

Dr Foster's case notes

Discharge destination and length of stay: differences between US and English hospitals for people aged 65 and over

In England, people aged 65 and over comprise 16% of the population but occupy nearly two thirds of general and acute hospital beds. Because of the pressure on capacity and concern about bed blocking, particularly by elderly patients, interest in the use of intermediate care facilities (such as hospices and nursing homes) has grown. The health system in the United States provides an alternative model for the coordinated use of hospital beds and intermediate care facilities.

The bottom line

- In 2001, average lengths of stay in English NHS hospitals were more than double the average for US Medicare hospitals for all diagnoses for patients aged 65 and over (excluding day cases). For stroke, the figures for the US and England were 6.7 and 26.9 days respectively.
- 39% of patients in the US were discharged to some form of intermediate care after their stay in hospital, compared with 10% in England. For stroke the figures are 59% in the US and 21% in England.
- In the US, 55% of patients are discharged directly home without any form of intermediate care, compared with 80% in England. For stroke the figures are 30% in the US and 45% in England.
- In-hospital death rates are 4.9% in the US compared with 9.3% in England, suggesting that people are more likely to die out of hospital in the United States.

Using nursing and community facilities and other forms of non-inpatient care to allow earlier discharge from hospital could help to alleviate some pressure on hospital bed capacity. This concept is utilised in the US model for hospital discharge, which provides strong financial incentives for acute hospitals not to keep patients longer than is necessary and to use various forms of intermediate care. This policy probably contributes to the >50% shorter mean length of hospital stay in the United States.

To compare the effectiveness of the two models in England and the United States,

Destination after discharge from hospital for people aged 65 and over, England and United States, 2001	Diagnosis	Country	% discharged	
			home	to intermediate care
	All diagnoses	England	79.7	10.3
		US	55.4	39.4
	Heart failure	England	72.1	7.1
		US	56.2	38.0
	Acute myocardial infarction	England	72.9	9.0
		US	45.8	42.1
	Stroke	England	45.5	20.8
		US	29.9	58.7
	Fractured neck of femur	England	60.3	26.5
		US	10.0	86.6

Proportion of deaths and mean (median) lengths of stay in hospital for people aged 65 and over, England and United States, 2001	Diagnosis	Country	% died	Mean (median) length of stay (days)
	All diagnoses	England	9.3	14.8 (7)
		US	4.9	5.9* (4)
	Heart failure	England	20.0	13.9 (9)
		US	5.5	5.6 (4)
	Acute myocardial infarction	England	17.5	10.0 (7)
		US	11.8	5.9 (5)
	Stroke	England	32.3	26.9 (14)
		US	10.9	6.7 (5)
	Fractured neck of femur	England	11.9	25.5 (17)
		US	3.3	6.8 (6)

*For all US payers, including non-Medicare, the average length of stay is about 1% longer.

hospital discharge data for patients aged 65 or over were analysed for each country for 2001. The analysis was conducted using hospital episode statistics data in England and Medicare data in the United States. Medicare is the publicly funded health service that covers approximately 88% of US hospital admissions for people aged 65 or over. From this, average lengths of stay and the proportionate discharge destinations for patients leaving hospital were calculated.

The results show that hospitals are used differently in the two countries, with far fewer patients in England discharged into community facilities. Admission rates are similar in the two countries (US 118, UK 151 inpatient admissions per 1000 population (all ages) in 2000; OECD health data 2002), which suggests that US

hospitals are not admitting a higher proportion of minor cases. This raises questions about the appropriate use of hospital beds and availability of intermediate facilities in the United Kingdom and may have implications on the choice of environment in which to care for elderly people.

Basic figures

- In England, the proportion of patients aged 65 and over discharged to a nursing home, residential home, or hospice has doubled from 1.4% in 1996-7 to 2.8% in 2001-2
- On average, around 250 000 people aged 65 and over die in NHS hospitals in England every year

Dr Foster's Case Notes are compiled by Prof Brian Jarman, Dr Paul Aylin, and Dr Alex Bottle of the Dr Foster Unit at Imperial College. Dr Foster is an independent research and publishing organisation created to examine measures of clinical performance.



Full methodological details are available on bmj.com and drfoster.com

