growing and we have a steady influx of new patients. The retrieval and re-filing of medical records which is the most time-consuming aspect for the receptionists, should be greatly speeded up when this system is in full operation. The patients personal record number is quoted on all hospital letters, x-ray and pathology forms and consequently the time taken in filing these is also considerably reduced.

### Cost

We estimated that the cost of starting numerical filing and the age–sex register was within £100. In the circumstances for the benefits accruing to the practice and the saving of time to our receptionists and other advantages to us, this seems a modest sum. It is a non-recurring amount and the only addition is the cost of buying further cards for new patients coming into the practice. The cost of the age–sex cards at present is £1. 11s. 6d. a thousand plus 6s. postage.

### Family filing

We decided to commence filing of selected families in family files, and as has been stated to number them in the 90,000 series. Before a file was commenced a form (*see* figure) was completed by the doctor making the creation of a family file a deliberate decision. Families who appeared to have problems and who as a family were illness prone were selected.

All the cards EC 7 and EC 8 were emptied and placed on one side of a double-sided envelope, the letters abstracted and flattened and put on the other side, taped together as individual members of the family. Every attendance of a member of the family was noted on the inside of the envelope container by date stamp and christian name.

Although the secretarial staff were apprehensive about the creation of this system, after three months they regard it as a complete success, and are asking us to create family files as it eases space problems and since the families attending are the 'regulars', they are able to find the files more quickly.

### Summary

The annotation describes a system whereby an ordinary filing system can be converted into a numerical system, with an age-sex register at small cost in a relatively short time. It describes how the different types of patients can be easily segregated and identified. After ten months the system has proved to be acceptable and practical to work.

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**CLINICAL TRIAL**

# *A comparative trial of "Slow-Fe" and ferrous sulphate B.P.*

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ONE OF THE COMMONEST CONDITIONS the general practitioner meets is iron-deficiency anaemia, which is treated by the simple expedient of giving oral iron in adequate dosages.

The daily dosage of ferrous sulphate required to treat this anaemia has been put at 100 mg elemental iron (*Lancet* 1965), but the principal disadvantage of plain ferrous sulphate being given in this dosage is that it causes gastro-intestinal irritation in a significant proportion of

patients (Webster 1962). In addition, ferrous sulphate is an important cause of poisoning due to accidental ingestion by children.

Over the years attempts have been made to reduce the side effects of iron therapy and since 1945 ferrous gluconate, ferrous succinate and ferrous fumarate have been introduced which in doses of three tablets a day (200 mg) are effective with low incidence of intolerance. Recently different forms of 'slow-release' iron have appeared to satisfy a requirement for single daily dose therapy. One such preparation is Slow-Fe (Ciba). This product was designed to have an optimum release time of 90 minutes, with limits of 45 and 120 minutes. With this period of release, ferrous sulphate could be used, it was thought, without significant risk of side-effects. Each tablet contains 160 mg ferrous sulphate (50 mg elemental iron).

## Trial design

A double-blind between patient clinical trial was commenced at two-dose levels comparing Slow-Fe, one or two tablets given at the same time daily, with identical tablets of ferrous sulphate BP, one or two daily. All cases of iron-deficiency anaemia attending the clinic except those with obvious underlying pathology were admitted to the trial. Patients were to remain on treatment for three months or until haemoglobin rose to 95–100 per cent. Estimations of the haemoglobin were made on a grey wedge haemoglobinometer from blood from the ear lobe. Results were recorded on a standard *pro forma*. Tablets were made up in individualized packs, suitably labelled and coded. Drugs were randomized within the appropriate blocks and patients admitted to the trial were given packs serially. Thus the first patient received pack number 1 and remained on number 1 tablets until completion of treatment, patient 2, tablets 2—and so on. Each pack held 30 or 60 tablets and the patient was asked to bring back the pack at the end of each four-week period, containing any remaining tablets.

## Results

*Block A.—one tablet daily.* Fifteen patients completed treatment for three months in the Slow-Fe group and 11 in the ferrous sulphate group. The initial haemoglobin deficit* (Swan and Jowett 1959) was 18.1 per cent for the Slow-Fe group and 17.7 per cent for the ferrous sulphate group.

Results at four week intervals are given in table I.

TABLE I

| | *Percentage deficit made up* | | |
|---|---|---|---|
| | 1/12 | 2/12 | 3/12 |
| Slow-Fe | 52.6 (n 18) (–17 to + 154) | 61.2 (n 15) (0 to + 200) | 58 (n 15) (–70 to + 133) |
| $FeSO_4$ | 36.7 (n 14) (–80 to + 163) | 83 (n 11) (0 to +163) | 103 (n 11) (+36 to + 163) |

It will be seen that while Slow-Fe at this dosage level satisfied the criteria for improvement set out by Swan and Jowett by one month, that is a 50 per cent difference between the initial haemoglobin and an arbitary 95 per cent had been made good, it required a minimum of two months' treatment with ferrous sulphate to achieve this criterion. The range of haemoglobin level was so great at each period that no significant differences between the two formulations could be demonstrated.

*Block B.—two tablets daily.* Six patients completed treatment for three months on Slow-

*The haemoglobin deficit as defined by Swan and Jowett (1959) is its difference between the patient's haemoglobin and an arbitrary figure of 95 per cent which is regarded as normal. Hence a patient with a haemoglobin of 55 per cent has a deficit of 40 per cent.

Fe and ten patients on ferrous sulphate BP. The initial haemoglobin deficit was 21.6 per cent for the Slow-Fe group and 20.2 per cent for the ferrous sulphate group.

Results at four week intervals are given in table II.

TABLE II

| | *Percentage deficit made up* | | |
|---|---|---|---|
| | 1/12 | 2/12 | 3/12 |
| Slow-Fe | 61 (n 12) (-40 to +235) | 80 (n 8) (+50 to +127) | 83.5 (n 6) (+41 to +145) |
| $FeSO_4$ | 54 (n 11) (0 to +88) | 61 (n 6) (+15 to +100) | 62 (n 10) (-6 to +140) |

Both Slow-Fe and ferrous sulphate at this dose level (100 mg elemental iron daily) satisfied Swan and Jowett's criteria for each assessment period. Again no significant differences were observed between the two formulations, although the trend favoured Slow-Fe.

## Side effects

On *one* tablet daily the following side effects were noted:

| | | |
|---|---|---|
| *Slow-Fe* | Abdominal pain | (1 stopping treatment) |
| | Indigestion | (1) |
| *Ferrous Sulphate* | Giddiness | (3) |
| | Nausea | (1) |
| | Diarrhoea | (1) |
| | Drowsiness | (1) |

On *two* tablets daily:

| | | |
|---|---|---|
| *Slow-Fe* | Constipation | (1) |

Generally, acceptance of both preparations was good.

## Conclusion

The results of this survey show that this is a well-tolerated preparation comparing favourably with other iron preparations and has the added advantage that it can be given in single doses, the best results being obtained from the higher dosage.

### Acknowledgements

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