A home-made A4 medical record system in general practice

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SUMMARY. An A4 record system produced with standard retail stationery is described. The reasons for not using other systems are given and the problems of conversion and how they are solved are explained.

Introduction

WE are a four-partner practice with an urban non-dispensing list of 11,000. Like others, we have found that uncontrolled medical records produce bulging and bursting medical record envelopes (MREs), sometimes more than one for a single patient, from which information becomes increasingly hard to retrieve. Excavating the MRE at a consultation and then reassembling the contents in some sort of order is very time-consuming, and cards and letters are easily replaced in the wrong envelope. A4 records appear to be the obvious answer. Some whisper the magic word 'computers', but we are sceptical whether computers are cost-effective in general practice. We also believe that it is premature to assume that all written records will disappear, even with the full exploitation of computers. In 1979 a grant of £500 from the Kings Fund allowed us to reform our records.

Methods

Pilot study

We ran a pilot trial using about 30 thick MREs, which were selected as they presented during consultations. I investigated various ways of sorting the contents and devised a way of placing them in simple A4 folders using a punch and treasury tags. The problems revealed by the pilot study and the solutions we adopted were as follows:

Documents

Documents are in a variety of sizes, shapes and thicknesses of material, from MMR films and uncut ECG tracings to foolscap letters and large computer printouts. Even when these were sorted, there was still a clear risk of information being buried because of irrelevant, duplicated or illegible records.

Much material, particularly investigation reports, was mounted on A4 sheets with adhesive along the top edge similar to common practice in hospital records. Coulter Counter haematology reports were awkward, but, instead of placing them on a separate sheet, they were mounted with the other investigation reports with the long axis horizontal and the identification details at the bottom folded under. Foolscap letters and most computer printouts were cut to size. Recently AHA immunization records for children have been on very large computer printouts, but as there is no backlog they can be transcribed and the printout discarded. We found that, almost without exception, material that could not be filed tidily, such as MMR films and old investigation reports, could be sacrificed to provide records in which useful information was neatly and easily available. The medical record cards from other practices, FP7s and 8s, were so seldom both legible and important that we returned them to the MRE, retaining in the A4 folder only those written by members of our practice.

Records

There are a large number of different types of record, each with a case for being filed in a separate special section within the folder. We decided to try to reduce the number of types of record retained from the MRE and to add the minimum number of new A4 sheets.

All investigation reports, except ECG and cervical cytology, were fixed to the same style of mounting sheet. All normal cytology reports except the last one were discarded. Abnormal reports and the last normal report were regarded as hospital letters and were filed with these in date order. ECG tracings were treated in the same way. In addition to our own FP7 and 8, the immunization record card (FP7a/8a), the pink RCGP summary card and the green RCGP maternity card were retained. An A4 clinical record sheet and a sheet for

long-term medication, which we called the treatment record (TR), were added. If the health visitor, nurse or counsellor wished to make a note they would do so on the clinical record sheet, signing the entry or writing in an agreed distinctive colour. The white maternity co-operation card was discarded when the patient gave it in at her post-natal examination, and after the doctor had transcribed any useful information onto the other maternity records. The most recent FP1001/2 Part III was kept and the previous form, if any, discarded. FP 19 and 1003 cards could almost always be discarded without loss, but could be filed with the letters if required.

Conversion to A4 size

The conversion of records from MRE to A4 must be within the capacity of a clerk.

A clerk was engaged and trained to convert records. We did not have enough space for her to work on the records full-time, so she was employed part-time and also did some reception duties. Showing her how to assemble the materials was straightforward, but we were concerned about teaching her what old material to discard. However, she was familiar with hospital records and rapidly became competent at selecting the items which had to be retained.

Quality of materials

We had to decide whether to have durable but expensive materials, or cheap and flimsy folders and paper.

We have found that lightweight standard folders last about two years for the most frequently handled and thickest records. To avoid paying for expensive folders, which would be unnecessary for most records, we are using ordinary folders for the time being, but intend to replace those that are subject to much wear with a more durable type of folder as the need arises. A4 paper that tears at the punch holes can be repaired with slit reinforcements or can be taped and repunched.

Miscellaneous

Loose items invite misfiling on the doctor's desk and may fall out if the notes are dropped, as may happen in the best office and certainly occurs in the doctor's car.

Identification. The name and initials of the patient must be on the spine of the folder, but there must also be a more comprehensive identification on the front of the folder and on the first clinical record sheet.

Writing surfaces. If the clinical record sheet rests on top of layers of letters and reports, writing becomes difficult and harder to decipher than usual.

Long-term medication. This needs to be recorded separately both for easy reference and for generating repeat prescriptions.

Hospital letters. The latest hospital letter must be readily visible at the same time as the current clinical record sheet.

Solutions to these miscellaneous problems are described in the following account of how we made up the new records.

Adopting a system

We considered four A4 filing systems:

1. The DHSS issue, provided free to some practices but not available generally in the foreseeable future.
2. The Milton Keynes Medical Record System, an improved version of the DHSS issue and obtainable by purchase.
3. A system of folders, largely improvized by the staff, used in a neighbouring practice.
4. Our own system, which would use locally bought stationery.

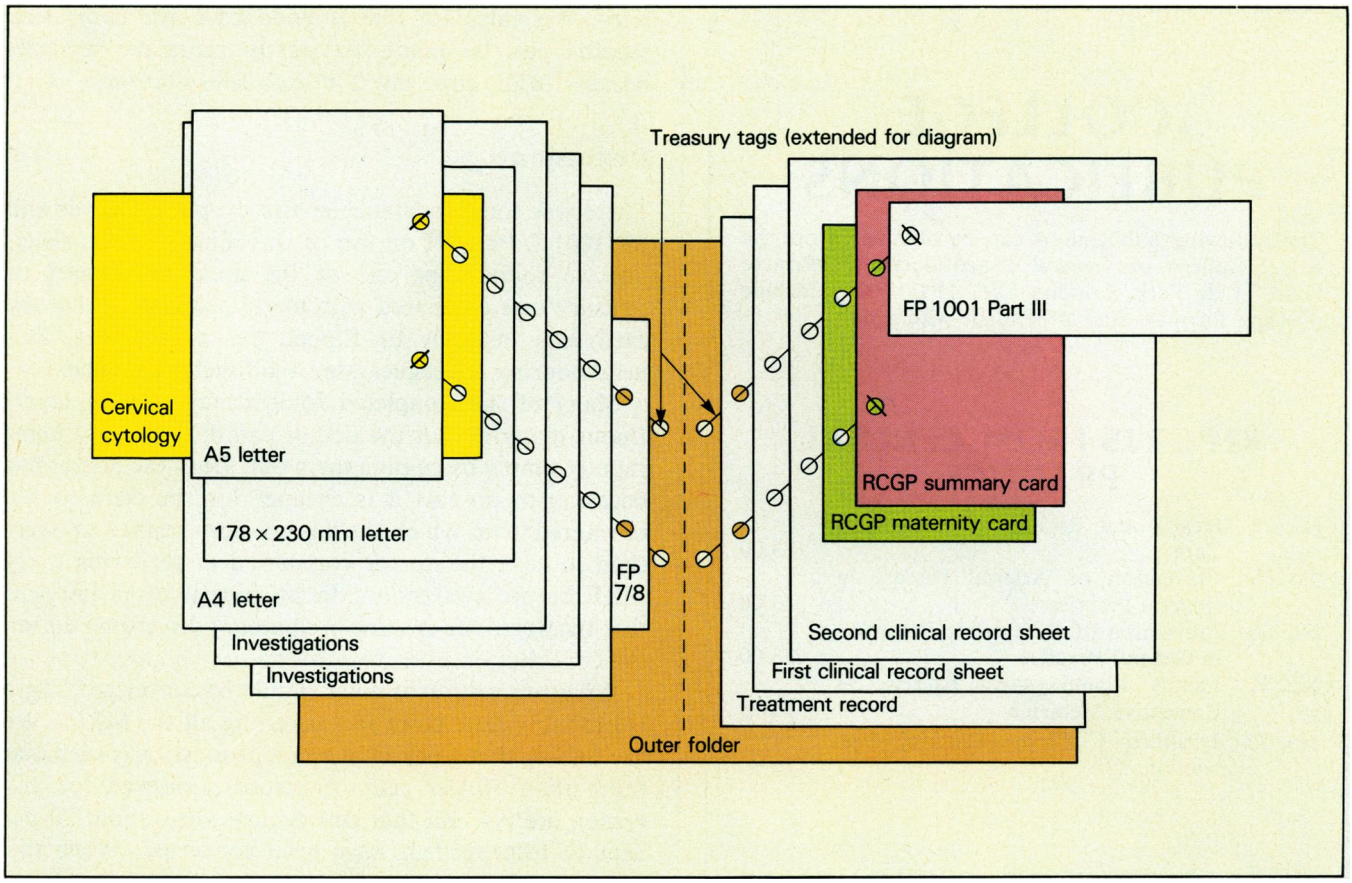
We decided that the Milton Keynes system was too expensive. The DHSS system was ideal but was also too expensive to buy. The system used in the neighbouring practice was a step in the right direction but we felt that we could do a great deal better. We therefore bought our own materials and stationery.

Stationery: Foolscap folders; A4 paper, double punched, plain and ruled; 150 mm treasury tags; 75 x 50 mm self-adhesive labels; treatment record heading slips identifying the sheet and reminding the doctor what details of a prescription to record so a clerk can enter it on FP 10; coloured self-adhesive labels 10 mm in diameter; and solid glue sticks.

Tools: a guillotine, a double punch, a felt tip pen and a typewriter.

Procedure

The folders are prepared by guillotining to A4 height. The strips trimmed off are marked with the coloured label and passed to the doctor to use in identifying MREs to be converted. The folders are double punched at the fold and treasury tags inserted free ends inward. The doctor selects the MRE for conversion, places a marker in it and it is then passed to the clerk. She empties the MRE, sorts the contents into type of record and date order and discards unwanted items. Investigation reports are mounted on sheets with the punch holes on the right. Letters are double punched on the right. Items are inserted on the left-hand side of the folder in the following order: recent FP7/8; investigation reports; spare investigation report mounting sheet; letters, ECGs, cervical cytology reports and other reports too large to be mounted on the investigation report mounting sheet. The latest letter or other document is on the top (see Figure).



Exploded diagram of a typical A4 medical record folder.

Items are inserted on the right-hand side in the following order: treatment record with heading slip mounted on it; clinical record sheet; green maternity card; pink summary card; risk factor card if appropriate; and FP1001/2 Part III. The precise order of these items is unimportant and may depend on when the need for them arises in use (see Figure).

Identification details (name, former and/or maiden name, address, telephone number, date of birth, NHS number and the initials of the doctor with whom the patient is registered) are typed on two 75 x 50 mm self-adhesive labels. One is placed at the top left-hand corner of the folder and the other at the top of the clinical record sheet. The name and initials of the patient are written in letters 10 mm high on the spine on the folder. Unwanted old FP 7/8s are replaced in the MRE, which is returned to the MRE file with the coloured label marker in it to direct the filing clerk to the A4 file.

The A4 records are stored on specially designed shelves made by the author. The most important feature is vertical partitions every 150 mm to stop folders falling over. We found that little more space is occupied than by MRE shelves. When stored on these shelves the files project 24 cm onto the floor compared with 18 cm for MRE shelves. This 6 cm extra is negligible with wall mounting, but might add up to an appreciable amount with several parallel rows of free-standing units.

Costs

Including labour (with 70 per cent reimbursement) and stationery, but excluding shelving, expenses during the first year (1979–1980) were 33p for each MRE converted. An estimate in November 1981 from a local joiner for a filing unit 1.8 m long with five shelves to hold 1,500 folders was £233, zero rated for VAT if fixed to a wall but liable to VAT if free-standing. Updated costs per folder to include such shelving are estimated as follows:

Labour less reimbursement	20p
Stationery	14½p
Shelves	15½p
Total	50p

It should be remembered that this figure is derived from costs during the first year, when the thickest MREs were converted. Expenses can be expected to diminish as thick files are thinned by the doctor and as the proportion of relatively thin MREs to be converted

rises. We calculate that a good case for converting records can be made on purely economic grounds because of the time saved at each consultation.

Discussion

There was some resistance at first to placing cards and FP 1001/2 Part III on top of the clinical record sheet, but we found that one of the great advantages of treasury tags compared with metal fasteners is that the cards can instantly be flipped out of the way. Our neighbouring colleagues used rigid metal fasteners.

Many of the completed folders may contain superfluous material, but the doctor can discard these items rapidly simply by ripping them out. Until the doctor has occasion to do this it is cheaper for the clerk to file unwanted items which she has not been trained to reject than to have the doctor committed to reviewing every MRE before conversion. In practice it often happens that the doctor does some preliminary discarding during the consultation prior to conversion.

What proportion of notes should be converted? There is probably little point in converting all the MREs. We are finding that a practical target proportion is such that more than 50 per cent of records retrieved for any reason are A4 and that this occurs when about 20 per cent of total records have been converted. When this point is reached, the filing clerk will no longer go routinely to the MRE file, find the marked MRE and then go to the A4 file. Instead, she will find over half the required notes by going directly to the A4 file, perhaps 70 per cent when 30 per cent of the total have been converted. Already the clerical staff know without looking that the records of many regular attenders are A4.

When a medical record is recalled, the A4 sheets are removed from the folder and folded into one third size and replaced in the MRE. This leaves 3 or 4 cm protruding, but we consider this to be acceptable.

Finally, we must mention the sheer pleasure and relief of discovering with one easy movement what was once buried, wedged and stuffed almost at random into bulging and bursting MREs, requiring minutes to excavate and reassemble on a desk covered in crumpled and torn paper. The current notes are immediately visible. All the contents are in order and secure. No documents are lost or misfiled. Our standards for medical records have been raised so much that we inevitably find points to criticize and improvements we would like to make, subject to financial support. However, the first and greatest step has been taken and we wish that it had been taken earlier.

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