Public ignorance

How sad it is that death is taboo and the sudden inexplicable death of a baby therefore doubly so. It causes people to react in many different ways towards the bereaved. Nobody wants a big unmanageable emotional scene. Some friends are willing and able to take the plunge and make the effort to be companionable or offer help; some are just obliterated by fear, horror, or embarrassment into varying degrees of hurtful evasion. A few have even crossed the road to get away from me, as though they were in danger of picking up some foul disease. I knew why they did it, but the knowing did not help.

It is difficult not to feel that if one in 500 normal healthy adults died unexpectedly in this way a massive research programme, with all the attendant publicity, would be launched. Largely because babies cannot speak or vote and therefore have no identity, the subject remains for the most part a "no-no topic," firmly locked out of universal consciousness. In addition there is a natural rejection of the phenomenon that people can die of invisible and nameless maladies. This is essentially totally unacceptable. Therefore, for many, it cannot be.

I am fortunate that most of my friends know about this syndrome; I shudder at the thought of others in less informed milieux, who must inevitably also have to contend with pronounced hints of maternal negligence—a most unpleasant stigma.

"Are you getting over it?"

I empathise with anyone groping around for the "right" remark, which is far less easy to define than the "wrong" one, and must commend any person for any expression of sympathy; it takes courage to broach the subject of death. I will nevertheless state a personal aversion to the inquiry, "Are you getting over it?" To hypersensitive ears like mine this implies the demotion of the catatonic disaster to the level of a minor passing ailment, such as a cold. The simple answer is, "No, I'll never get over it, I'll never accept it, but I know it happened and I have to live with it."

All these factors make the loss even harder to bear.

(Accepted 13 October 1980)

Hospital Topics

An evaluation of the functions of the short-stay observation ward in the accident and emergency department

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According to one estimate, there are about 250 accident and emergency departments in Britain,¹ and several reports have been published about them.¹⁻⁴ The report that first introduced the term "accident and emergency department" (an attempt to upgrade the previously called casualty department) recommended that 30-35 beds for every 100 000 population should be provided in the hospital wards for emergency cases, but these beds were rarely set aside.³ The report of the Nuffield Provincial Hospitals Trust² also referred to the fact that few departments had properly designated short-period observation beds, and went further in suggesting that these constituted a "facility that is really essential for a good casualty service."

The report of the Joint Consultants Committee¹ stated more emphatically that there is a need for short-stay beds for some patients with so-called minor injuries, both to prepare them for operation, as well as for postoperative care, and occasionally for some patients with social problems. There are still, however, no national statistics available showing the number of such beds or wards, their possible functions and use, or the average duration of stay of patients admitted to them. In this preliminary paper we attempt to evaluate the functions of such beds in short-stay observation wards at Whipps Cross Hospital

and Chase Farm Hospital and the importance of these wards to the accident and emergency departments in which they are situated, as well as to the hospitals concerned and the communities they serve.

Whipps Cross Hospital

Whipps Cross Hospital is a 930-bed district general hospital on the eastern outskirts of London. Its accident and emergency department deals with 65 000 new patients each year and is one of the major units of its type in London. The 12-bed observation ward is connected by a corridor to the accident and emergency department. It is under the charge of the accident and emergency consultant and assistants, but the hospital duty registrars have admission rights between 5.00 pm and 9.00 am and at weekends. Patients admitted during the night are reviewed in the morning by the accident and emergency consultant and the ward team (psychiatric registrar, observation ward nursing officer, senior social worker (who is attached to the department), and community liaison nursing officer). The ward has its own nursing establishment, and the nursing officer in charge has both general and psychiatric registration.

The use of beds is flexible, and facilities exist for treating men and women in the same ward, which is used as a multidisciplinary short-stay observation ward. The policy for admission of patients to its beds was agreed between the accident and emergency consultant and the medical staff committee of Whipps Cross Hospital. The agreed duration of stay is from 24 to 48 hours, after which time the patient is either admitted to the main hospital or discharged. The accident and emergency department does not run outpatient clinics except to follow up patients needing dressings or further attention to minor trauma. If outpatient care is required the patient is referred to the appropriate specialist clinic.

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The following categories of patients are admitted:

- (1) Self-harming behaviour, mostly drug overdoses, not needing intensive care unit facilities.
- (2) Psychiatric crises not requiring admission to mental hospital.
- (3) Minor head injuries.
- (4) Chest pain, abdominal pain, problems of mobility, etc requiring observation.
- (5) Minor surgical or orthopaedic procedures after general anaesthesia.
- (6) Elderly patients attending during the late hours of the day.
- (7) Self-limiting acute medical or surgical conditions, such as hypoglycaemia, epilepsy, renal colic, etc.
- (8) Patients with social problems and needing the assistance of the social services.

Chase Farm Hospital

Chase Farm Hospital is a 501-bed district general hospital north of London in Enfield, Middlesex. The accident and emergency department deals with 35 000 new patients each year, and its short-stay observation ward with 10 beds is situated in the main department that occupies a purpose-built detached single floor block. The observation ward is entirely under the control of the accident and emergency consultant and clinical assistants, who are responsible for all admissions and discharges. The social worker attends the ward twice a week and may be called at other times as required. The policy for admissions was agreed between the accident and emergency consultant and the medical staff committee, and in the main only surgical patients are admitted. The duration of stay is flexible and is entirely at the discretion of the consultant in charge. After discharge patients are followed up in the accident and emergency department, and no patient is discharged back to his general practitioner unless treatment has been completed. Patients are referred to specialist outpatient clinics only after full investigations have been carried out and a definitive diagnosis has been established. When necessary, consultations with other specialists are arranged before the patient is discharged.

The following categories of surgical patients are admitted:

- (1) Head injuries.
- (2) Traumatic chest pain, abdominal pain requiring observation.
- (3) Minor surgical or orthopaedic procedures after general anaesthesia.
- (4) Patients who have attended during the late hours of the day.
- (5) Patients with social problems, especially elderly patients who live alone or who require the help of the social services.

Methods and results

This survey, carried out retrospectively in 1978, is based on the case notes of patients admitted to the observation wards from 1 January to 30 June 1977 (table I). Despite the difference in the absolute numbers of patients admitted to the two hospitals and the different admission policies there is a remarkable similarity in the ratio of patients diverted to the observation wards. Again, despite the

TABLE I—Number and percentage of admissions to the observation ward at each hospital

	Admissions to observation ward	Admissions to hospital ward	Total acute admissions
Whipps Cross	1070 (13.7)	6720 (86.3)	7790
Chase Farm	369 (12.0)	2689 (88.0)	3058

TABLE II—Number and percentage of admissions to both hospitals by age and sex

Age group (yr)	Whipps Cross			Chase Farm		
	Total	Male (%)	Female (%)	Total	Male (%)	Female (%)
11-39	516	249 (48)	267 (52)	184	121 (66)	63 (34)
40-69	295	168 (57)	127 (43)	97	54 (56)	43 (44)
≥70	259	99 (38)	160 (62)	88	34 (39)	54 (61)
Totals	1070	516	554	369	209	160

TABLE III—Analysis of work load at Whipps Cross Hospital and surgical work load at Chase Farm Hospital

Specialty	Whipps Cross				Chase Farm			
	No	%	Male	Female	No	%	Male	Female
Medical patients	393	37	158	235	—	—	—	—
Surgical patients	569	53	320	249	339	92	189	150
Social patients	93	9	29	64	30	8	20	10
Borrowed beds	15	1	9	6	—	—	—	—
Totals	1070		516	554	369		209	160

TABLE IV—Analysis of medical work load at Whipps Cross Hospital

Specialty	No	%
Psychiatry	206	44
General medicine	187	40
Chest pain	77 (41)	
Disturbance of conscious level (epilepsy, syncope, hypoglycaemia, "collapse")	73 (39)	
Miscellaneous	37 (20)	
Social problems	71	15
Borrowed beds	5	1
Totals	469	100

TABLE V—Analysis of surgical work load at Whipps Cross Hospital and Chase Farm Hospital

Specialty	Whipps Cross				Chase Farm			
	No	%	No	%	No	%	No	%
General surgery	329	55	183 (62)	295	80			
Head injury	165 (50)		28 (10)					
Abdominal pain	103 (31)		60 (20)					
Minor surgical procedure	39 (12)		8 (3)					
Burn	9 (3)		3 (1)					
Miscellaneous	3 (1)		16 (5)					
Chest pain due to trauma	10 (3)		23	6				
Orthopaedic	124	21	5	1				
Genitourinary	84	14	—					
Ear, nose, throat	19	3	—					
Maxillofacial	7	1	16	4				
Gynaecology	6	1	—					
Social problems	22	4	30	8				
Borrowed beds	10	2	—					
Totals	601	100	369	100				

TABLE VI—Number of investigations carried out at both hospitals

	Radiography	Intravenous pyelogram	ECG	Blood tests	EEG, brainscan
Whipps Cross	623	40	195	472	10
Chase Farm	326	5	15	73	90

differences noted above, there is a remarkable similarity in the age distribution of patients (table II). A preponderance of women over men in both hospitals is noted in those aged 70 and over. The slight preponderance of females in the age group 11-39 years at Whipps Cross is due to acute psychiatric admissions, mostly for drug overdoses; there are no such patients at Chase Farm (table III).

It is clear from tables III, IV, and V that all types of patients were admitted to the observation ward at Whipps Cross while the observation ward at Chase Farm admitted only surgical patients and a small minority with social problems. At Chase Farm medical and psychiatric patients are admitted direct to the appropriate wards of the main hospital. Furthermore, while 1.4% of admissions to the observation ward at Whipps Cross are accounted for by beds being "borrowed" when no bed is immediately available in the main hospital wards, the admissions policy at Chase Farm does not allow this practice. Interestingly, the proportion of beds occupied by patients with social problems was 8.7% in the observation ward at Whipps Cross and 8.1% at Chase Farm.

Tables VI and VII show that while most patients were admitted for observation they were also investigated and received various treatments as they would in any other ward.

Table VIII reflects the differences in admission policies of the two hospitals. Whipps Cross has a short-stay ward where patients are

either discharged after assessment or referred for further care, while Chase Farm aims at definitive care whenever possible. Accordingly, 63% of patients admitted to the observation ward at Whipps Cross were discharged within 24 hours compared with 45% at Chase Farm.

Table IX shows that almost 13% of the patients at Whipps Cross and 3% of those at Chase Farm required transfer to the main hospital wards for more intensive medical/surgical treatment than was originally thought necessary. A further 28% and 11% respectively were referred for outpatient care. Of the remainder, at Whipps Cross 6% were referred to other institutions and 40% were referred back to their general practitioners for further care. Most of those admitted to the observation ward at Chase Farm were followed up in the accident and emergency department until they were finally discharged home. Hardly any were referred back to their general practitioners or other institutions. At Whipps Cross there were six deaths—three patients were admitted for terminal care, and the other three were patients aged 80 or over admitted for terminal bronchopneumonia after falls and exposure.

Table X shows that within one month 2% of patients were readmitted with the same or a related condition to the observation ward at Whipps Cross and 1% at Chase Farm. Several patients who had repeated admissions with related or the same condition within one year (table XI) were mainly psychiatric and social cases.

TABLE VII—Number and percentage of various procedures carried out at both hospitals

	Whipps Cross		Chase Farm	
	No	%	No	%
Surgical and orthopaedic procedure ..	167	16	109	30
Anaesthetic procedure ..	70	7	19	5
Intravenous treatment ..	34	3	20	5
Drugs ..	122	11	244	66
Other				
Stomach washout ..	152	14	—	—
Nose packing ..	6	1	1	0
Dressings and plaster ..	4	0	30	8
Sutures ..	36	3	54	15
Myelogram ..	1	0	—	—
Enema ..	6	1	2	1
Catheterisation ..	12	1	1	0

TABLE VIII—Analysis of duration of stay at both hospitals (%)

	1 day	2 days	3 days	>3 days
Whipps Cross ..	63	21	9	8
Chase Farm ..	45	23	14	19

TABLE IX

	% of patients	
	Whipps Cross	Chase Farm
Transferred to:		
Intensive care unit ..	0.2	—
Ward ..	13	3
Referred to:		
A & E follow-up ..	9	74
Outpatient clinics ..	28	11
General practitioner ..	41	5
Other hospital ..	5	6
Old people's home/geriatric hospital/part III accommodation ..	1	—
Self-discharge ..	3	2
Death ..	1	—

TABLE X—Number of related readmissions within one month

Specialty	Whipps Cross	Chase Farm
Psychiatric ..	12	—
Medical ..	3	—
Epilepsy ..	—	—
Diabetes mellitus ..	—	—
Diarrhoea ..	—	—
Surgical ..	5	2
Abdominal pain ..	—	—
Genitourinary ..	2	2
Retention/prostate ..	—	—
Social problems ..	4	2
Total readmissions ..	26	6

TABLE XI—Number of repeat admissions within one year

No of readmissions	No of patients	Specialty			
		Psychiatry	Social	Medical	Surgical
Whipps Cross					
1	34	15	9	6	4
2	9	8	—	1	—
3	2	2	—	—	—
4	4	—	4	—	—
Chase Farm					
1	2	—	2	—	—

Discussion and recommendations

As far back as 1960 the Nuffield Steering Committee on Casualty Services² recommended that observation beds are essential for a good casualty service, but could not recommend how many of these are required per population at risk and whether they should be in the casualty departments or in the main hospital ward. Out of the 70 casualty departments studied at that time, there were 12 departments with 48-hour observation beds but only one department detailed the type of patients suitable for such a ward. These cases were head injuries, poisoning, collapses, postanaesthetic patients, and minor operations. Yet 18 years later, the Lewin Report¹ still could not resolve the general use of such wards, and no guidelines were established as to the number of beds and their use.

Despite continued interest in this work most of the published accounts of experience in such wards have come from America.⁵⁻⁷ In a recent *BMJ* series on accident and emergency services⁴ beds were discussed in general terms only,^{4a} and there is only a cursory mention of observation wards for social uses.^{4b}

At Whipps Cross one bed was provided per 5400 new accident and emergency attendances, and 3.5% of these attendances were admitted to the ward. The corresponding figures for Chase Farm were one bed per 3400 attendances and 2% admissions. The Kent and Canterbury Hospital's provision was one bed per 5000 new attendances and 4.3% admissions. They observe a strict 24-hour rule (personal communication). In its recent work load documents (unpublished) the Casualty Surgeons Association recommends one bed per 5000 new attendances. It seems that 2-4% of accident and emergency attendances are suitable for short-stay management. In our experience this represented at Whipps Cross 13.7% and at Chase Farm 12% of acute hospital admissions (table I).

At Whipps Cross the ward is multidisciplinary with a high psychiatric, medical, surgical, and social content, and the integrated teamwork approach was appropriate for managing such a wide range of clinical problems. The work load pattern is similar to that reported by Rutherford *et al*⁸ and also by Landers *et al*⁶ and Diamond *et al* in California.⁷ The Chase Farm ward deals only with surgical patients, and these are similar to the surgical patients treated in the observation ward at Whipps Cross. Both units provide observation, investigations, and treatment as appropriate, again in agreement with the American experience.

Despite slightly different operational policies, most patients were discharged after 48 hours (table VIII). Those staying longer were patients over 70 admitted on a Thursday or a Friday when there were no social services. In view of the preponderance of women in the over-70 age group it is essential for the full utilisation of beds that lavatory and bathroom facilities allow for both sexes to be treated in the same ward.

At Whipps Cross 13% of patients required transfer to the main hospital wards and a further 28% were referred to outpatient clinics. Hospital resources were not needed for the remaining ones as 6% were referred to other institutions and 41% to their general practitioners for completion of treatment and follow-up (table IX) as the accident and emergency department does not provide outpatient service.

At Chase Farm only 3% of patients were admitted to main

hospital wards and 11% were referred to specialist outpatient clinics. Of the 75% of the patients followed up in the accident and emergency department, hardly any were referred back to their general practitioners for completion of treatment because of the traditional hospital discharge practice of completing treatment in the accident and emergency department's follow-up clinics. Both units acted as a second screen for hospital admissions and in 60% and 80% of the cases respectively protected the hospitals' beds.

In our experience separating outpatients suitable for short-stay management protected the main hospitals' beds for their own admissions⁹ considerably, in the same way as others found that putting patients for investigations into five-day wards¹⁰ improved bed usage and efficiency. Again, the same management principle is applied to placing patients requiring intensive care and advanced technological medicine in intensive care units.

We were interested to discover the consequences or probable repercussions of early discharge and checked those patients who were readmitted within one month for similar complaints (table X). At Whipps Cross 26 patients were readmitted. Two of three medical patients had chronic conditions with episodic exacerbations (epilepsy and diabetes mellitus) but the third proved to have ischaemic colitis and not gastroenteritis as previously suspected. Five of the seven acute surgical readmissions had recurrent abdominal pain; all five had appendectomy on readmission but in only two was acute appendicitis confirmed. The remaining two surgical patients were found to have recurrent urinary retention due to prostatic hypertrophy, which was awaiting surgery. The rest of the patients were psychiatric and social readmissions. There were no deaths in this group at Whipps Cross.

At Chase Farm six patients were readmitted within one month. Two had burns and returned for further treatment, two had recurrent urinary retention awaiting surgery, and two had social problems.

We were satisfied that our wards provided skilled and safe observation, contrary to the Lewin recommendation.¹

When the readmission rate was analysed for one year (table XI), we found that 49 patients had 85 readmissions. Of these, six were medical (diabetes and epilepsy) and four had recurrent urinary retention due to chronic prostatism. The rest were admitted for psychiatric and social problems.

The psychiatric and social admissions fell into two categories: the first-ever attenders who later become recidivists; and the established recidivists.

We think that our wards have an important function in identifying the first-ever attending patient "at risk" and by advising the community care services and general practitioners we should be able to prevent repeated readmissions. The establishment of an at-risk register is under consideration at Whipps Cross. This important function of the observation ward required close co-operation with the community services as well as with the psychiatric and geriatric services. By preventing recurrent crises we again protect the hospital beds from the influx of inappropriate admissions. The social work content of our work requires further detailed analysis, and the results will be published in a further paper.

Our observation wards attached to the accident and emergency departments enabled us to:

(1) Provide an "open door" accident and emergency service that was stable and safe for the patients without overloading beds in the main hospital.

(2) Observe and investigate patients in an attempt to establish a diagnosis or to allow time for consideration of proper disposal.

(3) Deal with patients in psychiatric or social crises when time is required for careful sorting out, and to prevent inappropriate hospital admissions in the main wards for these reasons.

(4) Identify patients at risk in the community.

(5) Provide a stable emergency service in the main hospital wards by accepting 12% of the acute admissions in the observation ward.

We think that it is essential for the safety of the patient and for the stability of the emergency service that there should be a short-term observation ward attached to every accident and emergency department and that these wards should be staffed by senior medical and nursing staff who are personally responsible for the daily running of the ward. There should always be a social worker appointed to the unit.

Since 1977, the year surveyed, the number of attendances and admissions have risen at both hospitals.

We thank the North-east Thames Regional Health Authority for providing the grant that enabled us to carry out this work. We also thank Dr Philip Hopkins, general practitioner, for his help and advice in preparing this paper, Miss S R Radley for secretarial help, and Mr S Skidmore for statistical help.

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(Accepted 17 October 1980)

Is there a "haemoglobin star"? A patient was first seen three years ago with a haemoglobin of over 20 g/dl and a corresponding high packed cell volume. There was no increase in the white cell or platelet count, no splenomegaly, and no cardiac or respiratory cause for secondary polycythaemia. We concluded, therefore, that this was a stress variety, sometimes known as Gaisbock's syndrome. His severe headaches and plethoric appearance both diminished with regular venesections, which continued for two years. Last winter, however, he was in a collision with an agricultural vehicle and was almost scalped. Blood loss was considerable, but he made an excellent recovery and since that time his haemoglobin has not risen above 14 g/dl.

The haemoglobin concentration is related to the need to deliver required amounts of oxygen to tissues. While the total amount of haemoglobin and red cells remain relatively constant, the concentration depends on the amount of plasma in which these red cells are suspended. The amount and distribution of plasma varies with posture. Stasis during performance of venepuncture, can profoundly alter the relation between plasma and red cells. But the physiological control of plasma volume is ill understood. Polycythaemia rubra vera cannot be excluded because a patient has no increase in the white cell or platelet count and no splenomegaly. If the raised haemoglobin concentration is suggestive, polycythaemia is diagnosed by showing that the red cell mass is appreciably increased. Patients with polycythaemia of stress (Gaisbock's syndrome) show a normal red cell mass but a reduced plasma volume—hence the high haemoglobin concentration. If a patient has a normal red cell mass venesections are hardly likely to achieve much except development of iron deficiency. Patients with polycythaemia of stress are often very anxious people. How this brings about a reduction of plasma volume is not understood. Some also have an increased tendency to thrombotic episodes and this, in the present state of our ignorance, is best managed with antiplatelet drugs. The accident occurring in the patient described could have led to a short-term return to normality of the blood picture in both the stress and the polycythaemia rubra but these are likely to recur.