



VITAMIN D AND FALLS

Time for a moratorium on vitamin D meta-analyses

In 2003, Latham and colleagues performed a systematic review and meta-analysis of the effect of vitamin D or its metabolites on falls and found no effect.¹ At least eight further meta-analyses have been performed, including that reported by Bischoff-Ferrari and colleagues.² Four reported a positive effect, and five no effect, or benefits limited to certain subgroups. The differences between conclusions often depend on selection of studies for inclusion in the analyses, and the grounds for exclusion sometimes seem capricious. For example, a negative study³ was excluded from the recent meta-analysis because patients were “in an unstable health state,” even though this was not an exclusion criterion and this could apply to many people who will be treated.²

There are relatively few randomised controlled trials (RCTs) on this topic. The most recent review included 10 studies of 3050 participants included in the primary analysis and 17 studies in the sensitivity analyses.² The ratio of the number of RCTs to meta-analyses for vitamin D and falls is 17:9.⁴

Similarly, there are at least 14 published meta-analyses on vitamin D and fracture prevention, but the most recent Cochrane review included only 22 RCTs.⁵ Again, conclusions differ substantially between reviews. Most reviews reported no effect of vitamin D overall, but positive effects in some subgroups. The RCT to meta-analyses ratio for vitamin D and fractures is 22:14.

We are concerned that, in some areas of medicine, too much emphasis is placed on

analysis and reanalysis of a limited amount of trial level data, rather than on the design and conduct of informative RCTs in relevant populations.⁴ The conflicting conclusions thus generated can cause considerable confusion. We suggest that no further meta-analyses are conducted on vitamin D and falls or fractures until more adequately powered RCTs are performed.

Mark J Bolland senior research fellow, Department of Medicine, University of Auckland, Auckland 1142, New Zealand m.bolland@auckland.ac.nz

Andrew Grey associate professor of medicine, Department of Medicine, University of Auckland

Ian R Reid professor of medicine, Department of Medicine, University of Auckland

Competing interests: None declared.

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Cite this as: *BMJ* 2009;339:b4394

Information on harm is missing

We read Bischoff-Ferrari and colleagues' meta-analysis with astonishment because it does not consider potential side effects of vitamin D and its toxicity.¹ This is further evidence that treatment harms are regularly under-reported, even when the information is accessible in primary studies.²

As long as data on harm are missing, Bischoff-Ferrari and colleagues' meta-analysis does not permit an unbiased and objective assessment of the balance between risks and benefit of vitamin D. This is especially important in preventive options because patients are confronted with decisions on long term treatment that might (or might not) prevent events in the remote future.

Vitamin D and its analogues are not harmless—gastrointestinal symptoms

and renal disease have been reported.³ We therefore request Bischoff-Ferrari and colleagues to prepare an amendment on the side effects and toxicity of vitamin D. Because randomised controlled trials often do not reflect the underlying risk-benefit profiles of treatment options,⁴ inclusion of observational evidence might improve judgments about the applicability of the findings. Coverage of adverse events is a key feature of good clinical reporting, which was recognised by the recent PRISMA statement.⁵ Meta-analyses that don't provide this should be regarded as outdated.

Gabriele Meyer professor of clinical nursing research, University of Witten/Herdecke, 58453 Witten, Germany
Gabriele.Meyer@uni-wh.de

Sascha Köpke research fellow and senior researcher, University of Hamburg, Unit of Health Sciences and Education, Hamburg, Germany

Competing interests: None declared.

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Cite this as: *BMJ* 2009;339:b4395

INDEPENDENT SECTOR TREATMENT CENTRES

Quality of joint replacements not so bad?

Some of the facts in Nick Clarke's review of Panorama's recent programme on independent sector treatment centres (ISTCs) cannot go unchallenged.¹

He refers to a recent study about poor clinical results of joint replacement operations at the Weston NHS Treatment Centre in Somerset.² Patients who had hip and knee replacements there had a