

International Society of Clinical Densitometry 2008 Annual Meeting San Francisco

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Winner of the 2007 AIR International Travel Scholarship

My involvement with bone mineral densitometry began over 10 years ago with the installation of a DXA unit, together with the instructions 'here's the manual, learn how to push the buttons'. Unfortunately I do not think this scenario is very different from many other radiographers who start in the field. However, and fortunately, education in bone mineral assessment has come a long way as evidenced by an active and robust international scientific and research community. This is clearly demonstrated by the International Society of Clinical Densitometry (ISCD) Annual Meeting, which is the largest gathering of specialists in the densitometry discipline.

Thanks to the generosity of the AIR Travel Scholarship, I was fortunate to attend the 2008 ISCD meeting in San Francisco.

The annual meeting brings together world authorities and experts in skeletal health assessment to deliver educational presentations and present new developments to clinicians and technologists in the field. This is the only international meeting dedicated to specialised bone mineral densitometry. My recent attendance has been a professional highlight.

An entire session of the meeting was devoted to the presentation of the 2007 Position Development Conferences (PDC). Densitometry is an emerging field and there is much debate and discussion in many areas. With the increasing use of bone densitometry, differences in technologies, acquisition techniques, reference databases, reporting methods and terminology have developed.

To address these issues, the ISCD periodically holds PDC for the purpose of establishing standards and guidelines. Topics are selected for consideration and reviewed by scientific working groups and then presented by an international panel of experts.

The open session at San Francisco provided a fascinating insight into the enormous hard work of the Task Force and all of their following recommendations are based on scientific literature reviews.

The ISCD Official Positions are for worldwide application and further details can be found on the ISCD website.

The topics covered by the PDC at the Annual Meeting:

- Diagnosis in postmenopausal women;
- Diagnosis in men (aged 20 and older);
- Diagnosis in children (males and females less than age 20);
- Indications for BMD testing;
- Serial bone measurement;
- DXA technical issues (indications in men, perimenopause, high BMD); and
- pDXA (diagnosis, monitoring, interpretation, reporting, quality control).

Hot off the press at the San Francisco Meeting was the launch of FRAX™ – the WHO Fracture Risk Assessment Tool. As FRAX has just been released on 21st February, 2008, I did not feel so bad that I had never heard of it before. FRAX, a web-based site, is reported as a milestone in osteoporosis prevention and treatment. It is a technical report based on epidemiological and health economic analyses of population-based cohorts worldwide. This assessment of osteoporosis is seen as a major step towards helping health professionals worldwide to identify more easily patients at high risk of fracture for treatment.

Currently, treatment decisions are largely based on bone mineral density measurement. This has proven to be specific, but not sensitive, for the identification of patients at high risk of fracture. Nearly 50% of postmenopausal women in the community over the age of 50 years who suffer an osteoporotic fracture do not have osteoporosis defined by a BMD test.

The practical web-based tool FRAX™ predicts the 10-year risk of osteoporosis fracture in men and women. An individual's risk factors such as age, sex, weight, height, and femoral neck BMD, are entered into the website tool, followed by clinical risk factors which include a prior fragility fracture; parental history of hip fracture, current tobacco smoking, long-term use of glucocorticoids, rheumatoid arthritis, other causes of secondary osteoporosis and daily alcohol consumption.

With future DXA scanner upgrades, radiographers will see the densitometry manufacturers incorporating FRAX in their standard software, enabling BMD reports to incorporate the FRAX assessment.

Many DXA radiographers have already encountered patients' concerns regarding osteonecrosis of the jaw (ONJ). This has especially increased since a misleading ABC 7.30 Report in December 2007 and so it was extremely timely and informative to attend a fascinating presentation by Prof John Bilezikian that offered an evidenced-based review of this condition. Typically occurring after a dental procedure, ONJ is a dental condition in which bone in the lower jaw or, less commonly the upper jaw, becomes exposed and the wound fails to heal in the usual time frame. Infection in the area can occur and the area may be painful. This can become a chronic problem in many of those who develop it. Based on information available to date, the incidence of ONJ appears to be rare in people taking oral bisphosphonates. The benefits of bisphosphonates far outweigh the risk of side effects, which are minimal.

Osteonecrosis of the jaw is very rare side effect of bisphosphonates. However, it is important to be aware of this rare but potentially serious association of bisphosphonate treatment and it is recommended that patients taking bisphosphonates continue to have regular dental check-ups and to let their dentist know about all the medications they are taking. Further information can be found on the ISCD and ANZBMS websites.

The ISCD Annual Meeting provided me with multiple learning opportunities; I attended challenging presentations concerning many new developments in the field of bone densitometry. This was also a time for evaluation and reflection as it is important to stand back from the day-to-day routine of DXA scanning and reflect beyond just scanning and positioning the patient.

I gratefully acknowledge the AIR for funding my ISCD experience, supporting me in striving for continuing professional education and encouraging promotion of a broader understanding in my area of speciality. After all, a technology is only as good as the technologist.

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