

December 2011

Dear Physician,

There continue to be changes in the Canadian Bone Mineral Density Facility Accreditation Program (CBMD). This letter is to inform you about the most recent updated guidelines for BMD reporting (2011), based on recommendations by the Ontario Association of Radiologists (OAR), Canadian Association of Radiologists (CAR) and Osteoporosis Canada. This program has been designed to evaluate personal qualifications, equipment performance and effectiveness of quality control measures. The program requires annual ongoing continuing medical education for both radiologists and technologists as well as annual testing for technologists performing BMD studies. The program requires daily equipment quality control and annual quality control by an external physicist. Most importantly, the program requires each accredited BMD facility to mathematically calculate precision. When consecutive BMD studies are compared over time, precision data determines if a change in BMD is statistically significant or not.

Fracture risk is now determined solely by the femoral neck T-score. Previously the fracture risk was determined by the lowest T-score at any site. This may result in a patient's fracture risk changing. Current data suggests that femoral neck T-score is accurate in determining fracture risk and is less susceptible to measurement artifacts seen in the spine. The diagnostic category remains determined by the lowest T-score in the lumbar spine, total hip or femoral neck.

Men can now be categorized as osteoporotic. There is a new category of severe osteoporosis (osteoporosis with a fragility fracture). The term osteopenia is no longer used and has been replaced with the term *low bone mass*. As before, fracture risk cannot be provided for patients on medical therapy (bisphosphonates) or patients less than 50 years of age.

Patients that have a history of fragility fracture are now automatically considered high risk regardless of their T-score. A fragility fracture is defined as a fracture in the spine, hip, or any two other sites (wrist, proximal humerus, or ribs with coughing) resulting from a fall from standing height or less, after age 40.

Factors other than the T-score that may increase fracture risk include: history of fragility fracture, greater than 3 months of steroid intake within the past year, females on aromatase inhibitors for breast cancer, males on androgen deprivation for prostate cancer or history of recurrent falls.

Patients at moderate fracture risk may benefit from lateral X-rays of the thoracic and lumbar spine to assess for fragility fractures, which would then place them in the high risk category.

There is good evidence that high risk patients benefit from medical therapy.

OHIP BMD referral guideline changes came into effect in 2010.

- For patients starting BMD screening after July 1, 2010 the following rules apply:
 - OHIP will pay for one baseline bone density study in a lifetime.
 - In low risk patients, a routine second BMD may be done after 3 years and subsequent routine examinations are limited to one test every five years.
 - Patients characterized as low risk that have developed new clinical risk factors, such as a fragility fracture, prolonged steroid use, aromatase inhibitors, androgen deprivation or history of recurrent falls, may be reclassified as high risk and return for earlier follow up. However, the requisition needs to indicate *high risk* with the reason provided.
 - For low risk patients with previous done BEFORE July 1, 2010, routine BMD will be done after five years.
 - High risk patients (ie. low bone mass or osteoporosis) are limited to one test per year.

Ontario Diagnostic Centres has accredited Canadian Bone Mineral Densitometry sites in Mississauga and the only accredited site in Etobicoke. Accreditation ensures that the scanning quality is reproducible and accurate. We continue to strive to maintain the highest standards for bone mineral density scanning and reporting.

Sincerely,

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