

Clinical Imaging and Breast Screening National Occupational Standards

Context and Signposting document

Background

In 2017, as part of their remit and in response to advice and information from experts and specialists in the field, Health Education England (HEE) commissioned Skills for Health to develop a career framework, competence framework and transferable role templates for diagnostic radiography and breast imaging/mammography to articulate the career development routes for those currently in or wishing to gain entry to the profession and to ensure sufficient numbers of suitably qualified radiographers to provide imaging services.

The products of this work are based on NOS and it is during the development of these products that the need for a review of certain NOS was identified. HEE commissioned Skills for Health to undertake the project management of the review of the Clinical Imaging and Breast Screening suites of NOS. This project also included the development of any agreed new NOS within the scope of imaging specific functions for these areas.

The project

Following Skills for Health project processes, there was a project governance structure in place to undertake this project. The Project Executive Group was responsible to Skills for Health senior management team and this Group ensured that the project did not go beyond the agreed project parameters.

The project convened a Steering Group consisting of senior leads for clinical imaging and sonography and professional bodies. The role of the Steering Group was to oversee the project process and provide advice on any risks to the project.

A Reference Group was also convened and consisted of membership from practitioners in radiography, sonography and mammography from across the four nations of the UK. The Reference Group was responsible for amending the standards and bringing them up to date with current practice.



Subject matter experts were also involved in developing the new NOS such as DXA and forensic imaging.

There were 41 NOS in total across both Breast Screening and Clinical Imaging suites within the scope of review of the project. It is now accepted practice to reduce the number of NOS that are contextualised versions of NOS for functions that can be undertaken more widely. Consequently, this has reduced the number of NOS that were duplicated to meet contextualisation restrictions from 41 to 15 NOS. To account for new practice, seven new NOS have been developed as part of this project, bringing the total number of NOS across both suites to 22.

What are National Occupational Standards?

NOS describe the skills, knowledge and understanding needed to undertake a particular task or job to a nationally recognised standard of competence. They focus on what the person needs to be able to do, as well as what they must know and understand to work effectively. They cover the key activities undertaken within an occupation, across all the circumstances the job holder is likely to encounter.

Skills for Health has a Competence Tools database which contains over 2000 NOS that could be relevant for health sector workers. The NOS range from communication, personal development, to carrying out health interventions, management and leadership and estates and facilities. Some of these NOS have been developed by other sector skills councils and imported into the Skills for Health database for use by the health sector. An individual's role can be defined by using NOS from different suites and putting them together in a role profile. This can then be used for assessment, workforce planning, education and training programmes or for personal development.

Terminology

Individual: The term individual rather than patient is used throughout the NOS.

Key people: The term key people is used throughout the NOS. This term is intended to be generic to cover all those involved in the individual's care.

Legislation, policies and procedures: Standard statements have been used in the NOS to avoid listing all of the legislation, policies and procedures that are applicable to particular roles/occupations.

Changes made to the Clinical Imaging and Breast Screening suites of NOS

This document has been produced to highlight the changes that have been made to the Clinical Imaging and Breast Screening suites of National Occupational Standards. A number of changes were made to these suites of NOS to reduce the impact of contextualisation. As well as retaining the some of the modality specific NOS, there are also some generic imaging NOS which may be able to be applied across a number of modalities such as reporting. Please see the changes illustrated in the table below:

Revised NOS Prefix	Revised NOS title	NOS suite	Hyperlink to revised NOS	Replaces the following NOS
CI.A.2019	Produce conventional radiographic images for diagnostic purposes	Clinical Imaging	https://tools.skillsforhealth.org.uk/competence/show/html/id/4299/	CI.A Produce plain radiographic images for diagnostic purposes CI.A1 Produce plain radiographic images of the appendicular skeleton for diagnostic purposes CI.A2 Produce plain radiographic images of the chest and thorax for diagnostic purposes CI.A3 Produce plain radiographic images of the spine and pelvis for diagnostic purposes CI.A4 Produce plain radiographic images of the abdomen for diagnostic purposes CI.A5 Produce plain radiographic images of the skull for diagnostic purposes
CI.A6.2019	Produce conventional radiographic images for diagnostic purposes using mobile imaging equipment	Clinical Imaging	https://tools.skillsforhealth.org.uk/competence/show/html/id/4300/	CI.A6 Produce plain radiographic images for diagnostic purposes using mobile x-ray equipment CI.G Produce images using mobile image intensifier equipment
CI.B.2019	Interpret and report on imaging examinations	Clinical Imaging	https://tools.skillsforhealth.org.uk/competence/show/html/id/4301/	CI.B Interpret and report on plain radiographic images CI.B1 Interpret and report on plain radiographic images of the appendicular skeleton CI.B2 Interpret and report on plain radiographic images of the axial skeleton

Revised NOS Prefix	Revised NOS title	NOS suite	Hyperlink to revised NOS	Replaces the following NOS
				CI.B3 Interpret and report on plain radiographic images of the chest CI.B4 Interpret and report on plain radiographic images of the abdomen
CI.C.2019	Perform, interpret and report on ultrasound examinations	Clinical Imaging	https://tools.skillsforhealth.org.uk/competence/show/html/id/4302/	CI.C Acquire, interpret and report on ultrasound examinations CI.C1 - Acquire, interpret and report on ultrasound examinations of the abdomen and pelvis CI.C2 - Perform, interpret and report on ultrasound examinations of gynaecological structures CI.C3 - Perform, interpret and report on ultrasound examinations in pregnancy CI.C4 - Acquire, interpret and report on ultrasound examinations of the heart CI.C5 - Acquire, interpret and report on ultrasound examinations of the vascular system CI.C6 - Acquire, interpret and report on ultrasound examinations of selected musculo-skeletal anatomy M4 Perform, interpret and report ultrasound imaging of the breast and associated structures
CI.D.2019	Produce Computed Tomography (CT) scanning images for diagnostic purposes	Clinical Imaging	https://tools.skillsforhealth.org.uk/competence/show/html/id/4303/	CI.D Produce C.T. scanning images for diagnostic purposes CI.D1 Produce C.T. scanning images of the brain

Revised NOS Prefix	Revised NOS title	NOS suite	Hyperlink to revised NOS	Replaces the following NOS
CI.E.2019	Produce Magnetic Resonance images (MRI) for diagnostic purposes	Clinical Imaging	https://tools.skillsforhealth.org.uk/competence/show/html/id/4304/	CI.E Produce Magnetic Resonance images for diagnostic purposes
CI.F.2019	Produce images using fluoroscopy	Clinical Imaging	https://tools.skillsforhealth.org.uk/competence/show/html/id/4305/	CI.F Produce images using static image intensifier equipment CI.F1 Direct and report on fluoroscopic examinations of the lower gastro-intestinal tract using contrast media CI.F2 Direct and report on contrast swallow using fluoroscopy CI.F3 Direct and report on contrast meal using fluoroscopy CI.F4 Direct and report on small bowel enema examinations using fluoroscopy and contrast media CI.F5 Direct and report on contrast follow through using fluoroscopy CI.F6 Direct and report on video fluoroscopic examinations of the oro-pharynx and oesophagus using contrast media CI.F7 Direct and report on defaecating proctography using fluoroscopy
CI.H.2019	Insert and remove a catheter or cannula for the introduction of contrast agents for imaging procedures	Clinical Imaging	https://tools.skillsforhealth.org.uk/competence/show/html/id/4306/	CI.H Introduce and remove a rectal catheter for the introduction of contrast agents for imaging procedures

Revised NOS Prefix	Revised NOS title	NOS suite	Hyperlink to revised NOS	Replaces the following NOS
CI.I	Perform image guided procedures and/or interventions	Clinical Imaging	https://tools.skillsforhealth.org.uk/competence/show/html/id/4307/	M10 Undertake ultrasound guided interventional breast procedures
CI.J	Produce Positron Emission Tomography/Computed Tomography (PET/CT) images for diagnostic purposes	Clinical Imaging	https://tools.skillsforhealth.org.uk/competence/show/html/id/4308/	
CI.K	Produce Positron Emission Tomography/Magnetic Resonance images (PET/MRI) for diagnostic purposes	Clinical Imaging	https://tools.skillsforhealth.org.uk/competence/show/html/id/4309/	
CI.L	Produce Single Photon Emission Computed Tomography (SPECT)and Single Photon Emission Computed Tomography (SPECT/CT) images for diagnostic purposes	Clinical Imaging	https://tools.skillsforhealth.org.uk/competence/show/html/id/4310/	
CI.M	Produce dual-energy X-ray absorptiometry (DXA) scans for diagnostic purposes	Clinical Imaging	https://tools.skillsforhealth.org.uk/competence/show/html/id/4311/	
CI.N	Produce forensic images of children for signs of suspected physical abuse	Clinical Imaging	https://tools.skillsforhealth.org.uk/competence/show/html/id/4312/	
CI.O	Produce forensic images of the deceased	Clinical Imaging	https://tools.skillsforhealth.org.uk/competence/show/html/id/4313/	

Revised NOS Prefix	Revised NOS title	NOS suite	Hyperlink to revised NOS	Replaces the following NOS
M2.2019	Produce routine radiographic images of the breast	Breast Screening	https://tools.skillsforhealth.org.uk/competence/show/html/id/4292/	M2 Position individuals and produce radiographic images of the breast
M3.2019	Review mammography images for the presence of abnormalities and make recommendations for further action	Breast Screening	https://tools.skillsforhealth.org.uk/competence/show/html/id/4293/	M3 Examine screening mammography images for the presence of abnormalities and make recommendations for further action
M5.2019	Undertake biopsy of breast tissue using imaging	Breast Screening	https://tools.skillsforhealth.org.uk/competence/show/html/id/4294/	M5 Undertake biopsy of breast tissue using X- ray guidance
M6.2019	Undertake localisation procedure in the breast using imaging	Breast Screening	https://tools.skillsforhealth.org.uk/competence/show/html/id/4295/	M6 Undertake localisation procedure in the breast using X- ray guidance
M8.2019	Produce supplementary and additional mammographic images	Breast Screening	https://tools.skillsforhealth.org.uk/competence/show/html/id/4296/	M8 Position individuals and produce supplementary and modified mammographic images
M9.2019	Undertake a clinical examination of the breast	Breast Screening	https://tools.skillsforhealth.org.uk/competence/show/html/id/4297/	M9 Direct, interpret and report mammographic examination of the breast
M11.2019	Obtain radiographic images of breast specimens	Breast Screening	https://tools.skillsforhealth.org.uk/competence/show/html/id/4298/	M11 Obtain radiographic images of breast specimens

During this review, a number of additional NOS were identified that may be relevant to radiography, sonography and mammography practitioners. These NOS are listed in the table below. The NOS listed in the table were outside the remit of this project, and as such have not been revised or reviewed.

It should be noted that this list is not exhaustive and there will be other NOS that exist in other suites that may be relevant to you, your team and your organisational or personal development. When the NOS are put together in role profiles, competence frameworks or other documents relating to specific occupations, they can be used to define the full range of activities required for an occupation.

NOS Prefix	NOS title	Originating NOS suite	Hyperlink to NOS
CHS22	Perform intravenous cannulation	Clinical Health Skills	https://tools.skillsforhealth.org.uk/competence/show/html/id/900/
CHS75	Insert a central venous access device	Clinical Health Skills	https://tools.skillsforhealth.org.uk/competence/show/html/id/2245/
CHS82	Carry out image guided biopsies	Clinical Health Skills	https://tools.skillsforhealth.org.uk/competence/show/html/id/2248/
CHS106	Request imaging investigations to provide information on an individual's health status and needs	Clinical Health Skills	https://tools.skillsforhealth.org.uk/competence/show/html/id/2196/
CHS110	Assess individuals' suitability to undergo imaging procedure	Clinical Health Skills	https://tools.skillsforhealth.org.uk/competence/show/html/id/2200/
CHS108	Administer contrast media to increase information provided by diagnostic imaging	Clinical Health Skills	https://tools.skillsforhealth.org.uk/competence/show/html/id/2198/
CHS109	Produce a clinical interpretation of acquired images	Clinical Health Skills	https://tools.skillsforhealth.org.uk/competence/show/html/id/2199/
CHS111	Assess suitability of images for diagnostic purposes	Clinical Health Skills	https://tools.skillsforhealth.org.uk/competence/show/html/id/2201/
CHS112	Select imaging techniques/procedures for individual investigation	Clinical Health Skills	https://tools.skillsforhealth.org.uk/competence/show/html/id/2202/
CHS195	Undertake ultrasound guided interventional procedures	Clinical Health Skills	https://tools.skillsforhealth.org.uk/competence/show/html/id/2679/
CHS218	Obtain images to assist healthcare interventions	Clinical Health Skills	https://tools.skillsforhealth.org.uk/competence/show/html/id/2843/
HCS3	Ensure the safety of individuals exposed to radiation within healthcare	Healthcare Science	https://tools.skillsforhealth.org.uk/competence/show/html/id/2863/
HCS4	Measure an individual's healthcare radiation exposure to minimise risk	Healthcare Science	https://tools.skillsforhealth.org.uk/competence/show/html/id/2864/
HCS7	Administer radioactive and non-radioactive medicinal products for diagnostic or therapeutic procedures	Healthcare Science	https://tools.skillsforhealth.org.uk/competence/show/html/id/2867/
PHS08	Improve the quality of health and healthcare interventions and services through audit and evaluation	Public Health	https://tools.skillsforhealth.org.uk/competence/show/html/id/2470/
	There is a full suite of research and development NOS on the Skills for Health competence database	Research & Development	https://tools.skillsforhealth.org.uk/competence_search/

NOS Prefix	NOS title	Originating NOS suite	Hyperlink to NOS
SfJ DA101	Provide expert evidence to courts and hearings	Policing and Law Enforcement (Skills for Justice)	https://www.ukstandards.org.uk/PublishedNos-old/SFJDA101.pdf
SfJ DA5	Present evidence in court and at other hearings	Policing and Law Enforcement (Skills for Justice)	https://www.ukstandards.org.uk/PublishedNos-old/SFJDA5.pdf

Further resources

Skills for Health www.skillsforhealth.org.uk

Skills for Health Competence tools https://tools.skillsforhealth.org.uk/competence_search/

Society and College of Radiographers www.sor.org – Policy and Guidance Document Library

Royal College of Radiologists www.rcr.ac.uk

National Osteoporosis Society <https://nos.org.uk/>

Forensic imaging

Forensic imaging - <https://www.sor.org/learning/document-library/guidance-radiographers-providing-forensic-radiography-services-0>

Imaging of the deceased <https://www.sor.org/learning/document-library/standards-radiographic-practice-post-mortem-cross-sectional-imaging-pmc-si>

Imaging of children <https://www.rcr.ac.uk/publication/radiological-investigation-suspected-physical-abuse-children>

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Steering Group membership

Penny Owens - University Hospitals of Derby and Burton NHS Foundation Trust and Chair of the Steering Group

Catherine Kirkpatrick - University Hospitals of Derby and Burton NHS Foundation Trust

Sue Johnson - Society and College of Radiographers



Ben McDougall - Health Education England
Hazel Winning - Department of Health Northern Ireland
Elaine Figgins - NHS Education for Scotland
Jonathan McConnell - NHS Education for Scotland
Liz Hargest - Health Education Improvement Wales
Jacquie Jenkins - Public Health England
Gill Dolbear - Consortium for the Accreditation of Sonographic Education

Reference Group membership

Ben McDougall - Health Education England
Karen Crawford - SQA Accreditation
Gill Harrison - Society and College of Radiographers
Peter Cantin - Plymouth Hospitals NHS Trust
Rachel Wilson - Hull and East Yorkshire NHS Trust
Elaine Gardiner - Glasgow Caledonian University
Michelle Davies - Abertawe Bro Morgannwg University Health Board
Alex Lipton - Society and College of Radiographers
Nick Woznitza - Homerton NHS Foundation Trust
Rachel Watt - Aberdeen Royal Infirmary
Rebecca Steele - University College Hospital London
Dr Jonathan McConnell - NHS Greater Glasgow and Clyde
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Dan McLaughlin - Western Trust Northern Ireland
Darren Walls - University College Hospital London
Claire Borrelli - St Georges University Hospitals NHS Foundation Trust
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Claire Mercer - University of Salford

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Marietta Connor - Western Trust Northern Ireland

Additional subject matter experts

Dr Karen Knapp – Exeter University

Lisa Field – Mid Yorkshire Hospitals NHS Trust

Jill Griffin – National Osteoporosis Society

Jacque Vallis - Society and College of Radiographers

Kirsteen Graham – Queen Elizabeth University Hospital Glasgow

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