convenience of the means of input of data for the doctor, or his staff, whether local or remote from the surgery; the problems of *coding and classification* of information; the problem of *feedback* of information to the doctor; the problems of accurate means of *patient identification:* the problem of *linkage* with hospital and local authority records; the problems of *confidentiality:* the *accuracy and reliability* of data stored within computers; the *security* of data; the problems of maintaining *continuity* over holidays, staff changes etc., *staffing: accommodation: cost: acceptability.* Many of these were self-evident and interlinked but ought to be considered in more detail.

They were concerned, in group practice, to delegate work to an increasing array of ancillary personnel. There was much routine clerical work that could be delegated much more efficiently to the computer once the preliminary work was done.

The wheel was to the feet as the computer was to the head, and general practitioners were surely among the first to automate their transport. "We must learn to use computers, rather than have them use us".

Discussion

Dr Struthers (*Chairman*) questioned whether it was worth keeping some of the stuff that doctors recorded. He had looked at many cards and usually they recorded just the treatment and were of not much use at all.

The important thing was to have a 'national recording language' so that everyone used the same terminology.

Dr J. McGlone (*Scotland*) said that this was one of the most important matters to be discussed at the conference. There was a tendency to try to squeeze everything into the existing system. The new maternity card was largely inadequate because they had tried to compress it to fit into the envelopes and drawers. It was time there was a change but this could be very expensive, in space, in furniture, and effort to transcribe.

In records there were two elements, (1) the immediate and more detailed, and (2) the long-term, where just a summary was wanted. The present system did not do either of these jobs properly.

Pruning had been mentioned but trying to do it was not easy, especially when there were records from other people which had to be gone through in detail. He had tried to do it while seeing a patient but it added a great deal to the consulting time.

With regard to the wallet type of card, this contained a number of advances in that it had a lot of area for recording of data which were easily and quickly seen on the outside. This was helpful. It was an advance but not a big enough one, and not the final answer.

Computers were not far away but, as in all record systems, accommodation and cost would be among the greatest problems. Many doctors were practising in what used to be shops, and in premises of that sort, and this sort of thing was only a pipe dream to them. It was only in the large health centre that it was realistic, in his opinion, unless shared mechanical handling of recorded information became a distinct possibility.

Dr B. Wilkinson said that some years ago in their practice they had become fed up with the envelopes and letters falling out. One had to open the envelope and go through it to find when the patient was seen last. In 1961 they had designed their own card, 10 by 8 inches. These were filed separately and at the top there was a summary of the patient—in theory. Ten thousand were a lot to summarize! The patient's record could be seen at a glance. Any letters from the hospital were summarized in green. Any positive results were put down in green. Any visits were in red. The filing was very quick; there was just one card. The staff could get them out quickly and they took far less space than National Health Service records. It was clumsy in that records had to be duplicated, and when the patient left the practice a summary had to be put on the NHS record. The summary was more valuable to the doctor who got the record

than lots of data. Hospital letters were in red and summarized on the notes. If they were just a follow-up for something like hypertension (which the general practitioner should be doing anyhow) they were thrown away, but the report of appendicectomy, for example, would be filed in the NHS records thus requiring two filing systems, one 10 by 8 inches, and one 5 by 8 inches.

Dr Wilkinson's example demonstrated the problem of record keeping in a nut shell: are we to be content with an aid memoire (i.e. the multi-coloured summary card) or are we to record in the Sir James Mackenzie way?

Record keeping difficulties were discussed under the need to train doctors to keep general practice records, rather than hospital records, which concern usually one episode, the general practitioner's record being for a substantial part of life. What is useful to the next doctor is often a problem. Special insert sheets for blood pressure reading follow ups, or weight, special treatment cards, the place of the health visitor's and district nurse's notes, the need to design the system to remain confidential were analysed. The use of the paper guillotine to remove all excess white paper from hospital letters would improve the storage system just as tagging together documents once sorted is invaluable. It was no use producing an expensive system if the contents were not up to the needs of the time.

With regard to pruning records, the computer could do this very rapidly. It was quite a simple matter to tell the machine to forget the fact that somebody's ears had been syringed. After a year it was possible to have it forget the fact that somebody had a single prescription for magnesium trisilicate. If there were a dozen prescriptions it would be condensed from 12 lines to 1. The more important things could be kept for 5 or 25 years in about four different categories of time for which the records should be kept. There were many fields where measurements might be kept more easily and usefully than diagnoses.

Equipment

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DOCTORS and their practices differ so widely that no paper or equipment will meet with universal approval. Since more time is now spent in the central premises than in home visiting, we should make our base as comfortable and efficient as possible.

A group practice building can be divided into two parts, the administrative and the clinical. The purpose of this paper is to outline the equipment required in these areas.

1. *The administrative area*
   (a) *Reception.* This must be large enough to accommodate the necessary contact between staff and patients with as much privacy as possible. The desk area must be large enough to contain all necessary papers and forms, appointments ledger, telephone, a box for repeat prescriptions awaiting issue. The problem of the confidentiality of the patient's request looms large in the construction of the reception area.
   (b) *Waiting.* This must have easy access to consulting and treatment rooms, and office. The choice of seating should take account of other uses to which this area may be put e.g., for lectures, health education. Tables for magazines and possibly a play area for children should be provided. Additions may include fish tanks, pictures, posters, flowers or plants. The waiting hall should be overlooked by reception or office but confidentiality should not be sacrificed.
   (c) *Office.* Whatever the established practice of receiving patients, handling records and telephone, typing and general administration may be, various basic items