duplicated—Frusemide and Lasix appear as two different drugs—and many dressings, appliances, and injections such as TAB, which would never be prescribed on a repeat prescription system. If any other general practitioners were to follow our system they would need to consider very carefully whether to restrict themselves to a moderate number of drugs for repeat prescribing as we do, or whether they would go to a system that had no restriction on the number of drugs and which had fewer entries on a disc. If a large practice did this they could provide one disc per doctor on a non-index basis and, if our experience is a guide, this would cope adequately. The analysis afterwards would be slightly more complex and the machine would take longer to do this. As technology improves many more patient records could be entered on one disc, and perhaps considerations of indexing and non-indexing systems will become irrelevant.

Conclusions

A repeat prescription control system introduced in a practice of 5000 patients keeps track of patients who are allowed to have repeat prescriptions without seeing the doctor. The computer prints the prescriptions on the NHS form FP10 (Comp), at the same time providing the doctor with information on when the patient was last seen and how many months of prescription for each drug are still authorised. This system has enabled us to analyse repeat prescription habits, is simple to operate, and runs on hardware that costs £2000.

I thank my partner Dr Joan Woodley for her help and encouragement. I also thank Dr Lindsay Ward and Dr Jane Pavitt for their help and advice.

Addendum

System reliability

The overall reliability of a system such as described is crucial. The machinery has been in use several hours a day, each day, since October 1980. In that time there has only been one failure of a magnetic disc. On inspection it appeared to have physical damage, which could have been a manufacturing fault. The disc was replaced and caused no problem. In March 1981 a minor fault became apparent in the 3040 disc drive or its cables. We were loaned, under a maintenance contract, an earlier version of the Commodore disc drive, the 2040, and this did give us problems. The unit appeared to be temperature-sensitive. It would not read back when warm the discs it had recorded when cold. Although we circumvented the problem in part by leaving the machine on for an hour or so before attempting to use it, this highlighted how important hardware reliability is, for this temperature-sensitive disc drive produced a situation where part of the disc was recorded while hot, part was recorded when cold, and the disc could not be used reliably hot or cold. The result was that we had to go to the back-up discs and that patient records made since the last back-up were lost. If something like this occurred every 18 months it would be acceptable, but if it occurred more often it would certainly bring into doubt the advisability of using this type of equipment for what is a demanding application.

The manufacturers of this equipment (Commodore Business Machines (UK) Limited) replied to these comments as follows: The piece of loan equipment in which these faults occurred has been obsolete for some time, and the 2040 drive has been superseded twice in our range.

References

1 Howie JGR. Repeat prescribing. *Prescribers Journal* 1977;17:58-65.
2 Meldrum D. Simple computerised disease register. *Br Med J* 1981;282:191-4.
3 Everett CB. Repeat prescription cards. *Practitioner* 1974;213:707-11.
4 Bradshaw-Smith JH. The prescribing of repeated medication using a computer. *Automated records in primary care*. Oxford Community Health Project, 1980.

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Where has appendicitis gone?

Is the incidence of acute appendicitis on the decline? During the past 18 months I have not admitted one single case of acute appendicitis into hospital. I have a large list, and I do my share of emergency work. As more and more people eat bran, so we may expect less bowel disorders. I wonder whether your readers have any comments on this subject.—JOHN KENNEDY, general practitioner, Ilford, Essex.

Clinical Curio: ciguatera fish poisoning

I spent six months recently working as medical officer and crew member on a deep-sea fishing trawler, which is being used in oceanographic research in French Polynesia. While we were working in one of the atolls of the Tuamotu group the whole crew developed symptoms of ciguatera fish poisoning, which is a cause of considerable morbidity in that region. This happened the morning after we had eaten a fish meal. Everyone was affected by a general feeling of weakness, with aching legs and severe backache. The sensation in the legs was similar to that incurred by an oxygen debt after a strenuous run, but in our case the effect was permanent and did not disappear on resting. This was most unpleasant and made sleep difficult. There were, however, no signs of paralysis, vertigo, or ataxia. Most of us had episodes of paraesthesia with tingling sensations in fingers and feet, though a reversed temperature sensation was not noticeable. Several of us had diarrhoea with colicky abdominal pains, and one person had severe pain in a knee joint lasting about half an hour. Symptoms lasted for just four days in most cases, though some had aching legs and paraesthesia for up to two weeks. There was considerable variation in the time of onset and the severity of symptoms.

The two animals on board, a cat and a coatimundi, were also affected. The cat was particularly ill with vomiting, diarrhoea, and paresis which affected its hind legs so that it could only move by crawling. It also had severe cerebral ataxia, with gross jerky actions when movement was initiated. Its eyes were dilated and did not react to light. It was seriously ill for two weeks; ataxia and weakness of the hind legs persisted for several weeks.

It was difficult to know whether our bout of ciguatera poisoning was caused by eating one particular toxic fish or a gradual accumulation over several weeks until a threshold level was reached. The meal we had eaten, however, consisted of fish from the outer side of the reef, whereas previously we had been eating fish caught within the lagoon. Although the Tuamotu islands are known to have a high incidence of ciguatera poisoning we had been assured on our arrival that it was rare in this particular atoll, so we had not restricted the type of fish we ate. Subsequently we were much more careful in selecting the fish we would eat, consulting local fishermen and testing any suspicious fish on our cat, which unfortunately developed a further severe bout of poisoning on a later occasion.

This condition is caused by three toxins working in close conjunction. The toxins are produced initially by a dinoflagellate, which is found on coral reefs and is eaten by herbivorous fish, which in turn are eaten by carnivorous or omnivorous fish. Man can be poisoned by eating any of the fish in the chain. There is a great variation as to which fish are toxic in any given area, and there is also variation in individual susceptibility to the toxin. The toxic concentration increases as it progresses up the food chain, and ciguatoxin, which is responsible for most of the symptoms, is fat soluble and heat resistant and cannot be destroyed by cooking. It is therefore toxic to man, but the quantity of toxin must reach a certain threshold before any clinical signs are shown. It is not a particularly serious disease and our experience is typical of its clinical course. Treatment is mainly symptomatic.—N J SHAW, senior house officer, Airedale General Hospital, W Yorkshire.

We will be pleased to consider for publication other interesting clinical observations made in general practice.—ED, *BMJ*.

practice and the areas from which they spring. I am sure it is vital that this should be so, and that they should evolve to serve particular needs. We have been going for seven years now, and two main problems have emerged. Firstly, the problem of communication with patients in the practice, which stems, I think, from the fact that ours is a relatively large inner-city area with little true sense of "community" and a large number of alternative activities available. Secondly, there is the problem of generating active interest among other practice staff, who are already busy and perhaps see us as encroaching on their already full schedules. I hope very much that as time goes by they will become more aware of the potential benefits of patients participating actively in their own health care and thus achieving better standards of health and a more effective use of medical resources—certainly of vital importance in these days of financial stringency.

Emergencies in the Home

Treating fractures

P L ASTON

Many patients with suspected fractures go straight to hospital without seeing their doctor, often without his knowledge. Fractures are treated principally in hospital, but the general practitioner can see that, for example, there is good immobilisation and analgesia, that the timing of initial referral is appropriate, and provide aftercare and rehabilitation.

When a fracture is suspected the following points should be considered:

(1) Are there any particular dangers or neurological or vascular complications of the fracture that indicate the need for urgent specialist care?

(2) Is immediate hospital care required for reduction of the fracture, or because of hypovolaemic shock?

(3) What is the best form of splintage to ensure adequate immobilisation and pain relief?

Specialist care is required urgently in any fracture where impairment of either neurological function or circulation is shown by absent pulse, slow capillary reflex, or white extremity, or when there is evidence of pressure on nerves. Specialist care is also urgently required when the pain is severe and unrelieved by splintage, and when there is pronounced swelling.

If the patient has no vascular or neurological complications the doctor should decide if immediate hospital care is required because of the need for reduction. The rural doctor should consider whether to lessen hypovolaemic shock by setting up a transfusion using polygeline or dextran as he would at a road traffic accident or a farm accident. When a fracture is suspected but there is no obvious deformity, no severe pain, and no indication that reduction will be required hospital care should not be regarded as urgent. Firm splintage should be applied and the patient referred to your local hospital within 12 to 18 hours when the patient's relatives can provide transport, rather than having to use the ambulance service.

In either a child or an adult when there is a suspected fracture of the forearm, wrist, lower leg, or ankle, and there is no deformity or pronounced swelling, adequate splintage should be applied and the patient taken to hospital. When possible, transport should be provided by relatives, preferably within 12 hours and at a time when the family doctor knows there are radiological and orthopaedic services available in hospital.

Bunbury, Taporley, Cheshire CW6 9PJ
P L ASTON, MRCGP, DCH, general practitioner

Splints

For fractures below the knee or the elbow, inflatable splints are effective and quick to apply. They give good immobilisation and, if in the correct position, good pain relief. The main precautions to be observed in using them are:

(1) To ensure that the fracture site is completely protected and not near the upper end of the splint.

(2) That there are no layers of creased or dirty clothing under them.

(3) To ensure that the correct pressure is obtained by always blowing them up by mouth.

A set of long-leg, short-leg, and long-arm splints, as required for road accidents, will be most useful and should be supplemented by a short-arm splint. The long-leg splint is primarily carried for upper tibial and other fractures around the knee and not for fractures of the femoral shaft. The long-arm splint also makes a satisfactory leg splint for small children. The short-arm splint is very useful for the commonly seen scaphoid and other fractures around the wrist joint. Light alloy leg and arm splints and a cock-up wrist splint, padded with a layer of wool and held in place by a firmly applied crêpe bandage, are cheaper and equally effective. When immobilising a fracture, particular care should be taken to ensure that the broken bone is not pressing against the skin. Protective padding over subcutaneous bone ends will usually prevent, and certainly lessen, the risk of closed fractures becoming open, will lessen discomfort, and is definitely worth while. For upper leg fractures the technique of using the good leg as a splint, with firmly applied triangular bandages, is a time-honoured and effective technique.

Pain relief in fractures is primarily obtained by good splintage but may be supplemented by low doses of pethidine or pentazocine given parenterally. A written note of dose, route, and time given is important, particularly for patients who are likely to have anaesthesia.

Particular problems

In fractures of the clavicle all that is required is application of a figure-of-eight bandage and later referral for radiographic examination. Possible fractures of the metacarpal heads can be treated with a rolled bandage in the palm of the hand held firmly in place by a crêpe bandage. Closed phalanges fractures can be strapped to the neighbouring finger; radiographic examination should be carried out within 24 hours. Similarly, if a suspected fracture of the lower leg is seen in the evening without displacement, it is reasonable to apply firm wool and crêpe and to raise the limb, advising the patient not to use it until he has had an x-ray examination the following day. Crush injuries of hand or foot should be referred whether a fracture is suspected or not, so that physiotherapy can be started early to lessen residual stiffness.

Patient Participation

Whiteladies Health Centre Practice Association

PAT TURTON

The Practice Association started in 1974 as the idea of one of the doctors in our practice. Copies of a letter asking interested patients to contact him were left in the reception area for patients to pick up. The aims of the Practice Association are:

(*a*) to give patients a say in the organisation of their health care;
(*b*) to allow dissatisfaction to be expressed and sorted out;
(*c*) to provide education and discussion;
(*d*) to provide voluntary community care help.

The practice now occupies a health centre, which it shares with another group practice. The health centre is in a predominantly middle-class, urban, residential area. There are many large houses that have been divided into flats, and there are therefore many elderly patients, students, and single-parent families. There are four doctors in "our" practice—three men who are full-time and one woman who is part-time and who does full consulting hours. She was appointed at the request of the Practice Association because there were many women patients who wanted a woman doctor.

By 1977 we had a constitution. Membership of the Association is free and automatic for all patients and staff in the practice. We do not raise funds except for a stall once a year at a local fair to cover incidental expenses such as our fixture cards. We have a committee of a chairman and vice-chairman (both elected for two years), a secretary, treasurer, and eight committee members. Every year two ordinary members who have served for three years resign, but may stand for re-election after one year. The committee can also co-opt members to help with special areas.

The committee is divided into groups dealing with the Association's activities and has monthly meetings to which each doctor is invited in turn. We also have quarterly lunch-time meetings in the health centre to which all other practice staff are invited in the hope that plans and ideas can be discussed. Unfortunately attendance by other staff members has rather fallen off, and at the moment it is difficult to generate much interest, which is sad.

Activities of the Practice Association

Now let me give you some idea of the current regular activities of the Practice Association. The Community Care Group has about 50 volunteers run by a co-ordinator and assistant. It was set up to help with small emergencies, such as collecting urgent prescriptions, or transport to the health centre. In the past year there have been about 140 calls for transport and about 40 prescriptions collected, so the demand has not been overwhelming, but obviously the group fills a need. Volunteers who use their cars for transport get 10 pence a mile towards petrol, paid for from donations by patients using the service. There is also a successful weekly lunch club for elderly patients. Lastly, but certainly not least, we have produced a booklet listing homes for the elderly in the area and giving details of facilities in each. This was a large task, and the result has been an informative booklet.

The Association also organises evening meetings with talks on various aspects of medicine and health. We have had a wide range of topics from children's health to strokes and acupuncture. Some meetings are well attended and others not so, but on average we get 20 to 30 people, which is not bad in an area with many alternative activities. The number is small though in relation to the number of patients in the practice. We have about eight meetings a year, but none in July and August, and an annual general meeting in April when the committee is elected, and which we try to make a social function as well. Another popular evening is an annual "brains trust," at which our own doctors form a panel to answer questions about health matters. So far I don't think any of them have found this too terrifying.

To publicise these meetings we produce an annual fixture card. Some of these are delivered by hand, and some are picked up in the health centre by patients visiting their doctors. We also advertise meetings with posters in the health centre. Publicity is always something of a problem as we are limited to using posters in the health centre. There are other doctors practising in the area, and it is felt that putting posters outside might be construed as advertising. Patients are also geographically scattered, which makes distribution of the cards difficult. And if they are not ill, patients may not visit the health centre, so from the health education point of view it is often difficult to reach those who most feels might benefit. Men, especially those of 30 to 60 years, seem particularly difficult to reach. We also run occasional anti-smoking groups and slimming groups, though again the number of people attending these is small.

Our suggestions and complaints group consists of a liaison team of two members of the committee, whose phone numbers are on the fixture card. Patients who are dissatisfied with any aspect of care that they have received may contact either to discuss the matter confidentially. We always aim to encourage the patient to bring the matter up directly with the doctor or member of staff involved, but if the patient desires it and is prepared to make a sufficiently detailed complaint, then the team will act as a go-between. This aspect of patient participation is certainly the one which doctors find most threatening, but we have found that there have been extremely few complaints and rather more constructive suggestions, so I feel that their fears are unfounded.

Patient groups are very individual things

I hope this gives you some idea of the structure and activities of our group. You will find that patient participation groups are very individual things and vary considerably with the type of

Whiteladies Health Centre, Bristol
PAT TURTON, chairperson

CHILDREN

Greenstick fractures with little pain and, initially, little deformity are not uncommon, and radiographic examination in a day or so is required. When a child fails to use a limb normally it is an indication of a possible fracture. Good co-operation with your local orthopaedic department will often ensure that aftercare of these children can be undertaken in your surgery.

THE ELDERLY

The elderly patient who already has limited movement due to a stroke is more likely to sustain a fracture and to have his or her fracture missed. The old lady who has fallen and is found lying with a classical shortening and external rotation of one leg due to a fractured trochanter neck of the femur is commonly seen by general practitioners. But the arrival of this patient in the local hospital unit with the leg firmly immobilised, and with a record of her blood pressure, pulse, and medication is, unfortunately, not as common.

The main risk in the elderly, however, is not this fracture, but the fracture of the sub-capital area of the femur that may occur after a minor fall. The patient is apparently able to bear weight, possibly with a slight limp and some discomfort. All such patients should have a radiographic examination. A sub-capital fracture that is impacted and has not yet slipped is easier to treat than a widely displaced one that has been walked on for several days. When such patients are seen in the evening or during the night put them to bed, give explicit instructions that they are not to walk on the leg, and arrange for them to be seen in the local accident and emergency unit the next day. A visit from their own doctor before they are sent to hospital is helpful. The general practitioner's knowledge of the patient's general health, state of confusion, ability to cope, and ability of relatives to help is invaluable for later hospital care, and his presence and comforting words are often reassuring to a frail elderly patient, who, whether confused or not, is often very reasonably frightened at the prospect of hospital admission. A small dose of pethidine, say 25 mg intramuscularly, will give pain relief for the night.

Dislocations

Early reduction of simple finger, patella, or shoulder dislocations may be undertaken if the dislocation is seen immediately after it occurs and if it would take an hour or so for the patient to reach hospital. All such reductions should be followed by an x-ray examination later the same day.

The "pulled elbow" sustained by a toddler after a sudden jerk on the external arm presents with some loss of movement of the elbow and tenderness over the radial head, owing to its sliding out of the ligament, and can be corrected by gentle supination with the elbow flexed at 90° with a finger over the radial head. You can often feel the ligament click back into place.

It is reasonable to reduce a dislocated shoulder on a ski slope where the alternative is a painful 50-mile journey to hospital. To do the same for a person after a riding accident five to 10 miles away from hospital is not usually in the patient's best interest. Entonox (mixture of equal volumes of nitrous oxide and oxygen), if available, can be given during reduction, but using intravenous diazepam (Valium) to achieve sedation is not advised because of the possible risk of respiratory arrest. The other dislocation for which we should undoubtedly be on the look out is in the patient who has had joint replacement. Dislocation, particularly of the hip joint, is occasionally a complication from this form of surgery. These patients should preferably be sent back to the hospital in which they had their operation. It is essential to emphasise that when treating dislocations an x-ray examination is vital, particularly with interphalangeal joints, as misalignment can easily lead to major disability. Finally, the dangers of reducing a dislocation from a sporting injury on the field of play should not be taken lightly.

Plaster maintenance

A family doctor, particularly in rural areas, can save patients much travelling time by checking plasters in his surgery 24 hours after application. He, or his nurse, can also help by treating cracks in the plaster and by renewing walking heels. Sometimes a family doctor will see a patient, usually within 24 hours of reduction, who complains of considerable pain due to tightness of the plaster. He should notice particularly if the plaster has been applied unpadded and whether there are any signs of poor peripheral circulation, and in these circumstances either undertake or arrange urgently bivalving of the plaster.

When a doctor sees a patient who has had a plaster cast applied elsewhere, which appears adequate, does not cause discomfort, and does not require reduction, a letter requesting an appointment at the next orthopaedic clinic for follow-up care is all that is required. A patient with a recent reduction, however, or one who has travelled some distance after application of plaster—for example, after a skiing accident—should receive an urgent orthopaedic appointment, as it is often in these patients that fractures may have reverted to an unstable state, and early manipulation might be required.

Since he knows the patient, the family doctor is in a good position to get him to return to work as soon as possible, and to encourage the patient in the later stages of rehabilitation after his fracture has united. Physiotherapy services are, regrettably, overstretched and therefore sometimes inadequate; encouraging the patient to do simple exercises such as cycling and swimming is important. The visit to a general practitioner for certification can then be more therapeutic for the patient and interesting for the general practitioner. By using simple techniques of immobilisation, by urgent referral of fractures requiring reduction, and by seeking less urgent help for simple fractures a family doctor can achieve more job satisfaction for himself and ensure better care for his patients.

I am indebted to Mr M P Robinson, consultant orthopaedic surgeon at the Agnes Hunt Orthopaedic Hospital, Oswestry, for help and advice.

OF THE SMALL-POX.

THIS diſeaſe, which originally came from Arabia, is now become to general, that very few eſcape it at one time of life or another. It is a moſt contagious malady; and has, for many years, proved the ſcourge of Europe.

THE ſmall-pox generally appear towards the ſpring. They are very frequent in ſummer, leſs ſo in autumn, and leaſt of all in winter. Children are moſt liable to this diſeaſe; and thoſe whoſe food is unwholeſome, who want proper exerciſe, and abound with groſs humours, run the greateſt hazard from it.

THE diſeaſe is diſtinguiſhed into the diſtinct and confluent kind; the latter of which is always attended with danger. There are likewiſe other diſtinctions of the ſmall-pox; as the cryſtalline, the bloody, &c.

CAUSES.—The ſmall-pox is commonly caught by infection. Since the diſeaſe was firſt brought into Europe, the infection has never been wholly extinguiſhed; nor have any proper methods, as far as I know, been taken for that purpoſe; ſo that now it has become in a manner conſtitutional. Children who have never been heated themſelves by running, wreſtling, &c. or adults after a debauch, are moſt apt to be ſeized with the ſmall-pox.

(Buchan's *Domeſtic Medicine*, 1786.)

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