

OSTEOSCAN

Osteoscan remains South Australian and doctor-owned... "of clinicians, by clinicians, for clinicians". We hope that this newsletter is of interest and welcome your feedback and support by way of referrals.

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Wilton Braund

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Welcome to another year of hard work! Osteoscan's logo includes our slogan "Partners in Fracture Prevention". Therefore our service provides more than just bone densitometry. We offer simultaneous Vertebral Fracture Assessment (VFA) and Crosslaps, and an integrated report including fracture risk calculation.

This newsletter addresses two practical issues:

- The patient with a vertebral fracture and normal BMD
- How we calculate fracture risk estimates

Our aim is to provide the sort of practical "coal-face" information that one doesn't find in journals.



Headquarters at the magnificent Tennyson Centre

It is hard for one picture to do justice to the ambience of the Tennyson Centre. Just ask your patients! The coffee shop at Tennyson Centre is important: each *caffè latte* supplies 300mg of dietary calcium.

Vertebral fracture with normal BMD.

What do I do next?

The incidence of vertebral fractures is difficult to quantify accurately, as only a third of patients come to medical attention after fracture. The European EVOS study suggested that overall prevalence of vertebral deformity increases in women from 5% at the age of 50 years to 25% at 75 years, whereas the corresponding figures for men are 10% and 18%. Australian data suggest that our rates may be slightly higher.

About 50% of patients with vertebral fractures have evidence of osteoporosis (T score < -2.5) on spine bone densitometry (BMD), and a further 40% have osteopenia (T score -1 to -2.5). This leaves about **8-10% of patients in whom BMD is within the normal range.** What should be done by the treating doctor in this situation?

First of all, BMD may not truly be normal. It is possible that BMD measurements have been elevated by factors such as lumbar degeneration, aortic calcification or areas of Paget's disease. These can usually be seen in the vertebral fracture assessment (VFA) image, and we will report them if they are present.

Secondly, if BMD really is normal (no distorting factors), then further history and examination are required. A history of previous trauma should always be sought, especially in men. Common causes include vehicle accidents, workplace injuries and sporting injuries (including horse and bike riding).

If there are symptoms to suggest recent onset, it is also worth considering whether another pathology is present such as malignancy or infection. A history of pain, unexplained weight loss, night sweats or a past history of malignancy should be sought. Examination of skin, breast and prostate is important.

Investigations that one might consider include a full blood count, ESR, CRP, protein electrophoresis, ALP and possibly PSA. Further imaging may be required, including a nuclear bone scan or CT/MRI scan to look for evidence of malignancy.

Assessment of vertebral fracture status via the VFA is a very helpful tool for assessing and managing your patients but on occasions it does pose difficult questions.

How does Osteoscan calculate fracture risk estimates?

The bulk of patients who are sent to Osteoscan are over 60. This means that we can use research from the Dubbo prospective study of osteoporosis and fractures.

Locations

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1st Floor, Tennyson Centre
520 South Road
KURRALTA PARK

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Medical Centre
199 Sturt Road
SEACOMBE GARDENS

North East

Suite 3, 1240 North East
Road
ST AGNES

Whyalla

UniSA Whyalla Campus
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