

## Review of records

### A review of records of cases reported to Hampshire Constabulary

The initial police investigation into care of patients at Gosport War Memorial Hospital was prompted by the death of one patient that was reported to the police by the family of the deceased. In the months that followed, other families who had become aware of concerns about care at the hospital also contacted the police. From the cases notified to them, the police had, by December 2002, identified five cases that shared certain factors that indicated the need for detailed investigation. The police permitted me to review the clinical records of these cases.

The aim of the review of these records was to identify those features, as recorded in the records, that might give rise to concern about the care patients had received and the cause of death. The police had invited a small number of clinical experts to review the records, but I did not consult these reviews, coming instead to an independent opinion. The features identified from the five records were:

1. *All were frail, with major clinical problems.* All five had been admitted to Gosport War Memorial Hospital from other services, for example from acute hospital following surgery for a fractured hip, or from a day hospital. All were dependent on nursing care and had more than one health condition, including for example Alzheimer's disease, Parkinson's disease, or cancer. Their continuing problems included pressure sores, mobility, confusion and incontinence.

2. *In some cases, active treatment had been planned.* Some, although not all, of the five patients had been admitted to Gosport to enable active treatment to be arranged, for example rehabilitation after a fractured hip, or aggressive treatment to heal a sacral ulcer. It should be noted, however, that in one case admission was for palliative care, and in another the prognosis had been noted as poor prior to transfer from an acute hospital.
3. *Oramorph was written on the drug chart on admission.* Oramorph is a proprietary oral solution of morphine. In four of the five cases, oramorph was prescribed on the day of admission.
4. *Diamorphine was administered by syringe driver in all cases.* Diamorphine was commenced when a patient had pain not otherwise controlled, was noted to be agitated, or had deteriorated in some way. Diamorphine was usually administered with hyoscine and midazolam (a benzodiazepine sedative).
5. *Doses of opiates were not excessive.* Patients were not given very high doses of diamorphine or oramorph, although it should be noted that they were all frail and elderly, and diamorphine was administered along with a sedative.
6. *The records do not contain full explanations for the treatment decisions.* The medical records were generally rather brief, although the amount of detail varied between doctors. Consultants tended to make more detailed notes. The reason for selecting morphine rather than a non-opiate analgesic was not recorded, even though in some cases other analgesics had not been used. Likewise, the decision to initiate subcutaneous diamorphine by syringe driver or the reason for not investigating the potential causes of new symptoms such as pain or agitation were often not fully described.

7. *Remarks in the records suggested a conservative rather than active attitude towards clinical management.* Two of the five records included the instruction by a doctor to nursing staff: 'Please make comfortable'; three records included: 'I am happy for nursing staff to confirm death', written by Dr Barton in all cases on the day of admission.

### **Review of a random sample of records**

Having identified features of cases that the police had been investigating, a review of a random sample of records of patients who had died in Gosport War Memorial Hospital was undertaken. The aims of the review were to (a) determine whether other cases shared these features, and (b) describe the pattern of care of patients who died in the hospital. The review was focused on patients who had been under the care of Dr Barton, since she was the principal focus of the concerns raised by relatives.

#### *Method*

The sample was selected from patients who had died at Gosport War Memorial Hospital, and whose deaths had been certified by Dr Barton. The hospital records of all deceased patients have been retained by local NHS services for all years during which Dr Barton worked at Gosport, although records of patient who died in 1995 or before have been stored on microfiche. The review sampled cases from 1988 until 2000, from the beginning of Dr Barton's work at the hospital until she ceased working there as a clinical assistant. A 10% sample of the 833 deaths certified by Dr Barton during this period was selected using the random sampling procedure in the Statistical

Package for the Social Sciences (SPSS), the principal statistics software employed in this review.

The record department of Gosport War Memorial Hospital was asked to provide all the sampled records, and once these had been retrieved, the review was undertaken.

The information extracted from each record is shown in table 3.1. The notes recorded by both doctors and nurses were reviewed, and drug charts were inspected. In addition, in each case my own observations on the patient's care were recorded, and the cause of death as certified by Dr Barton was recorded.

**Table 3.1. Information extracted from the clinical records**

<b>Information collected from records</b>	
1	Age and gender
2	Date of admission
3	Place from which admitted
4	Past medical history
5	History of the final illness
6	Administration of opiate medication

### *Results*

The sample consisted of 85 patients. The records of four were held by the police and therefore were excluded from this review. All of the remaining 81 records were reviewed. The numbers of records in each year are shown in Table 3.2. The mean age of patients in the sample was 84.5 years (95% confidence interval 82.8-86.1), and in the group not sampled 82.7 years (95% confidence interval 82.2-83.3). The proportion of females was slightly higher in the sample than in the group not in the sample (Table 3.3), although this did not reach statistical significance (Chi Sq 3.26, p 0.07). There was no difference between the groups of patients included in and excluded

from the sample with respect to the numbers of patients certified as dying from different categories of illness (Chi Sq 3.02, p 0.70) (Table 3.4).

**Table 3.2. Numbers of deaths in Gosport War Memorial Hospital certified by Dr Barton in total, and numbers in sample, 1988-2000.**

<b>Year</b>	<b>Number of patients in sample</b>	<b>Number of deaths certified by Dr Barton</b>
1988	2	19
1989	4	30
1990	3	38
1991	6	31
1992	2	32
1993	10	94
1994	8	104
1995	7	80
1996	8	84
1997	11	86
1998	7	107
1999	12	92
2000	1	34
<b>Total</b>	<b>81</b>	<b>833</b>

**Table 3.3. Numbers (%) of males and females in the sample compared to those not in the sample.**

<b>Gender</b>		<b>Not in sample</b>	<b>In sample</b>	<b>Total</b>
male	N	337 (45.1)	28 (34.6)	365 (44.0)
female	N	411 (54.9)	53 (65.4)	464 (56.0)
Total	N	748	81	829

**Table 3.4. Numbers (%) of deaths due to different categories of disease, in those patients included in and excluded from the sample.**

<b>Category of disease</b>		<b>Not in sample</b>	<b>In sample</b>	<b>Total</b>
cancer	N	44 (5.9)	5 (6.2)	49 (5.9)
heart	N	85 (11.4)	7 (8.6)	92 (11.1)
stroke	N	122 (16.3)	13 (16.0)	135 (16.3)
bronchopneumonia + other conditions	N	331 (44.3)	33 (40.7)	364 (43.9)
bronchopneumonia only	N	139 (18.6)	21 (25.9)	160 (19.3)
other	N	27 (3.6)	2 (2.5)	29 (3.5)
total	N	748	81	829

Most patients had received an opiate before death (Table 3.5). The most common pattern was initial use of oramorph, followed by diamorphine subcutaneously. When used in a syringe driver in this way, diamorphine was invariably accompanied by other drugs. In 1988, the diamorphine was used in combination with atropine, but in subsequent years it was combined with hyoscine and midazolam. In one case, the duration of opiate medication could not be determined from the records. The other 75 who received opiates were administered the drugs for a median of four days (range 0 – 120 days, interquartile range 7 days).

**Table 3.5. Numbers (%) of patients who received opiate medication before death**

	N	%
None	5	6.2
Diamorphine only	21	25.9
Oramorph and diamorphine	38	46.9
Other oral opiates and diamorphine	13	16.0
Other opiates, no diamorphine	4	4.9
Total	81	100.0

The patients in the sample were almost all elderly; all except two were aged 70 or over (one was aged 69 and one 60). Twenty-one (25.9%) were aged 90 or above (one was aged 100). Typically, patients had been admitted to Gosport following an acute hospital admission for a major illness, the transfer to Gosport being arranged because the patient would have required more support than could be provided in a nursing home. In some cases, the aim of transfer to Gosport was rehabilitation, for example, following a stroke or fractured hip. In others, the aim was long term care, as in patients with lasting disabilities following major strokes, or with terminal cancer. Many patients also had other comorbid conditions contributing to the development of dependence on nursing care, including advanced dementia and cardiovascular disease.

The pattern of use of opiates in these patients generally involved the administration of an oral opiate for pain or distress from whatever cause, followed by the use of subcutaneous diamorphine when the patient became unable to swallow oral medication. This process was usually triggered by a deterioration in health. An example taken from the medical records is as follows:

*'further deterioration. Uncomfortable coughing, to have a tiny dose of oramorph regularly JAB'* (JAB are Dr Barton's initials). (Case 1210)

Oramorph would also be commenced by other doctors, for example:

*Oedema worse, relative feels patient has had enough. Oramorph started. (Signature not clear). (Case 1209).*

If the patient deteriorated further, subcutaneous diamorphine would be used, for example:

*'Further deterioration in general condition. In pain, confused and frightened. Sc analgesia commenced. JAB' (Case 1139).*

or:

*'patient has deteriorated over weekend, pain relief is a problem. I suggest starts sc analgesia and please make comfortable. I am happy for nursing staff to confirm death. JAB'. (Case 708)*

Typically, a deterioration in a patient's condition would not be investigated in depth. In many cases this would have been appropriate, since the advanced state of illness and impossibility of further remedial treatment had been well established. However, in some cases, the resort to opiate medication might have been, but was not, preceded by some investigation, or trial of analgesics other than opiates. For example:

– *'frightened agitated appears in pain suggest transdermal analgesia despite no obvious clinical justification!! Dr Lord to countersign. I am happy for nursing staff to confirm death. JAB'. (Case 785).*

In 18 (22.2%) cases the drug chart could not be reviewed because a copy had not been stored on microfiche. Nonetheless, in these cases it was possible to describe the use of opiate medication from entries in the medical and nursing records. Drug charts were almost always completed by Dr Barton. It was notable that in many cases, prescriptions for opiate medication had been entered by Dr Barton on drug charts on



the day of the patient's admission, although the medication was not administered until some days or even weeks later. For example, in the case of a patient who had suffered a severe stroke and was admitted to Gosport from an acute hospital, diamorphine was entered onto the drug chart on the day of admission, but not administered until 15 days later. Prescriptions for diamorphine typically indicated a range of dose, to enable adjustment without a new prescription being written. In the example just mentioned, the indicated dose was 40-200 milligrams subcutaneously in 24 hours, to be administered with hyoscine and midazolam. It was not unusual for entries in the records by Dr Barton on the day of admission to include the statement '*I am happy for nursing staff to confirm death JAB*' (e.g. Case 530).

The medical records were often limited. In 32 (39.5%) of the cases reviewed, the records were judged to be too brief to enable an adequate assessment of care to be made. In particular, they did not always contain information about the decision to initiate opiate medication. In these cases, the date on which opiates could be determined from the drug chart or the nursing records, but the clinical indications for the decision would not be fully clear.

In the review, it was possible to relate information contained in the records to the information reported on death certificates. In 42 (51.9%) cases, the information on certificates was judged to be an incomplete statement of factors contributing to death. In 16 of these, a recent fracture that had contributed to the patient's condition had not been reported on the death certificate. These included patients who had suffered a fractured hip and undergone operative fixation or partial hip replacement in an acute hospital prior to transfer to Gosport. Indeed, a fracture had not been mentioned on any

of the death certificates in the sample. Typically, death in these cases was reported as being caused by bronchopneumonia.

Forty-eight records contained sufficient details to enable a judgement about the appropriateness of care to be made. In 32 (66.7%) of these, care was judged to have been appropriate. There were some concerns about care in the remaining 16 (33.3%). The concerns related to the decision to start opiate medication. The indications for starting the drugs were either not clearly stated, or if pain was mentioned it had not been investigated, and neither remedial treatment or alternative analgesia had been attempted. For example, the following was written in one set of records in Dr Barton's handwriting: *'marked deterioration over last 24 hrs. Persistent cough relieved by nebulised diamorphine in N/saline. .... Sc analgesia is now appropriate + neb if required.'* (Case 587) No investigation of the cough is described nor treatment other than nebulised diamorphine.

### *Discussion*

A number of qualifications about the review of records should be acknowledged. The information was obtained from the records only, and in the pressure of routine care on a hospital ward clinicians often do not record extensive details about patient care. In some cases, the drug charts that recorded prescribing and administration of opiate medication were not available because they had not been copied onto microfiche. More complete records, or information obtained through interviews of clinical staff or relatives might have explained some of the findings that, on the evidence of the records alone, gave rise to some concern. The record review was undertaken to identify broad patterns of care, and therefore included a relatively large number of

cases, albeit a sample from over 800 cases. An intensive, prolonged and in depth review of a small number of cases might have reached, in those cases, different conclusions. Nevertheless, despite these reservations, the review does raise questions about the care provided to patients at Gosport War Memorial Hospital.

The review included a random sample of records of patients who had died during the years that Dr Barton worked at the hospital. The medical certificates of cause of death had all been completed by Dr Barton. In some cases, care appeared to have been excellent and appropriate, in others the details of what had happened during the final illness were not clear, but the review as a whole highlighted a consistent pattern. The features of that pattern were:

1. All patients were severely ill, having major disabling, or progressive conditions, or illnesses that were unlikely to substantially improve. They were heavily dependent on nursing care, and many had been intensively investigated and treated in acute hospitals before transfer to Gosport.
2. Opiate medication was frequently used when patients suffered a deterioration in their condition. Further investigation or active treatment were often not undertaken, and alternative analgesics were generally not used first. If pain was a feature of a patient's deterioration, the precise origin of the pain was not usually recorded.
3. In most cases, opiates were not used for prolonged periods, nor were doses excessive. Subcutaneous diamorphine was routinely used in combination with midazolam.

4. Prescriptions for opiate medication were often written on drug charts on the day of admission, although there was no immediate indication for the use of these drugs.
5. In the case of patients whose deaths had been preceded by the fracture of a bone (most commonly the hip), Dr Barton did not note the fracture on the medical certificate of cause of death. The Office of National Statistics (ONS) encourages the practice of voluntary referral to the coroner by the certifying doctor of deaths due to accidents (whenever the accident occurred) (Devis and Rooney, 1999). It is conceivable that the local coroner would have undertaken at least some investigation into a number of the deaths that had followed fractures.

These findings point to four of conclusions.

~~First, the pattern does not suggest the activity of a serial killer who deliberately administered lethal doses of medication.~~

Cannot eliminate unlawful killing.

Second, the culture at Gosport appeared, from the records, to have been conservative with regard to treatment and modest with regard to expectations of improving patient health. It may be summed up in Dr Barton's own words, frequently written in the records: 'Please make comfortable'. This approach may have been entirely correct for many of the severely ill and dependent patients admitted to Gosport. However, it is possible that in a few patients, a more active clinical policy would have extended life.

Third, the lack of detail recorded in the notes about medical decisions, and contrast between the detailed notes written by the consultants and the short entries of other doctors – sometimes written within a few hours of each other – suggested that the level of collaboration and teamwork was poor. The failure of the records to provide a coherent description of a patient’s illness and care, the often disjointed nature of entries by different doctors, and the lack of detail about some decisions may have been a consequence of inadequate discussion between members of the clinical team on patient management.

Fourth, the completion of medical certificates of cause of death was inadequate. The policy of not reporting recent fractures was not appropriate.

## **References**

Devis T, Rooney C (1999). Death certification and the epidemiologist. *Health Statistics Quarterly*, Spring, 21-33.

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