NZMA
New Zealand Medical Association

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Atlas of Healthcare Variation: Polypharmacy in Older People

Dear Catherine

Thank you for inviting the New Zealand Medical Association (NZMA) to provide feedback on the Atlas of Healthcare Variation updated draft domain 'Polypharmacy in older people'.

1. The NZMA is the medical profession's leading pan-professional body, and includes over 5000 members from all disciplines within medicine as well as medical students. The NZMA aims to provide leadership of the medical profession, and promote professional unity and values, and the health of New Zealanders.

2. We note that the Atlas of Healthcare Variation is designed to identify variation in the delivery of healthcare services across New Zealand, with a view to stimulating debate on whether observed variations are genuine and based on differences between populations, or whether they reflect variable practice. In principle, the NZMA welcomes the goal of the Atlas of Healthcare Variation. We believe that this tool has the potential to be of assistance in addressing variability and appropriateness of practice between DHBs/PHOs. However, we have some concerns relating to how polypharmacy is interpreted, as well as with some underlying methodological issues behind the collection and presentation of data in the Atlas. We elaborate on these concerns below.

3. We are concerned that the domain 'polypharmacy in older people' appears to be premised on the assumption that polypharmacy per se represents bad medical practice. While we recognise the clear potential for harm from polypharmacy, especially among older patients, prescribing greater than five drugs (one of two given definitions of polypharmacy) is frequently necessary in this group of patients. Indeed, it often represents best quality care.

4. By way of example, the best evidence-based treatment regimen for an overweight, hypertensive, diabetic patient with ischaemic heart disease is likely to entail at least five different medicines that will improve their survival and quality of life. Many elderly patients are doing well precisely because they are on a collection of medicines. Again, an actual example from general practice is useful to consider. Once you include a bisphosphonate and calciferol for an elderly patient's bones, a statin for their lipids, aspirin and an ACE inhibitor and beta blocker for their ischaemic heart disease/hypertension, then they are already receiving over five medications. Co-existing diabetes or congestive heart failure will require additional medications, resulting in a total number of prescribed drugs that well exceeds five medications, yet is aligned with best practice.

5. It is our belief that polypharmacy is only useful as a quality indicator to the extent that it acts as a marker for inappropriate pharmacy. As described above, polypharmacy may be entirely clinically appropriate. Accordingly, we suggest that the Commission consider renaming this domain from 'polypharmacy in older people' to 'appropriate pharmacy in older people'.

6. We also believe that there are real dangers in relying on polypharmacy as an indicator of poor outcome. Measures that are put into place to reduce polypharmacy may actually lead to unintended adverse outcomes. For example, while there is some evidence that polypharmacy is associated with poorer adherence, the wider public could interpret this domain as that being on five or more medications is bad. That belief could exacerbate adherence problems. Older people with some diminished cognitive capacity and their well-meaning adult children reading this domain could end up being active agents in older patients not receiving their prescribed medicines.

7. We understand that the HQSC is specifically seeking feedback on the following aspects of this domain of the Atlas: i) whether any of the information is inaccurate (and if so why?), and ii) what is contributing to the observed variation? While we believe that the apparent trends/variation in this domain will stimulate discussion and boost awareness of the issues around appropriate pharmacy in older people, certain distortions in the data (due to methodological issues and the reporting used) make it challenging to identify inaccuracies and speculate on what might be contributing to observed variation. To address some of these distortions, we suggest the Commission conduct age-standardisation to summarise effects when undertaking univariate analyses, like with ethnicity. The table in the Atlas showing the variable patterns of polypharmacy by age and ethnicity illustrate the distortions that age may cause, and that are not evident in the summary univariate analyses (which use crude rates).

8. Other suggestions the Commission may wish to consider to improve the data and enhance its usefulness include the following: i) control for differential changes in medicine use across DHBs over time; ii) Make the BPAC background material more prominent; iii) Add maps of calculated summary measures such as age-standardised rates, and define the time periods covered as well as the denominator values used in the tables; iv) enable the viewing of dispensing rates within DHBs by other variables (eg, ethnicity); v) use population cartograms to convey information for DHBs with large populations but small geographical areas (eg, Auckland).

9. It is difficult to ascertain whether the information in the draft domain is inaccurate or to definitively identify what is contributing to the observed variation. The usual driver for variance in a treatment choice sits with the doctor initiating that treatment. Prescriber factors that could be contributing to variation in this domain include their type and experience (eg, years since graduation), their work setting (eg, hospital versus general practice), and whether a particular DHB has a Preferred Medicine List. Another source of variation could be differences in the extent to which pharmacists are used to conduct medicine reviews across DHBs/PHOs. There is a

general sense that pharmacist reviews of medicines for elderly patients or those with certain complex conditions is extremely useful, and that this service should be expanded across the country. However, this should occur within the context of a multidisciplinary team so that the context in which the prescribing occurs is always taken into consideration.

10. Patient factors that could be contributing to this variation include age, ethnicity, gender, indication/condition and other factors (eg, socioeconomic status). The observation that Māori or Pacific people appear to receive more medications at a younger age compared with Asian or European people could reflect inequities in health outcomes. Māori or Pacific people are more likely to develop chronic noncommunicable diseases at a younger age and to have more comorbidities than European/Asian people.

11. In summary, we believe that polypharmacy is only useful as a quality indicator to the extent that it acts as a marker for inappropriate pharmacy. In many cases, polypharmacy as defined may be clinically appropriate. Geographic variations in polypharmacy do not necessarily reflect variations in the quality of care, and relatively high levels of polypharmacy in certain areas do not necessarily reflect correspondingly poor prescribing practice in those areas. We consider the primary utility of the Atlas to be the detection of large statistical signals (variations) that should be viewed strictly as hypothesis-generating only and a prompt for further, deeper investigation in order to confidently generate meaningful and clinically helpful conclusions.

We hope that our feedback is helpful. The NZMA welcomes debate and questions about health service use and provision and would be happy to comment on future draft domains to be published as part of the Atlas of Healthcare Variation.

Yours sincerely

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NZMA Chair