



THE SOCIETY FOR
VASCULAR TECHNOLOGY OF
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Suggestions for improvement of this guideline are welcome and should be sent to the
Chair of the PSC
see www.svtgbi.org.uk for current Chair details.

Guidance on image storage and use, for vascular ultrasound scans

Introduction

The recording and storing of images taken during an ultrasound examination forms part of the record and report for that investigation¹. The images recorded serve several purposes:

- They are a record of findings showing disease and measurements taken, as well as demonstrating normality.
- They are an aid to reporting and report composition.
- They serve to verify and confirm the written report, for example, in tracking discrepancies found in Multi-Disciplinary Team (MDT) meetings and, if required, allow a second opinion to be given.
- They allow for review in a training/preceptorship situation and in follow-up patients under-going surveillance.
- They provide assurance of the quality and findings of an examination.
- They provide supporting evidence that the examination was carried out to a competent standard and that local and national guidelines and protocols were followed.
- They may be used in teaching, reporting unusual cases and audit/quality control.
- Secure storage and easy availability of images is required to meet service accreditation requirements².

Storage

Following guidance from the Royal College of Radiologists^{3,4}, all recorded images form part of the patient record in conjunction with the written report of the investigation. They therefore need to be stored and treated as patient record documents. The recommendation of the National Ultrasound Steering Group is that there should be a permanent electronic record of all imaging studies⁵. Digital Imaging and Communications in Medicine (DICOM) output and compatibility with networking to the local Picture Archiving and Communications System (PACS) system should be considered during procurement of new equipment.

The period for which images are available depends on a range of factors, but the minimum storage time is 8 years with guidance provided by NHS England Records Management Code of Practice¹.

It is highly recommended that all images are stored on a Picture Archiving and Communications System (PACS). This has a number of benefits and is considered best practice:

- Images are stored and archived securely following current General Data Protection Regulation (GDPR)^{6,7,8}.
- The responsibility of storage, archiving and retrieval of images will be the responsibility of the Trust or employing organisation rather than individual departments.
- The length of storage and required back-up will be consistent with organisational and national legal requirements and will be the responsibility of the Trust or employing organisation.
- Images are immediately available for use in case discussions, MDT meetings etc.
- MDT review is supported due to the Vascular ultrasound imaging results being easily available for comparison with other imaging investigations the patient has had.

A business case utilising the support of managers and referring clinicians should be made for access to PACS where this is not already available. Reference can be made to the guidance given in the references below.

Criteria for stored images

Vascular ultrasound is a dynamic study, and a single image may not convey the information obtained during real-time imaging. However, appropriately annotated recorded images are a part of, and contribute to the patient record. With these considerations in mind, the following guidance is given:

- For each scan type, local protocols should provide guidance as to which minimum set of images should be stored for each examination.
- Images should be as clear as possible for the purpose of demonstrating the view/pathology shown including measurements where appropriate.
- All stored images should be clearly and adequately labelled including patient identification date and time of examination and hospital/department/provider identification.

- The written report should document image quality where this has adversely affected the quality of the diagnosis e.g. poor visualisation.
- Any images that display pertinent clinical findings should be stored.

Medico-legal issues

As stated above, all recorded images form part of the patient record and may be used as evidence in relation to the management of a patient's case. The vascular scientist has the professional responsibility to record appropriate images that support the written report.

- At all times, patient related images should be treated with the confidentiality that patient medical data requires and treated in accordance with the Data Protection Act 2018⁶ and principles of General Data Protection Regulation (GDPR)^{7,8}.
- For ultrasound imaging, the consent to make visual recordings with ultrasound is implied in the consent to undergo the examination and does not need to be separately obtained⁹.
- Storage devices for transport of images should be appropriately protected/encrypted in line with local organisational policy.

Images used for teaching training and research

- All stored Images obtained as part of standard care may be used for teaching, training and research as long as images are suitably anonymised^{10,11}. This refers to direct (name, date of birth) or indirect (hospital name and hospital or NHS number) information that could lead to the individual being identified.
- Your local ethics committee will advise you if consent is required for commercial or non-commercial research studies.
- Where there is any possibility that a patient may be identified from images or a case report (eg rare pathology), permission should be obtained from the patient. This is particularly important to consider before publication in a journal or other publicly available form¹⁰.
- Further guidance is available from the Royal Collage of Radiologists¹¹.

Recording of Images by patients

Patients may request to record the ultrasound examination or capture a still image. It is recommended that local policy should be followed. However, the following should be considered when making a decision¹²:

- Will the taking of video or images be a cause of distraction during the investigation impacting on the quality of the investigation?
- Will any of the healthcare scientists performing the investigation be identifiable should the video or image be posted on social media?
- Does the patient require a recording to assist with decision making e.g. hearing or learning difficulties?

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