Accident and Emergency Services

The network of services

BY A SPECIAL CORRESPONDENT

Despite a long journey patients with major injuries fare best if they are taken direct to a suitably staffed and equipped accident and emergency centre—there is much evidence that more lives are lost if such patients go on to receive second- or third-degree casualties. Thus the concentration of departments was one of the cornerstone’s of the Platt Report’s recommendations. But, as community health councils know only too well, closing small casualty units has caused real hardship. The main centres should therefore be flanked by adequate services for lesser casualties, as well as having access to special units for certain complicated injuries. Clearly the main departments have to be the starting point in organising this triple network of services.

The main units

THE NETWORK OF DEPARTMENTS

Most parts of Britain are covered by units that are, at least in theory, “staffed and equipped to deal immediately with major injuries at any time of the day or night.” The Platt Committee suggested that for efficiency and effective staffing these units should serve a minimum population of 150 000. An inquiry in 1970 found that 305 hospitals in England and Wales were providing a 24-hour emergency service (there had been 335 in 1966); on the assumption that most major district general hospitals should have one, it has been estimated that about 250 would be the right number. According to this inquiry, the average accident and emergency department in a general hospital served a population of about 205 000, and in one year had some 2000 serious injuries or emergency cases needing admission and 2000 injuries needing skilled attention but not admission, together with about 33 000 other attendances (including return visits). But only about 200 of these departments, it was estimated, were seeing over 20 000 new cases a year.

The policy of concentrating services is not disputed by the medical profession and in 1977 was restated by the DHSS in view of fears that the policy had changed. Locally, however, authorities are under pressure to preserve full-scale casualty services in small hospitals that would disperse cases and resources and so sap the vigour of the main department. Even without such dispersal a population of 150 000 is thought by some to be too small to support a major accident and emergency department since only about 18 000 new patients a year would be expected, whereas twice that number are needed for a really strong and efficient department. Yet the figure of 150 000, intended as a minimum, has often been treated as a standard in planning.

Both in cities and in remote areas of the country the network of services for major casualties may be rather different. In cities two neighbouring hospitals may support accident and emergency departments of adequate size; but a single, enlarged department, it has been argued, could be more effectively staffed. Designating one and axing the other, however, could be difficult.

At the other end of the scale, some parts of the United Kingdom need proper accident and emergency departments despite a small case load. A car crash in the Highlands last year, for example, produced four serious casualties; one was transferred to Glasgow with little hope of his survival, but the hospital’s single surgeon and his registrar dealt successfully with the others—which between them presented two head injuries, two fractures of the spine, three other fractures, a pneumothorax, a ruptured spleen, and a transsection of the small bowel. This hospital, serving a population of about 30 000 (but 91 000 including the surrounding villages of 5000 square miles), is well equipped to deal with almost all the victims of high-speed road accidents, mountain accidents, and miscellaneous emergencies that come its way. Smaller communities may have a cottage hospital staffed by general practitioners but with a visiting surgeon. In all, 12 single-handed surgeons in the United Kingdom cope with an apparently daunting range of emergencies: even helicopter transfer may be impracticable—because of the patient’s state or the weather conditions—and an experienced surgeon must do what he can.

BEDS

The network of main accident and emergency units, then, is now reasonably satisfactory. The same cannot be said, however, for the provision of beds. Though needs have increased since the Platt Report was published, even the 30-35 accident beds per 100 000 population then recommended are rarely set aside—whether in special wards or (more usually) under orthopaedics, general surgery, and so on. Sometimes there is no specific provision for accidents. Waiting lists of non-urgent cases therefore lengthen; and orthopaedic wards, for example, may be chiefly devoted to trauma, with the result that hip replacements, say, are delayed for four years or more. The Platt Report also envisaged that the “acute” beds would be supplemented by an adequate number of associated geriatric beds—an ideal far from being achieved since accident and orthopaedic wards are full of elderly women recovering slowly from fractures of the femur.

Peripheral services

Although serious and moderate injuries and other emergencies must dictate the organisation of services, departments are all too often in the same category as those of lesser complaints. In the 1970 survey as many as a third of the new patients did not need the specifically hospital facilities such as radiology, and in theory could therefore have been seen elsewhere. The various reports on accident and emergency services have pointed out that these “non-hospital” conditions must be catered for but without interfering with the more urgent work. Nevertheless,
as the Platt Report puts it, "The flow of minor cases should be reduced by providing an adequate general practitioner service at all times." But how and where? In the intervening 17 years we have not made great progress in solving this problem.

GENERAL PRACTICE

Peripheral services can be based on general practice, health centres, cottage hospitals staffed by general practitioners or other small hospitals, and occupational health services. Although general practitioners are contractually responsible for their patients for 24 hours a day, people are often unaware of this, choose not to contact their doctor, or fail to do so. Staggering the doctors' time off, proposed a parliamentary committee, should be made a condition of the special payments to members of group practices, so that the practice itself normally provided cover; but the Government considered that no specific action was needed. But even making appointment systems more flexible could help since inflexibility is said to drive people to casualty departments.

A few doctors spare the hospital by doing their own suturing and other minor procedures. Should there not be more incentives for this—or at least no disincentives in the shape of having to pay for materials and sterilisation? Interestingly, a single-handed London general practitioner habitually carries out such procedures, whereas a doctor at a London health centre I visited said they were too busy. Country doctors are more likely to do suturing; but someone with, say, a lacerated hand may well prefer going to hospital by ambulance to making his own way to the general practitioner.

HEALTH CENTRES

By day health centres can meet some of the need for a minor casualty service since nurses on duty the whole day may give simple treatments—or just advice—without appointment, calling a doctor if necessary. But every community of 100 000 people has been said5 to need at least one health centre or cottage hospital casualty department open day and night, in the case of health centres possibly on a rotta system. The recommendation of a parliamentary committee that certain health centres should open 24 hours a day was, however, rejected by the Government as usually neither justified nor feasible. Apart from the problems of staffing and economics, and of general practitioners treating patients not their own, there could be dangers for the staff at night. Nevertheless there are surely some areas where the demand would be great enough to make experiments worth while.

SMALL HOSPITALS

A community hospital covered by general practitioners makes a better base for a minor casualty unit since it is in any case staffed by nurses 24 hours a day. The nurses are likely to consult the doctor on duty by telephone about all but the most trivial complaints, and provided that a doctor is quickly available this, can be an effective as well as economical service—especially if the nurses do suturing and if there are x-ray facilities, at least by day, in the hospital (though this raises the controversial question of who does the radiography). The fact that the doctors are local general practitioners may also have a beneficial effect on attendances; at one hospital I visited only 5% of the total were self-referred non-accident cases.

The main disadvantages are the occasional crises caused by not having a doctor on the spot—a seriously ill patient may arrive on the scene (even if ambulance cases are excluded) or one who had not seemed seriously ill may suddenly deteriorate. The latter danger is clearly less in a small hospital that does have

a doctor present (perhaps by rota from the district general hospital), but there is no consultant supervision to hand and there is still the risk of its having cases for which it is not equipped—particularly at night. Such casualty departments are progressively being closed at night and weekends as expensive and dangerous luxuries. It has been recommended that they should be progressively closed altogether, except in remote areas, where they should be staffed by general practitioners. One small hospital saw 5000 fewer patients in its casualty department the year after it closed at night and weekends, yet no more appeared at other hospitals in the group. Did people more often see their general practitioners? Perhaps, like Everest, an always-open casualty department with a doctor present attracts people to it "because it's there." Nevertheless, an area does not have to be remote to justify some kind of casualty service—people are quite reasonably reluctant to travel 20 miles for a few stitches and an anti-tetanus injection—and staffing existing small casualty departments with general practitioners, rather than hospital (or agency) staff, seems preferable to closing them altogether.

EXPERIMENT AND FLEXIBILITY

Rutherford et al, commenting that GP-type cases may have scant attention from busy casualty officers (particularly with regard to the underlying problems) besides possibly overloading the department, make various proposals. For instance, nurses might perform some sorting of patients at the entrance to the department, they suggest, diverting those not needing hospital investigation or treatment to a separate section staffed by

Glasgow Royal Infirmary's accident and emergency department is housed in an old building never designed for this purpose, and new accommodation is not expected for some years. Nevertheless it copes with about 70 000 new patients and 90 000 attendances a year.
general practitioners or trainees to or health centres, preferably in the hospital complex. Giving sessions to general practitioners in main departments is becoming more common; but in 1970 77% of 77 hospitals not employing them already found none willing to do night sessions and half found none willing to do sessions at any time. In inner cities, it has been suggested, there may be a case for a new kind of primary care centre, staffed by general practitioners, junior doctors, and nurses. There are clearly many ways in which general practitioners might take part in accident and emergency work (provided that there is liaison with the major centre) and above all we need experiment and flexibility.

OCCUPATIONAL MEDICAL SERVICES

The first line of defence, in both emergencies and small accidents, is often provided by occupational health services. In a large industrial service I visited, a network of surgeries staffed by nurses was open round the clock, some seeing up to 500 patients a day; these were referred to one of the doctors or elsewhere as necessary, and the medical centre was equipped with x-ray and electrocardiography equipment and facilities for resuscitation and minor surgery. This differed from some occupational services in dealing with injuries and other ailments regardless of whether they were acquired at work. After the initial treatment or advice patients would, of course, be referred to their general practitioners if necessary; but most general practitioners accepted the firm's offers of further treatment. The medical director said, "We can cope with everything—we encourage people to come to us with small things"; he believed that this approach not only stopped sepsis but also saved a lot of anxiety. Clearly occupational services must work closely with general practitioners and hospitals, but some firms could do more to relieve the pressure on accident and emergency departments.

FIRST-AID

In the workplace voluntary first-aiders are probably first on the scene. Is there not scope for more first-aid training in the community at large, covering the treatment of simple injuries, when to seek (or not to seek) help, and what to do in various emergencies? Unlike in wartime, people are not convinced of the need for training, but local authorities and voluntary bodies could mount campaigns now and then—these might even be cost effective in time, if they made people more self-reliant. Most important, first-aid should surely be a compulsory school subject. If every member of the public (and particularly motorists) knew how to place unconscious patients in the correct position and clear their airways, this might save more lives, it has been suggested, than any dramatic medical advance.

Special services

A proposed third tier of the accident services—a central accident unit, serving a population of one to two million and providing treatment for complicated injuries as well as coordinating and guiding services in the whole region—was dropped by the Platt Report. Specialised units for neurosurgery, thoracic and plastic surgery, and so on were often in different hospitals and it was more practicable to preserve the existing pattern. Nor did a regional administrative tier seem necessary. But, however informal and dispersed, this "top level" (which clearly includes also rehabilitation units) is a vital part of the accident services. Are these special units adequate for the demand?

There are two main problems—shortage of beds and long journeys. Firstly, in general hospitals the provision of beds and staff in the regional units is all too often meagre even for non-trauma cases, for which waiting lists may accumulate. Postgraduate training to provide more specialists for general hospitals can help to ease the problem but only to a limited extent; similarly, more EMI scanners in general hospitals will aid diagnosis in cases of head injury but many of these will still need transfer.

Secondly, seriously ill patients may have long ambulance journeys to reach a special unit—not only in the remoter areas of Scotland and Wales but also in parts of England such as Cornwall and the east coast. Patients needing neurosurgery may be particularly vulnerable to delay—though delay in arranging transfer can be more catastrophic than the actual journey. Helicopters, though they have their limitations, often provide the quickest means of transfer and, it is suggested, should be used more—with the cost borne by the health departments rather than local authorities.

Accustomed to giving advice round the clock about such diverse substances as hair spray, mothballs, slug pellets, and crocus bulbs, poisons centres are well known to the emergency services for both their information and their emergency drug screening facilities. Nevertheless, the National Poisons Centre's advice to "think poisons" as a matter of urgency in cases of coma of unknown cause is still worth emphasising in accident and emergency departments. But are centralised services still needed, it is sometimes asked. Hospital laboratories indeed cope to a large extent; but the special centres can do immediate comprehensive drug screens and measure concentrations of a wide range of drugs. These are important facilities—for instance, promptly excluding poisons as a cause of coma may mean that a patient has further investigations sooner rather than later.

Clearly in planning the network of accident and emergency services, both locally and nationally, authorities must be prepared for flexibility, balancing geographical and social factors with efficiency of care for both the serious and the lesser conditions—and also with economy, which means building on the existing pattern. Are we making the right compromises?

I am deeply grateful to all the people in accident and emergency departments and elsewhere who have been so generous with their help.

References