however, that the evidence supports routine amniotomy or the early use of oxytocin.

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- 1 Turner MJ, Brassil M, Gordon H. Active management of labor associated with a decrease in the cesarean section rate in nulliparas. *Obstet Gynecol* 1988;71:150-4.

Care of dying patients in hospital

Palliative care teams have helped

EDITOR,—It is disappointing that Mina Mills and colleagues make no comment in their paper on the care of dying patients in hospital about changes that may have led to improvements in the past decade.¹ Their study showed a lack of nursing care for dying patients, but whether this poor standard of care was applied to all patients admitted to hospitals in the study is not clear. For example, what was the standard of care for patients with stroke or other chronic disability? A similar study performed 10 years after the original would have been useful in showing any improvements or otherwise in practice. Nursing care may still be a problem, but perhaps this reflects general attitudes and staffing levels rather than a specific failure to address the needs of dying patients.

Several reasons exist for assuming that change may have occurred since 1983. In 1987 the Department of Health issued a circular directing district health authorities to examine their provision of services for dying patients.² It was in this year too that palliative medicine became a recognised medical specialty. A substantial increase in Macmillan nurses has occurred, from 260 in 1984 to 1200 in 1994 (personal communication, Cancer Relief Macmillan Fund). Parallel to these changes has been an increase in hospital palliative care or support teams, from 13 in 1983 to 216 in 1993.³

To conclude that "we need to identify and implement practical steps to facilitate high quality care of the dying" without a brief discussion of the role of hospital palliative care teams shows an ignorance of current practice. As well as organising education for nursing and medical colleagues these palliative care teams try to help patients identify symptoms that distress them and work with the patients and staff to resolve these whenever possible. A recent paper showed the effectiveness of hospital teams in establishing early contact with dying patients and linking them with palliative care resources in the community.⁴

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- 1 Mills M, Davies HTO, Macrae WA. Care of dying patients in hospital. *BMJ* 1994;309:583-6. (3 September.)
2 Department of Health and Social Security. *Terminal care*. London: DHSS, 1987. (DA 1987(5).)
3 Hospice Information Service. *Directory of hospice and palliative care services*. London: St Christopher's Hospice, 1994.
4 Bennett M, Corcoran G. The impact on community palliative care services of a hospital palliative care team. *Palliative Medicine* 1994;8:237-44.

Things have improved

EDITOR,—Mina Mills and colleagues paint a grim picture of the quality of care of dying patients in Scottish teaching hospitals in 1983.¹ They

conclude by exhorting the medical profession to "implement practical steps to facilitate high quality care of the dying" and to transmit the knowledge and skills of the hospice movement into all settings. While we agree that these findings are still relevant to current clinical practice, we believe that the situation has improved in the 10 years since the study was conducted.

The engine for change within hospitals has been the spread of the hospital support team. The first hospital support team was started at St Thomas's Hospital in 1978.² The *Directory of Hospice and Palliative Care Services* for this year reports that nearly 240 hospitals have support teams or support nurses.³ The purpose of the support team is to provide the skill learnt from the hospice movement in general hospitals. Support teams work. Hockley *et al* reported how the provision of a hospital support team at St Bartholomew's Hospital produced a considerable reduction in the number of complaints received concerning care of dying patients.⁴

We work in a Macmillan support team in a London teaching hospital. When the team started in 1987 we saw 342 patients a year. In 1993 the team saw 442 new referrals. By working alongside the other consultants in the hospital we provide informal education for staff and disseminate the skills of palliative medicine beyond the confines of hospices. The support team also provides a more formal educational role: all medical students, nursing students, and house officers are given instruction in the care of dying patients. Only by education and example can the horror stories reported by Mills and colleagues be avoided. We believe that the growth of the hospital support team has gone a long way to achieving these objectives.

More work needs to be done, and there is no cause for triumphalism. Many hospitals still do not have support teams. The need for skill in palliative care is not restricted to oncology patients but extends to all patients experiencing distress in their terminal illness. The standard of medical and nursing care provided to dying patients in hospital certainly needs to be improved, but hospital support teams are an important way of achieving this.

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Guidelines may have improved care

EDITOR,—Mina Mills and colleagues' report on the care of dying patients in hospital fails to mention changes that have taken place in Scotland in the 11 years since their study, particularly in relation to patients dying of cancer. Guidelines on palliative care for patients with cancer have recently been published jointly by the Scottish Partnership Agency for Palliative and Cancer Care and the Clinical Resource and Audit Group of the Scottish Office Home and Health Department.² They emphasise the importance of several factors that were clearly missing in the four hospitals surveyed by Mills and colleagues—namely, an approach that focuses on the patient, good communication, and teamwork. The guidelines have been commended to health boards and NHS trusts by Scotland's chief medical officer, and a recent programme of one day conferences organised by the Scottish Partnership Agency presented the guidelines to purchasers, providers, and practitioners and

initiated discussion about implementation at local level, including the development of local protocols. The Scottish Partnership Agency is committed to continuing to work for the implementation of the guidelines across the country.

The Scottish Partnership Agency was set up in 1991 to bring together statutory and voluntary bodies involved in palliative care for patients with cancer in Scotland. Since then the importance of providing palliative care, not just at the terminal stage of illness but alongside care at an early stage, has been increasingly recognised. Scotland's hospices and specialist palliative care units are in the forefront of providing education and training so that their experience of caring for terminally ill patients can benefit people who do not need their specialist skills but nevertheless have the right to a far higher standard of care than was found by Mills and colleagues.

Many health care professionals are now keen to provide the holistic care that the authors found to be missing, and this represents a vital shift in attitude since the study was conducted. These professionals need to be provided with the opportunities for training, the support, and the environment in our general hospitals to enable dying patients and their families to receive the highest possible quality of care.

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2 Scottish Partnership Agency for Palliative and Cancer Care and Clinical Resource and Audit Group of Scottish Office Home and Health Department. *Palliative cancer care guidelines*. Edinburgh: Scottish Office Home and Health Department, 1994.

Care may not be recorded in the notes

EDITOR,—One of the most striking findings in Mina Mills and colleagues' study of the care of dying patients in hospital was the discrepancy between the nursing care given to the patients and the care recorded in the nursing notes.¹ This discrepancy seems to be an everyday occurrence a decade after the study was carried out. The present working practices of nurses, especially those more academically qualified, promote paperwork at the expense of patients' care. My nursing colleagues have pointed out how frequently an inverse relation exists between the quality of the documentation and the quality of the nursing care received by patients. It is to be hoped that clinic audit will address this issue more widely.

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Carers need support

EDITOR,—Mina Mills strikingly illustrates the isolation of patients dying in hospital, particularly their minimal contact with both medical and nursing staff as death approaches; this contact was so short that on occasion it could be measured in seconds.¹

Greater thought needs to be given to what keeps caring professionals away. In my experience as an observer on a palliative care unit, helplessness in the face of death provokes such anxiety that professional carers develop defences against it.² Resorting to technology and disease "labelling," busyness, performing routine procedures such as taking pulse and blood pressure may all be seen as defences that are attempts to distance professionals from recognising their own horror at death's

challenge to their professional omnipotence. In her classic paper Menzies notes how the ward environment and its procedures may be set up to reinforce defences that protect the staff working there from excessive anxiety to the detriment of patients' care.³

Individual professionals will find it difficult to work closely with dying patients unless they acknowledge their own emotional response to death and dying. Defences that leave their patients isolated will not be dismantled unless there is adequate and appropriate support provided. Until it is recognised that this support needs to be an integral part of both training and the weekly routine of the ward, patients dying in hospitals will die alone.

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- 2 Ramsay N. Sitting close to death—a ward observation on a palliative care unit. *Group Analysis* (in press).
- 3 Menzies IEP. The functioning of social systems as a defence against anxiety. *Human Relations* 1960;13:95-121.

Technology foresight

EDITOR,—Richard Smith's interview with Sir Dai Rees draws attention to the technology foresight programme currently being run by the Office of Science and Technology and to its importance in determining the direction and future funding of medical research.¹ At the end of the interview Sir Dai states that the Medical Research Council has a portfolio of developments encompassing a range of biomedical and clinical sciences yet works with only a fairly narrow range of industries—pharmaceuticals and food. At least one other industry—the medical equipment industry—should have been mentioned in this context.

The contribution that the medical equipment industry makes to maintaining and improving the health and general quality of life of the British population is often overlooked and underrated. This is partly because the industry is dwarfed by the pharmaceutical and food industries and partly because it is composed of many small companies. Although the industry is generally profitable and maintains a net positive balance of trade, there is little slack to finance the development of the new, innovative products that are needed to maintain market position. The medical equipment industry needs to be revitalised if it is to take advantage of the anticipated outcomes of the technology foresight programme and so prevent the haemorrhage of British inventions to our competitors abroad. The development of mechanisms for achieving this will be an effective indicator of the success of the technology foresight programme.

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- 1 Smith R. Developing foresight: an interview with Sir Dai Rees. *BMJ* 1994;309:324-6. (30 July.)

Use of fetal eggs for research

EDITOR,—In commenting on the public response to a consultation document published by the Human Fertilisation and Embryology Authority, Luisa Dillner correctly reports that 83% of responses were against the use of fetal eggs for infertility treatment but then says that "more than half the responses were in favour of using fetal eggs for research."¹ In fact, an overwhelming majority

was opposed to the use of fetal eggs in research: only 7.1% of the respondents were in favour and 58.1% said "No."² Dillner might also have mentioned that only 10.7% and 14.3% of the responses, respectively, were in favour of eggs from cadavers and live donors being used for research, while 29.2% and 24%, respectively, explicitly opposed this.

I am concerned that Dillner's inaccurate report may mislead readers about the strength of public feeling against these sinister developments. I am also concerned that the Human Fertilisation and Embryology Authority should "seek to increase the supply of eggs for embryo research" despite this massive vote against. Perhaps it will have cause to review this position in the light of the recommendation by the Council of Europe's steering committee on bioethics that "human embryos may not be created with the intention of conducting research on them,"³ although, as the authority notes, this is currently permitted (in Britain) under the Human Fertilisation and Embryology Act.

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- 1 Dillner L. Use of fetal eggs for infertility treatment is banned. *BMJ* 1994;309:289-90. (30 July.)
- 2 Human Fertilisation and Embryology Authority. *Donated ovarian tissue in embryo research and assisted conception*. London: HFEA, 1994.
- 3 Sheldon T. European experts produce draft on bioethics. *BMJ* 1994;309:221.

Results of prescription event monitoring study of salmeterol

EDITOR,—The prescription event monitoring study of salmeterol¹ is now complete and has shown the number of deaths due to asthma in patients treated with the drug to be lower than that predicted. Last year Castle *et al* reported on 16 787 patients treated with salmeterol for 16 weeks.² In these patients 54 deaths from all causes occurred (0.32%), including 12 from asthma (0.07%). The prescription event monitoring study has identified 1022 deaths (6.6%) in our cohort of 15 407 patients treated with salmeterol and observed for at least one year. Seventy three (7.1%) of the deaths (table I) were due to asthma, but only 39 of the 73 patients were taking salmeterol in the last month of life.

Our population was not only elderly (table II) but much more severely ill than that studied by Castle *et al*. For example, 37 of the 39 patients who died of asthma and were taking salmeterol in the last month of life were known to be receiving

TABLE II—Distribution of patients who died of asthma by age and sex. Figures are numbers (percentages)

Age (years)	Male patients	Female patients	All patients
<21	0	0	0
21-	1 (3)	1 (2)	2 (3)
31-	2 (6)	5 (12)	7 (10)
41-	4 (13)	3 (7)	7 (10)
51-	2 (6)	12 (29)	14 (19)
61-	12 (39)	12 (29)	24 (33)
71-	8 (26)	8 (19)	16 (22)
>80	2 (6)	1 (2)	3 (4)
Total	31	42	73
Average (SD) age	62.6 (14.6)	59.0 (14.2)	60.5 (14.4)

regular inhaled corticosteroids or oral corticosteroids, or both, before death.

We conclude that the death rate for asthma in our study (73/15 407; 0.47%) was greater than that found by Castle *et al* (12/16 787; 0.07%) because our study was at least three times longer than theirs and our population was both older and more severely ill. Nevertheless, the death rate from asthma in our study was substantially lower than that predicted¹ at the time of the report by Castle *et al*.

The overall death rate from asthma in the prescription event monitoring study reflects the age distribution of and severity of disease in the population that received salmeterol in the early years after its introduction. All of the deaths from respiratory causes in the study seemed on careful examination of the clinical records to have been due to natural causes, although in four of the 39 patients who took salmeterol in the last month of life there was a temporal relation between death and use of salmeterol; this relation does not, of course, define a causal association.

This study, which will be reported fully, elicited no evidence that salmeterol contributed to the deaths from asthma. One probable reason for the earlier overestimate of the number of deaths due to asthma that were likely to occur in this study¹ is the assumption that they would be evenly distributed throughout the study. In fact, 39 of the 73 deaths occurred in the first seven months of the study, which lasted for 25 months overall.

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- 1 Inman WHW. Bronchodilator treatment in asthma. *BMJ* 1993; 306:1610.
- 2 Castle W, Fuller R, Hall J, Palmer J. Serevent nationwide surveillance study: comparison of salmeterol with salbutamol in asthmatic patients who require regular bronchodilator treatment. *BMJ* 1993;306:1034-7.

TABLE I—Causes of death among 15 407 patients treated with salmeterol

Cause of death	Total No	Time from first prescription (months)			
		1-4	5-8	9-12	>12
Respiratory:					
Asthma	73	27	17	12	17
Chronic bronchitis	18	6	4	5	3
Bronchopneumonia	13	7	0	0	6
Chronic obstructive airways disease	362	92	71	82	117
Emphysema	32	11	8	8	5
Other	29	10	6	6	7
Cardiovascular:					
Aneurysm	19	4	8	4	3
Cardiac failure	17	5	4	6	2
Cerebrovascular accident	35	8	9	4	14
Ischaemic heart disease	177	48	34	35	60
Other	37	6	3	11	17
Malignancy:					
Carcinoma of the bronchus	62	10	6	23	23
Other	83	14	20	23	26
Gastrointestinal:					
Peptic ulcer	10	1	1	3	5
Other	13	2	4	2	5
Other:					
All other known causes	28	7	4	7	10
Cause uncertain	14	0	0	1	13
Total	1022	258	199	232	333