

it is now obligatory for service providers to work in partnership with any or all of those with parental responsibility for the benefit of the child.

Within the act child protection is viewed broadly. Consideration is given not only to the more direct and obvious forms of abuse—for example, physical, emotional, and sexual abuse—but also to the more insidious “professional” or “agency” abuse, characterised by expediency, inadequate resources, or personal attitudes, which may threaten a child’s best interests.

Under the new act accessible complaints procedures and a new system of courts will exist. The courts will take a much greater inquisitorial role. Cases will be subject to a preliminary hearing, at which written statements of evidence will be considered and directions given as to when and where the case will be heard, depending on how much complexity or novelty is perceived. Cases will be heard locally in family proceedings courts by specially appointed and trained magistrates or by the county or (exceptionally) the high court. The act acknowledges that delay may be harmful for children and requires strict timetables to be set and court orders to be much shorter than at present. Court orders may now be challenged at a much earlier stage, requiring case conferences and planning of meetings to be initiated sooner than before.

Emergency protection orders may be challenged after 72

hours and in any case will be of only eight days’ duration. In future, courts will be able to name and direct the doctor whom they consider appropriate to examine or assess a child and to set further timetables within these directions. As delays in decision making are deemed prejudicial to the welfare of the child court hearings are less likely to be adjourned for the convenience of witnesses with other obligations. The issue of availability of expert medical assessment should therefore be closely considered by all involved.

Through the Department of Health the government has sponsored several training initiatives, and these are rapidly being taken up by representatives of the statutory and independent sectors. At present it seems that family doctors, with a substantial part to play in implementing the new arrangements, are poorly prepared. This may change with the arrival of an introductory guide to the act, now being sent to all general practitioners.⁴

JANE TUKE

Service and Staff Development Officer,
Suffolk County Council Social Services Department,
County Hall,
Ipswich IP4 1LH

1 *Children Act 1989*. London: HMSO, 1989.

2 Lord McKay of Clashfern. *House of Lords Official Report*. 1988 Dec 6, Report No 1413.

3 *Gillick v West Norfolk and Wisbech Health Authority (Scarman)*. *All England Law Reports* 1985:421.

4 Department of Health. *The Children Act 1989: an introductory guide for the NHS*. London: Department of Health, 1991.

Aging and rationing

Physiology not age should determine care

The original separation of geriatrics from the rest of medicine came about largely for unedifying political reasons,¹ but one reason for its persistence has been a widespread misunderstanding of the link between age and the ability to benefit from high technology medicine. The separation is now being challenged and the integration of geriatric with general medicine, which was pioneered in the provinces,² has now been endorsed in one London medical school.³

Aging of an organism is characterised by loss of adaptability; as time passes its homeostatic mechanisms become less sensitive, slower, less accurate, and less well sustained. The onset and rate of these changes vary among bodily systems and, because aging is the result of interaction between extrinsic (environmental) and intrinsic (genetic) factors,⁴ there is also great variation between individuals. Death is the ultimate failure of adaptability, and senescence first becomes detectable in population data as a rise in age specific mortality at the age of 12 to 13. After perturbations due to violent deaths in early adult life mortality increases roughly exponentially for the rest of life.

There is no discontinuity to offer a biological basis for separating “the elderly” from the rest of the adult human race. The prevalence of disability and the use of health and social services also increase broadly exponentially through adult life, with no discontinuity in later life.

Medicine is at its best when soundly based in science. It is therefore anomalous that many health districts in the United Kingdom manage hospital medical patients above a locally defined age—which varies from 65 to 85—separately from other adults. Patients in such separate departments receive excellent geriatric care, but not all older people need it—and some might benefit from the skills of other medical specialties. No doctor, even the polymath geriatrician, can be

an expert in every specialty of medicine or have access to the best technical hardware. This truism formed part of the rationale for the move towards integrating geriatric with general medicine.^{2,3}

On average, unselected groups of older patients do less well after hazardous medical or surgical interventions than younger patients—because on average physiological impairment increases with age. But at no age will such impairment affect everyone equally. If enough is known about a person’s physiological status age contributes little to the prediction of outcome—only about 4% of the variance in outcome from intensive care, for example (W Knaus, lecture to the Royal Colleges of Physicians and Anaesthetists, March 1991).

Thus to use age, a variable that tells us only something about the average performance of a group, to determine the care given to an individual person is unscientific and inequitable. We do it because for much medical care we are still largely ignorant of the physiological variables we should be measuring. We get away with it because, outside middle class America, older people are unsophisticated consumers of medical care⁵ and rarely ask awkward questions.⁶

Discrimination against older people may become intensified under the contractual payment system of the new NHS. Managers may identify elderly people as a politically supine group who can be segregated into cheap geriatric services with limited access to medical technologies. A geriatrician may face the nightmare that the specialty dedicated to providing old people with the best of hospital care will become an impediment to their obtaining it.

Whether by integration or some other means, geriatricians and other doctors must sink their differences in the common cause of patients’ welfare. An explicit principle of the NHS should be that the treatment offered to patients is based on a

competent multispecialty assessment of their individual needs, wishes, and likelihood of benefit, not their age. This may terrify the accountants, but there will be savings as well as costs. If all patients are assessed for treatment on the basis of their physiology extra spending on older people will be partly offset by some younger people being spared the heroic but predictably futile interventions currently lavished on them simply because they are younger. Moreover, the economic, as distinct from the hospital, costs of some curative interventions (for severe angina, for example) may be more than offset by savings on institutional and domiciliary care for chronic disability.

The necessary research urgently needs to be done. The NHS offers an excellent setting for systematic protocol based collection of clinical, physiological, and outcome data on patients using specific facilities. With the improved information systems being installed in hospitals and primary care the

opportunities for such research should be greater than ever. The public would be glad to see the new systems being used to improve care rather than merely to trim costs.

J GRIMLEY EVANS

Professor of Geriatric Medicine,
University of Oxford,
Radcliffe Infirmary,
Oxford OX2 6HE

1 Geriatrics for all? [Editorial]. *Lancet* 1985;i:674-5.

2 Evans JG. Integration of geriatric with general medical services. *Lancet* 1983;i:1430-3.

3 Livesley B. *Caring for the elderly in the 1990s: the opportunities and challenges resulting from the fallibility of existing theories*. London: Research for Ageing Trust, 1991.

4 Fairweather DS, Evans JG. Ageing. In: Cohen RD, Lewis B, Alberti KGMM, eds. *The metabolic and molecular basis of acquired disease*. London: Baillière Tindall, 1990:213-36.

5 Donaldson C, Lloyd P, Lupton D. Primary health care consumerism amongst elderly Australians. *Age Ageing* 1991;20:280-6.

6 Kane RA, Kane RL. Self-care and health care: inseparable but equal for the well being of the old. In: Dean K, Hickey T, Holstein BE, eds. *Self-care and health in old age*. London: Croom Helm, 1986:251-83.

Anaesthetics and elderly patients

The new frontier

As more elderly patients require anaesthesia anaesthetists should be proficient in handling their special needs. Yet sometimes a fatalistic attitude is adopted so that older patients receive only routine care and any detrimental outcome is attributed to their decrepitude rather than their management. Hitherto anaesthetists' meetings and journals have paid scant attention to the subject, but this may be changing. Earlier this year the charity Research Into Ageing organised a joint workshop on potential research with the Age Anaesthesia Association.¹

In caring for the old the "allowance for carelessness" should be as small as that when attending to the young. Ideally octogenarians and nonagenarians should receive as much dedicated quality care as newborn and premature infants. Anaesthetists would benefit by knowing more about clinical gerontology: most perioperative morbidity and mortality occur in older patients.² There is a real need for perioperative geriatricians—a role that anaesthetists could fill if they better understood the specific requirements of the old.

Initially older patients should be comprehensively assessed and prepared so that they are in an optimal state to withstand both the operation and the recovery period.³ To undertake this the anaesthetist requires an understanding of the highly variable physiological changes of the main systems and the often unusual presentation and natural course of diseases in old people. Medical disease has more influence than either the surgery or the anaesthetic on the outcome of operations in older patients.⁴ The surgeon and anaesthetist should discuss the best timing and type of procedure for individual patients who are to undergo major procedures. Medical and social factors may indicate that a progressive recovery plan should be arranged or the operation should be postponed or cancelled. Algorithms might be particularly useful for planning preoperative tests and investigations in elderly people. The results of multivariate analyses of the risks of cardiovascular, respiratory, renal, and hepatic dysfunction and of thromboembolism and confusion could be used to tailor management individually.

Administering anaesthetics in older patients requires more than usual attention. With the increased routine use of electronic monitoring of the electrocardiogram, blood pres-

sure, oxygen saturation, carbon dioxide output, core temperature, and muscle relaxation a high degree of refinement is possible. Recently introduced short acting volatile and intravenous anaesthetics and muscle relaxants, analgesics, and powerful vasoactive agents are, if used skilfully, particularly beneficial in elderly patients. There seems little to choose between general anaesthesia and a spinal block if both are expertly managed.^{5,6} Whether prolonged spinal blocks offer better protection against life threatening complications for high risk patients undergoing major surgery is still argued.^{7,8} Local nerve and field blocks are both well accepted by elderly patients and are very useful during and after surgery.

Supplementation of blocks with sedation or a combination of sedation and analgesia, however, is fraught with danger. This is due to altered drug effects and other problems that commonly affect elderly patients during anaesthesia.⁹ These include potentially dangerous stimulation of sympathetic nervous activity; fragility of bone and skin or fixation of joints; the complications presented by diabetes and pacemakers; and the need for precise fluid, electrolyte, and heat balance. Given these problems the experience of the anaesthetist may play an ever larger part than usual in the outcome of surgery.¹⁰ More than a decade ago a remarkably low mortality (6.2% at 30 days after operation) was reported from Harvard when the prevailing standards of care were assiduously applied in the treatment of 500 patients over 80 years old.¹¹ Attention to the patients' medical condition, routine use of anticoagulants, and extended measurement of blood gases postoperatively, with mechanical ventilation when indicated, seemed to contribute to this success. More recently, also in the United States, a mortality of 8.4% at 30 days after operation was reported in 795 patients aged over 90 years.¹² These are admirable achievements, which anaesthetists and surgeons in the United Kingdom should emulate.

Anaesthetists are often insufficiently involved postoperatively. Unless the postoperative period is properly observed for the consequences of mistakes in preoperative and intraoperative management such mistakes are unlikely to be avoided in the future. Meticulous metabolic balance, oxygenation—particularly in relation to analgesia—and care of pressure points should be maintained, entailing high