

DXA Radiographer Competency Outline -example

| Core competencies                |  |   |                             |                                      |
|----------------------------------|--|---|-----------------------------|--------------------------------------|
| Competency 1- Professional       |  | Competency 2- DXA Equipment   | Competency 3- DXA technique | Competency 4- Underpinning Knowledge |
| Patient care                     | Ensures that patient care is of a high standard and individualised to each patient   | Proper use of medical imaging equipment is an essential component in the safe delivery of healthcare. In demonstrating competence, staff should be able to operate the equipment appropriately and understand the basic principles underlying its configuration & operation | Positioning and acquisition |                                      |
| Working safely                   | Has an understanding of policy and legislation on Health and Safety and maintains a safe working environment for self, patients and colleagues |   | Scan analysis               |                                      |
| Core Competency 2: DXA Equipment |  |   |                             |                                      |
| 2.1 Skills                       |  |   | date                        | sign off by- signature               |
| 2.1.1                            | Performs start up and shut down procedures correctly   |   |                             |                                      |
| 2.1.2                            | Demonstrates safe use of table and gantry controls   |   |                             |                                      |
| 2.1.3                            | Is able to perform QA procedures for the system concerned  |   |                             |                                      |
| 2.1.4                            | Is able to register a patient manually or from a RIS scheduler   |   |                             |                                      |
| 2.1.5                            | Is able to access and select specific protocols  |   |                             |                                      |
| 2.1.6                            | Can locate and where necessary manipulate scan parameters  |   |                             |                                      |
| 2.1.7                            | Understands & can demonstrate appropriate windowing and image presentation   |   |                             |                                      |
| 2.1.8                            | Can use manual reporting function correctly including changing of report format  |   |                             |                                      |

|   |   |      |                        |
|---|---|------|------------------------|
| 2.1.9   | Can print off relevant reports or scan print outs   |      |                        |
| 2.1.10  | Is able to archive, retrieve and transfer to and from other locations or storage media  |      |                        |
| <b>Core Competency 3: DXA Technique</b>                           |   |      |                        |
| <b>3.1 Clinical scanning skills Positioning &amp; acquisition</b> |   | date | sign off by- signature |
| 3.1.1   | Selects correct scan parameters for the examination:  |      |                        |
| 3.1.2   | Prepares the patient for the examination and assesses the patient questionnaire (where applicable)  |      |                        |
| 3.1.3   | Positions the patient on the scanning table correctly for the examination   |      |                        |
| 3.1.4   | Is aware of any safety issues relating to positioning patients  |      |                        |
| 3.1.5   | Is aware of variations in protocols e.g: replacement of hip joint, spinal surgery, patient condition  |      |                        |
| 3.1.6   | Can demonstrate how to change scanning speed/mode where necessary   |      |                        |
| 3.1.7   | Correctly positions the anatomical area under examination   |      |                        |
| 3.1.8   | Correctly positions the anatomical area under examination:<br>-Lumbar spine<br>-Proximal femur<br>-Forearm<br>-Total body<br>-Lateral Spine (VFA) |      |                        |
| 3.1.9   | Can demonstrate when to reposition a scan and how   |      |                        |
| 3.1.10  | Can manipulate automatic image produced when necessary (adjusting window  |      |                        |
| 3.1.11  | Reviews images for quality, patient movement, artefact and pathology and  |      |                        |
| 3.1.12  | Attends to post examination needs of the patient and explains how the results   |      |                        |
| <b>3.2 Clinical Scanning skills: Scan analysis</b>                |   | date | sign off by- signature |
| 3.2.1   | Verifies correct positioning of anatomical area scanned   |      |                        |
| 3.2.2   | Reviews images for quality, patient movement, artefact and pathology and  |      |                        |
| 3.2.3   | Positions the regions of interest (ROI) correctly   |      |                        |
| 3.2.4   | Identifies vertebral levels and knows when to exclude   |      |                        |
| 3.2.5   | Prepares scan archive/print out for reporting   |      |                        |
| <b>Core Competency 4: Underpinning Knowledge</b>                  |   |      |                        |
| <b>4.1 Underpinning Knowledge: DXA Equipment</b>                  |   | date | sign off by- signature |

|  |  |      |                        |
|--|--|------|------------------------|
| 4.1.1  | Is able to explain the term dual energy x-ray absorptiometry                                       |      |                        |
| 4.1.2  | Is able to identify the direction of the x-ray tube  |      |                        |
| 4.1.3  | Is able to identify exact scanning area on table   |      |                        |
| 4.1.4  | Is able to identify stand-by/emergency off switch  |      |                        |
| 4.1.5  | Is able to identify procedure if QA test fails or phantom is outside of tolerance                  |      |                        |
| <b>4.2 Underpinning Knowledge: positioning and acquisition</b> |  | date | sign off by- signature |
| 4.2.1  | Understanding of contra-indications for performing hip or spine scan                               |      |                        |
| 4.2.2  | Understanding of circumstances under which the scan time/mode would be changed                     |      |                        |
| 4.2.3  | Understanding of anatomy of the hip and spine areas, and correct positioning                       |      |                        |
| 4.2.4  | Is able to state WHO definition of osteoporosis  |      |                        |
| 4.2.5  | Is able to state the clinical risk factors for fragility fracture                                  |      |                        |
| 4.2.6  | Is able to state the clinical indications for DXA  |      |                        |
| <b>4.3 Underpinning Knowledge: scan analysis</b>               |  | date | sign off by- signature |
| 4.3.1  | Understanding of BMC/area/BMD  |      |                        |
| 4.3.2  | Understanding of reference data selection/differences  |      |                        |
| 4.3.3  | Understanding the importance of correct region of interest placement in relation to reference data |      |                        |
| 4.3.4  | Understanding the limitations and reliability of measurements                                      |      |                        |