

DXA scan – interpretation of results in primary care

Information for prescribers - to be read in conjunction with the [SPC](#) where applicable

Background

Osteoporosis is a disease characterised by low bone mass and structural deterioration of bone tissue, with a consequent increase in bone fragility and susceptibility to fracture. Osteoporosis itself is asymptomatic and often remains undiagnosed until a fragility fracture occurs.

The risk of fracture increases progressively with decreasing bone mineral density (BMD). Systematic reviews and meta-analyses of observational population-based studies using absorptiometric techniques indicate that the risk of fracture increases approximately two-fold for each standard deviation (SD) decrease in BMD.

Further information on the management of osteoporosis can be found in the LSCMMG osteoporosis: secondary fracture prevention patient treatment pathway. This guidance can be accessed via:

<https://www.lancashireandsouthcumbriaformulary.nhs.uk/docs/default.asp?DocLib=001&Sort=A>

Some medicines may be a risk factor for developing osteoporosis, such as high dose (therapeutic use) corticosteroids, or may require a DXA scan as part of routine monitoring i.e. relugolix–estradiol–norethisterone acetate (Ryeqo).

Relugolix–estradiol–norethisterone acetate (Ryeqo) has been associated with reduced bone mineral density (BMD). Therefore, a DXA scan is required after the first 52 weeks of treatment. The decision to stop treatment if the DXA scan results show a reduction of BMD should be discussed with the relevant specialist service.

DXA scan interpretation

Bone density (T-score)

A T-score compares bone density to the normal range found in young healthy adults. T-scores are categorised as:

Normal: T-score ≥ -1.0 – bone density is in the normal range for a young adult.

Osteopenia: T-score between -1.0 and -2.5 – bone density is slightly below the normal range for a young adult. This score is expected in older adults.

Osteoporosis: T-score ≤ -2.5 – bone density is much lower than the normal range for a young adult.

Osteoporosis is diagnosed based on a T-score of -2.5 or lower in the lumbar spine, femoral neck and total hip. The lowest T-score at any of these measured sites should be used for diagnosis.

Z-score

A Z-score is usually reported alongside the T-score. A Z-score compares bone density to people of the same age. It is useful for looking at the bone strength of children and young adults. If the Z-score is -2.0 or less, BMD is low compared to the average bone mineral density for healthy people of the same age, ethnicity, and sex. A low Z-Score can indicate the need for further investigation.

Management

Patients should be managed according to the [National Osteoporosis Guideline Group: Clinical Guideline for the Prevention and Treatment of Osteoporosis](#).

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Please refer to the [BNF](#) or [Summary of Product Characteristics](#) for more information, where applicable.

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