

SA2 –The service implements and monitors systems to manage risks associated with ultrasound.

- a. Risks associated with the use of ultrasound should be minimised for patients, staff and others. Good practice guidance suggests that policies and protocols should be developed, agreed, maintained and applied to all examinations and procedures using ultrasound. Processes and protocols should be grounded in current best practice and reflect professional guidance and statutory requirements.
- b. Effective management of ultrasound requires the definition and assessment of risks and optimisation of procedures and equipment. All referrals should be vetted and prioritised (see also standard statement CL1). There should be a specific protocol for each examination and piece of equipment used. Relevant staff should be aware of the protocols, how to access them, and informed of any changes. Rooms used for ultrasound examinations and procedures should be designed to reduce health and safety risks to staff, particularly the risk of repetitive strain injury or musculoskeletal damage.
- c. Acoustic output power controls on ultrasound machines should be adjusted according to the patient to produce an acceptable image. The potential thermal hazard during diagnostic ultrasound is greater for sensitive tissues such as eyes, the head, brain or spine of a fetus or neonate or an embryo less than eight weeks. Where possible, the on-screen thermal index, mechanical index, soft tissue thermal index, bone thermal index and cranial thermal index should be adjusted and monitored to keep them as low as practicable while achieving diagnostically useful images, particularly when scanning a fetus or neonate.
- d. There should be a full range of ultrasound probes capable of producing optimal imaging of each body part and of patients of varying size. All probes should be subject to regular quality assurance checks. Ultrasound machines should not be routinely used beyond their recognised working life, particularly in obstetric and paediatric practice (see also standard statement FR3).

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