LETTERS

Letters to the Editor

Calcium and cardiovascular risks

Editor, – I am writing in response to the recent article on calcium and cardiovascular risks by Mark Bolland, Andrew Grey and Ian Reid (Aust Prescr 2013;36:5-8).

I would like to address their statement that 'A more recent randomised controlled trial of sunlight exposure to raise vitamin D concentrations in Australian nursing home residents also found that the addition of calcium supplements to sunlight exposure was associated with increases in all-cause and cardiovascular mortality'.[1,2] The authors did not reveal that the assertion is based on comparisons between ultraviolet ray exposure only versus ultraviolet ray exposure plus calcium supplementation, and not to a control group. However, based on data analysis of death certificates within the study follow-up period, I do not see a significant difference between ultraviolet ray exposure plus calcium supplementation versus control group, hence it should be concluded that the former does not have increased cardiovascular mortality rates over the control population.

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Mark Bolland, Andrew Grey and Ian Reid, the authors of the article, comment:

The appropriate comparison to assess the effect of calcium is between the sunlight arm and the sunlight plus calcium arm, which only differ by use of calcium. This comparison showed increased all-cause and cardiovascular mortality in the sunlight plus calcium arm.

It is not surprising that our article challenges some readers because calcium has long been thought to be safe and effective. In 2005–06, five large randomised controlled trials were published on calcium with or without vitamin D in community-dwelling individuals with fracture as the primary end point.[1-5] The trials provide a strong evidence base to inform clinical practice. None of them reported statistically significant reductions in fracture, but individual studies reported that calcium increased the risk of hip fracture,[5] cardiovascular events,[5,6] kidney stones,[3] and hospitalisation from gastrointestinal symptoms.[4,7] Additionally, calcium was poorly tolerated (compliance approximately 50%). Meta-analyses confirmed these findings as discussed in our article.

Individually, concerns regarding the lack of efficacy, safety or poor tolerability of calcium supplements would provide a good reason for revisiting their role, but collectively these concerns provide a compelling argument against their widespread use. We think that dispassionate reviews of the evidence will lead to similar conclusions to ours, as shown by the US Preventive Services Task Force recently recommending against the use of calcium and vitamin D for primary fracture prevention.[8]

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Sex, drugs and alcohol

Editor, – I found your recent article on 'Sex, drugs and alcohol: drug interactions of concern to consumers' (Aust Prescr 2013;36:46-8) informative. However, I believe there should be an addition to the box 'Drugs which can reduce the effectiveness of oral contraceptives'.

Sugammadex is a novel drug used in the reversal of neuromuscular blockade. At least anecdotally, use amongst anaesthetists in private practice is widespread. However, few anaesthetists are aware of its potential interactions with hormonal contraceptives.

A summary of the drug (Aust Prescr 2009;32:82-6) stated that 'Prescribers need to be aware that sugammadex may decrease progestogen concentrations, similar to the decrease observed after missing a daily dose of an oral contraceptive. Women on the pill should refer to the missed dose advice for their contraceptive. Likewise, women using non-oral hormonal contraceptives, such as depot formulations, should be advised to use additional contraception for the next seven days'.

Jennifer Dixon
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Graeme Vernon, the author of the article, comments:

Thank you for highlighting the warnings in the product information. It is not possible to assess the actual risk of this interaction as the warnings are based on chemical tests to determine the degree of binding and pharmacokinetic modelling, rather than evidence of contraceptive failure or reduced serum concentrations of oestrogens or progestogens.

Despite the low level of evidence to support this interaction, the recommended precautions should be taken. However, if sugammadex is being used routinely there should be scope for prospective studies of the actual effects on serum concentrations of contraceptive hormones. This could be an opportunity for regulators and sponsors to resolve an important clinical question and make the product information more clinically meaningful.

Statins in older adults

Editor, – The article on statins in older adults (Aust Prescr 2013;36:79-82) has suggested that further information regarding effects of statins is important to inform clinical decision making in these patients.

There may be other patient groups where further information on the effects of statins is also important, for example indigenous Australians. A recent article described 15 cases of serious statin-associated myotoxicity in Aboriginal and Torres Strait Islander people.[1] Outcomes included death (three cases), and permanent severe disability (two cases) including effective quadraplegia. These patients were considerably younger (mean age 55 years) than the group generally considered at risk of statin myotoxicity.

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Sarah Hilmer and Danijela Gnjidic, the authors of the article, comment:

We thank Genevieve Gabb for her comments. We agree that it is important to study the effects of drugs in special populations. In the case of statins, older people differ from other special populations because they account for a large proportion of statin users in the community.

We also agree that adverse effects from statins are common across all age groups. In addition to muscle symptoms, younger patients may also experience statin-related adverse effects such as loss of energy and worsening fatigue with exertion.[1]

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