include noting the contents of a correctly signed consent form but should not extend to a full interrogation about other matters in a premedicated patient.¹⁰

Incorrect positioning on the operating table or subsequently in the recovery area can lead to backache, nerve damage, diathermy burns, and other injuries (p 660).¹⁷ Nerve damage due to the patient's position during operation is still unacceptably common, and the ulnar nerve seems particularly prone to permanent damage.

The surgeon is ultimately responsible for the patient's position, although the duty is usually shared with the theatre nursing team and the anaesthetist. After normal working hours, when juniors may be dealing with complicated cases with fewer adequately trained support staff, errors are more likely.⁸ These could be avoided if non-urgent emergency work was held over to a regular session the next working day.

All hospital staff have benefited from the reports evaluating equipment published in various specialist journals. More recently this has been organised by government agencies throughout the world.¹⁸ In Britain this is done by the supplies technology division of the Department of Health, which issues hazard notices and safety information bulletins. Publication of these does not always imply that they are read by those in charge of patients, and surer methods of dissemination are required.

To reduce iatrogenic injury due to anaesthetic mishap there must be more careful observation and monitoring of patients, more critical reporting of incidents, and more dissemination of the lessons so learnt to others. But, above all, practising anaesthetists must be completely familiar with mishaps that

have already been reported and eliminate them as far as possible. Repetition of error is all too common.

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- 1 Walton J, Beeson PB, Bodley Scott R, eds. *The Oxford companion to medicine*. Oxford: Oxford University Press, 1986.
- 2 Association of Anaesthetists of Great Britain and Ireland. *Emergency management of acute major anaphylaxis under general anaesthesia*. London: Association of Anaesthetists, 1990.
- 3 Association of Anaesthetists of Great Britain and Ireland. *Checklist for anaesthetic machines*. London: Association of Anaesthetists, 1990.
- 4 Taylor TH, Major E, eds. *Hazards and complications of anaesthesia*. Edinburgh: Sear JW. Churchill Livingstone, 1987:213.
- 5 Association of Anaesthetists of Great Britain and Ireland. *Anaphylactic reactions associated with anaesthesia*. London: Association of Anaesthetists, 1990.
- 6 Derrington MC, Smith G. A review of studies of anaesthetic risk, morbidity and mortality. *Br J Anaesth* 1987;59:815-33.
- 7 Ross AF, Tinker JH. Anaesthesia risk. In: Miller RD, ed. *Anesthesia*. New York: Churchill Livingstone, 1990:718.
- 8 Buck N, Devlin HB, Lunn JN. *Report of the confidential enquiry into perioperative deaths*. London: Nuffield Provincial Hospitals Trust and King's Fund, 1987.
- 9 Association of Anaesthetists of Great Britain and Ireland. *Checklist for anaesthetic machines*. London: Association of Anaesthetists, 1990.
- 10 *Theatre Safeguards*. London: Medical Defence Union, Medical Protection Society, Medical and Dental Defence Union of Scotland, the National Association of Theatre Nurses, and Royal College of Nursing, 1988.
- 11 Davies JM. *Damage to teeth during general anaesthesia*. London: Medical Protection Society, 1992.
- 12 Eichorn JH, Cooper JB, Cullen DJ, Maier WR, Philip JH, Seeman RG. Standards for patient monitoring during anaesthesia at Harvard Medical School. *JAMA* 1986;256:1017-20.
- 13 Association of Anaesthetists of Great Britain and Ireland. *Recommendations for the standard of monitoring during anaesthesia and recovery*. London: Association of Anaesthetists, 1988.
- 14 Sykes MK. Essential monitoring. *Br J Anaesth* 1987;59:901-12.
- 15 Gravenstein JS. *Safety and costs containment in anaesthesia*. Gravenstein JS, Holzer JD, eds. Boston: Butterworths, 1988.
- 16 Taylor TH, Goldhill DR. *Standards of care in anaesthesia*. Oxford: Butterworth Heinemann, 1992:99-123.
- 17 Minerva. *BMJ* 1992;305:660.
- 18 Ilsley AH, Runciman WB. Assessment and evaluation of devices: an analysis of organisations providing comparative evaluation studies. *Anaesth Intensive Care* 1988;16:16-8.

Emergency feeding programmes

Still not delivering the goods

Once again the faces of Africa's starving blight our television screens as the "news" of famine in Somalia finally breaks. Those aid agencies brave enough to face the anarchy of Mogadishu are found overseeing the unloading and distribution of sacks of grain and the feeding of starving children in overcrowded feeding centres. The familiar cry of "too little too late" is repeated. So are the accusations of neglect and late response levelled at the United Nations and African governments. Yet there is another story that is rarely heard in relation to this type of food emergency. This is the story of failure to supply an adequate balance of foods and of poorly designed feeding programmes once the emergency interventions have got under way.

Confronted by famine or refugee crisis, aid agencies usually administer emergency feeding programmes in two forms. Most food resources are devoted to general feeding programmes, which are supposed to provide about 7.9 MJ (1900 kcal) per person.¹ Such programmes are usually designed to supply a cereal, a legume, and an oil. The second option, smaller scale supplementary feeding programmes, are often used in conjunction with general feeding programmes to supply extra energy and nutrients to physiologically vulnerable groups—usually children under 5 and pregnant and lactating women. The supplementary feeding programmes can be operated as a "wet" on site programme—where mothers take young children every day to receive several prepared meals—or as a "dry" take home programme—where mothers attend once or twice a month to receive a dry supplement, which can be prepared at home for the child.

Experience of both types of emergency feeding programme over the past 15 years has shown how they fail, predictably and often spectacularly, to achieve what they set out to do—that is, to improve nutritional status or, at the very least, to prevent further deterioration and deaths from starvation.

Some of the reasons for this were discussed at a symposium held in Oxford last year by the refugee study programme to highlight the inadequate provision of food rations to refugee populations. Micronutrient deficiency diseases were shown to be endemic among many refugee populations dependent on international food aid.² For example, scurvy is common among refugees in Somalia, Ethiopia, and Malawi; pellagra affects Mozambiquan refugees in Malawi. Speakers at the symposium said that predicting such outbreaks was easy. A general ration based on cereal, legume, and oil for a population dependent on food aid will inevitably be grossly deficient in vitamins A, B-3, and C and iron. The fact that such outbreaks are less commonly reported among non-refugee populations dependent on the same ration probably reflects both the less protracted nature of their problem and, in contrast to what happens in refugee camps, the absence of surveillance to identify such conditions. It seems likely, however, that the prevalence of unreported, subclinical micronutrient deficiencies among these populations is high.

That this has been allowed to endure for so long is clearly scandalous (outbreaks of scurvy were reported in Somali refugee camps as early as 1984). Blaming the United Nations for its lack of a clear mandate and lines of responsibility and a system of food aid which is driven by and dependent on

Western agricultural policies and the surpluses they produce does little to mitigate such a scandal.²

More alarming still is the current tendency of some key donor governments to provide only sufficient cereals for the general ration while supplying oil and legumes on a seemingly ad hoc basis. Emergency general rations, already deficient in key micronutrients, are thus becoming increasingly unpalatable for young children, whose small stomachs require energy dense foods, such as oil, rather than bulk to satisfy energy requirements.^{3,4} The reasons why this is occurring remain unclear but probably relate to what surpluses are available and costs.

Relief agencies therefore have to operate in emergencies where there is an inadequate general ration. Some agencies respond by implementing supplementary feeding programmes with the limited quantities of oil and legumes made available by donors. Many small agencies, incapable of handling the logistics of a large general feeding programme, automatically opt in a crisis for a supplementary feeding programme because they feel they must "do something." Yet experienced practitioners have long recognised the inadvisability of supplementary feeding programmes during food emergencies without an adequate general ration. In effect, it is an attempt to impose a system of targeting within a household when the entire household is in dire need of those same commodities. Agencies are beginning to rediscover the costs and wastage of trying to monitor and enforce such an approach.

Implementing wet supplementary feeding programmes in rural food emergencies is also open to criticism. They have no overall advantages over dry feeding programmes^{5,6}; in emergencies the time and resources required by aid agencies to establish and operate wet programmes, compared with dry take home feeding, should automatically disqualify them except in exceptional circumstances. Furthermore, in food emergencies the already excessive demands placed on mothers increase enormously as obtaining fuel and water gets harder and foraging for wild foods and petty trading become

essential for survival. Having to accompany a malnourished child at a feeding centre for most of the day therefore makes life even harder for the mother—often resulting in poor attendance and consequently poor weight gain in her child. Despite the many previous "bad" experiences such programmes continue to be set up.⁷ This has as much to do with their high profile—which helps voluntary aid agencies to compete for scarce domestic resources—as with lack of institutional memory and guidelines for agencies.

Finally, agencies' practice of automatically implementing supplementary feeding programmes in food emergencies induced by drought, on the grounds that such programmes will lead to the minimum loss of life given available resources, needs questioning. Supplementary feeding programmes can consume considerable agency resources yet provide as little as one tenth of a household's energy needs.⁸ The same resources devoted to improving sources of fresh water or providing basic health care may prevent far more deaths.⁹ Clearly, emergencies vary enormously, and what is desirable may not always be possible. But given the substantial experience now available, automatic and often inappropriate responses are no longer acceptable.

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1 Seamen J, Rivers J. Rations. In: *Nutrition in times of disaster. Proceedings of international conference held at WHO headquarters, Geneva, September 1988.* Geneva: WHO:19-25.

2 Keen D. *Rationing the right to life*. London: Zed Books (in press).

3 Church M. Dietary factors in malnutrition: quality and quantity of diet in relation to child development. *Proceedings of the Nutrition Society* 1979;38:41.

4 Energy density of Third World weaning foods. *BNF Nutrition Bulletin* 1989;14:88-101.

5 Beaton GH, Ghassemi H. Supplementary feeding programmes for young children in developing countries. *Am J Clin Nutr* 1982;35(suppl):864-916.

6 Godfrey N. *Supplementary feeding programmes in refugee populations*. London: London School of Hygiene and Tropical Medicine, 1986. (Evaluation and Planning Centre publication No 11.)

7 Shoham J, Borton J. *Targeting emergency food aid: methods used by NGOs during the response to the African food crisis of 1983-6. Final report of joint study by the Relief and Development Institute and the Human Nutrition Unit*. London: London School of Hygiene and Tropical Medicine, 1989.

8 Borton J, Nicholds N, Shoham J. *An evaluation of Concern's 1990-1 emergency programme in Kosti province, Sudan*. London: Overseas Development Institute, 1992.

9 De Waal A. *Famine that kills: Darfur, Sudan, 1984-5*. Oxford: Clarendon Press, 1989.

Registering a need

Disease registers are as important to purchasers as to clinicians

One of the great strengths of the NHS, and one that was preserved in the recent reforms,¹ is the concept of responsibility for the health of geographically defined populations. Indeed, without this the new market model of health services would suffer all the disadvantages of being demand led, just like the health care systems of many other countries. Addressing a population's health care needs depends, however, on knowledge of the pool of morbidity in that population. Disease registers offer an important way of providing and maintaining that knowledge.

Routinely available data that can be used to describe the size and distribution of particular diseases within a population are woefully inadequate. They are limited principally by their reliance on the tip of the health service iceberg: ascertainment of cases is derived from people who are being treated in hospitals (usually as inpatients). For very few illnesses does the number of cases being treated in hospital even approximate the prevalence of the disease in the population, although for some (for example, fractured neck of femur) a higher proportion of patients are admitted than for others (for example, asthma). Against this background, disease registers

have established a place alongside other methods of identifying morbidity, such as notification systems, information derived from contacts with services, and epidemiological surveys of incidence and prevalence.

A disease register has four characteristics which distinguish it from these other methods of recording: it is based on people, not events; these people each have the same feature in common, the focus of interest for the register; it is longitudinal in that the information held about people is updated in a defined, systematic manner; and it is based on a geographically defined population.

The best example of a disease register that attempts to provide comprehensive, routinely available data for the whole of Britain on an important group of diseases is the national cancer registry.² There are also other national registers with more limited aims. For example, the United Kingdom cardiac surgical register was established to analyse the workload for cardiac surgery and encourage rational use and planning of cardiac surgical services nationally.³ There have been many examples around the world of disease registers that are based on local or regional populations—for example, psychiatric