

***Sample* 2 Day Bone Densitometry In-Service Course Agenda**

16 Hour Program / 2 Day

**This activity provides the 16 hours of structured education related to the content specifications outlined by the ARRT, required for certification and registration.**

Bone Densitometry Overview

Patient Care and Management

* What is Bone Densitometry?
* Why Bone Densitometry?
* The history and present techniques
* Advantages and disadvantages
* DXA technology in vertebral fracture assessment
* DXA technology in body composition assessment

Suggestions for setting up a Bone Densitometry room/office/ laboratory

Procedures and Image Production

* Discuss what is expected from reception staff
* Educational materials
* Bone densitometer room set-up
* Apply state rules/regulations for record keeping
* Understand the importance of archiving and backing up
* Communication with all operators of the equipment

An Overview of Osteoporosis

Patient Care

* Stats and facts
* Bone physiology
* Risk factors
* BMMA
* Evaluation
* Prevention and treatment
* Laboratory tests

Principles and Instrumentation of DXA equipment

Image Production

* DPA
* DXA
* What are x-rays?
* Two methods of x-ray production
* Radiation detection
* Pencil beam vs fan beam
* Variables measure in DXA
* Precision
* Equipment characteristics
* Operator and patient characteristics
* Follow-up scanning

Quality Control

Image Production

* Define quality control
* Phantoms
* Utilize the phantoms to make control tables/charts
* Types of QC
* Relocation of DXA units
* Cross calibrations
* Upgrades

Radiation Safety

Patient Care

* State regulations
* ALARA
* Principles of radiation protection
* Radiation quantities
* Patient preparation

Procedures

* Forearm DXA scanning
* Proximal femur DXA scanning
* PA lumber spine DXA scanning

Scanning Techniques / Demonstrations

Case Studies

ARRT Exam Preparation / Content Specifications

**~ Agenda Subject to Change ~**

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