CL4 – The service implements and monitors systems to ensure the clinical and technical quality of interventional procedures.

a. Elective and emergency interventional procedures requiring imaging support may be delivered within and outside a radiology service, but both carry the same requirements for patient safety and clinical competence. Protocols and processes for interventional procedures, wherever delivered, should be grounded in best practice and reflect professional guidance and statutory requirements.

b. Radiologists and other clinicians involved in the care of the patient should work together, and with the patient, to decide whether interventional or other surgical procedures are more appropriate and to manage any interventional complications. This should include the use of proctors, where utilised.

c. Protocols should be developed, agreed, maintained and applied to all interventional procedures. Consideration should be paid to recognised best practice such as the use of the WHO checklist. Clinicians outside the service should be consulted in the development of protocols.

d. Staff should be aware of the protocols and how to access them, and any changes communicated to them. Relevant staff should be involved in discussions about change in protocols and, where necessary, appropriate training and education provided to the staff

e. Protocols should cover: preparation; the procedure; arrangements for safe sedation; analgesia and anaesthesia; and the management of complications. Processes should be in place to ensure that patients are monitored during and after the procedure, with appropriate aftercare and adequate space for pre-assessment and recovery. Anaesthetic, resuscitation or monitoring equipment used in MRI must be MR conditional or MR safe (see also standard statement SA3).

f. The need for sedation and anaesthesia may be greater in children than adults. There should be agreed protocols for the administration of analgesia and sedation to children, produced in collaboration with staff trained and experienced in paediatric radiology and anaesthesia. All those administering sedation should be skilled in advanced paediatric airway management and life support.

g. Risks related to interventional procedures should be defined and assessed, and all staff should be aware of their roles in managing the risks.

h. Staff involved in interventional procedures, wherever delivered, must have the training and experience to ensure that the procedure is performed safely and to recognise and manage potential complications. Interventional procedures should be carried out in suitable rooms, with well-maintained facilities and equipment, including a full range of paediatric equipment, where appropriate. There must be facilities for prompt resuscitation and intensive care unit (ICU)/high dependency unit (HDU) beds must be available for emergencies and post-procedural care where necessary. Trained and experienced radiologists are qualified to take full clinical responsibility for patients undergoing interventional procedures and should have access to appropriate facilities including beds outside the service.

i. Processes should be in place to ensure continuity of care when a patient is transferred from the service (see also standard statement PE4).

j. Processes should be in place to ensure necessary clinical and emergency support is readily available when interventional procedures are carried out. Adequate staffing and clinical and emergency support must be assured when services are offered both in and out-of-hours.

k. Arrangements should be in place to give staff ready access to a second opinion.

l. Imaging and interventional radiology teams should be involved in morbidity/mortality review of appropriate cases and receive a copy of the discharge summary and, when available, a relevant histology or autopsy report.

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