Outline anatomical structure to agreed protocols



Overview

The individual must be able to

- 1. Identify the area to be treated
- 2. Assess the total area to be exposed to ionising radiation
- 3. Identify relevant anatomical structures that are sensitive to radiation
- 4. Produce an optimum treatment prescription

The level of practice is advanced or consultant practitioner. It is assumed that those undertaking this standard will be working within their professional code of conduct and will work only within their scope of practice.

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

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Performance criteria

You must be able to:

- P1 collate the relevant patient data and patient treatment related data and check for validity, consistency and completeness
- P2 check the relevance and validity of the proposed treatment against agreed departmental protocols
- P3 review deviations from the protocols
- P4 identify and outline relevant organs at risk and the prescribed anatomical components of the clinical target volume by appropriate use of relevant imaging information, adding margins to the defined volumes where appropriate and according to agreed local protocols
- P5 transfer data to and/or collate data within the treatment planning system
- P6 recognise situations where you need to seek advice / support and respond appropriately

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Knowledge and understanding

You need to know and understand:

- K1 the legislation relating to radiotherapy, in the areas of:
 - K1.1 current radiation protection regulations
 - K1.2 local protocols for data entry, utilisation, recording and transfer
 - K1.3 national and local guidelines for radiotherapy planning and treatment
 - K1.4 local protocols on informed consent
- K2 the areas of:
 - K2.1 relevant anatomy e.g. sectional and functional
 - K2.2 signs of patient anxiety
 - K2.3 concurrent and malignant disease progression and the potential impact on physiological systems
- K3 the principles of radiobiology, including:
 - K3.1 the effects of radiation on the cell cycle
 - K3.2 the dose and fractionation regimes
- K4 TCP/NTCP
- K5 the principles of radiotherapy physics, including:
 - K5.1 interaction processes with matter
 - K5.2 production and utilisation of images
 - K5.3 image manipulation and interpretation
- K6 the transposition of patient data, including:
 - K6.1 magnification
 - K6.2 target volumes
 - K6.3 sensitive structures
 - K6.4 dose modifying structures
- K7 the impact of treatment parameters, or changes to treatment parameters, on the dose distribution
- K8 the contraindications to radiotherapy
- K9 the advantages, disadvantages, risks and benefits of radiotherapy
- K10 the principles of radiotherapy, including:
 - K10.1 patient positioning and immobilisation in order to optimise reproducibility of treatment delivery
 - K10.2 selection of appropriate treatment technique for optimum delivery
- K11 the effects and minimisation of patient and organ movement
- K12 the roles and responsibilities of other team members
- K13 the critical appraisal techniques

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Additional Information

External links

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

Dimension: HWB7 Interventions and treatments

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