

Grade	Heaf test		Chest radiography		Outcome	
	No (%)	Result	No (%)	Intervention	No (%)	
0	8 (5)	Abnormal	2 (1)	Chemoprophylaxis	7 (4)	
1	28 (17)	Child (no radiography)	8 (5)	Offered BCG	1 (1)	
2	105 (62)	Old tuberculosis	1 (1)	Followed up	11 (7)	
3	12 (7)	Refused	10 (6)	Discharged	151 (89)	
4	8 (5)	Normal	149 (88)			
Refused test	9 (5)					

positive. Seven required chemoprophylaxis. There were 19 refusals of one or both tests (table).

In replies from 20 of 22 other universities we contacted, only 13 (65%) were able to enumerate overseas students registered for the 1992-3 academic year. Ten had no tuberculosis screening programmes; two had no student health service. Eight of the remaining 10 had arranged screening with the local consultant in communicable disease control. Twelve universities had medical schools, 10 of which screened students for tuberculosis. Only a few universities had any data on abnormalities detected currently or in previous years. This, together with the absence of denominators, made estimates of the prevalence of tuberculosis impossible and served only to reveal the extent of failure to comply with the national guidelines and purpose of screening. Since admissions of overseas students from high prevalence areas are increasing, there is clearly a need for a multicentric rationalisation of screening procedures and preventive policy.

Students from these regions qualifying for study in Britain are usually advantageously placed in comparison with their home populations in terms of education, health, and standard of living. The occurrence of seven cases (4%) requiring chemoprophylaxis in the 44% minority who attended for screening in Bristol, the fact that 92% are not screened at the port of entry, and the lack of compliance with minimal preventive measures all point to a situation which, in the generality of immigrants, must already be creating foci for further spread of tuberculosis in the United Kingdom.

S SEBUGWAWO  
Consultant in public health medicine

G H STEWART  
Consultant in communicable disease control

J R CATTERALL  
Consultant physician

M KIRKUP  
Clinical assistant, TB prevention clinic

A V J BUTLER  
Medical officer in charge, students health service

Avon Health,  
Bristol BS2 8EE

## GPs accept patients' vote on fundholding

EDITOR,—We were interested to read of the ballot of patients in Leicestershire over fundholding.<sup>1</sup> We carried out a similar consultation process, which ended with a different result.

We are a small inner city practice, with 70% of our patients attracting a medium deprivation payment. Fundholding seemed to be the natural progression of the services we were already providing, and we believed that it would provide more choice for patients and a wider range of services in the community. In 1991-2, however, fundholding was a politically contentious issue, and we therefore decided to discuss the matter with our patients.

The practice as a team produced a document indicating some of the advantages and disadvantages of fundholding, which was circulated to patients. We then held a public meeting to discuss it with them and gained approval for six months of negotiation. In the winter of 1992 we held another public meeting; on this occasion we had television

and newspaper coverage. After discussing our plans we split into smaller groups to answer questions.

The attendance at both meetings was over 100, which for a practice of our size—2500 at the time—was remarkable. We sent out a questionnaire to determine whether those who attended our public meetings were representative of the population we serve. This proved to be the case. Patients voted four to one for the practice to become a fundholding practice. In the three years since then we have made fundholding work in our patients' interests and have benefited this community without disadvantaging anyone else. We regularly report on fundholding in our quarterly newsletter for patients.

One of the biggest fears expressed by patients in inner city Nottingham and other general practitioners was that we would turn our backs on the NHS and seek private care. Over the past years of fundholding, less than 5% of our budget has been spent outside the NHS.

We continue to believe as a team and a practice that fundholding gives patients more choice, enables services to be provided closer to patients' homes and with their active participation, and improves the range of services available in the community.

MICHAELA VARNAM  
General practitioner  
MALCOLM BARKER  
Finance manager

Windmill Practice,  
Sneinton Health Centre,  
Sneinton,  
Nottingham NG2 4PJ

1 Mulka O. GPs accept patients' vote on fundholding. *BMJ* 1995;310:664. (11 March.)

## A global health disaster network is needed

EDITOR,—Kobe, Chechnya, Bosnia, Rwanda... all these disasters have been characterised by difficulties in communication. How many people are injured? Homeless? Buried? Need food? Most of these pressing questions are answered by word of mouth. The lack of accurate and timely information is compounded by our inability to establish immediate, real time communications among international health agencies, non-government disaster and relief organisations, affected governments and local authorities, and the people themselves, which leads to needless morbidity, mortality, and waste in both manmade and natural disasters. It is only now that we are beginning to apply new technologies to improve communication during disasters.

We are in the middle of a telecommunications revolution. Telecommunications systems such as the internet are reaching millions of people world wide and are growing rapidly, even in developing countries. The growing global health network should begin to establish a global health disaster network directed at preventing disasters and planning responses to disasters.<sup>1,2</sup> The global health network could also provide an improved means of transferring information into and out of a disaster area and among the "shareholders" in a

disaster. Such a system has already been established to a limited extent in Central America, South America, and the Caribbean by the Pan American Health Organisation, regional office of the World Health Organisation (C DeVillie, personal communication).

In a pilot project the Pan American Health Organisation, with the support of the National Aeronautics and Space Administration, is linking through the internet the major coordinators of disaster management in Central America (health disaster coordinators, civil defence, health commissions, etc). This project—part of the global health network initiative—establishes the foundation of the regional "information highway." Much more needs to be done to ensure that sufficient portable units could in some cases be backpacked to the affected area to allow more rapid assessment and transfer of information about the disaster.

Training of health care professionals in monitoring international disasters and in telecommunications is important. These "cyberdocs" would be essential for establishing and coordinating information during disasters. Experts in epidemiology and preventive medicine and those in disaster planning and response and in telecommunications must continue to work closely to coordinate responses for the disasters in the 21st century and beyond.

EARL W FERGUSON  
Director

Aerospace Medicine and Occupational Health,  
Life and Microgravity Sciences and Applications,  
NASA Headquarters,  
Code UO,  
Washington, DC 20546, USA  
(eferguson@hq.nasa.gov)

ANTHONY VILASENOR  
Programme manager

NASA Science Networking,  
Office of Space Science and Applications,  
OSSA Information Systems,  
NASA Headquarters,  
Washington, DC 20546, USA  
(villase@nsipo.arc.nasa.gov)

STEPHEN CUNNION  
Assistant professor

Department of Preventive Medicine and Biometrics,  
Uniformed Services University of the Health Sciences,  
Bethesda, MD 20814-4799, USA  
(cunnion@usuhs.mil)

CLAUDE DE VILLE DE GOYET  
Chief

Emergency Preparedness and Disaster Relief  
Coordination Program,  
Pan American Health Organisation,  
Washington, DC 20037, USA  
(devillec@paho.org)

FRANK E YOUNG  
Director

Office of Emergency Preparedness/NDMS,  
Department of Health and Human Services,  
Rockville, MD 20857, USA  
(fyoun@oash.ssw.dhhs.gov)

RONALD E LAPORTE  
Professor

Department of Epidemiology,  
Graduate School of Public Health,  
University of Pittsburgh,  
Pittsburgh, PA 15261, USA  
(rlaporte@vms.cis.pitt.edu)

- 1 LaPorte RE, Akazawa S, Hellmonds P, Boostrom E, Gamboa C, Gooch T, et al. Global public health and the information superhighway. *BMJ* 1994;308:1651-2.
- 2 Sauer F, LaPorte RE, Akazawa S, Boostrom E, Ferguson E, Gamboa C, et al. Towards a global health network. *Current Issues in Public Health* (in press).
- 3 Ferguson EW, Sarkisian A, Young F, DeVille de Goyet C. Telemedicine for national and international disaster response. *J Med Syst* (in press).

## Rationing intensive care

### Intensive care provision varies widely in Britain

EDITOR,—D W Ryan believes that high dependency units will solve some of the problem of insufficient beds in intensive care units in Britain and suggests that some elective admissions to intensive care units could be diverted to such a

unit, thereby freeing beds.<sup>1</sup> Indeed, the fact that roughly 42% of admissions to Ryan's unit are elective surgical cases might seem to support this view. Furthermore, the small number of patients whose operations were cancelled or who had to be transferred from the unit suggests that Newcastle might be reasonably well supplied with beds in intensive care units.

Unfortunately, Ryan's figures may not be representative of other centres, particularly as the Department of Health's recent audit report highlighted a wide variation in the provision of beds in intensive care units in England.<sup>2</sup> For instance, in 1993 the Wessex region had an average of 1.9 beds per 100 000 population yet the figure for the Northern region was 2.6.<sup>2</sup> Portsmouth Hospitals NHS Trust has only nine intensive care unit beds to serve a local population of about 550 000—a ratio of 1.63—and this fails to recognise the presence of a regional renal unit.

Our data (table) show a different picture from that described by Ryan and others.<sup>3</sup> The monthly occupancy in intensive care units in Portsmouth varies between 70% and 98%, 86% of admissions require treatment on the basis of Wagner *et al*'s criteria,<sup>4</sup> and only 17% of admissions occur after elective surgery. Less than 6.5% of bed days are accounted for by patients who are not ventilated.

*Admissions to Portsmouth intensive therapy service, April 1993 to March 1995*

	1993-4	1994-5
Admissions	700	663
Total bed days* (maximum 3285)	2 722	2 850
Bed occupancy (%)	83	87
No (%) of patients ventilated	546 (78)	557 (84)
No (%) of patients given haemofiltration	119 (17)	146 (22)
No (%) of patients with pulmonary artery catheter	245 (35)	265 (40)
Total points on therapeutic intervention scoring system	99 005	104 503
Elective surgical cancellations	96	106
Transfers to other districts <sup>†</sup>		
intensive care units because of lack of beds	27	31

\*One bed day=1 patient resident in intensive care unit for 24 hours.

In the past two years operations (mainly for aortic and oesophageal surgery) were cancelled on at least 205 occasions because of the lack of an intensive care unit bed and 58 patients in the intensive care unit were transferred to other units, sometimes up to 130 km away, simply to permit a sick patient to be admitted as an emergency. An unknown number of emergency patients were also transferred direct from general wards or the accident department, simply because of a lack of intensive care unit facilities.

Clearly, the solution to the shortage of intensive care unit facilities may not be the same for all regions, trusts, or intensive care units. For some the development of a high dependency unit will ease pressure on intensive care unit beds; for others, intensive care unit beds may be replaced by those in high dependency units. For a third group, however, it is essential that both extra intensive care unit beds and a high dependency facility are provided.

G B SMITH  
Director, intensive therapy services

B L TAYLOR  
Consultant in intensive care and anaesthesia

P J McQUILLAN  
Consultant in intensive care and anaesthesia

E NIALS  
Associate general manager, intensive therapy services

Queen Alexandra Hospital,  
Cosham,  
Portsmouth PO6 3LY

1 Ryan DW. Rationing intensive care. *BMJ* 1995;310:1010-1. (15 April.)

2 Metcalfe A, McPherson K. *Study of provision of intensive care in England, 1993*. London: Department of Health, 1995.

3 Kilpatrick A, Ridley S, Plenderleith L. A changing role for

intensive therapy: is there a case for high dependency care? *Anaesthesia* 1994;49:666-70.

4 Wagner DP, Knaus WA, Draper EA. Identification of low-risk monitor admissions to medical-surgical ICUs. *Chest* 1987;92: 423-8.

## Data from one high dependency unit supports their effectiveness

EDITOR,—D W Ryan<sup>1</sup> and J Bion,<sup>2</sup> in discussing the provision of intensive care beds, suggest that there should be more high dependency beds, although information on their effectiveness seems to be lacking. At the Royal Hallamshire Hospital we opened a two bedded, five day high dependency unit in 1992. The primary reason for this was to counter the recurrent cancellation of elective major surgery when an intensive care bed could not be guaranteed. In addition, it was hoped to reduce the number of urgent transfers out of the intensive therapy unit and generally improve the care of postoperative patients.

Since the unit's development the number of cases of elective surgery that have been cancelled has fallen effectively to zero (table), as has the number of emergency transfers out of intensive care to accommodate new patients. This has been achieved by allowing the booking of a bed in the high dependency unit for elective surgery to take precedence over emergency admissions. Although the unit was developed primarily for elective surgery, emergency or unplanned patients could be admitted if there was a vacant bed.

Since the unit was opened the number of beds has been increased to four for six days, which has increased the workload for both planned and unplanned admissions (table) and reduced the relative cost per patient. Although Ryan's comment that a bed in a high dependency unit is cheaper than one in an intensive therapy unit, this is relative to the size of the unit and hence to the number of beds that are staffed and the number of patients who can be treated. By far the most expensive item on our budget is nursing costs. Our overall cost per patient was reduced considerably when we increased the number of beds to four since we could increase the number of patients with a minimal increase in staffing.

*Admissions to high dependency unit at Royal Hallamshire Hospital, April 1992-4*

	1992	1993	1994
Admissions to high dependency unit	0	219	315
Planned/unplanned	0	141/78	181/134
Cancellations	15	1	0
Admissions to intensive therapy unit	310	268	346
Transfers out of intensive therapy unit	19	2	0

We are currently reviewing other aspects of the unit's work and costs and hope that this information will support our conviction that all intensive care units should have associated high dependency beds.

J E PEACOCK  
Senior lecturer in anaesthesia

D L EDBROOKE  
Director of intensive therapy unit

Royal Hallamshire Hospital,  
Sheffield S10 2JF

1 Ryan DW. Rationing intensive care. *BMJ* 1995;310:1010-1. (15 April.)

2 Bion J. Rationing intensive care. *BMJ* 1995;310:682-3. (18 March.)

## Torture in Israel

EDITOR,—Jon Immanuel may not have intended to be an apologist for torture in Israel, but his review does insufficient justice to the stark material gathered by Human Rights Watch and other

bodies.<sup>1</sup> Over 100 000 Palestinians have been arrested since 1987, thousands of whom entered the closed world of Israeli interrogation centres. Amnesty International concurs with Human Rights Watch that torture is institutionalised during interrogation and 90% of convictions in military courts are based on a "confession" alone. The International Committee of the Red Cross, the only organisation with official access to prisoners, normally does not issue statements but made a rare exception in 1992, prompted by continuing serious abuses. Forensic pathologists from Physicians for Human Rights (USA) travelled to Israel on 10 occasions between 1988 and 1992 to participate in necropsies of Palestinian detainees who had died in circumstances implicating their interrogators or other officials.<sup>2</sup> My own professional contact with Gaza showed that it was easy to encounter men, including health workers, with credible personal testimony to torture.<sup>3</sup>

Since 1988 there has been only one case in which interrogators were jailed for serious abuse of a detainee, and Human Rights Watch concludes that official policy has been to permit the security services to operate with impunity. An important aspect of what Human Rights Watch calls the "bureaucratisation" of torture has been the way the medical profession has been drawn in. Human Rights Watch notes that Israeli prison doctors have consistently violated the ethics of their profession by primarily serving the interests of the interrogators, a charge comparable to those levelled at doctors in South Africa after the internationally famous Biko case in 1977. In 1993 the existence of a "medical fitness for interrogation" form was uncovered; doctors who completed such forms could not credibly claim to have no idea that they were certifying detainees to undergo some degree of abuse amounting to torture.

Last November the Israeli cabinet was reported to have eased "restrictions" on the use of physical force during interrogations to improve their efficiency. The international medical community is in a position to add its condemnation to that of bodies like the Israeli-Palestinian Physicians for Human Rights, which is also highlighting the continuing ethical challenge facing army doctors. Torture will continue to be an enemy of Israel's longer term interests and security. And what of the rights of victims, which include the fullest possible acknowledgement of what has been done to them? In South Africa this question is being addressed through a Truth Commission as a contribution to the making of a just peace. Is there a lesson here?

DEREK SUMMERFIELD  
Principal psychiatrist

Medical Foundation for the Care of  
Victims of Torture,  
London NW3 3EJ

1 Immanuel J. Torture and ill-treatment: Israel's interrogation of Palestinians from the occupied territories [book review]. *BMJ* 1995;310:339. (4 February.)

2 Physicians for Human Rights. *Human rights on hold: a report on emergency measures and access to health care in the occupied territories 1990-1992*. Boston: Physicians for Human Rights, 1993.

3 Summerfield D. Health and human rights in Gaza. *BMJ* 1993;306:1416.

## Correction

### APACHE scoring and prediction of survival in intensive care

Owing to an editorial error the names of three of the four authors were omitted from this letter (6 May, p 1197). The other authors were P J McQuillan, consultant in intensive care and anaesthesia; G B Smith, director of intensive therapy services; and B L Taylor, consultant in intensive care and anaesthesia—all of whom have the same address as the cited author of the letter, S N Pilkington.