

***Sample* Osteoporosis and the Clinical Utility of DXA Technology In-Service Course Agenda**

8 Hour Program / 1 Day

 The Revolution in Osteoporosis

* Who is at risk of Osteoporosis?
* Basic science of bone metabolism and remodeling
* Societal impact and consequences of fracture

DXA Bone Densitometry

* The Gold Standard: Operating principles, limitations and radiation safety
* Determination and value of BMD measurements: T-Scores and Z-Scores
* Quality Control – precision, assessment and accuracy

The Role of the DXA Technologist:

* Patient intake form
* Patient positioning, scan acquisition and analysis
* Communications and responsibilities for interpretations of DXA results

Bone Mass Measurement:

* Anatomical sites of importance: spine, proximal femur and forearms
* Scan analysis: specific regions of interest and the clinical diagnosis of Osteoporosis
* FRAX: calculations and assessment of absolute fracture risk and follow-up
* Important differences between various manufactures of DXA instruments
* Complimentary methods to DXA: Vertebral fracture assessment (VFA), bone biomarkers, quantitative ultrasound

Clinical Utility of DXA:

* DXA results in children and young adults
* Clinical vignettes: concerning PA spine, proximal femurs and VFA
* Troubleshooting DXA analyses: typical and complex situations, osteoarthritis, scollosis, prostheses, significant weight loss/gain, hyperparathyroidism, etc.

Reporting DXA results:

* Contents of a baseline and follow-up DXA report
* Proper use of *Least Significant Change* and FRAX

Clinical Management of Osteoporosis

* Prevention: the role of Calcium, vitamin D requirements and weight bearing exercise
* Current and newly approved treatments for Osteoporosis
* The myths and realities of osteoporosis treatment options, side effects

**~ Agenda Subject to Change ~**

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