OSTEOSCAN PARTNERS IN OSTEOPOROSIS MANAGEMENT

FEBRUARY 2013

Telephone Consultations

Wilton Braund and George Tallis are both practicing endocrinologists at EndocrineSA and are available to discuss patient management by telephone. This often occurs in the context of a situation too complicated to address in a standard report.

A consultation may be arranged by telephoning Lisa on 1300 791 996.

Practice Audits

It is estimated that only about 10% of the over-70s population have used the new Medicare item number to have screening BMD performed. It is similar in the United States where 87% of women > 65 years have never had BMD measured. Osteoscan will liaise with practices wishing to conduct audits of their over 70s patients and will provide a free VFA (Vertebral Fracture Assessment) as part of the BMD service. The pick-up rate for new fractures in this age group is about 20%.

Please contact Lisa on 1300 791 996 or email admin@osteoscan.com.au for further information about this service.

The data from this study on an Australian population have been used to create a calculator which takes into account bone density and the following clinical variables:

- Age
- Sex
- Fractures since the age of 50 (1 fracture, 2 fractures, 3 or more fractures)
- Number of falls in the last 12 months (1 fall, 2 falls, 3 or more falls).

The BMD of the **neck of femur** is used for risk calculations (this is a world- wide convention). Thus we cannot calculate fracture risk in patients whose hips have been replaced. We do, however, follow a local Australian convention of calculating total fracture risk on the basis of the average BMD of the lumbar spine

Are there other ways of calculating fracture risk estimates?

An alternative calculator is the FRAX calculator. Although the use of the FRAX is more widespread, we believe it is better used to decide whether a patient under the age of 65 should have a BMD test (recommended if the FRAX estimate of total fractures is 9% or greater). **"FRAX before BMD; GARVAN after BMD".** However in women under the age of 60, FRAX estimates are the only estimates available for that age group. Note that FRAX does not distinguish between a patient who has had a single fragility fracture since the age of 50 and a patient who has had multiple fractures. Nor does the FRAX estimate of fracture increase in patients who describe having falls.

Some manufacturers of densitometry machines have incorporated FRAX estimates of future fracture risk into their software. This means that many reporting sites will quote a risk estimate that has not been adjusted for fracture numbers, nor adjusted for frequent falling and without VFA or spine image. Such a fracture risk may well be an underestimate.

How does Vertebral Fracture Assessment (VFA) affect fracture estimates?

Two thirds of postmenopausal Australian women, whose vertebral fracture(s) appear on their VFA, had not realized that their pain had been due to a fracture. VFA identifies a fracture in one in 4 Australian women over 65, and in one in 3 women over 70. This means that, without VFA, 17% of women aged 65 to 70, and 22% of women over 70, will be given a fracture risk underestimate that may falsely reassure them and their doctors.

Do high levels of bone turnover affect the fracture risk estimate?

High levels of bone turnover have a marked impact on fracture risk. Rapid bone turnover causes accelerated bone loss. **"A change in BMD tells you whether bone has been lost; high turnover tells you that bone will be lost".** A patient with osteopenia, whose fasting serum Crosslaps level is >600ng/L has a higher risk of fracture than a patient with osteoporosis and a prevalent fracture.

Unfortunately, mathematical algorithms that would change our numeric fracture estimates have not yet been developed. Instead, we draw your attention to the increased risk of fracture in the "Comments and Recommendations" section of our report. In patients with high turnover we usually advise a shorter interval to the next BMD test.

What else do we draw to your attention in the report?

Our reports include specific comments for patients who take glucocorticoids - and we appreciate any information that you can supply in your referral note. Special fracture estimates and comments also apply to women with breast cancer whose cancer treatment has triggered menopause.

If your patient has a fracture risk estimate that puts them on the border of needing a bisphosphonate, we suggest that you should be influenced by our report on whether they smoke, drink steadily, have a family history of hip fracture etc. We are able to include these additional risk factors in Osteoscan reports because all patients complete a questionnaire on arrival. Again, any details in your referral note are welcome.

Previous Newsletters: These can be accessed on the Osteoscan website. In particular, you may wish to re-examine the newsletter dedicated solely to Crosslaps.