

Ultrasound Clinical Governance

Introduction

Ultrasound (US) is used widely as a diagnostic test and for guidance of many interventional procedures. The wide application of US is reflected in the number of different professional groups who now undertake US examinations and the increasing number of environments in which ultrasound equipment is deployed.

US equipment is relatively cheap and the technique involves no ionising radiation nor significant patient or practitioner risk. Proper use of US has the potential to improve the quality of care in a safe and cost effective manner across a broad range of specialties.

The rapid proliferation of US equipment and the increasing numbers of individuals using US present a number of challenges to ensure that equipment purchase and deployment is sensibly managed, that the introduction of new services is evidence based and that training and assessment of individuals in the use of US conforms to national standards as defined by the relevant College where available and where not available in accordance with the RCR document 'Ultrasound Training Recommendations for Medical and Surgical Specialties' (2005).

The uncontrolled expansion of the use of US represents a significant clinical risk if

- examinations are undertaken by untrained or poorly trained individuals
- equipment is poorly specified or poorly maintained
- it is undertaken in the absence of clinical audit of performance.

Furthermore, if equipment purchase and deployment is not based on a thorough assessment of cost effectiveness and/or service improvement, the cost to the NHS can be significant without commensurate gain.

The National Ultrasound Steering Group (NUSG) a subgroup of the National Imaging Board recommends the establishment of a Clinical Governance Board for all providers of US imaging services. The responsibility for clinical governance should lie within each clinical directorate using US. Where this is already established, in some acute trusts, it has served as a template for the governance of procurement and training in other clinical disciplines.

The structure and remit of such a Board would necessarily be decided locally. The NUSG suggest the following terms of reference as guidance and recommend the self compliance tool, described below as a useful aide memoire to guide such a Board's activities.

The Board would oversee the procurement, maintenance and replacement of equipment, the establishment and maintenance of service standards and the processes of training, supervision and audit, thus assuring the achievement and maintenance of high levels of competence, performance and patient safety

Outline Governance Board Membership

It is suggested that the board consists of:-

Lead US Radiologist

Superintendent Sonographer

A clinical lead for each department using US for diagnosis that will represent their specialty on the Board. For example

- Obstetrics and Gynaecology
- Vascular imaging
- Cardiac imaging
- Anaesthetics
- Child health
- Emergency department

Medical Physics Representative

Clinical Risk Manager

Service Improvement Manager

Procurement Manager

Director of Clinical Governance

Finance Director or Senior Finance Manager

Recommendations

1. Recording of data
 - a. There should be a permanent electronic record of all imaging studies.
 - b. All imaging studies should be accompanied by an electronic report available with the images.
 - c. The electronic images and the report should be available to all those with a bona fide requirement for image review.
 - d. Where US is being used to guide a procedure (biopsy/injection/venous access etc) image storage may not be necessary. This should be determined by the Clinical Governance board of the Trust.
2. The Trust should develop criteria for evaluation of bids for US equipment based on
 - a. clinical need
 - b. estimated intensity of use
 - c. need for equipment availability in an emergency
 - d. the availability of skilled operators within the proposed clinical area
 - e. availability of existing similar equipment which could be shared
 - f. cost of maintenance
 - g. an equipment replacement programme.
3. Where a bid proposal is to replace an existing service this should be identified and the clinical advantages made explicit. The Trust will need to consider whether the service improvement is justified and whether cost savings can be made by the transfer of the service.
4. The Trust should develop a robust policy to provide prompt and accurate US services for/within the whole health care economy.
5. The practice of US is a clinical skill that must be governed by professional standards equivalent to those issued by the GMC who recommend that doctors 'recognise and work within the limits of your competence.'
6. All practitioners should ensure that their frequency of practice affords the maintenance of skill levels. This should reflect relevant College advice.

The NUSG recommends the adoption of the following self compliance tool as a method of ensuring high quality standards for the procurement, use and maintenance of US equipment.

Self Compliance Tool

Equipment

1. identify and list all US equipment in use in each department throughout the hospital
2. identify what each machine is used for.
3. identify how many sessions per week the equipment is used.
4. provide data on the numbers of examinations performed per machine per session.
5. provide the schedule of QA and electrical safety testing for each machine.
6. provide details of the maintenance contract for each machine.
7. provide details of the PACS connectivity of the equipment.
8. provide details of plans to achieve PACS connectivity where this is not already achieved.
9. provide details of measures for infection control

US users

1. each Trust should hold a register of US practitioners.
2. each department should identify all users of US equipment and their professional grade, their qualifications in relation to US and the conferring body.
3. where there are no formal qualifications, describe the nature of training and the processes of assessment of competence
4. describe the mechanisms whereby patients are given information about the examination. These should include, where available, patient information sheets..
5. where US is delegated to a non medical member of staff, describe the governance arrangements of the process of delegation.
6. where the US is performed by a doctor (or sonographer) in training describe the arrangements for professional supervision.
7. describe the arrangements for obtaining informed consent from the patient
8. where the US examination is performed by a trainee describe the process of informing the patient and eliciting consent
9. what arrangements are in place for CPD in US.
10. what arrangements are in place for regular audit of US practice for each user.
11. what is the frequency of US practice and does it comply with national recommendations (at least one session per week).
12. describe the arrangements for ensuring that all staff are aware of US bio-effects and strategies to minimise these.

Documentation and communication of results

1. describe how records of imaging studies are currently stored and the availability of images for subsequent review for purposes of clinical management and audit.
2. describe security arrangements for access to images and other patient data.
3. describe how the results of imaging studies are recorded and communicated
 - a. within the notes
 - b. within a departmental computer database
 - c. within the RIS
 - d. within another data storage system available to all other bona fide practitioners.
4. describe how and when the results of imaging studies are communicated to the patient.
5. describe the mechanisms for booking patients and outline the minimum standards for booking and report turnaround times (RTT's)
6. for any instances where it becomes known that a scan has taken place and not been documented a clinical risk form should be completed and acted upon by the clinical risk department.