

Higher National Unit Specification

General information for centres

Unit title: Visceral and Dynamic Imaging

Unit code: DW93 34

Unit purpose: This Unit enables the candidate to continue to acquire knowledge of the range of common diagnostic procedures, in particular the radiographic examination of the abdominal region of the body.

The use of image intensifiers is introduced in this Unit and will enable candidates to broaden their understanding of the differences in technologies and radiographic techniques.

On completion of the Unit the candidate should be able to:

- 1 Describe the radiographic techniques applied to produce plain film images of the abdomen.
- 2 Explain the structure, function and application of a static image intensifier.
- 3 Describe the use of contrast media in radiography

Credit points and level: 1 HN Credit at SCQF level 7: (8 SCQF credit points at SCQF level 7*)

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Recommended prior knowledge and skills: It is recommended that candidates have completed the Units Radiation Physics: Foundations, General Radiographic Anatomy, Patient care in Radiography and Diagnostic Radiography: Introduction. It is also recommended that candidates should have completed or be currently studying Skeletal Imaging.

Core Skills: There are opportunities to develop the Core Skills of Problem Solving and Working with Others at level 5 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

Context for delivery: If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes. This Unit forms part of the framework for HNC Allied Health Professions: Diagnostic Imaging

Assessment: Assessment of all Outcomes may be undertaken using short (eg ten questions) closed-book multiple choice question examinations.

Higher National Unit specification: statement of standards

Unit title: Visceral and Dynamic Imaging

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The sections of the Unit stating the Outcomes, knowledge and/or skills, and Evidence Requirements are mandatory.

Where evidence for Outcomes is assessed on a sample basis, the whole of the content listed in the knowledge and/or skills section must be taught and available for assessment. Candidates should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

Outcome 1

Describe the radiographic techniques applied to produce plain film images of the abdomen

Knowledge and/or skills

- ◆ Interpret a request for a radiographic examination of the abdomen
- ◆ Protocols for plain film imaging of the abdomen
- ◆ Projections suitable to undertake plain film examinations of the abdomen
- ◆ Patient positioning for plain film examinations abdomen
- ◆ Processes and procedures to generate a plain film image of the abdomen
- ◆ Evaluation of the image quality
- ◆ Examination recording documentation
- ◆ Local rules, protocols and procedures

Evidence Requirements

Candidates will need evidence to demonstrate their knowledge and/or skills by showing that they can safely and effectively undertake:

- ◆ a plain film examination of the abdomen

Assessment guidelines

Assessment of all Outcomes may be undertaken using short (eg ten questions) closed-book multiple choice question examinations.

Higher National Unit specification: statement of standards (cont)

Unit title: Visceral and Dynamic Imaging

Outcome 2

Explain the structure, function and application of a static image intensifier

Knowledge and/or skills

- ◆ Structure of a static image intensifier
- ◆ Functions of the static image intensifier
- ◆ Safe use of the static image intensifier
- ◆ Clinical conditions appropriate for fluoroscopic examinations.
- ◆ Exposure control and radiation protection

Evidence Requirements

Candidates will need evidence to demonstrate their knowledge and/or skills by:

- ◆ showing that they can describe the structure and function of static image intensifier and the clinical conditions appropriate for fluoroscopic examinations

Assessment guidelines

Assessment of all Outcomes may be undertaken using short (eg ten questions) closed-book multiple choice question examinations.

Outcome 3

Describe the use of contrast media in radiography

Knowledge and/or skills

- ◆ Uses and importance of contrast media in diagnostic radiography
- ◆ Types of contrast media
- ◆ Storage of contrast media
- ◆ Safety when utilising contrast media in an investigation

Evidence Requirements

Candidates will need evidence to demonstrate their knowledge and/or skills by:

- ◆ showing that they can provide examples of the safe use of contrast media within radiography

Assessment guidelines

Assessment of all Outcomes may be undertaken using short (eg ten questions) closed-book multiple choice question examinations.

Administrative Information

Unit code: DW93 34
Unit title: Visceral and Dynamic Imaging
Superclass category: PB
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History of Changes:

Version	Description of change	Date

Source: SQA

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Higher National Unit specification: support notes

Unit title: Visceral and Dynamic Imaging

This part of the Unit specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

Guidance on the content and context for this Unit

It is expected that candidates for this Unit will be working in a diagnostic clinical environment. Delivery will include both actual clinical sessions, practical activity, simulation and role-play in addition to classroom delivery and discussion. Candidates should continue to develop their understanding of their role as professionals within the health care team.

Useful information to help with this Unit can be found at the following web-sites:

www.sor.org.uk (Society and College of Radiographers)

www.BIR.ac.uk (British Institute of Radiology)

and in the following professional journals:

Synergy

Radiography

Journal of Radiotherapy in Practice

Clinical Oncology

Clinical Radiology

Outcome 1

The candidate should be able to interpret information documented on an X-ray request card. On completion of the Unit they should be able to follow departmental protocols to enable them to perform under supervision routine radiographic projections with appropriate patient positioning suitable for the examination of the abdomen. Candidates should know the processes and procedures required to generate plain film images of the abdomen.

Special consideration should be given to radiation dose during plain film examinations of the abdomen.

Candidates on completion of a radiographic examination of the abdomen should be able critically to evaluate the image obtained and document legislative information appropriately.

Outcome 2

The candidate should understand basic structure, functions and safe use of the static image intensifier. They should know the broad clinical indications for a fluoroscopic examination and its implications for radiation exposure and appropriate radiation protection.

Higher National Unit specification: support notes (cont)

Unit title: Visceral and Dynamic Imaging

Outcome 3

Candidates will expand their knowledge of the uses of contrast media in diagnostic radiography including types of contrast media, storage and safety when using contrast media in an investigation.

Guidance on the delivery and assessment of this Unit

Assessment of all Outcomes may be undertaken using short (eg ten questions) closed-book multiple choice question examinations.

The Unit will be delivered using a range of lectures, tutorials and practical demonstrations.

Opportunities for developing Core Skills

There are opportunities to develop the Core Skills of Problem Solving and Working with Others at level 5 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

Open learning

For information on normal open learning arrangements, please refer to the SQA guide *Assessment and Quality Assurance and Distance Learning* (SQA 2000).

Candidates with additional support needs

This Unit specification is intended to ensure that there are no artificial barriers to learning or assessment. The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative Outcomes for Units. For information on these, please refer to the SQA document *Guidance on Alternative Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs*, which is available on SQA's website: www.sqa.org.uk.

General information for candidates

Unit title: Visceral and Dynamic Imaging

This Unit is designed to continue to build on the knowledge base you have gained in the initial profession-specific Unit, 'Diagnostic Radiography: Introduction'.

This Unit provides you with the knowledge and skills to undertake a range of plain film radiographic investigations of the abdomen.

Details of how you may perform a range of examinations for this area of the human body will be discussed and demonstrated.

Guidance of how to judge a radiograph to be of a quality for diagnosis will be given and you will have the opportunity to view radiographs and practice skills in deciding their diagnostic quality.

During the delivery of this Unit you will be introduced to static image intensifier x-ray systems and their importance in the diagnosis and treatment of patients.

The last topic of the Unit is an introduction to contrast media often used to highlight organs and structures in a radiographic image. You will use your knowledge of physiology to discover how contrast media is transported through the blood system and how it is demonstrated on a range of images.

You will find useful information to help you with this Unit at the following web-sites:

www.sor.org.uk (Society and College of Radiographers)

www.BIR.ac.uk (British Institute of Radiology)

and in the following professional journals;

Synergy
Radiography
Journal of Radiotherapy in Practice
Clinical Oncology
Clinical Radiology