New Osteoporosis Guidelines Released to Help Improve Australia’s Bone Health

Research Bites: DXA Rates in Men Still Falling Significantly Behind Women

Vitamin D and Bone Health

News Update
New Osteoporosis Guidelines Released to Help Improve Australia’s Bone Health

Osteoporosis Australia in collaboration with the Royal Australian College of General Practitioners (RACGP) are confident that new osteoporosis guidelines released in March will assist general practitioners to improve the bone health of Australian patients. The new clinical guidelines update the previous edition and include important developments over the past 6 years such as progress in osteoporosis care, including the introduction of a new medication, further clinical trial evidence for existing medications and an expanded evidence base for other interventions. The new guidelines will provide general practitioners with the expert guidance needed to help improve Australia’s bone health.

RACGP President Dr Bastian Seidel said “about 4.74 million Australians over the age of 50 have osteoporosis or osteopenia and most of these patients will turn to their GP for support. This is why the new osteoporosis guidelines provide general practitioners with the expert guidance needed to help improve Australia’s bone health.

It is estimated there will be over 160,000 fractures due to poor bone health in 2017. Osteoporosis Australia CEO Greg Lyubomirsky said “once a patient has broken a bone from a minor incident there is no time to wait. The underlying cause of that break should be investigated urgently and the patient may require treatment to minimise the risk of the next fracture occurring. We also encourage people with risk factors for osteoporosis to speak to their doctor because being pro-active can help prevent that first broken bone.”

The clinical guidelines were updated as a working partnership between Osteoporosis Australia and the RACGP. Osteoporosis Australia project managed a working group of Australian bone health experts, led by Chair of the Osteoporosis Guideline Committee Professor Peter Ebeling AO. The committee reviewed the current evidence and made clear recommendations for the diagnosis, treatment and prevention of osteoporosis. The guideline was then critically reviewed, endorsed and then published by the RACGP.

“Too few people with important risk factors for osteoporosis are investigated or treated. GPs play a
New osteoporosis guidelines released to help improve Australia’s bone health (Cont.)

front-line role in osteoporosis management and these new guidelines create a real opportunity for improving detection rates in general practice and reduce the burden of fractures. Importantly, fewer than 20 percent of patients who sustain a fracture due to osteoporosis are currently treated, despite effective treatments being available. So we need to improve this,” Professor Ebeling said.

The new guidelines contain a number of key highlights including:

- More specific guidance for exercise to prevent bone loss and reduce fracture risk
- Updated recommendations for osteoporosis medication on PBS listed for both men and women
- Advice on the use of on-line fracture risk calculators to aid GP decision-making
- Recommendations around the appropriate use of calcium and vitamin D supplements
- Clearer guidance on treatment duration and monitoring
- 42 evidence-based and consensus recommendations have been developed
- 2-page summary, with flowchart, for easy use by busy GPs
- Clearer directions for osteoporosis testing, diagnosis and treatment
- New recommendations for preventing and treating osteoporosis in people with breast and prostate cancer

Professor Ebeling also stated that “if patients present with an osteoporotic fracture or risk factors for osteoporosis, action can be taken. GPs are critically poised to take up the challenge presented by osteoporosis and become champions of change to close the existing evidence-treatment gap.”

“We are confident these guidelines will assist GPs as we aim to further reduce overall fracture rates in Australia,” Dr Seidel said.

Full clinical guidelines are free and accessible at Osteoporosis Australia and RACGP websites. To view and download visit www.osteoporosis.org.au/clinical-guidelines
DXA Rates in Men Still Falling Significantly Behind Women

A new analysis of Medicare data has revealed a worrying lack of awareness of fracture risk in Australian men. Publishing in the December 2016 issue of the Journal of Clinical Densitometry (doi: 10.1016/j.jocd.2016.10.008), researchers from Sydney’s Garvan Institute of Medical Research and St Vincent’s Hospital analysed Medicare Item Statistic reports of DXA scans in males and females between 1995 and 2015, broken down by age group. In general, the picture is encouraging, with DXA claims increasing steadily in both men and women over the 20-year period. A jump in claims in 2007 for the over 65s reflects improvements in Medicare provision – it was in 2007 that all individuals over the age of 70 became eligible for subsidised DXA. However, the research has highlighted the continued disparity in bone health management between men and women. Although male DXA rates have improved over the past 20 years, men are still not being tested in the same numbers as women. From 2007, more than twice as many women in the 75-84 age group were tested than men of the same age, and in the 65-74 age group, three times more women were tested.

Interestingly, testing in men aged 85 and over appears to be responsible for a large proportion of the rise in male testing rates since 1995. This finding is important, because although men over 85 are at higher individual risk of fracture (as are women), the bulk of fractures in the male population actually occur in the 65-84 age group, reflecting male demographic age distribution in Australia. The authors suggest that increased testing in this very elderly population reflects increasing awareness of high fracture risk in this age group by health care professionals.

The reasons for the persistently poor DXA overall testing rates in men remain unclear. The report’s authors suggest a perception by health care professionals that osteoporosis is uncommon in men, despite data demonstrating that a man of 60 has a 29% chance of a fracture in his remaining lifetime. Other contributory factors may be men’s lower interest in their personal health, social isolation or depression. Specific educational strategies to target the 65-84 age group – where fracture prevalence is greatest – may improve osteoporosis awareness and result in better outcomes for men.
With increasing uptake of effective treatments for osteoporosis, it is easy to forget the importance of ‘lifestyle interventions’ – vitamin D, calcium and weight-bearing exercise – in optimising bone health throughout life as well as optimising responses to specific osteoporosis treatments. This article will focus on vitamin D. The basic physiology indicates that vitamin D, actually the hormone made from vitamin D, 1,25-dihydroxvitamin D, is important for active absorption of calcium from the gut. The calcium, of course, has to be ingested in the first place. Dietary calcium, absorbed through the actions of vitamin D metabolites, helps to replace calcium lost each day in the urine, gut and sweat. If this process works well, it means that bone, which is the major store of calcium in the body, does not need to be raided to maintain blood calcium, despite these daily losses.

As people get older, renal losses of calcium become larger and efficiency of calcium absorption in the gut is reduced. At the same time, frail older people and people who need to live in institutions where care is provided, do not get out in the sun much to make vitamin D in skin (there is not much vitamin D in most unfortified foods) and mostly cannot be persuaded to do so, even with assistance. They often have a poor appetite, resulting in less than optimal calcium intake (1300mg/day in older people) and poor intake of protein, which is also important for bone health. Vitamin D is also a key factor in optimal muscle function, which affects propensity to fall.

There have been numerous meta-analyses of randomised controlled trials of patients given vitamin D with or without calcium with fractures as the outcome. The consensus views are that the combination of vitamin D and calcium (see physiology above) does have a modest, but significant effect to reduce fractures in older, susceptible people. Trials involving vitamin D are difficult to do well, since vitamin D is already present in the body. If the person has enough vitamin D, whatever ‘enough’ is, and a target of a minimum of 50nmol/L, higher at end of summer to allow for winter drop is recommended, giving more vitamin D will not produce any benefit. Not surprisingly therefore, the best evidence of efficacy in fracture reduction, for vitamin D with calcium come from studies in markedly vitamin D-deficient patients at high risk of fracture. There is also evidence that some of the more specific treatments for osteoporosis do not work as well if patients are vitamin D deficient. Most of the clinical trials of osteoporosis treatments are undertaken in patients given vitamin D and calcium supplements. Low vitamin D status may increase incidence of hypocalcemia in patients given intravenous bisphosphonate or denosumab, though usually for conditions such as metastatic malignancy, where high doses of these agents are used. Guidance on vitamin D testing has stressed that only groups at-risk of vitamin D deficiency require investigation, for example: severe lack of sun exposure for cultural, medical or occupational reasons, malabsorption, signs or symptoms of osteoporosis or osteomalacia, hyperparathyroidism, very dark skin, taking medication known to impact D levels (eg: anticonvulsants) or infants of vitamin D deficient mothers.

When dealing with older or frail people, where advice to go into the sun for brief periods, most days, is unlikely to be heeded or practical, vitamin D supplements are an alternative. A baseline vitamin D status measurement (actually measuring 25-hydroxyvitamin D (25(OH)D), the major circulating vitamin D metabolite), in at risk patients, may be helpful in monitoring the effect of therapy. Daily treatment with around 1000IU (25mcg) of vitamin D3 (cholecalciferol , the same compound made in skin and the form of vitamin D in nearly all supplements now available in Australia) should be enough to raise 25(OH)D levels to above 50nmol/L, but higher doses may be needed in some patients. It takes over 3 months for 250HD to reach a new steady state in blood after starting supplements or after a change in dose, so there is little point in ordering a follow-up vitamin D assay earlier than this.

Compliance with vitamin D supplementation, even in clinical trials, is poor. For this reason, alternatives to daily vitamin D treatment have been tested. Once yearly high doses of 500,000IU (12,500mcg) did not cause hypercalcaemia, but actually increased the risk of falls with a non-significant increase in fractures, for reasons that are unclear. If vitamin D supplements are required and daily dosing is impractical, weekly doses of vitamin D are an option that may enhance the patient compliance. These formulations are now available in Australia.

References available upon request.
NEWS UPDATE

World Congress breaks record

The World Congress on Osteoporosis, Osteoarthritis and Musculoskeletal Diseases was hosted by the IOF and ESCEO on 23-27 March in Florence. The congress attracted a record number of abstracts and over 4,000 delegates. As part of the congress Professor John Kanis, President of the International Osteoporosis Foundation, presented awards to seven individual members for their dedication to the work of IOF and commitment to advancing education and awareness in their countries and region. The Asia – Pacific award was presented to Professor Kerrie Sanders – team leader of musculoskeletal science, health economics and nutrition at the Institute for Health and Ageing, Melbourne; Honorary position as Principal Fellow at the University of Melbourne and member of the Medical and Scientific Advisory committee of Osteoporosis Australia and the IOF Committee of Scientific Advisors.

The congress was preceded by the bi-annual Worldwide Conference of Osteoporosis Patient Societies representing over 30 countries from all regions and including Osteoporosis Australia. The Know Your Bones consumer program launched by Osteoporosis Australia was featured among other success stories from patient societies. Greg Lyubomirsky, CEO of Osteoporosis Australia said “it is encouraging to see the programs being introduced in other parts of the world and share ideas from what has worked.”

Reaching General Practice

The start of the new triennium in 2017 and the release of new clinical guidelines for osteoporosis management means the topic of osteoporosis will feature in the scientific programs of large GP conferences around Australia. In particular the HealthEd Women and Children’s Health Update, GPCE Conferences and the RACGP annual conference.

Update regarding treatment

Servier are alerting GPs about the change in availability of strontium ranelate (trade name Protos) in Australia. The product will be discontinued permanently and only limited stock will be available worldwide beyond August 2017. The notification recommends that no new patients should be initiated on the treatment. Servier states the decision is not related to a quality or safety issue in Australia or internationally, it is due to a significant reduction in global demand for the treatment (Protos).

Do your patients need information?
Direct patients to the Osteoporosis Australia website or tollfree patient info number
www.osteoporosis.org.au
1800 242 141