



CARING FOR THE ELDERLY: WHEN SHOULD WE QUESTION APPROPRIATENESS?

It is a fact of life that as we age into our senior years we develop more chronic conditions, and more medications may be necessary to manage these conditions. In fact, although seniors make up just 15% of the Canadian population, they account for 40% of all spending on prescribed drugs.¹ It is, of course, important to assess the benefits and risks of each medication for all patients. However, when it comes to older individuals, we must keep in mind that the patient's therapeutic goals may differ from those of a younger patient and that medical circumstances may increase the risk side of the equation as compared with the benefit side.

REVISITING THE BEERS CRITERIA

The Beers Criteria was initially developed by Dr. Mark H. Beers in 1991 and was updated by the American Geriatrics Society in 2012.¹ Drugs meeting the Beers Criteria have been deemed potentially inappropriate to prescribe to seniors, because of the increased risk of adverse effects and/or the lack of efficacy compared with safer alternatives. Following is a list of the top ten drugs from the Beers list by rate of use among seniors on public drug programs (in selected Canadian jurisdictions in 2012):¹

- Lorazepam
- Glyburide
- Amitriptyline
- Zopiclone
- Quetiapine
- Terazosin
- Diclofenac and combinations
- Meloxicam
- Risperidone
- Oxazepam

In certain circumstances these drugs may be appropriate for use. However, it is worth questioning whether or not a particular Beers Criteria drug in a patient's regimen is appropriate for a long-term care patient and/or if it could be replaced by a safer drug that is at least as effective. For example, in the May issue of the *Tablet* we discussed

potentially inappropriate prescribing of antipsychotic medications for behavioural and psychological symptoms of dementia when assessment for an underlying cause of the behaviour had not taken place.

ADDITIONAL CONSIDERATIONS IN ASSESSING DRUG THERAPY FOR SENIORS

The term *medical futility* has been used in the medical literature to describe medical interventions that do not offer the patient any significant benefit.² An example of medical futility is the prescribing of lipid-lowering medications to individuals with a limited life expectancy (less than 1 year).³ In this case, the potential adverse effects of the medication outweigh any positive outcomes that these drugs could be expected to offer in a relatively short time frame. For example, a study that included individuals with advanced dementia and limited life expectancy found that 29% of patients were currently taking drugs such as statins that were inappropriate for the circumstances. It is important to remember that when assessing medications for patients with limited life expectancy, a shift from a curative to a palliative goal should guide therapeutic choices.

DIABETES CARE—MOVING TARGETS IN THE FRAIL ELDERLY POPULATION

The 2013 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada include revised recommendations of hemoglobin A1C (A1C) treatment targets according to patient circumstances.⁴ Most patients with type 1 and type 2 diabetes have a recommended A1C target of less than or equal to 7.0%. However, a target of less than or equal to 6.5% may be considered in some patients with type 2 diabetes to further lower the risk of nephropathy and retinopathy. This must be balanced against the risk of hypoglycemia and cardiovascular disease. A lower A1C target would rarely be appropriate for the frail elderly. In contrast, a target of 7.1% to 8.5% should be considered in the following patient populations:

- Limited life expectancy
- High level of functional dependency
- Extensive coronary artery disease at high risk of ischemic events
- Multiple co-morbidities
- History of recurrent severe hypoglycemia

- Hypoglycemia unawareness
- Longstanding diabetes for whom it is difficult to achieve an A1C less than or equal to 7.0% despite effective doses of multiple antihyperglycemic agents, including intensified basal-bolus insulin therapy

Another longstanding diabetes care practice in many long-term care homes that is no longer deemed appropriate is the use of sliding scale insulin in the elderly. A study that included 117 long-term care facilities in the United States found that sliding scale insulin regimens were associated with decreased glycemic control and a rate of hypoglycemia similar to that of non-sliding scale insulin regimens.⁵ Therefore, sliding scale insulin regimens are generally no longer deemed appropriate in the long-term care setting.

Putting Risk for Osteonecrosis of the Jaw Secondary to Bisphosphonate Use into Perspective

Bisphosphonates are generally well tolerated.⁸ Of course, we are all well aware of the importance of patients taking oral bisphosphonates correctly to prevent esophagitis; however, there seems to be much recent concern about the risk of osteonecrosis of the jaw (ONJ). Following is a review of the evidence around risk for ONJ.

Symptoms of ONJ include pain, soft-tissue swelling, and local infection or abscess formation with development of fistulas.⁹ Loosening of teeth and exposure of bone in the oral cavity may also occur. ONJ has been shown to occur most commonly at sites of previous tooth extraction or areas of trauma.⁹ Risk in the oncology population is associated with high potency IV use of bisphosphonates (pamidronate, clodronate, zoledronic acid) and has been estimated at 6.8% to 9.9% for myeloma patients and at 2.9% to 4.4% for breast cancer patients.⁹ Review of the risk for ONJ in the osteoporosis population found that a causal link has not been established and needs further review.⁹ Clinical trials in osteoporosis patients to date have not observed increased risk of ONJ with bisphosphonate use. Postmarketing data with oral alendronate and risedronate estimate the global incidence to be approximately 1 per 100,000 patient treatment years, which may not be any higher than the incidence in the general population.⁹

WHEN SHOULD URINE CULTURES BE OBTAINED?

It is difficult to know when a urine culture should be obtained. Although urinary tract infections (UTIs) occur frequently in older people, it is overdiagnosed and overtreated when only nonspecific clinical signs and symptoms are present.⁶ There is a good deal of evidence to suggest that asymptomatic bacteriuria should not be treated. A urine culture for diagnosis of a UTI in older populations should only be utilized when there are two or more signs of infection, especially dysuria, fever greater than 38°C, or new incontinence.⁷ Treatment of asymptomatic bacteriuria increases side effects and antibiotic resistance but does not reduce mortality or prevent symptomatic episodes. **MPT**

Following are recommendations from the Canadian Task Force guidelines on ONJ:⁹

- All patients on bisphosphonate therapy should ensure good dental hygiene, as periodontal disease is a key risk factor for the development of ONJ.
- All patients, including those on bisphosphonates, should have regular dental assessments, in keeping with the recommendations of the Canadian Dental Association.
- Any area of dental infection should be aggressively treated prior to starting bisphosphonate therapy, particularly in oncology patients expected to receive high dose IV therapy.

An excellent brochure on the topic of ONJ, published by Osteoporosis Canada and endorsed by a number of professional associations including the Ontario Dental Association, can be found at http://www.osteoporosis.ca/multimedia/pdf/publications/ONJ_Brochure_2010.pdf. **DN**

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