## Produce fluoroscopic images of the chest area



#### **Overview**

This standard is about the use of specialised x-ray equipment in the production of fluoroscopic images of the chest and associated structures.

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 select the appropriate examination room and check that everything is properly prepared for the image(s) to be taken, and address any faults or concerns appropriately
- P2 prepare yourself to undertake the procedure according to local control of infection protocols and procedures
- P3 receive the individual and check their identification details in accordance with local protocols
- P4 identify yourself to the individual according to local guidelines and protocols, and ensure any other individuals present also do so
- P5 give the individual/carer clear pre-examination instructions in order to ensure diagnostic and technical quality, in a manner which assists their understanding
- P6 check, if appropriate to the examination, females of child-bearing age for pregnancy or potential pregnancy and take action in accordance with local protocols
- P7 explain the examination in a manner which reassures the individual and encourages their co-operation
- P8 confirm or seek the individual's agreement to the procedure according to local protocols, and take appropriate action if this agreement is withdrawn at any stage
- P9 assess the individual to determine the need for manual handling aids and to inform any adaptation of the examination technique
- P10 position the individual, using the information gained from the assessment of them, in a manner which ensures their comfort as far as possible and allows the appropriate outcome to be achieved
- P11 check the room, prior to taking the exposure, to ensure that only essential, protected persons remain with the individual and that all Local Rules have been adhered to, and take appropriate action if this does not occur
- P12 select all parameters required for the procedure accurately according to local examination protocols, assess any required modifications and take appropriate action
- P13 seek confirmation that the individual is ready before giving instructions and making the exposure
- P14 carry out correct table and gantry movement, collimation, correct projections and `panning' of table to ensure area of diagnostic interest is in view at all times
- P15 maintain communication with the individual/carer throughout the examination to facilitate their understanding and ensure their cooperation
- P16 observe the individual's condition and wellbeing at all times and take appropriate action

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- P17 view the acquired dynamic images to ensure they are technically acceptable and suitable for diagnostic purposes
- P18 make a decision, if necessary, to take additional images to enhance the examination
- P19 take appropriate action, if an abnormality is observed on the image which is likely to impact on the individual's condition in the immediate future
- P20 return the equipment to its standby state and leave the room ready for the next examination
- P21 record and collate appropriate individual documentation and images and prepare them for transfer or storage according to local protocols
- P22 transfer examination images to CD and SVHS tape as required
- P23 recognise and seek help or advice from appropriate sources where required

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# Knowledge and understanding

# You need to know and understand:

- K1 how to communicate with individuals and carers sympathetically
- K2 methods for ensuring that the individual understands instructions and for encouraging the individual to participate in the procedure
- K3 cardiovascular anatomy and physiology
- K4 anatomy of the bony thoracic cage, the heart, lungs and diaphragm
- K5 physiology of the respiratory and circulatory systems
- K6 gross anatomy of the spinal column and its relationship with thorax
- K7 common pathologies of the chest and thorax and normal variants
- K8 medical terminology relevant to the examination
- K9 how to minimise the radiation dose to oneself, patients and other staff during the procedure
- K10 current radiation protection regulations and local rules
- K11 local radiographic examination protocols
- K12 individual's positioning relevant to the examination
- K13 positioning terminology including abbreviations
- K14 when additional views are required to aid diagnosis and to enhance the examination
- K15 production, interactions and properties of x-rays
- K16 process involved in the formation of radiographic images
- K17 harmful effects of radiation to the human body
- K18 ways in which images can be captured, processed and permanently stored relevant to the local department
- K19 inter-relationship between Kvp and mas, and automatic exposure controls
- K20 variables affecting exposure factors
- K21 technical and diagnostic quality requirements of the image
- K22 recognition of artefacts and their impact
- K23 factors which influence the decision to take additional views
- K24 equipment control and the movements, abilities and limitations of the imaging equipment
- K25 the importance of timely equipment fault recognition and local procedures for reporting these
- K26 types of x-ray equipment capable of optimum cardiac and circulatory imaging whilst keeping radiation doses as low as possible

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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: HWB6 Assessment and treatment planning

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|--------------------------|--|
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