Sheffield University (J A Burton)
University of Minnesota Medical School (Claus A Pierach)
University of Wales College of Medicine (F N Porter)
Witwatersrand University (Kurt Schwarz)

****Last year I sent a questionnaire to the deans of the United Kingdom's 27 clinical medical schools about the administration of the Hippocratic oath. The table shows the results, which were not available when the decision to publish Irvine Loudon's letter of 6 August was taken. T DELAMOTHE, *BMJ***

Administration of Hippocratic or similar oath to medical graduates in United Kingdom's 27 clinical medical schools

Clinical medical school	When/how oath administered
<i>No oath of any sort</i>	
Bristol University	Oxford University
Cambridge University	St Bartholomew's Hospital
King's College School of Medicine and Dentistry	Medical College
The London Hospital Medical College	St Mary's Hospital
Manchester University	Southampton University
Newcastle University	United Medical and Dental
Nottingham University	Schools of Guy's and St Thomas's Hospitals
	University College London
<i>Hippocratic oath</i>	
Charing Cross and Westminster	Dean reads oath to all new students on first day of medical school
Royal Free Hospital	Oath read out at graduation ceremony
St George's Hospital	Graduates repeat modern version of oath at degree ceremony
<i>Declaration of Geneva</i>	
Birmingham University	Students invited to sign
Leeds University	Dean reads at degree ceremony
Leicester University	Students read at degree ceremony
Liverpool University	Students take at degree ceremony
<i>Other*</i>	
Aberdeen University	Newly qualified doctors affirm oath at graduation
Dundee University	Graduates affirm declaration read out by dean
Edinburgh University	Dean reads to the graduates at the degree ceremony
Glasgow University	Medical graduates' oath
Queen's University of Belfast	Graduates take before graduation
Sheffield University	Dean reads Sheffield affirmation
University of Wales College of Medicine	Graduates read pledge to which they have all subscribed before admission

*Sometimes referred to as the *spontio academica*, oaths in this group are along the lines of: "I,, solemnly declare that as a Graduate of Medicine of the University of X, I will exercise my profession to the best of my knowledge and ability, for the good of all persons whose health may be placed in my care, and for the public weal; that I will hold in due regard the honourable traditions and obligations of the Medical Profession, and will do nothing inconsistent therewith; and that I will be loyal to the University and endeavour to promote its welfare and maintain its reputation."

The Hippocratic oath updated

Could boost credibility of doctors

EDITOR,—Eugene D Robin has done medicine a service by recasting the Hippocratic oath in a modern form.¹ His suggestions tackle many of the ethical principles (respect for autonomy, beneficence, non-maleficence, justice, and scope) lucidly discussed by Raanon Gillon.² I think, however, that two paragraphs are in danger of compromising the principle of autonomy—namely, the one relating to honesty with patients and the one starting, "I will do unto patients and their families only what I would want done unto me or my family." This could be avoided by explicitly stating respect for autonomy in terms of imparting information and undertaking procedures.

I also believe that there should be explicit

mention of the need to relieve pain. To some extent this is encompassed in the seventh paragraph by the words "to cure when possible but to comfort always." However, as the provision of pain relief is still a large blind spot in medical practice, though central to the physician's role, I suggest that this paragraph should finish, "I will strive to cure when possible, to comfort always, and to do my utmost to relieve pain and suffering."

It would be a shame if Robin's suggestion remains only a box in a journal. Would the BMA or even the General Medical Council be interested in taking it up as a manifesto? At a time when patients' faith in their physicians is sometimes sorely tried it might give a much needed boost to doctors' credibility.

M P WARD PLATT
Consultant paediatrician

Royal Victoria Infirmary,
Newcastle upon Tyne NE1 4LP

- 1 Robin ED. The Hippocratic Oath updated. *BMJ* 1994;309:96. (9 July.)
- 2 Gillon R. Medical ethics: four principles plus attention to scope. *BMJ* 1994;309:184-8. (16 July.)

Surrogates' decisions in resuscitation are of limited value

EDITOR,—Eugene D Robin's updated version of the Hippocratic oath contains much with which we would agree.¹ In the fourth paragraph, however, he suggests that physicians should be bound by the wishes of their patients or, when the patient is incompetent to decide, the decision of family members.

We respect the right of patients to make informed decisions about their own care, but the degree to which that right should be transferred to surrogate decision makers is less clear. When patients have stated their wishes before becoming ill we will respect those wishes, but in Australia and the United Kingdom only a minority of patients will have made such a declaration. As doctors working in intensive care we are regularly confronted with the decision to withhold or withdraw life sustaining treatment, and whenever possible we discuss this with the patient. In most cases it is not possible to determine the patient's wishes, and we will then discuss the options openly and honestly with family members. We still strongly believe, however, that the ultimate decision to withdraw or withhold treatment lies with the medical and nursing staff caring for the patient, for two reasons. Firstly, the decision made by the surrogate is often the opposite of that which the patient would make.^{2,4}

Secondly, surrogate decision makers often feel that they have been asked to decide whether their loved ones should live or die; this burden should not be placed on the shoulders of someone who is already under great stress.

The line between granting patient autonomy and abrogating responsibility may be very fine. In some instances where continued treatment is clearly futile families will ask that "everything possible" be done. Leaving aside the issue of inappropriate use of scarce resources, we believe that it is wrong to continue treatment when the only realistic outcome is an undignified high technology death. In almost all cases further discussion, explanation, and independent second opinion, if necessary, and the passage of time allow the family to come to terms with the inevitability of death. On rare occasions we have had families demand that we continue treatment even to the point of performing cardiopulmonary resuscitation when we have believed that this course was futile and, as there was no possible benefit to the patient, might even constitute assault. When we have been unable to resolve our differences with the family in such cases we have done what we considered to be in the patient's best interests and

allowed him or her to die. Fortunately, such extreme cases are rare, but they underline the fact that the ultimate responsibility is ours.

SIMON FINFER
Staff specialist
NIGEL THEAKER
Senior registrar
RAYMOND RAPER
Senior staff specialist
MALCOLM FISHER
Head

Intensive Therapy Unit,
Royal North Shore Hospital,
St Leonards,
New South Wales 2065,
Australia

- 1 Robin ED. The Hippocratic oath updated. *BMJ* 1994;309:96. (9 July.)
- 2 Simpson K. Health care surrogate laws. *N Engl J Med* 1993;328:1200.
- 3 Seckler AB, Meier DE, Mulvihill M, Crammer Paris BE. Substituted judgement: how accurate are proxy predictions? *Ann Intern Med* 1991;115:92-8.
- 4 Morgan R, King D, Prajapati C, Rowe J. Views of elderly patients and their relatives on cardiopulmonary resuscitation. *BMJ* 1994;308:1677-8. (25 June.)

Screening for cervical cancer

Graphs may mislead

EDITOR,—The cost-benefit ratio for cervical screening is less favourable in younger women than older women. Cervical cancer is less common in younger women, and the anxiety generated and the likelihood of unnecessary treatment or of an adverse effect on fertility are greater. Because screening young women may do more harm than good, those who advocate it should not mislead themselves or others about the facts.

Readers should compare the two graphs of death rate for cervical cancer by age shown in the figure.

Two graphs showing age specific death rates for cervical cancer, 1950-90, presenting same data but using different scales (reproduced from material supplied by P Sasieni of the Imperial Cancer Research Fund). Ages 50-54 are missing from the top graph for clarity of overall figure

The left hand graph will be familiar because it appeared in Joan Austoker's article on screening for cervical cancer¹ and has been published elsewhere.^{2,3} The right hand graph has been less publicised but shows the same data, the smoothed age specific death rates for carcinoma of the cervix for England and Wales for 1950-90. Differences arise because the left hand graph uses a logarithmic scale on the vertical axis but the right hand graph uses the more conventional linear scale. The originator chose the logarithmic scale for a particular reason—to show that a previously reported increase in deaths from cervical cancer in young women had levelled off (P Sasieni, personal communication). The logarithmic scale emphasised the changes in death rates in younger women by magnifying that area of the data. Unfortunately, a magnifying glass may distort and mislead.

Joan Austoker states that in 1992 over 95% of deaths due to cervical cancer occurred in women aged 35 and over, but her choice of the graph on the left leaves a different visual impression. It creates the illusion that half of the deaths occurred in women under 35, which cannot have been Austoker's intention. It also conceals the overall decline in death rates. Readers have consciously to resist visual impressions that are at odds with the text. The graph on the right is better, although even this has a vertical axis whose origin is below zero, which gives undue emphasis to deaths in women under 25. These misleading visual impressions may have contributed to the present enthusiasm for cervical screening, particularly for younger women, since it is well known that visual presentation can influence decision making.^{4,5}

C M ANDERSON
General practitioner

Heaton Moor Medical Centre,
Stockport SK4 4NX

J G THORNTON
Senior lecturer in obstetrics and gynaecology

Institute of Epidemiology and Health Services Research,
Leeds University,
Leeds LS2 9LN

- 1 Austoker J. Screening for cervical cancer. *BMJ* 1994;309:241-8. (23 July.)
2 Austoker J, McPherson A. *Cervical screening*. 2nd ed. Oxford: Oxford University Press, 1992. (Practical guides for general practice 14.)
3 Sasieni P. Trends in cervical cancer mortality. *Lancet* 1991;338: 818-9.
4 Tufte E. *The visual display of quantitative information*. Cheshire, Connecticut: Graphics Press, 1983.
5 Cartmill RSV, Thornton JG. Effect of partogram presentation on obstetric decision-making. *Lancet* 1992;339:1520-2.

Increase in incidence of invasive cervical cancer

EDITOR,—Commenting on the paper by J Elizabeth Macgregor and colleagues,¹ S M Crawford suggests that changes in the incidence of invasive cervical cancer may be ascribed not only to a screening effect but also to cohort specific changes in incidence, possibly related to different sexual behaviour.² A cohort effect may explain the recently reported rise in the incidence of invasive carcinoma. Macgregor and colleagues also report a rise in preinvasive disease, although they do not provide data on its age distribution.

We recently reviewed the files of the Tuscany cancer registry and of the screening programme for cervical cancer in Florence district. We evaluated the trend over time in the prevalence of cervical intraepithelial neoplasia grade III detected in subjects screened for the first time or in subjects who had not had a Papanicolaou test in the 10 years before screening. We limited our study to this subset of subjects to avoid the confounding effect of previous screening on the incidence of cervical intraepithelial neoplasia grade III.

The table shows the figures for 1975-92 for 10 birth cohorts and eight age groups. Overall, rates

Prevalence of cervical intraepithelial neoplasia grade III detected by screening (per 1000 women screened) in women screened for first time or who had not had Papanicolaou test in previous 10 years, district of Florence, 1975-92. Numbers of cases given in parentheses

Birth cohort	Age group (years)							
	20-4	25-9	30-4	35-9	40-4	45-9	50-4	55-9
1920-4	—	—	—	—	—	—	1.62 (9)	1.67 (14)
1925-9	—	—	—	—	—	1.18 (8)	1.62 (15)	3.00 (14)
1930-4	—	—	—	—	2.50 (19)	1.94 (23)	2.72 (17)	1.88 (7)
1935-9	—	—	—	2.37 (20)	2.24 (31)	2.27 (18)	3.90 (18)	—
1940-4	—	—	1.46 (11)	2.76 (41)	3.75 (28)	3.40 (18)	1.11 (1)	—
1945-9	—	1.13 (9)	1.90 (31)	1.92 (19)	4.29 (26)	6.63 (7)	—	—
1950-4	0.92 (5)	1.71 (23)	3.86 (42)	4.01 (24)	4.05 (4)	—	—	—
1955-9	1.47 (19)	2.23 (27)	4.94 (39)	6.63 (8)	—	—	—	—
1960-4	0.51 (8)	2.51 (29)	3.26 (6)	—	—	—	—	—
1965-9	1.58 (7)	1.07 (3)	—	—	—	—	—	—
P value*	0.70	0.12	<0.01	0.04	0.02	<0.01	0.03	0.57

* χ^2 for trend.

increased steadily within age groups over birth cohorts or calendar periods. In particular, a significant linear trend was evident in all groups between 30 and 55, whereas the trend was not significant between ages 20 and 29 and over 54. The low number of cases expected in the extreme age groups may account for the wide statistical variability. A Poisson regression model was fitted to the data to investigate the effect of age, birth cohort, and calendar period on the prevalence of cervical intraepithelial neoplasia grade III; the model accounting for a birth cohort effect showed the best goodness of fit.

In accordance with data from the Yorkshire Cancer Registry referred to by Crawford,² these data provide further evidence of an increase in the incidence of cervical intraepithelial neoplasia grade III, which seems to be related to the fact that cohorts of women at higher risk are coming through.

STEFANO CIATTO
Head

SILVIA CECCHINI
Senior registrar

Department of Diagnostic Medical Imaging,
Centro per lo Studio e la Prevenzione Oncologica,
1-50131 Florence,
Italy

MARCO ZAPPA
Senior registrar

Department of Epidemiology,
Centro per lo Studio e la Prevenzione Oncologica

ANNIBALE BIGGERI
Associate professor

Department of Statistics,
Faculty of Medicine, University of Florence,
Florence,
Italy

- 1 Macgregor JE, Campbell MK, Mann EMF, Swanson KY. Screening for cervical intraepithelial neoplasia in north east Scotland shows fall in incidence and mortality from invasive cancer with concomitant rise in preinvasive disease. *BMJ* 1994;308:1407-11. (28 May.)
2 Crawford SM. Screening for cervical intraepithelial neoplasia. *BMJ* 1994;309:195. (16 July.)

Screening for colorectal cancer

Should include radiology

EDITOR,—Joan Austoker's article on screening for colorectal cancer is speculative, unhelpful, and unrelated to the practicalities of current medical care.¹ She has ignored radiology at patients' peril. I perform 10-15 barium enemas a week in patients referred by hospitals and general practitioners for "neoplasm" who are essentially free of symptoms suggesting serious disease. "Constipation" or an ill defined "change of bowel habit" is added to the request form to justify what might otherwise be regarded as a straightforward screening procedure (and might therefore be rejected by the x ray department).

The finding of important carcinomas is common: I have seen two in the past week alone. Both patients had reached the x ray department and had a barium

enema before sigmoidoscopy. Anecdotally, I expect to see four to six cases a month from this caseload. Two patients seen this year were 46 and 54 years old; the younger had a non-obstructing large caecal lesion.

I deplore the fact that the paper omitted to mention a major modality in colonic screening. Someone who works in a university department of public health and primary care has a responsibility to reflect current medical practice and its diagnostic opportunities.

R EBAN
Civilian medical practitioner

Princess Alexandra's Hospital,
Wroughton,
Swindon SN9 0QJ

- 1 Austoker J. Screening for colorectal cancer. *BMJ* 1994;309: 382-6. (6 August.)

When patients with breast cancer can be considered to be cured

EDITOR,—In the clinical implications box in their paper on changes in the long term prognosis for breast cancer in a Dutch cancer registry Henk W Nab and colleagues state: "At 19 years after diagnosis patients' survival was similar to that of the general female population, indicating that such patients could effectively be regarded as cured."¹ This time interval is slightly longer than the ones I reported some years ago² after analysing the survival data obtained in a clinical trial carried out at the Istituto dei Tumori di Milan and aiming at comparing radical with Halsted mastectomy.³

Information concerning the following prognostic factors was available on 716 patients: age at diagnosis, number of metastatic axillary nodes, stage (T1, T2, T3a) and site of the primary tumour, and menopausal state. Since the survival curves of the two treatment groups overlapped, the role of the prognostic factors and the curability of the disease were investigated in all the patients. In the first analysis a log-normal regression model was found suitable for fitting to survival; this enabled us to classify patients into three groups with different probabilities of survival at 10 years (>0.70, 0.70-0.40, and <0.40) according to the values of their prognostic factors. In the second analysis the ratio of the mortality in the series of patients to the mortality in the general female population was modelled, with allowance being made for the exponential decay of the hazard function. The results of this analysis suggested that "one can sensibly assess that a breast cancer patient is 'cured' only after a minimum follow-up interval which ranges from 16 to 18 years according to the patient characteristics observed at surgery."²

In our case series overall survival was higher than that reported by Nab and colleagues. Their overall survival after 10 years (35%) is comparable to that observed in our group with the worst