

Unit 56: Introduction to Working in Ionising Radiation Safety/Protection

Level:	2
Unit type:	Optional (Equipment Management & Clinical Engineering)
Credit value:	3
Guided learning hours:	18

Unit summary

This unit aims to give learners the understanding and skills they need to be able to work in radiation protection safely: performing and documenting carrying out quality assurance test on basic x-ray equipment and personal and environmental monitoring of radioactive contamination and carrying out waste monitoring and disposal.

Unit assessment requirements

There are no specific assessment requirements for this unit. Please refer to the assessment strategy in *Annexe B*.

Learning outcomes and assessment criteria

To pass this unit, learners need to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Understand safe working practices in radiation protection, including monitoring work areas	1.1	Describe the legislation that underpins radiation protection including monitoring work areas and the requirement to read the appropriate local rules			
		1.2	Explain safe working practices in radiation protection			
		1.3	Describe an example of where there has been a breach of safe working practices and identify what steps could have been taken to improve patient care			
2	Understand the role of radiation safety and protection in your area of work	2.1	Explain the role of radiation safety and protection			
		2.2	Explain the role of the Radiation Protection Advisor and when to consult them			
		2.3	Describe an example of where there has been a critical radiation incident which has adversely affected a patient/s and identify what steps could have been taken to improve patient care			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Be able to perform and document personal and environmental monitoring for radioactive contamination in accordance with local protocol	3.1	Describe the standard operating procedures for personal contamination and environmental monitoring for radioactive contamination			
		3.2	Perform personal and environmental monitoring for radioactive contamination in accordance with standard operating procedures			
		3.3	Use effective communication skills with all colleagues, especially in relation to personal and environmental monitoring			
		3.4	Maintain accurate, comprehensive and comprehensible records in accordance with applicable legislation, protocols and guidelines			
4	Understand the quality assurance process underpinning radiation safety and protection	4.1	Define the terms quality assurance, quality management, quality control			
		4.2	Describe the quality assurance processes underpinning radiation safety and protection			
		4.3	Outline an example of where there has been a failure of quality assurance and identify what steps could have been taken to avoid the incident			
		4.4	Describe how to maintain accurate records documenting quality assurance procedures			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Be able to carry out quality assurance (QA) tests on basic x-ray equipment	5.1	State the standard operating procedures for performing QA tests on basic x-ray equipment			
		5.2	Use effective communication skills with all colleagues			
		5.3	Maintain accurate, comprehensive and comprehensible records in accordance with applicable legislation, protocols and guidelines			
6	Be able to perform Environmental Contamination monitoring of radiation areas	6.1	State the standard operating procedures for Environmental Contamination monitoring of radiation areas			
		6.2	Perform Environmental Contamination monitoring of radiation areas			
		6.3	Maintain accurate, comprehensive, and comprehensible records in accordance with applicable legislation, protocols, and guidelines			
		6.4	Explain the quality control processes underpinning Environmental Contamination monitoring			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Understand the consequences of errors in the radiation decontamination process for patients and staff	7.1	Identify incidents where errors in the decontamination process have adversely affected patients and explain how errors can be minimised			
		7.2	Identify incidents where errors in the decontamination process have adversely affected staff and explain how errors can be minimised			
		7.3	Describe how the quality managements systems in place help to reduce risk			
		7.4	Explain the critical incident reporting policy			
8	Be able to clean rooms in order for them to return to normal use	8.1	Use the standard operating procedures for cleaning of rooms			
		8.2	Clean rooms according to the Standard Operating Procedures (SOPs)			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
9	Be able to perform waste monitoring and disposal including radioactive waste in accordance with Standard Operating Procedures	9.1	Use the standard operating procedure for waste monitoring and disposal for Nuclear Medicine waste products			
		9.2	Explain the reporting procedures including critical incident reporting for the types of waste used in Nuclear Medicine			
		9.3	Perform waste monitoring in accordance with standard operating procedures			
		9.4	Perform disposal procedures in accordance with standard operating procedures			
		9.5	Maintain accurate, comprehensive, and comprehensible records in accordance with applicable legislation, protocols, and guidelines			
10	Be able to assist in reporting faults on a range of equipment used in the department	10.1	Use the standard operating procedure for reporting faults in your area of work			
		10.2	Assist in reporting faults on a range of equipment			
		10.3	Refer maintenance requirements to Clinical Engineering appropriately			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)