limited by their specific range of skill and their professional role. Not all forms of protection count as medical care. While, for example, a doctor has a responsibility to protect Salman Rushdie from the consequences of an attempt on his life, he or she has no responsibility to protect him from that attack. Others, of course, do.

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Publishing the findings of clinical research

EDITOR,—A J Munro¹ and Andrew Herxheimer² raised important issues about the publication and dissemination of the results of clinical research. For universities the release of results of research into the public domain is a condition of their status as educational charities. Universities are exempt charities whose primary purpose is the advancement of education through teaching and research. There must be some benefit to the public if the advancement of education is to be charitable. Research undertaken for the private benefit of a sponsor, where the results are not finally released into the public domain, is outside the charitable status of the institution.

Universities recognise that commercial sponsors of research may need time to gain some advantage over competitors by delaying publication of results. This is why the Committee of Vice Chancellors and Principals of the Universities of the United Kingdom has recommended that universities should allow sponsors the right to delay publication for a specified period, normally not more than 12 months. A longer delay of two years or, at the very most, three years may be appropriate in exceptional circumstances, but only if the sponsor presents a compelling case and this is agreed with the researchers concerned.

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Dutch model of maternity care

May not suit Britain

EDITOR,—In her comprehensive paper Christina Oppenheimer looked at aspects of the Dutch model of maternity care of relevance to establishing care led by midwives in Britain.¹ The internal market in the health services in Britain, inspired by a free market ideology, seems to be fundamentally different from the Dutch way of organising the provision of services. In the Netherlands state intervention limits competition between general practitioners and midwives, the weakest competitors in the maternity services, through a reimbursement system. Likewise the competition between providers of primary care and obstetricians is limited through national selection

criteria that favour midwives and general practitioners for low and medium risk deliveries. The Dutch system ensures midwives a market share. It also ensures, in contrast to the British system, that women—whether at a low, medium, or high risk—receive care in the appropriate place and from the appropriate birth attendant. The Dutch government recognises that its system is cheaper than that of its neighbours. Consequently, support of midwives and home births is strong and representative of support for a wider policy to move care out of the hospital into the home.²

Furthermore, introducing midwifery led care in Britain would be difficult without some form of help for midwives, such as that given by maternity home care assistants (maternity aids) in the Netherlands. These assistants help midwives during home births, provide much of the postnatal care, and thus free midwives to attend more deliveries while also strengthening midwives' sense of professional autonomy.³ They are an integral part of the provision of maternity care and facilitate home deliveries and deliveries necessitating only a short stay in hospital. At present, similar support for new mothers in Britain is limited to exceptional cases—for example, mothers with triplets or quadruplets—and the assigned home helps seldom have formal training.⁴ While supporting the changes towards more midwifery led care, I would emphasise that you have to be careful in picking out desirable aspects of maternity care in the Netherlands and assuming that they can be easily transferred into the different British framework.

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Dutch model limits choice

EDITOR,—A paper¹ and an editorial² have commented favourably on low risk care led by midwives in the Netherlands, and the editorial suggested that this might reduce the number of unnecessary caesarean sections performed in Britain for fear of litigation.

The main reason for the difference between caesarean section rates in Britain and the Netherlands is that women's choice is denied in the Netherlands because the midwife decides when and to whom to refer the woman when problems arise, whereas in Britain women can opt for an elective caesarean section after discussion with their obstetrician—for example, because of a previous difficult vaginal delivery, breech presentation, etc. One of us is Dutch, and his sister had a three hour second stage in the Netherlands without being referred to an obstetrician despite her repeated requests for this. Informed choice is one of the important elements of the Cumberlege report,³ and obstetricians are concerned that this system may result in more emergency obstetrics. Similarly, active management of labour achieves even lower rates of caesarean section,⁴ but it has not been widely adopted in Britain probably because it is also perceived as restricting women's choice.

Emergency obstetrics is associated with a poorer outcome for babies and to some extent for mothers. There is no system of routine audit of obstetric care in the Netherlands, whereas Britain has longstanding traditions of audit (perinatal mortality meetings, the confidential inquiry into maternal deaths). Both the paper and the editorial quoted

the Wormerveer study in the Netherlands, of 8055 births during 1969-83, which showed an unacceptably high perinatal mortality among babies transferred to obstetricians by midwives. In Britain the risks of caesarean section to the mother are greatest after an emergency procedure, maternal mortality being similar after elective caesarean section and vaginal delivery.⁵ The British confidential inquiry for 1985-7 noted that inexperience or the decreasing frequency of problems resulted in substandard care and that greater involvement of consultants was necessary for the best possible care to be achieved.⁶

Finally, midwives in the Netherlands are paid according to the number of deliveries they conduct, and 30% of the population has to take out private insurance to pay for this system (personal communication, Dutch Ministry of Health). The British, cost effective system already offers women the widest choice in childbirth.

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Confidentiality, contraception, and young people

EDITOR,—The recent "guidelines" to doctors¹ referred to by Gabriel Scally² perpetuate the myth that most underage girls obtain contraceptives from family planning clinics.

Nine years ago a survey of general practitioners revealed that doctors were providing contraceptives to between 2-12 girls a year.³ On a national level this meant that, at the very least, 60 000 schoolgirls (one in six) were being prescribed the pill by their general practitioners, at a time when only 18 000 were attending family planning clinics.

My experience as a parent of schoolage children and as a counsellor with a national pregnancy care charity is that multiple sexual partners and the incidence of sexual infections are now common among 14 and 15 year old girls. And just as before, the great majority of these girls have been prescribed the pill by their general practitioners.

Gabriel Scally and the authors of the guidelines offer no solution to this deteriorating situation other than to urge general practitioners to make themselves even more easily available to the young, and to warn doctors that they may face disciplinary proceedings if they break confidentiality with their young patients. This means keeping as much information as possible secret from parents, especially those who might raise objections to underage sex.

The adverse reaction of the media to these guidelines is indicative of a general feeling that the medical profession has gone well beyond its brief and is now attempting to ride roughshod over the legitimate rights and responsibilities of parents in the upbringing of their children. If confusion now reigns, it is the fault of those high profile organisations, who seem to regard parents as irrational obstacles blocking the path of childrens' uninhibited sexual freedom. Two quotations from the

1985 House of Lords ruling in *Gillick v DHSS*, which still holds good today, may serve to remind doctors of the duty they owe to parents and to their profession.

Lord Justice Fraser: "Nobody doubts that in the overwhelming majority of cases the best judges of a child's welfare are his or her parents. Nor do I doubt that any important medical treatment of a child under 16 would normally only be carried out with the parent's approval. That is why it would and should be 'most unusual' for a doctor to advise a child without the knowledge and consent of the parents on contraceptive matters."

Lord Justice Scarman: "I accept that great responsibilities will lie on the medical profession. It is however a learned and highly trained profession, regulated by statute and governed by a strict ethical code which is vigorously enforced. Abuse of the power to prescribe contraceptive treatment for girls under the age of 16 would render a doctor liable to severe professional penalty."

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Migraine and risk of ischaemic stroke

EDITOR,—According to Claire Morton,¹ Christophe Tzourio and colleagues found no overall association between migraine and ischaemic stroke.²

In our case-control study of cerebral ischaemia we recruited 308 young adults (135 with transient ischaemic attack and 173 with stroke) and 591 controls and showed a significant association between cerebral ischaemia and migraine with aura in the medical history (odds ratio 5.2; $P=0.016$) in patients under 45.³ The odds ratio increased to 14.8 after adjustment for other vascular risk factors, carotid lesions, and cardiac diseases. Odds ratios were higher in the subgroup of patients with stroke at entry (8.6; $P=0.05$) than in the patients with transient ischaemic attack (3.0; $P=0.21$). Consequently, the negative overall result in the study of Tzourio and colleagues does not seem to be attributable, as Morton claims, to the exclusion of those patients with stroke (mostly transient ischaemic attack in our opinion) well enough to remain at home.

In our study the risk of stroke associated with migraine was evident both in patients aged under 35 and in those aged 35-44, with a higher odds ratio in patients under 35 (10.6; $P=0.03$) despite a similar prevalence of migraine with aura in patients over and under 35 (2.4% v 2.7%). This dependence of the risk on age may be another explanation for the significant association between migraine and ischaemic stroke in women under 45 reported by Tzourio and colleagues.

Morton's second observation, concerning the vascular territory affected in migraine sufferers, also seems questionable. Broderick and Swanson refer to cases of migrainous stroke, a clinical entity different from ischaemic stroke occurring in patients with a history of migraine.⁴

In our study the carotid territory was affected in three quarters of patients with coexisting stroke and migraine with aura in their medical history. Two patients had an occlusion of the distal branches of the middle cerebral artery, and one had fibromuscular dysplasia of the common carotid artery.

One patient had a cerebral infarction in the left occipital lobe with occlusion of the corresponding posterior cerebral artery. These findings are consistent with most of the proposed mechanisms for stroke related to migraine.⁵

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Monovalent pertussis vaccine no longer available

EDITOR,—The *BMJ* recently published two articles on pertussis vaccination. The first, on the national childhood encephalopathy study, reports that diphtheria, tetanus, and pertussis vaccine may, rarely, be associated with the development of severe acute neurological illnesses.¹ The authors concluded (in agreement with the Department of Health's guidelines²), however, that "the balance of possible risk against known benefits from pertussis immunisation supports continued use of the vaccine."

The second article was David Miller's review of a television documentary programme about batches of pertussis vaccine in the 1960s and 1970s that were a possible cause of brain damage in some cases.³ Again, though, the message was that pertussis vaccination was to be recommended for most children.

Neither article mentioned, however, that the manufacturers no longer produce monovalent pertussis vaccine. Owing to lack of demand pertussis vaccine is now available only with diphtheria and tetanus vaccine. If parents do not want their child to receive pertussis vaccine, or are advised against it, a course of diphtheria and tetanus vaccine is given (three doses, at 2, 3, and 4 months). If the situation then changes (for example, parents change their minds) and a further three doses of diphtheria and tetanus vaccine are given with the pertussis vaccination there is a risk of severe local reactions to the tetanus vaccine.

This means that, before any injections are given, parents considering not having their child vaccinated against pertussis must be counselled. All general practitioners, health visitors, practice nurses, and community and hospital paediatricians should be aware of this change. Parents should be told both of this change and of the statistics on the risks and benefits of the vaccination.

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Mortality and morbidity after hip fractures

EDITOR,—Graham Keene and colleagues once again highlight the considerable morbidity and mortality attached to proximal femoral fracture, particularly in those patients with extracapsular fractures.¹ The two year difference in mean age between patients with extracapsular fracture (80 years) and intracapsular fracture (78 years) is clinically important and presumably statistically significant, although this is not reported. A significant four year difference in the age of elderly women (aged 65 and over) with extracapsular or intracapsular fractures in Belfast has been reported, but there were no significant differences in mortality between cervical and trochanteric fractures within age groups.² In Newcastle, when age was taken into account there was no difference in the fatality of trochanteric and cervical fractures.³

The high mortality of hip fracture is starkly highlighted by rates of 28% at six months and 33% at one year. Similarly high values have been reported in elderly women in Belfast (mean age 81 years) who had a six month mortality of 29% and a one year mortality of 35%.⁴

It is important that the influence of age, sex, and domicile, in addition to other variables, is considered before comparisons between mortality and morbidity figures are made. A report from Belfast of a six month mortality of 15% suggests that not all elderly subjects with fractures were enrolled.⁵ Similarly low mortality may occur if studies include only elderly people residing in the community at the time of fracture, excluding the frail elderly in institutional, residential, and nursing home care. It is clear that if a purchasing authority seeks to compare measures of outcome and length of stay, or if comparative audit is undertaken, the nature of the population and its selection must be clearly identified.

The continuing increase in the elderly proportion of the population will result in increasing numbers of hip fractures and attendant higher age related mortality and morbidity. Hospital care, outcome, and preventive measures need to be addressed from both a humanitarian and a financial perspective.

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Managing stroke

EDITOR,—Peter Sandercock promoted the establishment of stroke units and discussed the potential cost, suggesting that before hospitals initiated a specific stroke unit they should examine the costs and resources currently used.¹ During a seven month period we identified all patients admitted to our hospital with a diagnosis of stroke. Seventy nine patients (39 men, 40 women; mean (SD) age 73.8 (8.8) years) were still in hospital two weeks after admission. They were assumed to be in need of further rehabilitation and included in a study.

We looked at the resources used by these patients in terms of bed days and average amount of treatment given to each patient. The mean (SD)