A review of controlled drug prescribing

Data available

The surviving controlled drugs registers used at Gosport War Memorial Hospital (GWMH) were obtained and reviewed. The relevant registers that were still available are shown in Table 1. No data were available from the male ward (the male and female wards were demolished in 1994/5, being replaced by Dryad, Daedalus and Sultan wards). Comparisons between wards were possible for some years, although the data were not always complete. For example, only information about oramorph oral solution was available for the most recent years.

Table 1. The periods for which controlled drug registers from different wards were available. ~~No register was available for the male ward.~~

Ward	Dryad	Daedalus	Sultan	Redclyffe	Female	Male
Period covered by registers					30.8.87 – 8.9.94	No register available
	25.6.95 – 5.3.02	6.10.96 – 14.8.02	13.7.94 – 31.10.01	27.2.93 – 28.10.95	~~30.8.87 – 8.9.94~~	

Numbers of patients who died who received opiates

Information was available from both the MCCD counterfoils and the controlled drug registers, and it was possible to identify those who had received opiates during their final illnessb- y matching counterfoils and register entries. The years 1997-2000 were selected, since the data from Dryad, Daedalus and Sultan were complete for this period. Table 2 shows the numbers and proportions of cases given opiate before death, according to whether the MCCD was signed by Dr Barton or another doctor. A greater proportion of patients of Dr Barton received an opiate ($\chi^2_1 = 30.1$; $p < 0.0005$).

Table 2. Numbers (%) of patients dying at GWMH 1997-2000 who were prescribed at least one dose of an opiate before death.

	Opiate prescribed		Total
Doctor signing MCCD	yes	no	
Dr Barton	211 (74.0%)	74 (26.0%)	285
Another doctor	146 (51.8%)	136 (48.2%)	282
	357 (63.0%)	210 (37.0%)	567

The prescribing of opiates was related to the cause of death indicated on the MCCD counterfoils. Dr Barton was more likely to prescribe an opiate to patients who were certified as dying from bronchopneumonia with other conditions, bronchopneumonia alone, or other conditions (Table 3). {Presumably set of cause categories comprises the most common ones?}

Table 3. The numbers (%) of deceased patients dying 1997-2000 from particular groups of conditions who were prescribed an opiate by Dr Barton or other doctors at GWMH.

		opiate		total	sig
Cause of death	doctor	yes	no		
cancer	Barton	15 (68.2%)	7 (31.8%)	22	0.2
	Another	78 (80.4%	19 (19.6%)	97	
	Total	93 (78.2%)	26 (21.8%)	119	
heart	Barton	26 (59.1%)	18 (40.9%)	44	0.58
	Another	11 (36.7%)	19 (63.3%)	30	
	Total	37 (50.0%)	37 (50.0%)	74	
stroke	Barton	37 (69.8%)	16 (30.2%)	53	0.19
	Another	16 (55.2%)	13 (44.8%)	29	
	Total	53 (64.6%)	29 (35.4%)	82	
Bronchopneumonia with other conditions	Barton	64 (76.2%)	20 (23.8%)	84	0.000
	Another	27 (37.5%)	45 (62.5%)	72	
	Total	91 (58.3%)	65 (41.7%)	156	
Bronchopneumonia only	Barton	57 (83.8%)	11 (16.2%)	68	0.01
	Another	3 (42.9%)	4 (57.1%)	7	
	Total	60 (80.0%)	15 (20.0%)	75	
Other conditions	Barton	12 (85.7%)	2 (14.3%)	14	0.000
	Another	10 (21.7%)	36 (78.3%)	46	
	Total	22 (36.7%)	38 (63.3%)	60	

The analysis in Table 3 was repeated for all deaths that occurred in Redclyffe annexe. Patients in the annexe were generally the elderly mentally infirm, and Dr Barton was the responsible doctor at the annexe until approximately 1995. The findings (Table 4) ~~indicate~~ suggest that patients whose deaths were certified by Dr Barton as due to bronchopneumonia with another condition were more likely than the patients of the other doctors to have been prescribed an opiate ($\chi^2_1 = 3.88$; $p = 0.049$). ~~($p < 0.05$).~~ However, there were no differences among patients dying of other conditions.

Table 4. The numbers (%) of deceased patients dying 1997-2000 in Redclyffe Annexe from particular groups of conditions who were prescribed an opiate by Dr Barton or other doctors.

		opiate		total	sig
Cause of death	doctor	yes	no		
cancer	Barton	1 (50.0%)	1 (50.0%)	2	0.17
	Another		3 (100.0%)	3	
	Total	1	4		
heart	Barton	5 (41.7%)	7 (58.3%)	12	0.22
	Another	1 (14.3%)	6 (85.7%)	7	
	Total	6 (31.6%)	13 (68.4%)		
stroke	Barton	7 (30.4%)	16 (69.6%)	23	0.32
	Another	1 (12.5%)	7 (87.5%)	8	
	Total	8 (25.8%)	23 (74.2%)		
Bronchopneumonia with other conditions	Barton	42 (33.6%)	83 (66.4%)	125	0.05
	Another	3 (13.0%)	20 (87.0%)	23	
	Total	45 (30.4%)	103 (69.6%)		
Bronchopneumonia only	Barton	24 (66.7%)	12 (33.3%)	36	-
	Another	-	-		
	Total	24 (66.7%)	12 (33.3%)		
Other conditions	Barton		10 (100.0%)		-
	Another		3 (100%)		
	Total		13		

Quantities of opiates prescribed per patient

A random sample of patients who had died, and who had been prescribed an opiate, was identified, from those who had died on Dryad, Daedalus or Sultan wards, and for whom complete data from controlled drug registers were available. A total of 46 patients were included, 21 being patients whose deaths had been certified by Dr Barton, and 25 whose deaths had been certified by other doctors. Seventeen patients had died on Dryad ward, nine on Daedalus ward, and 20 on Sultan ward.

There was no significant difference in the mgms of diamorphine recorded as administered, the mean for Dr Barton's patients being 113 mgms in comparison with {OK – or 130??? } 1300 mgms for the other doctors (t-test? p 0.13). The mean quantity of oramorph was 276 mgms (Dr Barton) and 169 mgms (other doctors) (p t-test? p 0.6). None of Dr Barton's patients in the sample had received morphine sulphate tables, although seven in the comparison group had. One patient of Dr Barton had received fentanyl, and one patient of the other doctors had received methadone.

Some caution is needed in drawing definitive conclusions from this analysis since it did not involve review of the clinical records, and the sample was small. Nevertheless, the findings do not suggest that the quantities of opiate medication prescribed by Dr Barton was excessive.

Discussion

The findings of this review of prescribing of controlled drugs indicate that patients whose deaths were certified by Dr Barton were more likely to have been prescribed an opiate (most commonly diamorphine or oramorph). The excess was most evident among patient who were certified as dying from bronchopneumonia with or without other conditions, or from some other condition that was not cancer or cerebro- or cardio-vascular disease. This finding is a cause for concern, since the use of opiates for pain relief in terminal care is more common in conditions in which pain would be expected, in particular cancer. Furthermore, a high proportion of the initial cases referred to the police by concerned relatives had been certified as dying due to bronchopneumonia.

The finding that the quantities of opiate prescribed, in the analysis of a random sub-sample, did not indicate that Dr Barton had prescribed large quantities is reassuring. However, this finding does not eliminate the possibility of inappropriate prescribing. Therefore, the findings of the analyses reported here are consistent with a policy of prescribing opiates to an inappropriately wide group of older patients, although the quantities prescribed to each patient were not abnormal.