

Drug-related problems in the frail elderly

As pharmacists and physicians working in a geriatric day hospital (GDH), we read with interest your November 2010 issue, which covered aspects of care of the elderly, and greeted with enthusiasm the initiative to describe approaches to common geriatric problems.¹ We would like to reinforce the need to consider the importance of medication assessment and iatrogenic illness in caring for the frail elderly.

A recent review of 51 medication-assessment consultations completed in our GDH found that our patients (average age 81 years; 39 women and 12 men) were each taking an average of 15 medications (range 6 to 28), with 8.9 drug-related problems per patient identified (range 3 to 19). As **Figure 1** shows, patients were commonly taking medications no longer needed and experiencing drug-related adverse effects. Medications commonly found to be no longer needed included the following: acetylsalicylic acid, furosemide, antihypertensives, proton pump inhibitors, and iron. Benzodiazepines were commonly associated with adverse reactions. We found a positive correlation between numbers of medications and numbers of drug-related problems, but did not find such a correlation for age or renal function. A similar study conducted in 1999 for 46 medication-assessment consultations in the GDH described 6.3 drug-related problems per patient, possibly suggesting that the incidence of drug-related problems has increased over time in this population.

Polypharmacy is common in the elderly with reported average medication numbers ranging from 8 to 13, and average numbers of drug-related problems ranging from

2 to 3.²⁻⁷ Our patients seem to have higher numbers of medications and drug-related problems, which is perhaps related to their frailty and complex medical comorbidities, the physician's selected approach for medication review, and the pharmacist's comprehensive approach. Patients referred to the GDH typically have problems with falls and cognition—both commonly associated with medication use. Patients with apparent polypharmacy, suspected adverse effects, and issues with compliance are referred for a pharmacist-conducted medication assessment and thus represent a select population within a select population. The pharmacist conducts a patient or caregiver interview regarding medication experience, compares medication lists from various sources, uses a structured process to identify drug-related problems, develops and documents a care plan, and carries out the care plan in collaboration with prescribers. Other difficulties in comparing our findings to the literature include differences in settings and patient characteristics, as well as approaches and measures used.⁸

We welcome periodic medication assessment at the family practice level and believe that collaboration between family physicians and pharmacists could identify potential drug-related problems, preventing polypharmacy and iatrogenic illness. We plan to pursue further research in our own and other GDH environments to validate our findings and measure the effects of our collaborative approach.

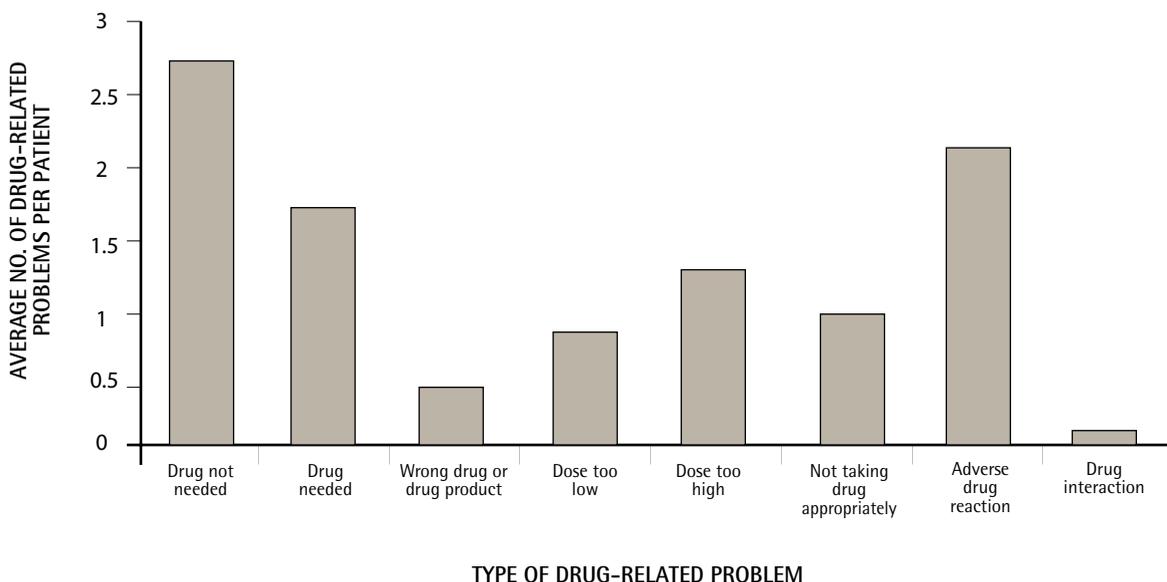
—Barbara Farrell PharmD FCSHP

—WaiSum Szeto

—Salima Shamji MD CCFP FCFP

Bruyère Continuing Care Geriatric Day Hospital
Ottawa, Ont

Figure 1. Average number of drug-related problems per patient, by type of drug-related problem



References

1. Frank C. Challenges and achievements in caring for the elderly. *Can Fam Physician* 2010;56:1101-2(Eng), 1103-5 (Fr).
2. Davis RG, Hepfinger CA, Sauer KA, Wilhardt MS. Retrospective evaluation of medication appropriateness and clinical pharmacist drug therapy recommendations for home-based primary care veterans. *Am J Geriatr Pharmacol* 2007;5(1):40-7.
3. McCarthy L, Dolovich L, Haq M, Thabane L, Kaczorowski J. Frequency of risk factors that potentially increase harm from medications in older adults receiving primary care. *Can J Clin Pharmacol* 2007;14(3):e283-90. Epub 2007 Nov 1.
4. Lau E, Dolovich L. Drug-related problems in elderly general practice patients receiving pharmaceutical care. *Int J Pharm Pract* 2005;13(3):165-77.
5. Strand LM, Cipolle RJ, Morley PC, Frakes MJ. The impact of pharmaceutical care practice on the practitioner and the patient in the ambulatory practice setting: twenty-five years of experience. *Curr Pharm Des* 2004;10(31):3987-4001.
6. Viktil KK, Blix HS, Reikvam A, Moger TA, Hjemaas BJ, Walseth EK, et al. Comparison of drug-related problems in different patient groups. *Ann Pharmacother* 2004;36:942-8. Epub 2004 Apr 6.
7. Sellors J, Kaczorowski J, Sellors C, Dolovich L, Woodward C, Willan A, et al. A randomized controlled trial of a pharmacist consultation program for family physicians and their elderly patients. *CMAJ* 2003;169(1):17-22.
8. Garcia-Caballos M, Ramos-Diaz F, Jimenez-Moleon J, Beuno-Cavanillas A. Drug-related problems in older people after hospital discharge and interventions to reduce them. *Age Ageing* 2010;39(4):430-8.

Innocuousness of office-based olecranon bursa aspiration

I am writing to respond to Lockman's article "Treating nonseptic olecranon bursitis. A 3-step technique"¹ and readers' responses to this article.^{2,3} My own prior bias and subsequent experience as a community family physician for more than 35 years seem to echo that of Drs Rivet² and Maxwell.³ Despite the pleading and nagging of numerous patients with painless sterile olecranon

effusions over the years, I have steadfastly resisted doing the obvious and simple thing: drain the effusion. They seem to get easily infected, as I was taught years ago, or at least I seem to see many that have become infected following aspiration by someone else. So I find it intriguing to hear of someone having a different experience from mine; I wonder which difference in technique or selection makes for the difference in outcome.

In the Rapid Responses section of the *Canadian Family Physician* website (www.cfp.ca), I did not find any clarification of Dr Maxwell's³ concern about Lockman's description of the procedure¹: Was the instruction in step 2¹ to inject the steroid and lidocaine mixture into the elbow joint a typographical error (ie, it was actually intended to state "into the collapsed bursal sac") or was this the correct intent? If so, what is the postulated mechanism of the beneficial outcome, given that the elbow joint and the olecranon bursa are not directly connected?

—Su-Chong Lim MD CCFP
Calgary, Alta

References

1. Lockman L. Treating nonseptic olecranon bursitis. A 3-step technique. *Can Fam Physician* 2010;56:1157.
2. Rivet CC. Olecranon bursitis [Rapid Response]. Mississauga, ON: College of Family Physicians of Canada; 2011. Available from: www.cfp.ca/cgi/eletters/56/11/1157#1631. Accessed 2011 Jan 10.
3. Maxwell DM. Nonseptic olecranon bursitis management [Letters]. *Can Fam Physician* 2011;57:21.