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Bombs and hospitals

The continuing urban violence in Britain means that doctors in all parts of the country need to know the steps to take in an incident in which many injured people arrive at one hospital without warning after an explosion.

Organising the management of mass casualties may be as important as the actual details of treatment. Both must be considered in the light of lessons from the past. Every hospital with a department large enough to receive mass casualties should have a plan, though this must be elastic because different incidents provide different problems. A rota is needed to specify which senior surgeon should be called first when casualties arrive. He should summon the required members of staff, and alert the blood bank, the x-ray department, and the senior nursing officer. An ex-directory line should be provided at a known place in the hospital so that outgoing calls can be made without trouble, while anxious relatives can ring the main switchboard. One ward and the intensive care unit should be emptied, so that all the patients can be concentrated there. This is the best way of carrying out triage—and avoiding the error, all too common in disasters in the past, by which patients have been distributed round as many as eight wards, making decisions about priorities immensely difficult.

Too many volunteers may arrive after a big disaster, some too old and others too young; and superfluous helpers may be embarrassing. A good plan is for the surgeon in charge to alert such of his consultant colleagues as he chooses and for them to summon their registrars or house surgeons, or both, whose telephone numbers they should always have with them. At an early stage someone must be stationed at the front of the hospital to discourage unnecessary helpers, anxious members of the public, and would-be blood donors. One of the administrative staff is often the most tactful person for this job. A senior doctor should be sent to the accident department to sort the patients as they arrive, into those who can have local treatment before going home, those who should be admitted but whose treatment is not urgent. and those who must be dealt with at once by either urgent operation or intensive care. These are mainly the patients with blast lung, penetrating thoracoabdominal wounds, and head injuries. The same doctor should remain in the reception area to carry out his triage function and direct the junior staff in treating the less severely injured. Large badges will be needed by everyone taking part in the action to prevent confusion. They need say only "surgeon," "doctor," "anaesthetist," "porter," or "nurse."

As soon as the first patient has been admitted, another senior surgeon should be posted to the reception ward, to establish priorities. He must stay here; for it may be necessary to rediagnose patients, to observe deterioration, and to alter the order of priorities when a more urgent case appears. He should stay where he is and not be tempted to undertake operations—continuity is all-important. It is useful to have a radiologist present to report on every case taken to the casualty department and to help the less experienced doctors. Many x-ray examinations can be deferred, and the senior doctor in the casualty department should advise about priority.

In explosions in confined areas the incidence of blast lung is greater than in the open, because the pressure waves from the explosion may be reflected from wall, ceiling, or floor. Pulmonary contusion needs urgent ventilation treatment. An early tracheostomy is often needed in management of open chest injuries and many head injuries, though it may be delayed by the passage of an endotracheal tube with a cuff.

Wounds may be contaminated or caused by flying glass, pieces of furniture, and falling masonry (besides bomb fragments), and in many of these the safest treatment is delayed primary suture. Patients with burns, unless these are very slight, should be transferred to a burns unit at once, though in severe cases it may be necessary to start intravenous treatment before the patient is moved. If there is no burns unit in the hospital or near by, part of a separate ward should be turned into a temporary unit rather than have burned patients nursed among the multiply injured in the admission ward, where they may soon become infected.

Is there a hyperkinetic syndrome?

For many years teachers and parents have followed clinicians in deciding that certain children suffer from the "hyperkinetic syndrome"-especially, it seems, in the United States, where the diagnosis is made in between 4 and 10% of all school-age children. The well-known nursery character, fidgety Phil, has to show besides his hyperactivity some other features as impulsivity, distractibility, and excitability. Since all normal children move, are impulsive, can be distracted, and become excited—and since they learn better control of themselves as time passes—boundaries have to be drawn, varying with age and maturity, between what may be regarded as normal behaviour and what is not.

The story began 40 years ago when Charles Bradley¹ observed the effect of amphetamine on a group of boys with neurological and behaviour disorders in a residential home. Half improved, notably in their school work; some became subdued; but three became agitated, noisy, defiant, and difficult to manage. Ounsted² took up the story in 1955 among 70 children with epilepsy, distractibility, fluctuation in mood, aggressive outbursts, and a short attention span, which he tried to measure. Given dexamphetamine, one-quarter improved. In 1957 Laufer and Denhoff³ reported on the "hyperkinetic behaviour syndrome" in a group of children with normal intelligence and without known neurological or other disorder. The children seemed on the move all the time. Associated with hyperactivity were difficulty in concentrating on one thing; variable and unpredictable behaviour; and low tolerance to frustration, so that reaction to delay in gratification

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was violent and explosive. The peak prevalence was at school entry, and specific learning difficulties were common. They blamed injury or dysfunction of the diencephalon—despite claiming recovery between the ages of 8 and 18 years. The frustration felt by intelligent children who are school failures might sometimes have been the explanation.

Over the years the syndrome has been modified: the elements surrounding the central "excessive" motor activity have increased, and the diagnosis is now made in the United States in half of all children referred to psychiatrists. In contrast, British practice generally limits the diagnosis to children with epilepsy, low IQ, and recognisable neurological problems—a difference that has led Rutter4 to seek an explanation.

In Rutter's own classification the American description fitted a conduct disorder. Variables common to both diagnoses include male predominance; complications of pregnancy and perinatal morbidity (usually accepted on the mother's word without hospital confirmation); physical anomalies; learning disorders; attention deficits; poor prognosis; and "sociopathy' and antisocial disorders in parents. Rutter questioned whether a broadly based diagnosis of "hyperkinetic syndrome" differentiates it "from other psychiatric disorders in terms of aetiology, course, response to treatment, or some other clinical variable." In the event he did not test whether the hyperkinetic syndrome fulfilled his own postulates for a recognisable entity. Instead, he and his colleagues⁵ asked a different question. Given a diagnosis of a conduct disorder, does the subdivision into those boys with and those without associated hyperkinesis have any validity? To this question the general answer was no.

The sample comprised 68 boys aged 5 to 11 years referred for psychiatric assessment or treatment to the Maudsley Hospital or the Brixton Child Guidance Centre during one year; it excluded psychotic children and any with IQ under 50. The methods used (and fully described) included, among a broad range of tests, scored questionnaires filled in by teachers and parents and observational measures of activity and attention. With hyperactivity as the symptom-in-chief the finding is important that there was no significant correlation between parents' and teachers' hyperactivity scores or between these and the observational scores. In individual cases overactive behaviour seemed to be found in some specific circumstances but not others—an observation also made by Campbell⁶ in Montreal, who differentiated "situation hyperactivity" from true hyperactivity, which is "cross-situational." Rutter found few differences between "psychiatrically abnormal children with or without hyperkinesis when compared on cognitive functioning, perinatal history, neurological examination, congenital abnormalities, and psychosocial circumstances." He delineated a clinical picture of generalised overactivity with neurological immaturities, an erratic style of cognitive functioning, and an early onset, which might, perhaps, be a distinct entity; but this was rare.

Nevertheless, diagnoses which can never reflect the whole truth about patients may prove valuable as concepts. Is the "hyperkinetic syndrome" a valid diagnosis? The answer depends not only on careful statistical correlations but on the use made of diagnostic labels. The medical model for defining diagnosis is, unfortunately, based on bacterial infections with distinctive symptoms and signs, predictable course and outcome, and a relatively consistent response to treatment—and all backed up with positive cultures. Is this model appropriate to the study of disturbances of conduct and behaviour and reaction to stress—or even of the kinds of disease that underlie "soft" neurological signs? Historically, many of our now respectable diagnoses started life as labels. Over 100 entries under the rubric of hyperkinesis appeared in both the 1976 and the 1977 volumes of the Cumulative Index Medicus. Despite Rutter's intellectual dissatisfaction the hyperkinetic syndrome seems likely to remain on the list.

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The physicians' dilemma

"In the training centre the vast majority of the physicians are specialists; in the real world the vast majority of the care needed is general. In the academic centre the pressure is to carry out detailed scientific evaluation, interpret physiologic data in relation to disease, and to act in the short-term-in the real world the need is for understanding of the illness engendered by the disease and its effects on the patient and his family, and for long-term action tempered by caution and care."

A series of papers on the specialist versus generalist debate has recently been occupying the columns of the New England Journal of Medicine. The increasing financial cost of medical manpower in the United States puts an onus on the medical profession to produce the right kind of doctor in the right place. Yet for some time now there has been increasing emphasis on the training of medical subspecialists rather than of internists (general physicians), and these tend to concentrate in the prestigious medical centres. Internal medicine is the most popular choice for residency training there, with 15 000 trainees in any one year, but 70% of those who complete their residencies go on to subspecialty training.2 There are many reasons for this. The staff of departments of internal medicine is largely made up of subspecialists, who need trainees to help with procedures such as cardiac catheterisation and endoscopy, as well as research. It seems easier to get funds to support the subspecialties, and both the department and its fellows benefit from the prestige of such grants. Board certification can be obtained more quickly if the trainee does one year in a subspecialty, and he can then look forward to earning more money for less work, especially if he is skilled in particular techniques, than his fellow internists. Yet paradoxically most trainees are destined to practise general internal medicine (primary care) for much of their time, and only a minority will be whole-time practitioners of one of the 10 subspecialties certifiable by the American Board of Internal Medicine.

Various suggestions have been made to halt what is thought to be an increasing and unwelcome trend towards specialisation. The spectacular success in the past 10 years of family practice training schemes, which now number some 350 with over 5000 residents in training,3 has stimulated interest in a similar type of training in primary care for hospital physicians. Any such scheme would undoubtedly require reassessment of present certification procedures in internal medicine, because the emphasis would be on experience in the wards and clinics rather than on research and laboratory work, and it has