

## Polypharmacy and clinical outcomes

I read with interest the article by Lu and colleagues<sup>1</sup> which shows that quality indicators of pharmacotherapy are associated with increased odds of admission to hospital, but reduced odds of death. However, some problems in the analysis may explain the results. Specifically, based on Tables 1 and 3, there are 15 102 patients without use of drugs included in the analysis of the effects of potentially inappropriate medications (PIMs) and anticholinergic burden on the outcomes but not included in the analysis of polypharmacy. Because of the high mortality of these patients (91.6%), they may not be representative of general older adults. If these patients are excluded, the mortality rates in patients without the use of PIMs or anticholinergics are much lower than those in the original reports (24.6% v. 56.2% and 21.3% v. 41.9%, respectively).

### Hsiu-Nien Shen MD

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### The authors respond

We very much appreciate Shen's<sup>1</sup> interest in our paper,<sup>2</sup> however, Shen's comments are misleading.

First, Shen's recalculation of the number of patients who had a death event in Table 3, using data from Table 1, was incorrect. Our study is longitudinal, with up to 10 years of follow-up. Table 1 represents drug exposure at baseline and Table 3 represents exposure during follow-up. Therefore, direct calculation between these two tables is improper. Shen has recalculated the original data from Tables 1 and 3, and this approach results in a misinterpretation of our data.

Second, as our study is longitudinal with repeated measurements (up to

40 quarters), the event numbers of all-cause and fracture-specific admissions could be larger than the patient numbers, meaning a patient could experience more than one all-cause or fracture-specific admission during the follow-up period. That is also the reason we adopt generalized estimating equation (GEE) models with an autoregressive correlation structure to fit our study design. The "no. of patients" in Table 3 is actually "no. of patients who experience a clinical event in an observational time unit" (3 mo in our study), under the framework of GEE models.

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## Canadian Task Force obesity guidelines are unbalanced

As an academic group of bariatric surgeons, we are disappointed that the Canadian Task Force guidelines<sup>1</sup> did not balance the rather depressing evidence for the limited effectiveness of medical and lifestyle interventions in severe obesity, with the dramatic evidence in support of bariatric surgery. In appropriately selected patients, bariatric surgery is not only remarkably safe, but has the potential to achieve durable regression and remission of many obesity-related



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comorbidities such as type 2 diabetes, hypertension, sleep apnea, and even cancer. To not present a balanced picture of the care available to the obese patient is a disservice and to misrepresent the evidence for bariatric surgery in patients with severe obesity is unfortunate.

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1. Brauer P, Connor Gorber S, Shaw E, et al. Recommendations for prevention of weight gain and use of behavioural and pharmacologic interventions to manage overweight and obesity in adults in primary care. *CMAJ* 2015;187:184-95.

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### The authors respond

We thank de Gara and colleagues' for their letter.<sup>1</sup> Given the high prevalence of adult overweight and obesity in Canada, there was an urgent need to review evidence for primary care, the core focus of the Canadian Task Force on Preventive Health Care recommendations.<sup>2</sup>

We did not misrepresent the benefits of bariatric surgery: bariatric surgery is effective for the treatment of severe obesity and we did not state otherwise.

Rather, in the associated systematic treatment review in *CMAJ Open*<sup>3</sup> we specifically excluded bariatric surgery from consideration.

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**Let's talk chronic heart failure**

We applaud *CMAJ's* efforts at medical education via their "Five things to know about ..." series. However, we believe that a recent paper by Moayedi and Kobulnik<sup>1</sup> falls somewhat short.

Specifically, heart failure is predominantly a disease of the elderly.<sup>2</sup> Elderly patients are often not candidates for mechanical circulatory support or cardiac transplantation. Although there are options such as cardiac resynchronization devices and implantable cardioverter defibrillators, the benefits of these therapies may be attenuated in the elderly.<sup>3</sup> Therefore, we are generally left with medical management options for this patient population.

Although the authors point out that there are some promising new medications on the horizon, at present, patients with heart-failure face five-year mortality rates of about 50%.<sup>2</sup> This prognosis is worse than that of many patients with cancer.<sup>4</sup> Despite this, physicians rarely encourage advance-care planning or discuss goals of care with their patients with heart failure.<sup>5</sup> The Choosing Wisely Canada initiative recommends not delaying these conversations.<sup>6</sup> We need to start having these discussions with our patients with heart failure. What better way to do this than to

include it in your "five-things-to-know-about-heart-failure" list?

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**Time to rethink EMRs**

Although I agree with most of Hall's points,<sup>1</sup> I fear he has drawn a false analogy. The United States Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009 was enacted to mobilize information technology to reduce skyrocketing costs associated with the health care system.<sup>2</sup>

Hall<sup>1</sup> states that the distracting effect of electronic medical records (EMRs) on the physician-patient interaction is well known. This is usually because of the usability of the EMR interface. Most systems are not designed for the patient encounter, and vendors are reluctant to customize their systems for physicians' workflow. It is also well

known that EMRs neither reduce health care costs nor increase efficiency. Poor usability decreases efficiency and frustrates the user.

The actual benefits of EMRs are likely unmeasurable. Recently, the American Medical Informatics Association has called for a re-evaluation of economic analyses in health information technology,<sup>3</sup> with a focus on quality and patient-safety benefits. Electronic medical records can improve patient care even without cost reductions. I believe it would be a patient care disaster if we lost our provincial EMRs to save money.

Finally, I echo Hall's comments about lobbying administrators and politicians about the use of EMRs. We are past the tipping point but, as an important user group, it is vital that we continue to loudly advocate for usable systems that will allow increased efficiencies and not diminish the patient-physician relationship.

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**Competing interests:** Darren Hudson is the associate medical director for the eCritical Alberta Critical Care Information System, and he has a masters degree in health information science from the University of Victoria, Victoria, BC, where he holds an academic post.

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