NHS Information Governance:

Records Management

Guidance: Digital Document Scanning

Department of Health Informatics Directorate

Information Governance Policy

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Amendment History

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Introduction

This Information Governance (IG) guidance provides NHS organisations with a general awareness of the good practices associated with digital scanning of records. The guidance is based on the British Standard BS 10008:2008 and one of its supporting Codes of Practice BIP 0008-1 concerning information stored electronically.

If required, full copies of the BS 10008:2008 and its three supporting BIP Codes of Practice are available to purchase from the British Standards Institution website http://shop.bsigroup.com .

See also related IG guidance concerning multifunction devices that may include scanners:

http://www.connectingforhealth.nhs.uk/systemsandservices/infogov/links/multifuncdev.pdf

Terms used:

Document Scanning is the method of optically converting images, printed text, handwriting or an object to a duplicated and reliable digital form.

Scanners are optically equipped devices used to sense and capture data of an copied image into a predetermined digital file format. Scanners are normally connected to or part of a computer system that would allow image data to be saved as standard computer files. Common file formats used by scanners include JPEG, TIFF and BMP.

Why is Document Scanning an Information Governance issue?

A vast quantity of active and inactive information exists throughout the NHS that if stored and maintained in paper form would require extensive physical storage, document retrieval and management facilities. This approach is increasingly impractical for a number of reasons and consequently digital records are now routinely created and used. However, information within existing paper records need to be retained and will have clinical and other evidential values over a lengthy period. As an alternative to their long-term retention in paper form, these records can be scanned to produce an equivalent digital record providing correct processes are followed.

Where digital scanning of documents is proposed, it is essential that appropriate forward planning is made, and that process and quality assurance controls are properly considered, developed, tested and established.

The key principles involved are:

- Authenticity

- Storage and Access

- Evidence of process reliability and compliance

Evidential Value and Legal admissibility:

What are the potential risks to the organisation of document scanning?

For a scanned document to have continuing value and be admissible in evidentiary terms when needed, then the digital image of the original document can be treated as secondary evidence in the same way as a photocopy. In this regard the provisions of the Civil Evidence Act 1995 will apply.

It is essential that any in-house or commercial document scanning solutions to be used are able to:

- Guarantee the authenticity and integrity of the content of your scanned documents throughout their storage period;

- Store and protect <u>all</u> scanned data relating to the original source documents without omission;

- Store data in a form that will be accessible, retrievable and readable when needed;

- Where scanned data has been encrypted for security reasons, be able to decrypt it to its original unencrypted form for as long as it may be needed;

- Reproduce the original source document as it was when scanned;

- Maintain appropriate and auditable records of scanning activities;

- Restrict access to facilities to only those with allocated responsibility.

When assessing the above, potential issues of contract exit, and technology lifespan and refresh should also be considered.

How might NHS organisations respond to these risks?

The following actions based on the BIP 0008-1 Code of Practice should be adopted, where appropriate, by NHS organisations.

Where commercial or third party service providers are involved in local scanning activities, these considerations should also apply to those contracted arrangements. Provision should also be made within such contracts or service agreements for audit and assurance purposes.

There should be documented procedures for the:

- Creation or importation of image or data files into the system:

- Confirmation of the integrity and authenticity of image or data files that are created by or imported into the system, at the time of creation or importation;

- Examination of paper documents for suitability and completeness prior to scanning;

- Handling of paper documents or other materials that may cause scanning difficulties;

- Removal of staples and other binding methods;

- Dealing with stick-on notes or other attachments (i.e. consider information contained on both the note/attachment and the information underneath it);

- Dealing with paper documents that have been physically amended (i.e. comments in margins/headers/footers etc);

- Marking documents that are clearly photocopies;

- Ensuring that the integrity of multi-page documents is maintained, including those that include blank numbered pages;

There should be formally documented procedures for scanning, including:

- Where scanner settings are varied for different document attributes:

- Checks made to ensure that every document is scanned, including when scanning double-sided documents with simplex scanners;

- Scanning large documents, such that no information is cropped or lost;

- Allocation of a unique unalterable reference (for example, a sequence number) to each scanned image;

- Allocation of any formal protective marking or other sensitivity identifier.

Choose the scanner resolution (dpi) to be used with care, balancing fine detail capture with file size.

Quality control procedures should be used and regularly rechecked to ensure good quality scanned images. Agree quality control criteria with all relevant people. Use sample documents or scanner test targets. Record results of quality tests (or store images of test targets). Take care with viewing conditions of test images, as these can significantly affect the results obtained.

Develop rescanning procedures where necessary to ensure that audit trails are not compromised.

Paper documents should normally be grouped into batches of a known batch size (size to be determined through experimentation and agreement).

Where necessary there should be documented procedures for the:

- Photocopying of paper documents prior to the scanning process. Where photocopying has been necessary, subsequent users should be made aware of this fact;

- Checking the quality of photocopies;

Where a large document is to be scanned as multiple images, there should be documented procedures to ensure that the whole document is captured, including any blank numbered pages.

Where paper faxes are input into an information management system, take into account original paper document handling procedures. Where electronic faxes can be received, check their authenticity prior to them being imported into the system. Keep a record of which documents were received by fax.

There should be a description of how image processing affects information content. For each different image processing process that may be used, the effect on an image should be recorded. Processing techniques can potentially affect the evidential weight of digital images.

When document scanning has been successfully completed, auditable procedures should also exist for the searching of scanned records and the safe return or secure disposal of the original documents. See also Records Management: NHS Code of Practice for further details.

http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4131747