Scottish Clinical Information Management in Practice

'Back Scanning' advice for General Practices

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1. Introduction

1.1. Purpose

This document provides advice to General Practices in Scotland on best practice for 'back scanning' patients' paper notes.

1.2. Scope and Readership

This document is intended to be used by general practitioners, practice managers, practice IT administrators and GP IT facilitators to assist them in making appropriate business decisions based on their requirements.

1.3. Document Summary

This document defines 'back scanning' in a general practice context, the reasons why a practice may consider back scanning and the circumstances in which it may be appropriate.

Methods of back scanning are discussed, including contracting with a commercial company or adopting a bespoke or DIY approach. Appropriate formats for file storage, structuring and storage of scanned documents are outlined.

Risks from a business continuity and medico-legal perspective are considered, and aligning any back scanning project with NHS Scotland requirements is addressed although, at present, no single national specification is in place.

Legal admissibility issues regarding admittance of non-original documents into legal proceedings are considered with respect to the BSI Code of Practice.

Although technical aspects are discussed readers should note that this document is not a comprehensive technical review.

2. Back Scanning

2.1. Definition

In this context the term 'Back scanning' is used to refer to the process of electronically scanning historical paper documents to create a copy in an electronic file format. In practical terms in a General Practice setting, this means scanning all A4 and Lloyd George paper records that the practice possesses and storing the created electronic images on a computer that the clinicians and staff in the practice can access.

2.2. Why back scan?

2.2.1. To free up space

Space and accommodation issues are important to many practices and one method of releasing space is to back scan and then store the paper records elsewhere. Other methods of managing file space could be considered including:

2.2.1.1. Records "Gardening"

This refers to the process of removing superfluous paper from the records such as duplicates or blank pages and non-medical documents. This process can substantially reduce the thickness of paper volumes but is time consuming and labour intensive.

2.2.1.2. Changing filing cabinets

There are a variety of A4 file storage options which may be better suited to your practice's environment than your current method of storage.

2.2.1.3. Occasional access storage

It may be possible to free up space by exploring alternative storage arrangements that allow adequate occasional access. For example, some practices working primarily with electronic records have stored their paper records in locations such as a loft or cellar, or in a storage container in the practice car park.

2.2.2. To facilitate 'paper light' working

Practices operating 'paper light' may find it beneficial to have their patient records available electronically, with the advantages this brings to ease of access.

2.2.3. To improve clinical safety

Providing electronic access to the historical records should provide clinical benefit by increasing the amount of information available to clinical staff via their workstations.

Providing the facility to refer to the historical record electronically may provide some reassurance for clinicians concerned at moving to an electronic record system.

It is faster and more efficient to transfer the scanned records via the Docman to Docman process than to exchange the paper records. This makes the record from the last GP available to the new practice very quickly, again improving clinical decision making and safety.

2.2.4. Financial benefits

Practices should consider staff, storage, stationery and any other costs required to maintain a paper record filing system compared to the costs of back scanning and subsequent maintenance of an electronic repository.

2.2.5. Backup

Scanned documents can be backed up and stored offsite. This provides a copy (perhaps the only copy) of original paper records in the event of fire, flood or other disasters which may render the paper records unusable.

2.2.6. Research and Analysis

Properly indexed and searchable scanned documents can provide a useful resource for research purposes and other business analysis.

2.3. Which Practices Should Back Scan?

In order for a practice to benefit from back scanning they should first examine their processes with respect to record handling and identify the problem areas. We would recommend:

2.3.1. Paper light working

Practices that are experienced at working using paper light processes are best suited to undertaking a back scanning project. 'Paper light' means that all clinical consultations, visits and messages are being recorded on the clinical computer system and all scheduling (appointments) are electronically managed.

PCTI Docman (http://www.pcti.co.uk/) should be used for scanning and reviewing all clinical correspondence. The practice must have a policy on shredding or destruction of confidential documents, and documents which have been scanned during normal day to day processes. All clinical and non-clinical staff must be using the computer systems as the primary patient record. The practice must have a process for backup of computer data and a process for validating these backups.

A practice which has not previously used Docman for managing its correspondence should be advised to investigate how practices operate with this software and discuss its benefits and limitations with both end users and the supplier. It is not untenable to initiate a back scanning project as part of a more comprehensive move to paper light working, but this will require careful and detailed planning the scope of which is outwith this document.

2.3.2. Adequate IT infrastructure

Practices should not consider back scanning until their computer and network equipment is known to be capable of supporting the storage, viewing and processing requirements. The IT Facilitators or the Health Board's IT department will be able to provide advice on whether your practice IT infrastructure is suitable.

2.3.3. Are the problems solvable by back scanning?

Back scanning will not solve problems related to poor filing procedures or processes; staff or clinician issues; inadequate management or poor leadership in the organisation. While

generally back scanning should be beneficial, it does introduce new challenges and changes to a practice so risks exacerbating rather than solving, any pre-existing problems.

2.3.4. Personal and social aspects

Practices should discuss the social and interpersonal aspects of the flow of paper records through the practice and how removing this may impact on the business. Discussing the change at an early stage and regularly throughout the process with all the practice team will help to mitigate any adverse outcomes in this regard.

3. Requirements for Back Scanning

3.1. Legal Issues

3.1.1. Integrity

The practice must have a document describing its Practice Information Management Policy which, when combined with supporting evidence that its described procedures are adhered to, needs to demonstrate (for example to a Court of Law) that responsible information management is part of normal business practice.

This Management Policy must be able to demonstrate the integrity of the system either through inclusion of, or by linking to:-

- Details of acceptable and unacceptable file formats
- A security and access control policy;
- Standard operating processes and procedures including a system description manual (which would usually be supplied by the vendor)
- An auditing procedure and documentation of relevant audit outcomes to support the claim that the system is working normally.

Similarly routine maintenance and replacement of worn parts of the scanning equipment is essential. Practices should have in place procedures and contracts for maintenance of both hardware and software used for scanning processes.

3.1.2. Legal Admissibility

The Code of Practice for Legal Admissibility[1] standard provides guidance for users of electronic documents in ensuring their document management procedures are most likely to meet requirements for acceptance as evidence in a court of law. Although compliance with the Code does not guarantee legal admissibility, it defines best practice. This document has referenced the standard where appropriate and the guidance herein summarises how this may be applied in general practice in Scotland.

A Practice must, at any time and in a manner acceptable to a Court of Law, be able to demonstrate that the contents of a specific data file created or existing with a computer system has not changed since the time of storage and that where that data file is a digitised image of a physical original document, that the digitised image is a true facsimile of the original document.

3.1.3. Authenticity

Electronic images of original paper documents are treated as secondary evidence in a similar ways to photocopies. Information must be available regarding when the image was digitalised; the format used and the date of destruction of the original document.

3.2. Comprehensive and complete

No element of the original paper record should be excluded from the scanning process, although a notes 'gardening' process (as per 2.2.1.1 above) could be undertaken prior to back scanning to remove unnecessary paper from the record.

Notes attached to any document must be included and practices need a process to handle this ensuring that all relevant information is captured and that the relationship between the note and the document that it is attached to is retained.

Practices may wish to deal with any non clinical correspondence or notes separately from the clinical record and this may require it to be manually sorted. Recommended practice is to keep non-clinical documentation, for example legal and insurance reports, separate from the clinical record and that these documents should be clearly distinguished and separate from the patient's clinical documents in the document management system.

Where a document has physical amendments, for example, where correction fluid has been used, there should be a process in place to record these, when identified, during the folder and document preparation prior to scanning. Correction fluid may not be evident in any scanned representation of the original thus misleading a reader to think that the scan represents the original state of the paper documentation

Practices may elect to scan all documents prior to the date they went 'paper light', on the basis that any documents after this date will already have been scanned to the document management system. Practices proposing to do this will need to be absolutely sure that no filed documents after this date could have been missed from the paper light processes otherwise they risk losing important documents. In general it will be safer and more comprehensive to include fully all documentation in the paper record unless there are clear cost benefits, or in rare instances where a practice's existing processes may result in significant duplication of scanned documents decreasing the utility of the records.

Practices should ensure that A4 record cover sleeves and Lloyd George envelopes are scanned on all sides as part of the scanning process. These will act as identifiers and descriptors of the scanned documents and may also contain important clinical texts such as adverse reaction information and other alerts.

3.3. Legibility

It is essential that the scanned documents are legible on the computer hardware and software available to the practice. You should aim for a standard of 100% legibility of scanned documents if you intend to either store or destroy the originals in such a way that they will not be readily accessible in the future. To assess this it is recommended that practices scan and examine an adequate test sample of scanned records to ensure they are legible and no significant meaning or information is lost. The procedure used for establishing this should be recorded and retained. Such audits should also be repeated at

regular intervals to verify ongoing quality. This should be further defined in the practice's Information Management Policy (see Section 6.1 below).

If due to illegibility or quality issues a document needs to be photocopied prior to scanning, it should be annotated on the document that it is a photocopy of the original that is being scanned and not the original.

3.4. Patient identifiable

A method of identifying the scanned record as unique to an individual patient is required. In parallel with this, a method of finding the document that is compatible with working in consulting and reception environments should be provided.

In practical terms this means that each back scanned document needs to be identified by a unique identifier, and that the document is linked to the patient's electronic record held on the GP clinical computer system (Vision or EMIS in Scotland). Using a document management system, in Scotland Docman, is the recommended method of meeting this requirement.

3.5. Browse functions

A method of browsing and reading the scanned documents that is acceptable for use in the consulting room should be provided. PCTI Docman will again meet this requirement.

3.6. Search functions

Functions to allow users to search for documents, or for key words within documents, adds to the usability of any scanning and archiving system. Where documents are filed appropriately in structured folders as per the NHS Scotland recommended folder names for Docman, and additionally sorted by document 'metadata' such as department and date, the ability of an end user to locate the document they require is increased.

Scans that employ Optical Character Recognition will further improve the ability of users to search records for text contained within documents.

3.7. Availability

The documents should be available to the practice team in the locations and at the times they are needed without having to change location or make an external request for retrieval. Multiple users should be able to access a document for viewing simultaneously.

3.8. Secure storage

Security processes must be employed to prevent inappropriate access. In addition a process for auditing access must be in place, routinely undertaken and documented.

In practice many of these requirements can be met using Docman. Docman must be adequately configured with user access rights appropriate to role and use unique user names with passwords for each user in the organisation to allow for audit of access and use.

3.9. Backups

The scanned documents must be backed up to optical, tape or other storage media. An encrypted off-site backup of the original scanned documents taken at the time of scanning would be valuable, should the integrity or authenticity of a document be questioned.

4. Processes

4.1. Commercial Companies

There are a number of commercial companies that offer a back scanning service to general practice. Some of the requirements regarding evaluation and engagement of such a service are outlined below.

4.1.1. Does the company have experience in healthcare?

It is possible that a company proposing to do back scanning for a practice actually has little or no experience of the healthcare market. The primary health care domain has some specific requirements around document retention, storage and destruction which a company inexperienced in this field may by unaware of.

If the company has previously worked with a local practice it would be useful to ask for a testimonial and the opportunity to visit or discuss the process with them. Similarly, practices should discuss the proposed contract for scanning with their Health Board to ensure it meets any local or national standards and review it against this guidance and associated checklists. If the company is working with other Practices it is essential that there is a "Chinese Wall" to ensure that patient records from different Practices could not be mixed.

4.1.2. Compliance

Compliance with the Code of Legal Admissibility must be communicated to the commercial company as part of the due diligence process and continued compliance stated as a requirement through inclusion in service contracts.

Practices must also ensure the arrangement they make comply with Scottish NHS SGDHSC CEL 25 (2011)[2] regarding safeguarding the confidentiality of personal data processed by third party contractors.

Using a commercial company to undertake back scanning does not relieve the Practice from ensuring compliance with the Code. The Practice must be able to demonstrate that the company was compliant at the time of the scanning even if the company has subsequently ceased to trade.

The commercial company needs to be able to demonstrate that it has complied with the Code of Practice, for example, processes relating to security and staff references as part of the contractual process. The Compliance Workbook, BIP0009 available from the BSI Shop, can be used to assess the commercial company's environment.

4.1.3. How long will the scanning take?

For a practice to plan they should establish with the company a timeframe for completion of the process. If this is likely to be significant, arrangements should be made to manage the normal practice list turnover and also to facilitate retrieval of the paper record at any time whilst it is in the procession of the scanning company.

4.1.4. Offsite records

Generally companies will need to remove records offsite to undertake scanning as professional scanning equipment is expensive and difficult to transport. Practices must

assure themselves that arrangements for protecting these records and access to them are in place.

When patient records are being held in storage by a scanning company the practice should ensure security procedures and access control systems to this storage are adequate. Storage premises must be dry and secured from theft and unauthorised access.

4.1.5. Confidentiality

The scanning company must ensure that physical access to the patient records is secured, that the company's staff do not deliberately or systematically read the paper records and that in the event of any breach of confidence the company will be considered liable. Relevant company policies should be reviewed.

4.1.6. Encryption during transport

Current requirements for the NHS are that no electronic records should be transported un-encrypted.[3] If files are transported to the practice manually then companies should be able to show that they encrypt the scanned file for transit.

4.1.7. Removal of files

After the scanning process is completed the company must ensure that any copies of documents held on their systems are securely deleted.

4.1.8. Insurance

The practice should ask the scanning company about insurance cover for data loss and third party liability to cover any risk of breach of confidence or other unforeseen events.

4.2. Document formats

Electronic image files have many different formats. Commonly used formats include 'TIFF (Tagged Image File Format)' and 'PDF (Portable Document Format)'. Both these formats allow for multiple pages to be stored in a single file, allowing documents of more than one page to be grouped together. Note that TIFF will not support searching on the text within the document, assuming that this has been subject to Optical Character Recognition. See 4.2.2 below.

Ensuring compatibility with Docman is essential as this will enable the scanned files to be transferred using the Docman transfer process[4]. Both PDF and TIFF are compatible with Docman and would, therefore, be suitable. Note that TIFF in Docman allows for additional annotation such as highlighting but at present PDF documents cannot be annotated. PDF documents can store recognised text and allow for this text to be searched, but this is not possible with TIFF.

Two options for scanning paper records exist – a practice could request that all documents of a particular type are scanned and grouped together, or the patient's entire record may be scanned as a single file. For example, pink clinical notes sheets from the Scottish A4 record could reasonably be scanned into a batch, and all letters could be scanned to a separate batch. The aim is to improve usability of the scanned record, thus scanning and filing by document type (however defined) will allow a more granular level of filing to Docman and thus make it easier to browse the record for information required. Against this a balance

needs to be struck with the practical and cost aspects, which tend to favour a single file for the entire record. Scanning companies may provide mitigation for a single file method by providing OCR of typed correspondence, but recognition of handwritten text will not normally be possible and some semi-structured documents, such as laboratory results, may gain only limited extra utility from an OCR process.

If single file scanning is the option selected it is good practice to include separator sheet inserted at the start and end of the file. Detailed on this sheet should be the patients' identifying details including their CHI number (a printed patient label could be used). In addition the number of pages included in the document should be detailed. Information of the scanning process in relation to documents with printing on both sides would need to be obtained from the company, to ensure the correct number of pages is counted. The date, time and name of the person checking the record should also be included.

4.2.1. Colour or Greyscale?

The practice should consider the 'depth' of scanning for their records. The objective of the scanning needs to be considered. If the objective is to provide a copy comparable with a normal photocopy then 200 to 300 dpi would be acceptable.

Handwriting using a modern ball-point pen a resolution of 200 to 300 dpi would normally be adequate. For older materials, a 400 dpi resolution would be the minimum required.

To assess image quality, it is necessary to compare hard copies of the image and the original.

In general a 'grey scale' scan would be adequate for most purposes. This type of scan will convert colours to an equivalent shade of grey thus maintaining the contrast and allowing documents to be read on the screen. '1 bit' or 'black and white' scanning will lose lighter text and should not be used.

Colour scanning would be ideal and would assist in providing some navigation cues to the scanned file. Unfortunately, scanning in colour will significantly increase file sizes, storage requirements and the time required to complete the process. This may not be compatible with available bandwidth on NHS networks. We would therefore recommend that colour scanning is reserved only for exceptional cases and then only for individual pages or images rather than whole records. Practices are advised to adopt a process whereby the size of the resultant scanned images are kept as small as possible but still retain all relevant information.

Practices should require that the scanning company scans any colour photographs or other images where colour is essential to interpreting the document as a colour scan and do not degrade the image to greyscale.

For most practicable purposes written or printed text can adequately be scanned using greyscale provided advice regarding managing annotations or corrected documents is followed. Practices will need to have processes in place to manage these occasional exceptions.

4.2.2. Character Recognition

'OCR' stands for 'Optical Character Recognition' and is the process whereby a computer can translate the contents of a scanned document into computable text. The main advantage of

this is that it allows the original correspondence to be searched. Additionally some clinical systems may allow the entire text of the correspondence to be pasted into the clinical record. OCR will only work reliably with typeset documents – handwritten items are not suitable for OCR. Practices will need to instruct the scanning company if they want 'OCR' applied to all documents. Applying OCR to scanned documents may incur additional cost but is recommended for the additional utility it provides to the scanned records.

'ICR' stands for 'Intelligent Character Recognition'. This term is frequently used when software uses algorithms to recognise patterns associated with "typical" handwritten text. At present we would recommend that this is not used because of the difficulty in distinguishing between handwritten characters.

4.3. Integrate files into Docman

Scanned historical documents must be linked to the patient's other documents using PCTI Docman, as supplied to all Scottish practices. It may be that the scanning company can provide this service, but it may have to be manually applied by the practice. Where possible, scanned documents should be imported into Docman using the National Folder Structure[5].

If a single file of the whole paper record is provided it should be stored in the clinical folder in Docman with a description of "Electronic copy of historical paper record", this folder correlates with other electronic summaries that have been provided by previous practices with whom the patient has been registered.

4.4. Vision and EMIS integration

Both INPS Vision and EMIS PCS are capable of linking to scanned documents stored in Docman. In essence a link will be created in the clinical system to the Docman item. This is recommended as it ensures a record of the document exists in the clinical record, which important for electronic record transfer (GP2GP).

4.5. DIY Approach

SCIMP does not recommend adopting a DIY approach to back scanning a large number of records. Even in a small practice the time required to process, validate and organise the scanned records is likely to be significant.

Where practices are undertaking their own back scanning process they should be able to demonstrate their compliance with the BSI Code of Practice for legal admissability[1].

4.6. Funding

Where specific issues apply such as space constraints or security concerns, agreement may be reached with the Health Board where they are jointly liable, for example where provided accommodation is inadequate for purpose.

Practices may also approach their Health Board to discuss the funding of storage arrangements of records after the back scanning is completed. There is no obligation, however, for Health Boards to fund in part or whole the process of a back scanning project. In cases of disagreement, especially concerning hardware, software or infrastructure support practices should discuss with the Local Medical Committee.

5. Other Considerations

5.1. Docman

The key advantages to using Docman for viewing the scanned record lie in the filing 'metadata', the secure logon and the audit trail, thus identifying the document in the context it was added, protecting against inappropriate access and providing a chronology of changes. NHS Scotland recommends and funds PCTI Docman to practices and this is the document management system that should be used.

The use of Docman ensures that many of the requirements for back scanning in Section 3 above are met. Adding the back scanned file to Docman also allows the record to transfer using the Docman to Docman document transfer process4 for enabled practices.

Scottish Government Records Management: NHS Code of Practice (2012)[6] paragraph 48 states:

"Where records are kept in electronic form, wherever possible they should be held within an Electronic Document and Records Management System (EDRMS) which conforms to the standards of the European Union "Model Requirements"."

PCTI Docman is an EDRMS and thus using it for this purpose conforms to the national guidance.

5.1.1. Docman Folder structure[5]

The nationally agreed folder structure for Docman provides an intuitive navigation for filing and retrieval of documents. In most instances it is unlikely that a scanning company will file individual items in the patient's record to specific folders.

Practices could undertake this work after receiving the scanned file, using a software tool which allows extraction of one or more pages from an original document. This is may prove to be labour intensive and slow, and is not a recommended approach in light of these practical difficulties. Practices should agree the process they wish to undertake according to their own circumstances, estimate the time and resources required for this work and then plan accordingly. It is important to remember that you may receive records from other practices which are not in the structure that you have agreed and that Practice may have to have processes in place to deal with these situations.

5.2. National Procurement

No national agreement has been reached on an NHS Scotland wide solution to back scanning although this guidance provides recommendations on best practice and in line with legislation and current and future electronic transfer developments. In some Health Board areas agreement has been reached for back scanning all records supported by and contracted for via the Health Board.

5.3. Records Storage

There are no arrangements for PSD to store paper records, once scanned. Practices would have to make their own arrangements for this. Any arrangement for offsite storage should be agreed with the Health Board. We would recommend that scanned documents are

subsequently destroyed rather than retained and stored elsewhere. As long as the original document is retained it will remain the legally valid document.

5.4. Turnover

5.4.1. New registrations

The practice will have to put in place a process for back scanning new records as patients with paper records join the practice. They may wish to continue to contract this out to a third party company, or establish procedures in house for handling this. In general we would recommend continuing to employ a third party contractor for this work as this should maintain quality and consistency. Practices will need to make a decision based on the amount of work and their capacity to meet it.

5.5. Docman 2 Docman transfers (D2D)

When a patient transfers out the practice the Docman Transfer process ensures the back scanned file is transmitted to PSD and thus exchanged with the receiving practice.

If receiving practice is not enabled for the Docman transfer process, PSD needs to print out the full electronic record and forward as paper to the receiving practice.

Practices should refer to PSD for advice on acceptable document types for Docman transfer. (Appendix D) If Practices use unacceptable file types they are creating an unacceptable clinical risk on transfer as receiving practices may either not get the document or lack the knowledge and skills to then view the records.

5.6. Retained Paper Records

Paper records that have not been destroyed would have to be returned to PSD for onward transfer. There is a risk of disparity between the paper file and the scanned file where the paper file may have been subsequently altered with additions, removals or annotations. For the purposes of Legal Admissibility any changes need to be documented; including the date, time, details of the person making the change and what the change is.

Consequent upon these issues we would advise that the originals of scanned documents should be subsequently destroyed so only a single copy (excluding backups) is retained for operational use.

5.7. Mixed economies

Practices operating in a ‘mixed economy’ of paper and electronic records where either the clinical notes are recorded on the computer system, but the correspondence is filed to the paper record, or vice versa, will have difficulty integrating a scanned history into their practice.

These practices should not undertake a back scanning process until they have established systems for managing electronic clinical noting and document management.

If a practice receives both back-scanned patient records and the original or reproduced paper records, the practice will need to have a process for comparing the received paper records to the electronic back scanned document for deletions, annotations and insertions.

Any changes identified should be scanned and stored in Docman and, thereafter, the paper documents may be destroyed in keeping with policies outlined below.

5.8. Back Scanned records in non-Docman using practices

We would recommend that Docman should be employed by all practices receiving such records.

Health boards will assist practices in this with the help of the GP IT Facilitator team and support may also be sought from LMCs where practices identify opposing business risks.

Printing out previously scanned records for use by a practice not currently using Docman creates risks to the integrity of the patient's record with respect to loss of utility, degradation of legibility, loss of original ordering, risks of damage or loss of reproduced records, risk of subsequent annotation to reproduced records, and associated risks on transfer.

The scanned record of the patient's records once the paper record has been destroyed must be treated as the primary historical record for that patient and it should not be changed or transformed without clear reasons of benefit to individual patient care or administrative procedures, and wherever possible without reducing the integrity or utility of the record.

5.9. Cross Border transfers

Practices should note that currently 14% of transfers are across the borders from Scotland to other UK nations. Transfers to non-Scottish practices of patient records will generally require that the scanned documents are printed out before being sent to the receiving practice. Practitioner Services will undertake this task.

Transfers from non-Scottish practices may send documents in a variety of formats including paper Lloyd George cards, paper correspondence, electronic record printouts and occasionally optical media containing scanned documents. There is no single way to handle these documents and each practice must adopt a strategy that meets their requirements. Advice may be sought from PSD or Health Boards. Transfers of records via optical media should be managed by PSD. Any practice receiving optical media containing patient transfer records should contact PSD for advice on managing this.

6. Document destruction and retention

This document references "BIP 0008 Code of Practice for legal admissibility and evidential weight of information stored electronically"[1] which contains recommendations on best practice to ensure the legal admissibility of scanned documents. Following such guidance can only ever increase the likelihood that such documents will be accepted by a court, not guarantee it. If original paper records are retained they will continue to be considered the valid copy for legal purposes thus we recommend destruction of the originals.

Good practice dictates that practices, as custodians of the primary care record, ensure it meets the quality required for all its purposes.

Much of the onus of meeting the requirements of the code of practice can be placed on the contracted scanning company and practices should look for guarantees and affirmations that the company they use understands and adheres to its recommendations.

The code of practice aims to ensure documents can be validated as authentic - meaning their origin and content can be trusted; that the integrity of the documents is maintained - meaning that the information conveyed is unchanged; and lastly that the documents are available, defined as 'accessible as required'. These principles are fundamental to good practice in a health care setting.

In order to achieve these aims the code of practice advises organisations have the following documentation (and follow the policies and schedules that are defined therein):

- Information management policy document
- Information retention schedule
- Information security policy document
- Procedures manual
- System description manual

In a practice setting these documents do not need to be overly complex – often a single page describing the processes will be adequate. Some documents may already be provided, e.g. the "System description manual" in Scottish general practice is the Docman User Guide accessed from the Docman 'help' menu.

6.1. Information Management Policy Document

An example information policy document is provided in Appendix A. This should be adapted to meet specific circumstances in individual practices.

This document should describe the types of documentation that are included in the scanning processes, describe the file storage methods and media, the auditing and review processes to ensure quality, and name the persons responsible for maintaining the document and ensuring it is adhered to.

6.2. Information retention schedule

A brief example is provided in Appendix B.

A description of how long the original records are kept for after scanning prior to disposal. The general principles are to ensure that the original has been faithfully reproduced into an electronic format; correctly identified and linked to the patient; and that the copy has been backed up using whatever normal processes the practice has for this. Lastly, before destruction, the backup should be verified i.e. it should be tested that the files can be restored from backup. This document should detail these processes and how they are implemented. The acceptable methods of document destruction used by the practice should be described.

6.3. Information Security Policy Document

An example is provided in Appendix C.

This document should describe the processes used by the practice to prevent damage, loss or unauthorised access to scanned records. It may detail the security of the practice server room, describe a password and user account policy and outline backup procedures. Procedures on how to act if any security policies have not been met, for example the server room door was left unlocked, should also be described. This may be a simple as a sentence stating the practice manager should be informed, or may discuss methods of identifying logged in users from audit trails.

6.4. Procedures Manual

This document will describe the actual procedures used by staff to manage scanned documents. This will often be a simple step by step description of, for example, the process to be followed to link a scanned document to a patient record in Docman and EMIS or Vision. For back scanning practices should consider and document the processes employed in conjunction with the contractor to ensure staff know and understand how to manage scanned records.

6.5. Systems Description Manual

Normally in practice these will be the user guides and documentation for Docman and the clinical information system in use, Vision or EMIS.

6.6. Document Destruction

Where practices have in place, adhere to and can demonstrate their compliance with these policy documents they may elect to destroy original documents. The responsibility for this decision must lie with the practice as the data controller – authority cannot be granted from external agencies, such as Health Boards or Practitioner Services, as they may have no supervision of the practice's procedures.

Where practices destroy archived records and do not have in place procedures adhering to the guidance in this document, nor the guidance outlined with respect to the code of practice, they may find their position is indefensible in the event of any dispute.

When paper documents are destroyed, a record of the destruction must be made. This should include a reference for the document, a description of the document and the date of destruction. A 'Disposal Schedule' would constitute the basis of such a record. This means that scanned historical records stored appropriately in Docman should have recorded a date of destruction, and that this may be recorded as applying to a number of records rather than individually marked. By storing the record correctly in Docman and including in the scan the original A4 and Lloyd George envelope covers, a reference and description will be implicit.

Duplicate, blank or superfluous items removed during records gardening will not require a formal record of disposal.

Note that no record dated 1948 or earlier should be destroyed. NHS Archivists should be consulted with respect to such records. NHS Archivists should also be consulted prior to document destruction where the record may have a wider historical or medical importance, remembering that on occasion the paper forms themselves may have importance beyond their content.

Where the records are currently subject to any medico-legal processes the originals must not be destroyed or altered until such time as those processes are complete. This does not prevent a practice from scanning them concurrently.

More information on document and records management is available in the Scottish Government Records Management NHS Code of Practice 2012. Note that when a record is being scanned it is not being "destroyed" but rather copied to a standard that will allow the original to be destroyed. The record itself is retained, in its new form, and should be kept in line with Annex B of the 2012 code of practice, even if the original is subsequently destroyed.

Appendix A. Appendix A – Information management policy

A.1. Scope

This document describes the information management policy of **Practice Name** with respect to managing patient related documentation, scanning them to Docman and subsequent retention policies prior to destruction.

A.2. Information Covered

This policy describes the management of patient related documents. These may be clinical, administrative, NHS, private or a combination of such types.

Clinical documents include original handwritten records, printed or typed correspondence from or to other health care providers or the patient, printed or typed laboratory, imaging or other results from tests and investigations; forms, annotations, images and any other enclosures relating to clinical care.

Administrative documents will include reports for legal or social security purposes, documents relating to the registration or de-registration of the patient with practices or other services, reports and certificates to third party agencies not providing health or social care.

NHS documents relate to any documentation present that was required or produced for the patient's normal health care from NHS services.

Private documents refer to documents required or produced for non NHS clinical care.

A.3. Storage Media

Documents will be scanned using Docman to the practice server's hard drives and backups taken to magnetic tape.

A.4. Docman

All documents will be stored in Docman using either PDF or TIFF formats.

A.5. Audits

An audit of 1 record in every 100 will be carried out to ensure legibility and integrity.

A.6. Responsibility

Practice Manager holds overall responsibility for maintaining this policy document and ensuring compliance within the practice.

Staff Member {insert name} is responsible for reviewing and checking quality of records as they are imported to Docman.

Appendix B. Information Retention Schedule

B.1. General principles

For incoming correspondence scanned to Docman all items will be retained and only destroyed once the backup has been taken and verified.

Documents that are part of records currently under medico-legal review will not be destroyed until such processes are complete.

B.2. Retention and Disposal

The practice follows the guidance in the NHS Scotland Records Management policy of 2012.

All patient specific documentation is retained after scanning until a verified backup is created. Sampling audits are carried out to ensure scanned documents maintain their integrity and can be restored from the backup.

Paper records may only be destroyed locally using a cross cut shredder and disposed of securely.

- **or –**

under contract to a confidential clinical waste service as provided by the Health Board (or contracted by the practice).

Appendix C. Information Security Policy Document

C.1. Scope

This document describes procedures for managing users and their access to the clinical and document management computer systems in **practice name**.

C.2. User Management

All users will have unique User Names on all systems requiring a login, specifically Docman and EMIS / Vision.

Usernames will only be active for the period of time the individual is working with the practice. When an individual's role in the practice ends, their user details on all systems should be 'inactivated'.

C.3. Password Management

All passwords must be minimum of 8 characters, contain a combination of upper and lower case characters and numbers.

Passwords are always required to login to practice systems.

Passwords will expire every 90 days requiring a new password to be entered by the user.

C.4. Server Security

The server room will remain locked. They key is available on request from the **staff member {insert name}** and must be returned after use.

Or e.g. the server is located in office A, and is securely sited. Access to the server for any purpose must be granted by the practice manager. Staff should always consult the practice manager when service or other IT personnel require access.

Remote access to servers and workstations is required for day to day support of systems. Such access must only be granted with the knowledge of the practice manager and only by organisations with a contracted relationship with the practice, or by proxy with the health board.

Remote access by users to practice systems should only be to workstations. Security and login credentials must be agreed beforehand and in keeping with approved Health Board procedures.

C.5. Backup

Servers will be backed up according to the backup schedule elsewhere defined.

Appendix D. Extract from the DocMan Transfer Acceptable File Types Standard document – eH4009

D.1. 4.2 Included file types

The file extensions included below are proposed for inclusion in the first iteration of acceptable file types.

Extension	Description	Acceptable	Comment
Rtf	Rich Text	Yes	
Jpg/Jpeg	JPEG Image	Yes	
Bmp	Bitmap Image	Yes	
Txt	Plain Text	Yes	
Csv	Plain Text	Yes	
Pdf	Portable Document Format	Yes	
Tif, Tiff	TIFF (Tagged Image File Format)	Yes (version 6 only)	No way to enforce version check
Mdi	Microsoft Office Document Imaging	Yes	Preferably practices would use TIFF
Doc	Microsoft Office Word 97 or above	Yes (no macros, no mail merge)	No way to enforce macro/mail merge checking
Xls	Microsoft Office Excel 97 or above	Yes (no macros)	No way to enforce macro checking
Htm, html	Web Pages	Yes (no external links/references)	No way to enforce checking of external links/references
Txt, Htm, Msg	Email	Yes (plain text/web pages preferred)	Msg is being coped with places dependency on Microsoft Outlook being installed for all readers
Xps	Microsoft Electronic Document format	Pdf or Tiff format accepted as alternative	Xps

Table 2: Initial proposed acceptable file types

Several of these file types include additional notes/guidelines for best practice – enforcement of these guidelines is outside the ability of the currently proposed standard.

D.2. 4.3 Excluded file types

Any file type not specified in section 4.2 would block export of a patient medical record. Examples include, but are not limited to:

Extension	Description	Comment
Pub	Microsoft Publisher format	Dependent on content, Pdf/Tif/Html suggested as acceptable alternatives
Mht	Web archive	Html format accepted as alternative
Dot	Microsoft Word Document template	Doc format accepted as alternative
Exe	Windows executable file	File contains no clinical content, should not be included
Dll	Windows library file	File contains no clinical content, should not be included
Lnk	Windows shortcut file	Shortcut file should be replaced by target
Shs	Microsoft Office document scrap file	Scrap file should be replaced by MS Office file saved in appropriate format (Doc or Xls)
Url/Http/Ftp	Internet/website address	Dependent on content, Html format accepted as alternative. **This format is included in the SCIMP/DfH guidelines.**
Zip	Compressed file	Content(s) of compressed archive should be filed individually in patient record
Qrp	QuickReport (GPASS specific)	Pdf or Tiff format accepted as alternative
Avi/Mpg/Mpeg	Movie files	**This format is included in the SCIMP/DfH guidelines.**
	Proprietary	**This format is included in the SCIMP/DfH guidelines.**
DICOM	DICOM is a container format that also includes the potential for moving images	**This format is included in the SCIMP/DfH guidelines.**

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[4] MR002 Docman Transfer Project Docman Transfer Process – GP Guidelines
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