Commission on Euthanasia put forward a proposal suggesting that immunity from prosecution for doctors performing euthanasia should be subject to a number of criteria: the patient must be in an untenable situation with no prospect of improvement; the patient's request must be voluntary, rational, and consistent; the patient must have been informed of his or her condition; there must be no other way of escape from that condition; a second doctor must be consulted. These criteria are closely mirrored in the guidelines on euthanasia issued by the Dutch Medical Association.

Recent polls have shown that 68% of the Dutch population is in favour of legalising euthanasia in accordance with the criteria as defined by the state commission.

In a series of judicial decisions since 1973 court criteria have been developed which closely correlate with the criteria of the state commission and the Dutch Medical Association. If a doctor fully adheres to these criteria in performing euthanasia he will usually not be prosecuted.

The present government, which will remain in office until 1990, has not adopted the proposals of the state commission. It recently proposed a bill to keep euthanasia performed by a doctor as a criminal offence under the penal code. The public prosecutors, however, will probably continue their practice of dropping charges against a doctor who has strictly adhered to the criteria mentioned earlier.

There is thus no formal legalisation of euthanasia in The Netherlands, nor will there be in the near future. Dutch doctors performing euthanasia in accordance with the criteria mentioned above, however, expect to remain protected from prosecution by the jurisprudence that has developed over the years.

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Doctors with AIDS

SIR,—Anyone wishing for an illustration of the practical value of counselling sick doctors with blood transmissible viruses should read the report by Grob and others.[1] This shows that a general practitioner with hepatitis B infected 41 patients over four and a half years. When this was discovered he was counselled on how to reduce transmission and no new cases occurred for several months. When cases of hepatitis B began to recur investigation showed that he had become so ill with oesophageal varices that he was unable to put counselling into practice.

Since it appears that hepatitis B is 20 times more transmissible than human immunodeficiency virus (HIV) it is reasonable to assume that had this general practitioner been carrying HIV he would have infected only two patients in four and a half years, a risk which is slightly greater than negligible for patients.

As Professor Michael Adler points out (21 November, p 1297), hepatitis B transmission is more usually associated with surgery, and surgeons are not asked to stop operating until an outbreak of hepatitis B has been traced to them.[2] The problem with adopting this approach for HIV is that the "incubation" period is five years, not 150 days, and by the time infected patients become ill they will have infected subsequent sexual partners, obscuring the true source of infection. This may explain why no health care worker has yet been proved to have transmitted HIV to a patient. Similarly, a surgeon carrying HIV is unlikely to realise this and seek testing and counselling until he or she feels unwell. Since surgeons' gloves are holed in up to 30% of major operations it is not impossible that several patients could be infected in five years. We should also remember that the consequences of HIV infection are far more grave than those of hepatitis B.

If we leave aside the possibility of HIV transmission, people with the acquired immune deficiency syndrome (AIDS) by definition have opportunistic infections, most of which can be suppressed but not eradicated by treatment.[3] Some of the organisms are pathogenic for normal people (salmonella, shigella, mycobacterium), others for the elderly (legionella) or for the fetus (cytomegalovirus); all are potentially pathogenic for the immunocompromised among a doctor's patients. The task of microbiological and neurological monitoring of such doctors is too much to ask the counselling physician.

A patient who may well have impaired resistance to infection has a right to expect not to put himself at additional risk when consulting a doctor. Doctors go into medicine in full knowledge that there must be some additional risk to health from infectious disease.

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1 Grob PJ, Bischoff B, Naeff F. Cluster of hepatitis B transmitted by a physician to a patient. *Lancet* 1981;ii:1218-20.
2 Colindale CDSC. Acute hepatitis B associated with gynaecological surgery. *Lancet* 1980;i:1-6.
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Testing for HIV

SIR,—Ms Clare Dyer (10 October, p 871) advises that doctors risk civil or criminal proceedings if they test for human immunodeficiency virus (HIV) antibodies without the patient's consent and refers to the detailed legal opinion from Messrs Michael Sherrard QC and Ian Gatt (10 October, p 991). This legal opinion provides an informative review of related legal decisions and issues.

The matter of greatest practical importance to doctors is whether a patient who has given consent to the obtaining of a blood sample must give further specific consent to HIV testing on that sample. Messrs Sherrard and Gatt deal with this matter by introducing the concept of a "routine" test and comment, "The taking and testing of a sample, though it may be commonly carried out, would not, in our opinion, be considered 'routine' by the courts. Given the far-reaching implications of a positive result . . . it is equally unlikely that the courts will decide that an HIV test should be classified as routine. Accordingly a medical practitioner is under a duty to ensure that the patient's explicit consent to the testing is obtained."

The authors do not offer any definition of a "routine" test and offer no guidance as to what tests, if any, apart from HIV testing, will come into this category. If the authors' views are correct it becomes a matter of some importance to define a "routine" test and to establish what additional tests fall outside this category. Logically all these "non-routine" tests will require exactly the same specific consent as HIV testing and failure to follow this procedure will carry the same risks for doctors. It would be most helpful if the BMA would now obtain further legal advice for its members on these specific issues.

The following comments attempt to put the issues in a practical context.

The *Concise Oxford Dictionary* defines "routine" as "regular course of procedure, unvarying performance of certain acts."

The number and scope of blood tests performed routinely has expanded progressively as advances in technique have enabled large numbers of analyses to be performed cheaply on a single small blood sample. This expansion will almost certainly continue as further investigations become more widely available. Currently, at this psychiatric hospital, a blood sample is routinely taken from patients on admission and analysed in a way which screens for the following conditions, among others: anaemia, blood dyscrasias, syphilis and other venereal diseses, renal and liver disease, and common endocrine and metabolic disorders. Except in the most unusual circumstances, consent to the blood sampling is obtained but the patient is not usually informed of, or asked to consent to, specific diagnosic investigations. If these procedures are correctly regarded as "routine" in what way do they differ from HIV testing?

The acquired immune deficiency syndrome (AIDS) is infective, stigmatising, usually fatal, and novel. The conditions listed above may all, in some people, be fatal. Hepatitis, syphilis, and gonorrhoea are infective. Some diseases, particularly venereal diseases, are stigmatising. It must thus be concluded that AIDS is unique only in its novelty. The other unpleasant characteristics commonly occur singly and sometimes together. The novelty has contributed to an emotional reaction on the part of the profession and the public which has placed the disease in a singular category—somewhat as leprosy was regarded in the Middle Ages. More specifically, "novelty" and "routine" are incompatible adjectives. It is thus little more than tautological to assert that what is new cannot be immediately routine, although it often becomes so with a little time and established practice.

Much more is at stake than the definition of words or even the hypothetical civil liability of doctors. As AIDS spreads in the general population infective and HIV positive people will increasingly require medical attention, although they will not necessarily be recognisable members of any "high risk" group. Correct diagnosis, epidemiological and public health measures, and the protection of staff and patients will be impossible without widespread use of HIV testing. Such testing will be seriously hampered if there is insistence on specific and informed consent.

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Control of HIV infection with confidentiality

SIR,—Doctors diagnosing human immune deficiency virus (HIV) infection are in a dilemma between maintaining strict confidentiality about their patients, who may not want anyone else to know, and the need to alert certain others for purposes of controlling infection. Dr P Gerber (7 November, p 1205) suggested that a failure to inform colleagues might, in some circumstances, even be culpable in law. Many consider that the patients' own general practitioners at least should know, not just for safety purposes but to appreciate the deeper significance when illness occurs.

To preserve confidentiality yet achieve control of infection in this district we have for the past two years used the term high infection risk to alert staff. We apply this to a group of diseases—HIV and other human lymphotropic virus infections (HTLV I and II), hepatitis B, and hepatitis non-A non-B—with such similar epidemiology that a single set of control arrangements covers all satisfactorily. The management of these patients is built into all the district's hygiene and nursing policies, staff have been widely educated to know what the term means, and case notes are marked with it. In this way all the necessary steps can

be taken without the particular diagnosis being disclosed; all those who need to know can be informed of the high infection risk.

General practitioners and other doctors, alert to the high infection risk state of the patients, are in a better position to question them more closely when illness occurs, with less likelihood of misunderstandings occurring or of dangerous delays in treatment. The control of infection officer (MB) holds a secure list of the diagnoses known to him from the laboratory tests; he can give informed advice when there are serious difficulties with patients with a high infection risk, such as needlestick accidents. We have found this system workable and useful and would recommend it to others.

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Severe rombergism due to gentamicin toxicity

SIR,—Drs Roderick Duncan and Ian D Melville (31 October, p 1141) describe a case of rombergism with gentamicin toxicity. The patient was a 71 year old man who received gentamicin 80 mg three times a day intramuscularly for eight days and a second similar course lasting six days. The serum gentamicin concentration of 13·6 mg/l during the second course was presumably a trough value. No values for weight or serum creatinine were given. In this case gentamicin toxicity was probably entirely predictable and therefore preventable.

The *British National Formulary* recommends that the dose interval for gentamicin should be increased to 12 hours when the creatinine clearance is 30-70 ml/min. Creatinine clearance falls with age, and a number of equations have been developed to predict this from age, sex, weight, and serum creatinine, assuming steady state fluid balance.[1,2] All of these variables are available to the clinician before gentamicin is prescribed.

According to the equation derived by Hull and others,[1] an apparently normal serum creatinine of 90 μmol/l would give a creatinine clearance of greater than 70 ml/min only if the patient weighed more than 71 kg. Even at the upper end of the normal reference range a serum creatinine of 120 μmol/l would given a creatinine clearance of greater than 70 ml/min only if the patient weighed over 95·7 kg. The patient was probably prescribed a three times daily regimen on the basis that his renal function was normal because the serum creatinine value was within the normal reference range. This is a false premise, and in the elderly there can be important renal impairment with a normal serum creatinine concentration.

There is no place for the automatic prescription of gentamicin three times daily in the elderly. An estimate of creatinine clearance should be made using one of the equations available and the dose interval adjusted accordingly.

Zaske and others have shown that the elderly have wide variations in volume of distribution and elimination rates for gentamicin.[3] It is important, therefore, to measure serum gentamicin values at least two or three times a week as the concentrations cannot be accurately predicted in spite of initial adjustments in dose and dosage interval.

Had the above factors been taken into account the patient would probably have been spared the symptoms of vestibular toxicity.

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1 Hull JH, Hak LJ, Koch GG, Wagin WA, Chi SL, Mattocks AM. Influence of range of renal functions and liver disease on predictability of creatinine clearance. *Clin Pharm Ther* 1981; 29:516-21.
2 Cockroft DW, Gault MH. Prediction of creatinine clearance from serum creatinine. *Nephron* 1976;16:31-41.
3 Zaske DE, Irvine P, Strand LM, Strate RG, Cipolle RJ, Rotschafer J. Wide interpatient variations in gentamicin dose requirements for geriatric patients. *JAMA* 1982;248:3122-6.

AUTHORS' REPLY,—We appreciate Dr Swain's helpful reminder that gentamicin toxicity can in general be predicted and avoided. Our own interest in this case was in its neurological features; it seemed to us worth while to point out that severe gentamicin toxicity can be present with no cochlear symptoms and little in the way of obvious vestibular symptoms. We agree entirely that this underlines the need for identifying risk factors and monitoring serum concentrations at appropriate intervals.

We know from the patient's case record at the hospital where he was initially treated that he was seriously ill from a life threatening infection and that this and bacterial sensitivities governed the use of gentamicin. We hope that our case report and Dr Swain's comments increase doctors' awareness of the hazards of gentamicin treatment, especially when its use is required in the elderly patient.

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Gonadotrophin hormone releasing analogues open new doors in cancer treatment

SIR,—Dr Jonathan Waxman (31 October, p 1084) states that depot preparations of gonadotrophin hormone releasing analogues may be an acceptable alternative to orchidectomy in the treatment of prostatic cancer.

Since 1982, 135 patients at Broadgreen Hospital, Liverpool, have undergone subcapsular orchidectomy as part of their treatment for prostatic cancer.[1] In 100 this was done under local anaesthesia, general anaesthesia being required only for combined procedures. The average age was 72 years (range 48 to 98 years). Three patients refused orchidectomy. We have estimated the cost of treating these 135 patients with the luteinising hormone releasing hormone analogue goserelin if it had been available in 1982 assuming survival to be the same. The total cost would have been £293 000 and the cost in the last financial year £93 000. When hormone manipulation is indicated there is a cogent argument for the continued use of subcapsular orchidectomy. The costs of the operation are relatively low in National Health Service practice since the procedure requires neither general anaesthesia nor major theatre time and the recovery period is short. Patient acceptability in elderly men is high and the use of the term "mutilating" in this context can only be considered emotive.

Unless luteinising hormone releasing hormone analogues are subsequently shown by controlled clinical trials to offer significant therapeutic benefit over orchidectomy then we suggest that their role in prostatic cancer should be limited to the 2-3% of patients who refuse orchidectomy.

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1 Desmond AD, Arnold AJ, Hastie KJ, Subcapsular orchidectomy under local anaesthesia. *Br J Urol* (in press).

Waiting for Godot

SIR,—The Secretary of State for Social Services would like to see every general practitioner with a computer screen on his desk, "so he will be able to tell a patient instantly where in the country there is a hospital place available for his operation. Think what that would mean for waiting lists" (17 October, p 1009). I remember my first lesson in the insensitivity of NHS administration in my first house job in Edinburgh 18 years ago. Wide eyed, willing, and on a 1 in 2 rota, I was privileged to work with a dedicated team who decided to have a go at the waiting list.

A fast ex-army locum consultant and an ambitious registrar, long since gone to a chair overseas, led a skilful assault with the support of the anaesthetists, the nurses, the laboratory staff, and the theatre technician. Surgical lists went on late—I rarely left before 9 pm on nights off. Extra lists were fitted in—some on Saturdays. The "local hero" developed an increasingly adventurous minor operations list. As gaps appeared in admission lists patients were telephoned. Discharge summaries were typed immediately by secretarial wizardry. It was exciting and rewarding: the waiting list was halved in six months.

At the end of this time the administration spotted the short waiting list and transferred half of the 15 month waiting list from a ward in the Royal Infirmary along the road. So much for naïvety.

A computer screen on the desk would be grand though. In 1984-5 the region asked the paediatric neurology and other wards at Booth Hall Children's Hospital to pilot a clinical costing exercise in collaboration with management consultants Deloitte, Haskins and Sells.[1,2] The first attempts were inaccurate but with the participation of the full team the scheme reached a reliable standard. This was reported to the regional officers and a member of the NHS Management Board who visited the hospital. We offered to proceed to a clinical budgeting application with a desk top computer on the ward. But North Manchester Health Authority could not find the resources. Robot, not Godot, will come perhaps, but let's facilitate the administration of our hospital units as well as give computerised waiting list details to referring doctors.

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1 Lamb SM, David TJ. Playing with fire: an experiment in clinical budgeting. *Br Med J* 1985;290:650-1.
2 McKinlay IA. Hospital investigation of a child with epilepsy. In: Ross E, Reynolds E, eds. *Paediatric perspectives on epilepsy*. Chichester: John Wiley, 1985.

Waiting list statistics

SIR,—The finding of Dr A Lee, Mr B Don, and Dr M J Goldacre (7 November, p 1197) that 28% of patients on the surgical waiting list at any one time are found eventually not to have been admitted for their surgery is mirrored by similar findings at the time when they are offered admission. The first year's statistics compiled by the orthopaedic bed manager at the Leicester General Hospital show that overall 25% of patients offered admission do not take this up: about half electively cancel their admission and half do not attend, having failed to give any warning. The numbers vary from surgeon to surgeon and week to week, and though the failure rate is higher during the holiday months and at Christmas, there is an appreciable failure all through the year.

Dr Lee and others do not know the fate of those who were not admitted in the Oxford region, and