Scottish Clinical Information Management in Practice (SCIMP)

'Back Scanning' advice for General Practices

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Reviewers

Date	*Reviewed by*	*Role*
24-Nov-2008	*Libby Morris*	*SCIMP*
24-Nov-2008	*Roslynne O'Connor*	*SCIMP*
25-Nov-2008	*Ian McNicoll*	*SCIMP*
25-Nov-2008	*Colin Brown*	*SCIMP*
25-Nov-2008	*Sara Hornibrook*	*SCIMP*
28-Nov-2008	*Kenneth Harden*	*SCIMP*
30-Nov-2008	*Karen Lefevre*	*SCIMP*
02-Dec-2008	*Colin Brown*	*SCIMP*
02-Dec-2008	*Sara Hornibrook*	*SCIMP*
02-Dec-2008	*Kenneth Harden*	*SCIMP*
02-Dec-2008	*Karen Lefevre*	*SCIMP*
09-Dec-2008	*Robert Milne*	*SCIMP*
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18-Dec-2008	Para 3.4.6 added "For practices, PCTI Docman is supplied free of charge and is consequently the most likely choice of EDRMS." To end of paragraph	Paul Miller following comments from Colin Brown
18-Dec-2008	Para 3.5.3.4 deleted last sentence, "The single important recommendation is that all documents stored electronically are stored within Docman adhering to the national folder structure."	Paul Miller following comments from Colin Brown
09-Jan-2009	Para 3.4.1.7 added 'We would strongly advise practices to employ an EDRMS for back scanning as the risk in not doing so are significant.'	Paul Miller following comments from Kevin McInneny
09-Jan-2009	Para 3.4.2.7 Appended '.., allowing documents of more than 1 page to be grouped together' to sentence "Both these formats allow for multiple pages to be stored in a single file."	Paul Miller following comments from Kevin McInneny
09-Jan-2009	Para 3.4.2.7 added sentence 'Note that TIFF will not support searching on the text within the document, assuming that this has been subject to Optical Character Recognition. See 3.4.2.10 below.'	Paul Miller following comments from Kevin McInneny
09-Jan-2009	Para 3.4.2.10 added sentence 'Note that only PDF files will support searching on OCRed text.'	Paul Miller following comments from Kevin McInneny
09-Jan-2009	Para 3.4.2.8 added sentence 'Some scanning companies will be able to scan the documents using the NHS Docman National Folder Structure. We would recommend that practices request this service from their scanning company.'	Paul Miller following comments from Kevin McInneny

09-Jan-2009	Para 3.4.6 added sentence 'PCTI Docman is supplied under a national contract to practices. This contract is due to end in March 2009 and thereafter, unless renewed by the NHS, alternative local funding arrangements will require to be made.'	Paul Miller following comments from Kevin McInneny
09-Jan-2009	Para 3.4.6 added sentence 'It should also be noted that DocMan and the DocMan transfer process will be utilised for the GP2GP development planned for 2009/10.'	Paul Miller following comments from Kevin McInneny
09-Jan-2009	Para 3.5.3.2 Paragraph 'Where the Docman record has been transferred but the receiving practice is not enabled for Docman or the Docman transfer process, the receiving practice will be supplied with the PDF file. This will be readable on a computer using a 'viewer' application, such as a Adobe Acrobat Reader. If practices require a paper copy they will need to print this using their local resources. We would recommend that all practices aim to implement Docman for linking and viewing these documents as it provides the most flexible and secure method of managing the workflows associated with them. Further, the use of scanning methods not employing the file types described in this document, or using Docman for managing the document will incur clinical risk on transfer as receiving practices may lack the knowledge and skills to then view the records.' Changed to: 'Where the Docman record has been transferred but the receiving practice is not enabled for Docman or the Docman transfer process, PSD will be required to print out the full electronic record and forward as paper to the receiving practice. We would recommend that all practices aim to implement Docman for linking and viewing these documents as it provides the most flexible and secure method of managing the workflows associated with them. Further, the use of scanning methods not employing the file types described in this document, or not using Docman for managing the document will incur clinical risk on transfer as receiving practices may lack the knowledge and skills to then view the records.'	Paul Miller following comments from Kevin McInneny
09-Jan-2009	Para 3.7.4 Added paragraph, 'In addition to this, large scanned files will take longer to export using the NHS network when a patient transfers. Therefore, 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.'	Paul Miller following comments from Kevin McInneny
23-Jan-2009	Para 3.4.2.7 Added paragraph, "Documents of more than one page can reasonably be scanned together to a single, multipage document but we would not recommend scanning the full record to a single document. To do so would risk losing access to the document if the file became corrupted and un-recoverable, and a large multi-page file is not the most effective approach from a clinical perspective."	Paul Miller following comments from Kevin McInneny
23 Jan 2009	Para 3.4.1.2 Changed to "You should aim for a standard of 100% legibility on 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. We would recommend examining a test sample of scanned records to ensure they are legible and no significant meaning or information is lost."	Paul Miller following comments from Kevin McInneny

Contacts

Author
Dr Paul Miller
e-mail: paulagmiller@gmail.com

SCIMP Manager
Annabel Chambers
e-mail: annabel.chambers@isd.csa.scot.nhs.uk

1. Introduction

1.1. Purpose

This document is intended to provide advice to General Practices in Scotland who are considering 'back scanning' their patients' paper notes.

1.2. Scope and Readership

This document is intended to inform general practitioners, practice managers, practice IT administrators and GP IT facilitators and to assist them in making an appropriate business decision based on their requirements. The document does not dictate what to do, but provides a framework upon which options can be formally assessed. We recognise that each practice's requirements in this area will be different and reflect this in the advice we supply.

2. Document Summary

This document provides advice to General Practices in Scotland that are considering 'Back Scanning' their patients' old paper records.

The advice herein includes defining '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 also covered. 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. Lastly, technical considerations are outlined although the reader should note that this document is not primarily a technical review.

3. Back Scanning

3.1. What is it?

'Back scanning' is a term 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.

3.2. Why back scan?

3.2.1. To free up space

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

3.2.1.1. Records "Gardening"

Removing superfluous paper from the records such as duplicates, blanks and non medical documents to reduce the overall bulk of the records.

3.2.1.2. Changing filing cabinets

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

3.2.1.3. Custom Storage for archive function

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

Note that any paper records storage should be "clean and tidy, should prevent damage to the records and provide a safe working environment for staff." as per paragraph 45 of the NHS Code of Practice for Records Management[1]. Readers are referred to this document for more information on the appropriate handling of paper records.

3.2.2. To facilitate paperlight working

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

3.2.3. To enhance clinical safety

Practices may consider that providing easier access to the historical records could provide a clinical benefit. Anecdotal reports suggest that clinicians are less inclined to refer to the paper records when working in a paperlight environment due to the time and inconvenience of requesting and then reviewing the record. Providing the facility to refer to the historical record electronically circumvents this inconvenience, and may provide some reassurance for clinicians concerned at moving to an electronic record system.

3.2.4. Financial reasons

Practices should consider staffing, storage and other costs required to maintain a paper record filing system compared to the costs of back scanning and subsequent maintenance. There may be a positive benefit in favour of the electronic solution.

3.2.5. 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.

3.2.6. Research and Analysis

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

3.3. Which Practices Should Back Scan?

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

3.3.1. Paperlight working

Practices that are experienced at working using paperlight processes are best suited to undertaking a back scanning project.

'Paperlight' 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 should 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 paperlight working, but this will require careful and detailed planning the scope of which is outwith this document.

Practices which have other business processes, e.g. call and recall, reliant upon paper notes should try to formally identify these processes and discuss whether an alternative process can be devised to implement after the back scanning has been completed.

3.3.2. 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 filing requirements. The IT Facilitators or the Health Board's IT department should be able to provide advice on whether your practice IT infrastructure will be suitable.

3.3.3. Are the problems solvable by back scanning?

Back scanning will not solve problems related to poor filing practices, staff or clinician issues, inadequate management or poor leadership in the organisation. Indeed, while generally back scanning should be beneficial, it does introduce new challenges and changes to a practice so may compound, rather than solve, any pre-existing problems.

3.3.4. 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. For example, where the person retrieving a paper record for a clinician routinely talks to another member of the practice team during that process, the impact of removing the paper record may be to weaken or even remove the informal communication between these two staff. The impact for most practices is likely to be insignificant when balanced by the benefits, but there may be individuals whose working pattern will be significantly changed by back scanning and this should be assessed.

3.4. How to Back Scan

3.4.1. What are the requirements?

3.4.1.1. Being comprehensive

No element of the original paper record should be excluded from the scanning process although a notes 'gardening' process (as per 3.2.1.1 above) could be undertaken prior to back scanning to remove unnecessary paper from the record.

Practices may wish to deal with any non clinical correspondence or noting separately from the clinical record and in some cases this may require it to be manually sorted.

Practices could elect to scan all documents prior to the date they went 'paperlight', on the basis that any documents after this date will already have been captured electronically. Practices proposing to do this will need to be absolutely sure that no filed documents after this date could have been missed from the paperlight processes otherwise they risk losing important documents.

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 also ensure any handwritten notes on these pages are available for reference in the future.

3.4.1.2. Being legible

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 on 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. We would recommend examining a test sample of scanned records to ensure they are legible and no significant meaning or information is lost.

3.4.1.3. Being 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 a consulting and reception environment should be provided. In practical terms, this means that each back scanned document needs to be identified by a unique file name, probably using a combination of name and CHI number, and that the document is in some way linked to the patient's electronic record held on the GP clinical computer system (GPASS, Vision, EMIS). Document management systems such as PCTI Docman will do this automatically, and Docman is currently the preferred system in use in Scottish practices.

3.4.1.4. Being easy to navigate

A method of browsing and reading the scanned documents that is easy to use and practical in the consulting room should be provided.

3.4.1.5. Being searchable

A method of searching scanned documents for keywords should be provided.

3.4.1.6. Being available when required

The documents should be available to the practice team easily. Multiple users should be able to access a document for viewing simultaneously.

3.4.1.7. Being securely stored

A security method must be employed to prevent inappropriate access. If the back scanned documents were to sit outside of the practice's clinical computer system or Electronic Document Records Management System (EDRMS), and are thus not protected by any computer system's logon requirements, the directory on which they are stored must not be available to unauthorised users. This can be achieved using Windows Server security permissions and should be implemented by your Health Board IT support or IT Facilitators. An EDRMS in this context generally refers to PCTI Docman.

We would strongly advise practices to employ an EDRMS for back scanning as the risks in not doing so are significant.

3.4.1.8. Having a comprehensive backup

The back scanned documents must be backed up to optical, tape or other storage media. This means a copy on DVD, back up tape or other storage device. An encrypted off site backup of the original scanned documents would be valuable.

3.4.2. Commercial Companies

There are a number of commercial companies that offer this service. SCIMP are not in a position to review or recommend any specific company but this document should help practices assess the services any particular company is providing.

3.4.2.1. Does the company have experience in health care?

Scanning services are used by non health organisations also, and it may be 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.

3.4.2.2. Is the company solvent and viable?

As the company will require to remove the patient records offsite it is important to ensure they have the financial and administrative resources to safely and securely manage this process and that ownership of the records remains with the practice at all times.

3.4.2.3. How long will they take

For a practice to plan they should establish with the company a time frame for completion of the process. If this is likely to be significant arrangements should be made to manage the normal practice list turnover.

3.4.2.4. Do they take records off site?

In general we would expect this to be the case as professional scanning equipment is expensive and difficult to transport.

3.4.2.5. What security systems do they have in place?

When patient records are being held in storage by a scanning company the practice should ensure that some guarantees are provided with respect to the security of this storage. In particular the storage premises must be dry and secured from theft and unauthorised access.

3.4.2.6. What guarantees do they provide with respect to confidentiality?

The scanning company must ensure that physical access to the patient records is secured, that company 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.

3.4.2.7. What document format will they use?

Electronic image files have many different formats. Commonly used formats include 'TIFF (Tagged Image File Format)[2]' and 'PDF (Portable Document Format)[3]'. 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. In general, PDF is the most versatile image format and has the advantage of being widely employed with a variety of software document readers. Note that TIFF will not support searching on the text within the document, assuming that this has been subject to Optical Character Recognition. See 3.4.2.10 below.

We would recommend that a file format is used which is compatible with PCTI Docman. This advice is in keeping with the current advice from Practitioner Services. Ensuring compatibility with Docman 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.

Documents of more than one page can reasonably be scanned together to a single, multipage document but we would not recommend scanning the full record to a single document. To do so would risk losing access to the document if the file became corrupted and un-recoverable, and a large multi-page file is not the most effective approach from a clinical perspective.

3.4.2.8. Do they structure the document?

The A4 record has historically been sorted into sections and coded by colour to make navigation through it easier. For example, pink A4 sheets have traditionally been used for the clinical notes and a yellow A4 sheet is used for immunisations. Correspondence is normally filed and sorted in chronological order at the back of the folder.

When the company scans the paper document into a PDF it may be possible for it to be organised into chapters or sections thus maintaining some or all of this structure. An alternative approach could be to organise the document by date.

Some scanning companies will be able to scan the documents using the NHS Docman National Folder Structure. We would recommend that practices request this service from their scanning company.

If this service is offered it may incur additional costs.

3.4.2.9. Colour or Greyscale?

The practice should consider the 'depth'[5] of scanning for their records. 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 would not be recommended.

Colour scanning would be the ideal method and would assist in providing some navigation cues to the scanned file. Scanning in colour will significantly increase file sizes, storage requirements and the time required to complete the process. This will all increase cost and thus should be carefully considered by practices. Refer also to 3.7.4 below.

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.

3.4.2.10. Do they 'OCR' correspondence?

'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 will not be suitable for OCR. Note that only PDF files will support searching on OCRed text.

Applying OCR to scanned documents may incur additional cost.

3.4.2.11. What search facilities do they provide?

The scanned documents should be provided with some search tools. A minimum will be provided if the document is a PDF and the correspondence has been 'OCRed' as this will allow a free text search on the correspondence. Practices should assess their own requirements in this area. If the documents will be put to research or analysis purposes then a pre-indexed search across multiple documents would be of value. It would normally be possible to use other software applications to achieve this, although the scanning company may be able to offer it as a service.

3.4.2.12. Do they encrypt off site documents?

Current requirements for the NHS are that no electronic records should be transported un-encrypted. Companies should therefore be able to show that they encrypt the scanned files for delivery to the practice and that any off site backup the company maintains is also suitably encrypted.

3.4.2.13. Do they guarantee the electronic destruction of scanned documents from their hardware?

After the scanning process is completed the company must ensure that any records of documents held on their systems are securely deleted. This should entail more than a simple 'Delete' function as provided by the operating system, and they should be able to explain the process they use.

3.4.2.14. What insurance do they have?

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.

3.4.2.15. Do they integrate the documents with your clinical system?

As part of the service provided, will the company integrate the scanned files with the existing clinical computer system in the practice? This may or may not be appropriate to the practice's requirements and will depend on the functions for linking or embedding the scanned documents to the patient's electronic record in your system. Not all GP systems have this functionality.

3.4.2.16. Do they integrate the documents into Docman?

We would recommend that scanned historical documents are 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. Scanned documents should be imported into Docman using the National Folder Structure [6] wherever possible.

3.4.2.17. Have they any local experience?

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.

3.4.3. DIY Approach

In general we would 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 excessive. Nevertheless, a process of back scanning could be initiated using the tools already in place in most practices with Docman. A sheet feeder to a scanner with duplex (can do both sides) functions is a pre-requisite, and a clear protocol of how documents should then be filed to Docman should be employed. If OCR functions are required then this functionality can be purchased for Docman.

The advantage of this approach is that the practice's historical documents will then all be filed in a logical order within the Docman folder structure – something which a scanning company may not provide –and there may be advantages in cost, simplicity and the responsiveness of a bespoke arrangement to the practice's business requirements.

The disadvantages are in time and other practice resources but, in itself, there is nothing inherently wrong with the DIY approach for technically competent practices.

3.4.4. 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. Health Boards are also required to fund essential IT hardware upgrades for this clinical purpose. Practices may also approach Boards 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 the whole process of a back scanning project and it is likely that practices will have to self-fund in part or entirety. Advice should be sought from the practice's Local Medical Committee.

3.4.5. Docman Folder structure[6]

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 PDF software tool which allows extraction of one or more pages from an original document. This is likely to be labour intensive and slow, and is not a recommended approach in light of these practical difficulties.

Practices should file the scanned patient record into the patient's Docman file. As a minimum, we would recommend using the 'Historical' folder in Docman for this purpose.

An alternative approach would be to use the inherent structure of the A4 record to file documents more accurately to Docman folders by their original type. For example, laboratory results on green sheets to 'Labs' and grey summary sheets to 'Historical'. Implementing this would require either manual sorting work by the practice or additional costs and time for the scanning company. Sorting each item of back scanned correspondence to the appropriate Docman folder is probably untenable for most practices and is not considered essential.

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.

3.4.6. Why use Docman?

The advantage to using a document management system for viewing the scanned record lies 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. For practices, PCTI Docman is supplied free of charge and is consequently the most likely choice of EDRMS. PCTI Docman is supplied under a national contract to practices. This contract is due to end in March 2009 and thereafter, unless renewed by the NHS, alternative local funding arrangements will require to be made.

The use of Docman ensures that the requirements for back scanning in 3.4.1 above are met.

Adding the back scanned file to Docman will also allow the record to transfer using the Docman to Docman document transfer process[4] for enabled practices. It should also be noted that DocMan and the DocMan transfer process will be utilised for the GP2GP component of GP Connect planned for 2009/10.

The NHS Code of Practice for Records Management paragraph 41 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 would conform with the national guidance.

3.5. Other Considerations

3.5.1. National Procurement

No national agreement has yet been reached on an NHS Scotland wide solution to back scanning. There are, as a consequence, no agreed standard procedures for this. Practices that initiate their own processes for this, even if using commercial services, may therefore find they are subsequently out of step with national guidance if and when that becomes available. There is a risk that this will result in additional work by the practice as well as further costs to meet the records standard from the NHS.

We consider that the approach of scanning the full paper record to a PDF or TIFF and then storing this in the Docman 'Historical' folder is unlikely to be far removed from any national advice which may be provided.

3.5.2. Records Storage

There are no arrangements for the paper records, once scanned, to be stored off site or returned to PSD. Practices will have to make their own arrangements for this. Any arrangement for off site storage should be agreed with the Health Board.

It is important that practices have an arrangement for dealing with the paper records after they are scanned prior to contracting with a scanning company, otherwise the practice may not realise its space saving plans.

Practices are likely to incur additional costs for off site storage.

3.5.3. Turnover

3.5.3.1. New registrations

The practice will have to put in place a process for back scanning new records as patients 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. If using an in house method a decision will need to be made on whether to follow the same methodology of the scanning company or to adopt another approach. In general, consistency of record storage and filing is likely to make it easier for end users to know where to look and to manage any changes to the storage structure in the future. Opposing this view, sorting documents appropriately under the Docman folder structure does make it easier to navigate the record but may not have been the process supplied in the initial bulk scan by the scanning company.

3.5.3.2. Transfers

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

Where the Docman record has been transferred but the receiving practice is not enabled for Docman or the Docman transfer process, PSD will be required to print out the full electronic record and forward as paper to the receiving practice. We would recommend that all practices aim to implement Docman for linking and viewing these documents as it provides the most flexible and secure method of managing the workflows associated with them. Further, the use of scanning methods not employing the file types described in this document, or not using Docman for managing the document will incur clinical risk on transfer as receiving practices may lack the knowledge and skills to then view the records.

Where the paper record has not been destroyed, the paper record will also 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. This risk can be reduced by practices which have back scanned clearly adopting a policy whereby the paper records are not altered in any way once scanning is complete. In practices where agreement has been obtained to securely destroy the original files, this risk is obviated.

3.5.3.3. 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 visa versa, may have some difficulty integrating a scanned history into their practice. A policy decision should be made as to whether a back scanned file received from another practice should be printed out and filed or otherwise. A new paper record may be created for such patients.

The paper printout must not be amended after scanning in any way, as any changes would require rescanning if the patient then moves practice again. If this were to occur, back scanned practices who receive a printed record of a previously back scanned patient record would be required to also review the paper record for deletions, annotations and insertions in order to trap and scan any changes.

3.5.3.4. Cross border transfers

Practices should note that currently 14% of transfers are cross 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. Practices should transfer the electronic records to Practitioner Services who will undertake this task. Consideration is being given to finding an electronic solution to pave the way for full GP2GP transfer. 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.

New or Temporary Staff

Practices may find it helpful to provide new or temporary staff with a historical list or timeline of where a specific part of a patient's record is likely to be held based on its date. For example, if the full paper file has been scanned to the 'Historical' folder, but entries to the record after going paperlight are stored in Docman in line with the national folder structure.

3.6. Legal Issues

There remains no national agreement or specific guidance on the destruction of back scanned records. In particular, Practitioner Services Division states that destruction of the 'Pink Sheets' – the clinical notes for the patient – would be "*in contravention of the current guidance from the Scottish Government*".

Practices are referred to the document "SCOTTISH GOVERNMENT RECORDS MANAGEMENT:NHS CODE OF PRACTICE (SCOTLAND) Version 1.0 June 2008"[1] for guidance on records management, retention and destruction. This document references "BIP 0008 Code of Practice for Legal Admissibility and evidential weight of information stored electronically" which contains recommendations to ensure the legal admissibility of scanned documents. In general, where a practice employs a document management application which includes an audit trail, such as Docman, and follows the advice in the Good Practice Guide for Electronic Records, the electronic document will be medico-legally valid.

If 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 Llloyd George envelope covers, a reference and description will be implicit.

Note that 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 we would recommend not destroying the original until such time as those processes are complete.

Agreement to destroy the original records may be obtained through the local Health Board and this agreement must be obtained before undertaking any document destruction or disposal other than in the circumstances referred to in 3.2.1.1 above.

3.7. Technical Considerations

Practices should undertake a technical feasibility review prior to undertaking a back scanning project. The scanning company and your HB IT support should be able to provide assistance for this. Aspects to consider include:

3.7.1. Disk Storage Capacity

The additional storage required on the practice server needs to be evaluated. If there is insufficient space on the existing server, an upgrade to the server will be required.

3.7.2. Backup Capacity

The practice's backup system must have sufficient capacity to store the additional files. Again, if not sufficient then an upgrade to the backup solution will need to be procured.

3.7.3. Docman

Practices should consult with Docman support with respect to the additional storage of documents in their database. In general this will probably not be an issue, but practices with large amounts of new data to add to Docman should seek confirmation that the database will scale to accommodate the additional load.

3.7.4. Network Capacity

Large scanned documents will make greater demands on the practice's network, which may particularly affect practices with branch surgeries accessing documents from a remote main server. The Health Board IT support should be able to advise on the suitability of the practice network to this task.

In addition to this, large scanned files will take longer to export using the NHS network when a patient transfers. Therefore, 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.

3.7.5. 'Reader' software

In general all client PCs (consulting room and reception) accessing PDFs should have a recent version of a PDF compatible reader software application. Adobe Reader from http://www.adobe.com would be ideal for this task.

4. References

[1] Records Management: NHS Code of Practice (Scotland) Version 1.0
http://www.scotland.gov.uk/Publications/2008/07/01082955/0
Last accessed 12-Dec-2008

[2] http://en.wikipedia.org/wiki/TIFF
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[3] http://en.wikipedia.org/wiki/PDF
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[4] MR002 Docman Transfer Project Docman Transfer Process – GP Guidelines
http://www.psd.scot.nhs.uk/professionals/medical/documents/Docman_Transfer_Process_v13.pdf
Last accessed 12-Dec-2008

[5] http://en.wikipedia.org/wiki/Color_depth
Last accessed 12-Dec-2008

[6] National Standard Folder Structure for DocMan Version 7
http://www.scimp.scot.nhs.uk/documents_downloads/Procedures%20-%20DocMan%20Document%20Folders%20v2.3.doc
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