necessary. A national waiting list policy that guarantees access according to agreed criteria, rather than simply guaranteeing maximum waiting times, could facilitate contracts between purchasers and providers on the basis of agreed criteria for the prioritisation of waiting lists. Points could be assigned to patients by consultants to reflect, for example, current health status, assessed using the EuroQoL or SF36 health status measures; expected gain in quality of adjusted life years (QALY)[3] from treatment; or some combination of clinical factors such as rate of deterioration and social factors reflecting dysfunction in usual activities. This is being pursued by New Zealand's Health Commission[4] and in the United Kingdom is being piloted at Salisbury District Hospital.[5] Points schemes could help establish thresholds for entry on to elective waiting lists and help standardise general practitioners' referral practice for routine procedures.

If rationing in the NHS is inevitable, waiting list points schemes could help to ensure that patients with similar need, somehow reflected by their points allocation, could be assured of similar access to treatment, regardless of clinical specialty, geographical location, or general practitioner's status. Points schemes could provide a redefinition of the principle on which the NHS was founded within the constraints of resource limitation.

RHIANNON TUDOR EDWARDS
Lecturer in health economics

Department of Public Health,
University of Liverpool,
PO Box 147,
Liverpool L69 3BX

1 New B on behalf of the Rationing Agenda Group. The rationing agenda in the NHS. *BMJ* 1996;312:1593-601. (22 June.)
2 Samuel O. Fundholding practices get preferences. *BMJ* 1992;305:1497.
3 Gudex C, Williams A, Jourdans M, Mason B, Maynard J, O'Flynn P, *et al.* Prioritising health care. *Health Trends* 1990;22:103-8.
4 National Advisory Committee on Core Health and Disability Support Services. *Core service for 1994/95.* Wellington, New Zealand: NACCHDSS, 1994.
5 Edwards KT. An economic perspective of the Salisbury waiting list points scheme. In: Malek N, ed. *Setting priorities in health care.* Chichester: Wiley, 1994.

Selection of group members needs to be clarified

EDITOR,—I think clinicians would take a little more notice of the Rationing Agenda Group if it included more people who actually had to face sick people and their families day by day over the years. It is difficult to identify any working clinicians in the group.[1]

It would be interesting to know the method of selection for members to sit in this group. King's Fund Policy Institute is presumably a registered charity—that is, receives a lot of money from the taxpayer—and its function should be more democratic.

C J BURNS-COX
Consultant physician

Frenchay Healthcare Trust,
Frenchay Hospital,
Bristol BS16 1LE

1 New B on behalf of the Rationing Agenda Group. The rationing agenda in the NHS. *BMJ* 1996;312:1593-601. (22 June.)

Purchasing policies for in vitro fertilisation vary considerably

EDITOR,—The reports from the College of Health[1 2] continue to confirm a considerable variation between health authorities in their purchasing intentions for in vitro fertilisation. Some have also included sociomedical criteria for allocating these scarce resources. It is unclear as to whether these policies are subject to review and whether such criteria are explicit.

We have recently completed a cross sectional postal survey of the 106 new health authorities in England and Wales, requesting details of policies on in vitro fertilisation. The response rate was 94% (100/106). Of the 100 responders, 67 fund in vitro fertilisation and 16 do not. The remaining 17 were in the throes of the policy making process and were unable to offer a clear response.

All of the 67 who funded In vitro fertilisation did so on a restricted basis. These restrictions varied in severity, with some constructed so as to effectively deny access except under exceptional circumstances. The restrictions were invariably explicit and were a mixture of medical reasons—for example, woman's age, ranging from 34 to 42 years (where age is used as a marker for clinical effectiveness)—and social factors such as marital status, heterosexuality, and marital stability. In all cases access was also controlled by considering only couples (not individual) presenting themselves for referral.

It is clear that in vitro fertilisation continues to be overtly rationed within the NHS. What is of concern is the use of criteria which are not always related to clinical effectiveness but have a sociological construct that may discriminate against some members of society. It is not clear at present whether such criteria are acceptable to local populations. They seem to reflect the values of purchaser or provider clinicians, or both.

IAIN SMITH
Senior lecturer in health services research

Nuffield Institute for Health,
University of Leeds,
Leeds LS2 9PL

AURORA PLOMER
Lecturer

Law Department,
University of Leeds

1 College of Health. *Report of the national survey of the funding and provision of infertility services.* London: College of Health, 1993.
2 College of Health. *Report of the second national survey of the funding and provision of infertility services.* London: College of Health, 1995.

Don't confuse personal choice with collective choice

EDITOR,—Most of the problems we encounter with rationing decisions[1] arise through collective choice in publicly funded systems. In other words, decisions are taken by a collectivity that binds individuals. In a privately financed system individuals are more able to make personal choices (admittedly constrained by their income). Decisions are less likely to be taken by others on their behalf. Even in most privately funded systems third party decisions are commonplace, but the distinction between personal choice (making your own rationing decisions) and collective choice (making decisions on behalf of others) is an important one.

RAY ROBINSON
Director

Institute for Health Policy Studies,
Southampton SO17 1BJ

1 New B on behalf of the Rationing Agenda Group. The rationing agenda in the NHS. *BMJ* 1996;312:1593-601. (22 June.)

Breast screening has failed older women

EDITOR,—Gary Rubin, service director of the East Sussex Breast Screening Service, said that invitations to breast screening should not be extended to women aged 65 or over until more information is available on the success rate of the current screening programme and that a lack of staff would limit an immediate expansion.[1]

Age Concern England's view is that the fundamental issue of the equity of the NHS breast screening service should not depend on further information. The question that needs to be answered is why the programme of breast screening invitations excludes the age group of women in whom the largest number of cancers might be detected. This reduces the potential effectiveness of the breast screening programme and, more importantly, denies older women an important step towards the early detection of breast cancer.

The inequity of this situation will become increasingly difficult to reconcile as women aged 50-64 move through the breast screening programme and then ask, at age 65, why they cannot continue to receive invitations. The current system, in which women aged 65 or over can request a screening every three years, has proved a resounding failure, with around 97% of eligible women failing to be screened.

Women should be informed that breast cancers do occur in older women and that it is a good precaution to report any breast symptoms promptly. A recent Gallup survey showed that 65% of older women thought that their age group was at little or no risk from breast cancer; 28% thought that there was no risk at all.

Many older women do not seek advice about breast symptoms, believing they cannot develop the disease. In many cases, older women mention that the screening cut off age at 65 encourages this belief.

In view of all these factors, Age Concern England is calling on the government to urgently address the shortage of radiologists, as any further delay in extending the programme would be unacceptable.

SALLY GREENGROSS
Director general

Age Concern England,
London SW16 4ER

1 Rubin G. Wrong comparison quoted for breast screening. *BMJ* 1996;312:1674. (29 June.)

Ratio of waist circumference to height is strong predictor of intra-abdominal fat

EDITOR,—Waist circumference[1] and the ratio of waist circumference to height[2] have been proposed as better indicators of the need for management of weight than the classic body mass index. The relevance of the different proxy measures is presumed to relate to their prediction of intra-abdominal fat, but a comparison has not yet been reported.

Thirty one women and 16 men presenting for routine computed tomography had their weight, height, and waist circumference measured; all but three men and three women also had their hip circumference measured. The subjects were aged 18-73, and the range of body mass index (kg/m^2) was 20.1-48.5. The cross sectional areas of both intra-abdominal and subcutaneous fat were calculated from images taken immediately cranial to the iliac crests, as previously described.[3]

Pearson product-moment correlations for the logarithms of selected anthropometric variables and ratios with estimates of total fat and the two fat compartments showed that the ratio of waist circumference to height had the highest correlation with intra-abdominal fat ($r = 0.83$, $P<0.001$). This was higher than the correlations of waist circumference ($r = 0.75$), body mass index ($r = 0.69$), and the ratio of waist to hip circumference ($r = 0.54$) with intra-abdominal fat.

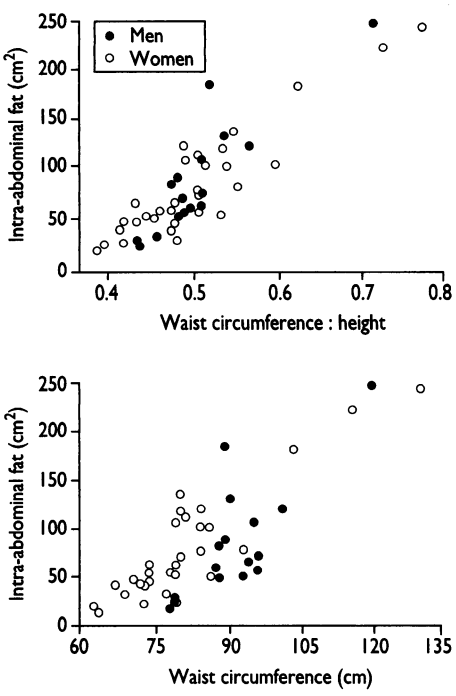

Fig 1—*Relation between ratio of waist circumference to height and intra-abdominal fat and between waist circumference alone and intra-abdominal fat in 31 women and 16 women*

Multiple regression was used to find the best predictor of intra-abdominal fat for the two sexes after adjustment for covariates. The effects of sex and subcutaneous fat were not significant, so the sexes were combined (fig 1). Even after adjustment for age ($t = 2.9$, $P = 0.006$) and body mass index ($t = 0.2$, $P = 0.8$) the ratio of waist circumference to height remained by far the best predictor of intra-abdominal fat ($t = 4.2$, $P = 0.0002$) and the intercepts for men and women were the same ($t = 0.1$, $P>0.9$). Waist circumference alone was less predictive ($t = 3.3$, $P = 0.002$), and the intercepts were significantly different for men and women ($t = 3.0$, $P = 0.01$).

We conclude that the ratio of waist circumference to height is the best simple anthropometric predictor of intra-abdominal fat in men and women. It is a better predictor than waist circumference alone because of the correlations between waist circumference, height, and intra-abdominal fat. Others have reached the same conclusion for women after using dual *x* ray absorptiometry.[4] On the basis of the results reported here, our previous cross sectional evidence,[2] and new evidence from prospective epidemiological studies,[5] we propose that the ratio of waist circumference to height should be used for the management of weight in a public health context so that increased emphasis can be put on treating the people with the greatest metabolic risks of obesity.

MARGARET ASHWELL
Director

Ashwell Associates,
Ashwell,
North Hertfordshire SG7 5PZ

TIMOTHY J COLE
Senior scientist

MRC Dunn Nutrition Unit,
Cambridge CB4 1XJ

ADRIAN K DIXON
Professor of radiology

University Department of Radiology,
Addenbrooke's Hospital,
PO Box 219,
Cambridge CB2 2QQ

1 Han TS, Lean MEJ, Seidell JC . Waist circumference remains useful predictor of coronary heart disease. *BMJ* 1996;**312**:1227-8. (11 May.)
2 Ashwell MA, LeJeune SRE, McPherson K. Ratio of waist circumference to height may be a better indicator of need for weight management. *BMJ* 1996;**312**:377. (10 February.)
3 Ashwell MA, Cole TJ, Dixon AK. Obesity: new insight into the anthropometric classification of fat distribution shown by computed tomography. *BMJ* 1985;**290**:1692-4.
4 Samaras K, Spector T, Nguyen TV, Baan K, Campbell LV, Kelly PJ. Smoking and oestrogen replacement are associated with lower total and central fat in menopausal women. *Int J Obes Relat Metab Disord* 1996;**20**(suppl 4):144.
5 Cox BD, Whichelow MJ, Ashwell MA, Prevost AT. Comparison of anthropometric indices as predictors of mortality in British adults. *Int J Obesity Relat Metab Disord* 1996;**20**(suppl 4):137.

Data protection, health care, and the new European directive

Data Protection Act applies to discussions by email and on the Internet

EDITOR,—Many doctors who hold log books or do clinical research on computers are probably acting illegally if they are not registered under the Data Protection Act (Data Protection Registrar, personal communication).[1]

Hospital registration may cover research performed in a hospital on that hospital's patients or their records but will not cover research performed at home or a collection of data from more than one hospital, such as a surgical log book. The position may deteriorate further when manual records are included in legislation.[2] Anonymising records is only valid if the patient cannot be identified by any means, which is seldom the case. This places junior doctors in a difficult position. They may be required to keep log books and are encouraged to perform clinical research. As the law stands, they should therefore register under the Data Protection Act, the first principle of which places them under an obligation to state the purpose for which data will be used on collection. This is difficult for a junior doctor acting alone to achieve, and may be impossible when performing, for example, a retrospective review of case notes. Indeed, even hospitals seldom meet the requirements of the act in this respect, and when they do, might I ask that they consider the needs of junior doctors?

The act also covers data transfer, including of images such as radiographs, over the Internet. However, registration may not help. Although the intention to transfer data abroad can be registered, the destination must be controlled, and the nature of the Internet makes this difficult. Doctors who participate in email discussion groups should exercise caution in discussing patients' details or even politically sensitive issues with anyone, let alone the disparate group that makes up a forum on the Internet. There is a parallel with publishing, and the same care should be taken with anonymity and consent.

CRAIG GERRAND
Registrar in orthopaedics

Victoria Infirmary NHS Trust,
Glasgow G42 OTT

1 Millman A. Keeping your computer healthy and legal. *BMJ* 1995;**311**:1289-93.
2 Smith MF. Data protection, health care, and the new European directive. *BMJ* 1996;**312**:197-8. (27 January.)

Data users must observe all principles of Data Protection Act

EDITOR,—Craig Gerrand's letter raises important questions. Health professionals who hold log books or do clinical research that entails holding personal data on computer must ensure this is covered by an appropriate registration under the Data Protection Act 1984. Health professionals maintaining computerised records relating to treatment they have provided as employees of a trust will be covered by a registration held by the trust as data user (section 1(5) of the act). When they hold personal data in connection with their own research they need to register individually as data users. When health professionals hold personal data for accreditation purposes they must consider who is the data user in respect of such data. If neither the employer nor the accrediting body accepts that it controls the contents and use of this personal data individuals have to accept direct personal responsibility. Although there is an exemption that applies to personal data held by an individual for domestic or recreational purposes, this cannot sensibly apply to sensitive confidential data held in connection with pursuing individual research, or for professional accreditation, as the data are held in connection with an individual's professional development or interests (section 33(1)).

Data users must observe the Data Protection Principles, which are set out in the schedule to the act and set enforceable standards for collecting, holding, and using personal data (schedule 1, part 1 to the act). The first principle requires that individuals should be aware, at least in broad terms, of the purpose or purposes for which their personal data may be used or disclosed. Furthermore, when health professionals use confidential medical data for a purpose other than the immediate health care of the patient concerned—such as private research or maintaining a record for accreditation purposes—this raises the question of whether this entails a breach of confidentiality unless the patient's consent is obtained. When personal data are processed to do something that entails a breach of a duty of confidentiality there will be a consequent breach of the lawful processing requirement of the first principle.

Furthermore, when health professionals maintain sensitive records on palmtop computers, whose portability makes them easy to lose or steal, this calls into question compliance with the requirement of the eighth principle to take "appropriate security."

Finally, Gerrand is right to counsel caution when participating in email discussion groups to ensure that any data communicated are either anonymised or shared with consent.

PHILIP J JONES
Assistant registrar

Data Protection Registrar,
Wycliffe House,
Wilmslow,
Cheshire SK9 5AF

Doctors in distress

Same points were made 120 years ago

EDITOR,—I congratulate Bob Bury on at last highlighting the positive aspects of a career in medicine.[1] These points were summarised 120 years ago by Lord Lister in his address to graduates: "If we had nothing but pecuniary rewards and worldly honours to look to, our profession would not be one to be desired. But in its practice you will find it to be attended with peculiar privileges; second to none in intense interest and pure pleasures."[2]

We should remember this rather than continue to bleat about how awful it is to be a doctor. If we do not then there is a real danger that, sooner or later, people will start to believe us.

DAVID HEWIN
Senior surgical registrar

Department of Surgery,
University of Bristol,
Bristol Royal Infirmary,
Bristol BS2 8HW

1 Bury B. Doctors in distress. *BMJ* 1996;**312**:1235. (11 May.)
2 Lister J. Graduation address. *Edinburgh Medical Journal* 1876;**XXII**:280-4.