Vitamin D and health in adults in Australia and New Zealand: a position statement

To the Editor: Our scepticism about the value of many of the burgeoning number of clinical guidelines is reinforced by the position statement on vitamin D and health for adults.[1] It was surprising not to find an explicit statement that there is Level I evidence that vitamin D monotherapy does not prevent falls[2] or fractures[3] or reduce mortality.[4] Instead, Nowson and colleagues conclude that "there is good evidence that vitamin D plus calcium supplementation effectively reduces fractures and falls in older men and women". This statement is misleading. Vitamin D (± calcium) does not prevent falls in men.[5] Co-administered calcium and vitamin D only prevents fractures in frail institutionalised older women, not in healthy community-dwelling older men or women.[3]

Nowson et al recommend that high-risk groups have 25-hydroxy-vitamin D levels measured, followed by appropriate vitamin D supplementation,[1] applying a broad definition of high risk that probably includes most adults. Contemporaneously, a draft statement issued by the United States Preventive Services Task Force recommended against use of calcium and vitamin D (≤ 400 IU/day) for primary fracture prevention in non-institutionalised postmenopausal women.[6] Similarly, a New Zealand consensus statement concluded that:

> For the general population with no specific medical issues or risk factors for vitamin D deficiency, supplementation is not necessary and is not recommended. There is little current evidence that supplementing with vitamin D is beneficial for the general population, including healthy older people who are mobile.[7]

The value and clinical utility of guidelines are questionable when three groups review the same data and come to substantially different conclusions.

> "There is little current evidence that supplementing with vitamin D is beneficial for the general population"
>
> Bolland et al

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In reply: Our position statement summarised findings from the most relevant peer-reviewed literature.[1] We clearly acknowledged that there are inconsistencies in the literature, as is

often the case in many fields of medicine.

Most Level I evidence indicates that vitamin D (combined with adequate calcium) reduces falls and fractures in older people. Mortality is also reduced.[2] The combination of vitamin D supplementation with adequate calcium does not detract from the beneficial effect of adequate vitamin D status. Many of these studies were conducted in women and in frail older populations who were not necessarily institutionalised. Indeed, a recent meta-analysis of pooled participant-level data ($n = 31\,022$) found fairly consistent benefits across age groups and types of dwelling.[3]

Although the United States Preventive Services Task Force draft statement recommended against use of calcium and vitamin D, its recent final recommendation states that taking vitamin D supplements can help prevent falls in older adults.[4]

Finally, we did not propose vitamin D supplementation for the general population, but for the clearly identified high-risk groups (Box 3 in the position statement; online at mja.com.au).[1]

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