GUEST EDITORIAL

Potentially inappropriate prescribing —moving from process to outcome

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Avorn[1] noted that 'the use of medications in older patients is arguably the single most important health care intervention in the industrialized world'.

Polypharmacy and multimorbidity are commonplace, so ensuring that we select the right medicines for older patients who are at risk of adverse events needs to be considered carefully. There are a range of tools and indicators that can be used to assess appropriateness, and one of the most widely used and established sets of criteria are those originally developed by Beers et al.[2] in the United States (US).

These criteria have been applied in the study by Lee et al.[3] whose paper is published in this issue of the journal. These authors determined the prevalence of potentially inappropriate medication use in a sample of community-dwelling older people with depressive symptoms. The prescribing criteria were adapted to account for differences in medications available in New Zealand compared to the US. The patient sample was divided into those who scored 5 or above on the Geriatric Depression Scale (with significant depressive symptoms) and those who had a score of 4 or less (without significant depressive symptoms). Polypharmacy (defined in this paper as the simultaneous use of 10 or more medicines) was identified in just under a quarter of participants (23%).

Based on the application of the Beers' Criteria, almost half of the entire sample was receiving at least one potentially inappropriate medication, but there was no difference in the numbers of inappropriate medicines being prescribed in those patients with significant depressive symptoms compared to those without significant symptoms.

Drugs affecting the central nervous system dominated the potentially inappropriate category and included amitriptyline (10 mg daily), dextropropoxyphene, fluoxetine, dothiepin and diazepam. It may not be surprising that amitriptyline was being prescribed in this sample of patients, but the dose, considered to be sub-therapeutic for depression, may be used for neuropathic pain. However, there is a higher burden of side effects with amitriptyline when compared to other antidepressants.[4] The second most commonly prescribed class of potentially inappropriate medicines were those affecting the musculoskeletal system, such as naproxen and diclofenac.

Increasingly, there is recognition that polypharmacy is not an inherently bad thing. What we need to get right is the balance between 'many drugs' and 'too many drugs'.

Importantly, inappropriate use was associated with using a greater number of medications. This is reflected in the literature, in that the more drugs a patient receives, the greater the likelihood of receiving a potentially inappropriate drug.[5] Importantly, Lee et al.[3] highlight that the Beers' criteria do not allow for any measurement of outcome as a result of using potentially inap-

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propriate medicines. Indeed, a recent paper by Guthrie et al.[6] that also used indicators to assess prescribing in a primary care population noted that prescribing of so-called 'high-risk drugs', such as tricyclic antidepressants and non-steroidal anti-inflammatory drugs, is not always inappropriate, due to the need to balance risk and benefit in conditions of uncertainty.

Lee et al.[3] have highlighted that these types of prescribing indicators can act as a 'red flag' to prompt discussions around prescribing, rather than being simply used as a final judgment on the quality of prescribing. Increasingly, there is recognition that polypharmacy is not an inherently bad thing.[7] What we need to get right is the balance between 'many drugs' and 'too many drugs,'[7] and minimise the potential for adverse effects.

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