Ensure the safety of individuals exposed to radiation within healthcare



Overview

This standard relates to the range of methods to assess the safety of radiation exposure to individuals. These individuals include staff working with or involved with the disposal of radiation and radioactive substances within their work practices, individuals undergoing treatment or diagnostic procedures, their relevant others exposed during and after the radiation exposure and the public. Radiation exposure occurs with X-rays and radioactive materials and/or accidental exposure. Individuals undertaking this function may liaise closely with relevant key stakeholders to confirm accuracy of information and compliance with relevant legislation.

Users of this standard will need to ensure that practice reflects up to date information and policies.

Ensure the safety of individuals exposed to radiation within healthcare

Performance criteria

You must be able to:

- P1 work within your level of competence, responsibility and accountability
- P2 liaise with key stakeholders and gain their involvement in radiation safety monitoring and assessments to ensure safety of all individuals in controlled environments
- P3 confirm sources of radiation and likely type of exposure for all individuals within the work area
- P4 apply health and safety measures and standard precautions for infection prevention and control when undertaking radiation safety assessments
- P5 apply appropriate assessment methodology suitable for source, type of exposure, dose, level of risk and the recipients' exposure time
- P6 confirm that all required procedures and associated safety measures are compliant with current and relevant legislation requirements
- P7 determine and assess the appropriateness of the projected radiation dose over a suitable period of time for an individual or key staff and other personnel
- P8 record the results of the assessment accurately and in correct format, referencing any monitoring measurements taken to accepted published values to indicate conformance within accepted safety guidance limits for the procedures undertaken within the work practice
- P9 communicate and provide information, advice and guidance effectively in the appropriate medium to meet the individuals and relevant others needs and preferences
- P10 report actual and potential risks from radiation, in context, to other healthcare professionals and where appropriate seek assistance and advice
- P11 maintain full, accurate and legible records of information and store in correct location in line with current legislation, guidelines, policies and protocols

Ensure the safety of individuals exposed to radiation within healthcare

Knowledge and understanding

You need to know and understand:

- K1 your own level of competence, authority and specialist knowledge base in radiation safety
- K2 the range of individuals working with or exposed to radiation or radioactive materials within their work practices and individuals undergoing diagnostic or therapeutic investigations
- K3 how to communicate effectively in the appropriate medium to meet all recipients' needs in relation to radiation safety
- K4 the importance of liaising and involving key stakeholders in monitoring radiation safety within their work practice
- K5 the safety principles for radiation physics including physical and biological half-life and for radionuclide therapy and diagnostic procedures
- K6 the range, type and nature of radiation and associated equipment and/or medical devices used within the relevant specialist areas and their work practices
- K7 the importance of quality assuring the facilities, equipment and other resources for operational safety and monitoring each operational procedure for radiation safety in accordance with legislation and organisational requirements
- K8 the range of permissible exposure limits applicable to diagnostic investigations or therapeutic interventions with radiation and/or radioactive substances within the work practice
- K9 the likely and possible effects of direct and indirect radiation exposure effects on individuals, their relevant others and key specialist staff and visitors
- K10 the importance of risk analysis, risk assessments for the use and disposal of radiation and the requirements for radiation protection in accordance with current legislation, guidelines, local policies, protocols and procedures
- K11 the importance and how to apply the appropriate methodologies for radiation safety assessments within the work practice
- K12 the implications and required actions for ineffective or non-compliant radiation protection methods
- K13 the importance of what constitutes an adverse event and the relevant emergency protocols
- K14 the importance and requirements for personal radiation safety requirements and for recipient individuals within the work practice
- K15 the importance of environmental monitoring to minimise the risk of accidental exposure to radiation and to identify if an adverse event occurs
- K16 why it is important to control the level of access and occupancy of areas in the proximity of radiation to which individuals, staff and members of the public may have access

Ensure the safety of individuals exposed to radiation within healthcare

- K17 the requirements for maintaining information and providing advice and guidance on the classification of radiation used by key workers in their work activities and for individual's diagnostic or therapeutic activities in accordance with current legislation, organisational policies, protocols and procedures
- K18 the current legislation, national guidelines, organisational and local policies and protocols which affect your work practice in relation to radiation safety
- K19 the policies and guidance that clarify your scope of practice, accountabilities and the working relationship between yourself and others

Ensure the safety of individuals exposed to radiation within healthcare

Additional Information

External Links

This standard links with the following dimension within the NHS Knowledge and Skills Framework (October 2004):

Dimension: Core 3 Health, safety and security

Ensure the safety of individuals exposed to radiation within healthcare

Developed by	Skills for Health
Version number	1
Date approved	June 2010
Indicative review date	June 2012
Validity	Current
Status	Original
Originating organisation	Skills for Health
Original URN	HCS3
Relevant occupations	Health, Public Services and Care; Medicine and Dentistry; Nursing and Subjects and Vocations Allie; Health Professionals; Healthcare and Related Personal Services
Suite	Healthcare Science
Key words	x-ray, accident, radioactive, protection, risk