Centre on Substance Use. *A guideline for the clinical management of opioid use disorder*. Vancouver, BC: British Columbia Ministry of Health; 2017. Available from: [www2.gov.bc.ca/assets/gov/health/practitioner-pro/bc-guidelines/bc\\_oud\\_guidelines.pdf](http://www2.gov.bc.ca/assets/gov/health/practitioner-pro/bc-guidelines/bc_oud_guidelines.pdf). Accessed 17 Jun 2.
14. Earnshaw V, Smith L, Copenhaver M. Drug addiction stigma in the context of methadone maintenance therapy: an investigation into understudied sources of stigma. *Int J Ment Health Addict* 2014;11(1):110-22.
15. Sordo L, Barrio G, Bravo MJ, Indave BI, Degenhardt L, Wiessing L. Mortality risk during and after opioid substitution treatment: systematic review and meta-analysis of cohort studies. *BMJ* 2017;357:j1550.
16. Teruya C, Schwartz RP, Mitchell SG, Hasson AL, Thomas C, Buoncristiani SH, et al. Patient perspectives on buprenorphine/naloxone: a qualitative study of retention during the Starting Treatment with Agonist Replacement Therapies (START) study. *J Psychoactive Drugs* 2014;46(5):412-26.

## Hospitalists reduce harm and improve care for hospitalized patients

Dr Ladouceur's editorial in the April 2017 issue of *Canadian Family Physician*<sup>1</sup> is the latest in a long series of the journal's commentaries<sup>2-4</sup> in which the authors nostalgically reminisce about a bygone era when family doctors did everything and "comprehensive family practice" was the norm. A common thread among these editorials is the assertion that the traditional family practice model is the criterion standard and the progressive subspecialization of family doctors and the emergence of areas of focused practice is a perversion of family medicine. Interestingly, other than personal anecdotes and nostalgic references to the past, no actual evidence is provided by the authors that the quality of care delivered by family doctors during this presumed "golden era" was actually better than what is currently being provided by more focused general practitioners.

Ladouceur's April editorial,<sup>1</sup> however, is particularly disturbing on a number of levels. First, it is simply not true that hospitalist care is associated with increased harm levels for patients. In fact, an increasing body of Canadian evidence suggests the opposite. In an analysis of more than 30 000 patients admitted to the hospitalist program in a large community hospital in Ontario,<sup>5</sup> Chong and I found that compared with traditional family physicians, hospitalist care was associated with a 12% to 75% reduction in mortality odds. Our study of course had a number of limitations, particularly that it was limited to 1 particular institution. Since that study, White has demonstrated that hospitalists in Ontario statistically

significantly reduce the odds of mortality for patients admitted with 4 common conditions (delirium, pneumonia, congestive heart failure, and chronic obstructive pulmonary disease) by 7% to 31%.<sup>6</sup> White's study used a robust methodology to look at care outcomes for more than 55 000 patients admitted to 151 hospitals in Ontario. Both studies, as well as a number of others,<sup>7,8</sup> have also shown similar reductions in readmission rates when hospitalists are involved. These studies certainly raise a number of questions: Should community-based family physicians with low volumes of inpatients be allowed to continue working in hospitals? Are family physicians who continue to maintain a broad practice able to maintain the competencies required to provide inpatient care?

The second reason why Dr Ladouceur's article<sup>1</sup> is upsetting is that physicians with family medicine training continue to comprise most hospitalists in Canada.<sup>9</sup> While the growing number of internists who are now working as hospitalists<sup>10</sup> is helping the specialty to evolve, hospital medicine in Canada continues to maintain strong ties with the family medicine community.<sup>11</sup> At the Regional Department of Hospital Medicine at Fraser Health Authority in British Columbia where I practise, 95% of more than 300 individuals in the Department of Hospital Medicine have Certification in Family Medicine, and many of the Divisions of Family Practice in British Columbia are making efforts to strengthen their ties to hospitalists in their local communities. Results of the 2012 National Hospital Medicine Survey also showed that most respondents had more than 10 years of experience in clinical practice, with many having spent years practising community-based family medicine before making a career change to focus on hospitalist work. Undermining the quality of the work of hospitalists also brings into question the ability of the family medicine establishment to train qualified individuals to do the kind of inpatient care that hospitalists engage in.

Finally, using a study of residents and interns in the United States (with all the limitations that Dr Ladouceur himself outlines)<sup>1</sup> and somehow tying that to hospitalists in Canada and concluding that their care might result in more harm for patients is a rather large leap that is reminiscent of the acrobatics observed in a Cirque du Soleil theatre! The suggestion that being a hospitalist is no different than being a medical trainee is insulting to the many thousands of experienced, highly skilled individuals who work under extremely stressful circumstances to look after an increasingly complex and multimorbid hospitalized patient population.

The nostalgia expressed by Dr Ladouceur and many others about family medicine's past fails to recognize the reality that the era of comprehensive family medicine is long gone. Apart from a small number of family physicians who work in rural areas, most primary care doctors who practise in urban areas (where more