

Geographical variation in recovery times

New research reveals that the average patient length of stay in hospital following standard surgery can vary by up to three weeks depending on the NHS Trust. *The Clinical Services Journal* reports.

According to a study of NHS Trust data, the length of time spent in hospital after bowel and hip surgery varies significantly depending on the hospital in which the patient is treated. The data, analysed by Dr Foster Intelligence on behalf of Deltex Medical, showed a 21-day difference in length of stay (LoS) following a hip replacement and a 16-day difference following bowel surgery.

A patient at the United Bristol Healthcare NHS Trust would spend on average fewer than five days in hospital following a hip replacement, whereas a patient in the West Middlesex University hospital would spend 26 days for the same operation. In addition, a patient undergoing bowel surgery in the West Dorset General Hospitals NHS Trust in Dorchester would spend 11.5 days in hospital, compared with 28 days for a patient treated by the Southport and Ormskirk NHS Trust.

The report also highlights wide variations even within local areas. A bowel surgery patient in the Surrey and Sussex Healthcare NHS Trust in Redhill will spend, on average, 20 days in hospital, which is over a week more than a patient in the Royal Surrey County Hospital NHS Trust 20 miles away in Guildford.

Factors such as geographical location,

the size of the hospital, the type of Trust and the number of patients operated on, did not appear to affect the length of stay. Instead the treatment that patients received significantly influenced recovery times.

The findings could have significant cost implications for NHS Trusts. The cost for a 24-hour stay on an NHS general or surgical ward is around £400, rising to £1,500 per day if surgical complications require the expertise of the intensive care unit. Assuming no complications arose, the average cost of a hip replacement in West Middlesex is £8,400 more than in Bristol based on length of stay. Accommodating the average patient's post-bowel surgery hospital stay would cost Southport and Ormskirk NHS Trust £6,500 more than the West Dorset General Hospitals NHS Trust.

However, the report points out that a number of hospital Trusts around the country have introduced a new standard of care aimed at reducing complications which is improving patients' recovery times. Called ERP (Enhanced Recovery

Program), it combines a number of measures both before, during and after surgery to ensure that patients are fit for discharge earlier – reducing costs and improving patient care. The key components of Enhanced Recovery Programme (ERP) are:

- **Before the operation:** Comprehensive preparation of the patient prior to admission, including a package of education to better inform them about their “surgical journey”, and an objective assessment of their fitness to undergo the required operation. Patients should be well fed to reduce the stress of surgery.
- **During the operation:** The use of minimally invasive surgical techniques (and precise anaesthetic care), with specialist cardiac and fluid monitoring during the operation. This specialist

‘Hospital Trusts around the country have introduced a new standard of care aimed at reducing complications which is improving patients’ recovery times.’



‘The average cost of a hip replacement in West Middlesex is £8,400 more than in Bristol based on length of stay.’

monitoring utilises a technique called oesophageal doppler monitoring (ODM), a technique that is accepted as being best practice by the National Institute for Health and Clinical Excellence (NICE), but is currently used in less than 5% of major operations.

- **After the operation:** A defined postoperative programme, including rapid mobilisation and early return to eating and drinking, that minimises surgical complications while encouraging patient recovery and discharge.

The Countess of Chester Hospital has dramatically reduced the amount of time patients spend in hospital after surgery, following the introduction of ERP.

An internal audit of the new systems showed that patients spend, on average, four days less in hospital, resulting in a saving of over £1,000 per patient – money which can be reinvested back into the Hospital. Dr Nicole Robin, consultant anaesthetist at the hospital, commented:

“We are very pleased with the results of this audit. We introduced these new systems to improve the standards of care for our patients, and these early signs are

Table 1: NHS Trusts with shortest length of stay for bowel surgery in England (2006/7).

Trust	Location	Average LoS (days)	Days below national average
West Dorset General Hospitals NHS Trust	Dorchester	11.59	-4.31
The Princess Alexandra Hospital NHS Trust	Harlow	11.74	-4.16
Doncaster and Bassetlaw Hospitals NHS Foundation Trust	Doncaster, South Yorkshire	11.74	-4.16
Winchester and Eastleigh Healthcare NHS Trust	Hampshire	11.74	-4.15
Nottingham University Hospitals NHS Trust	Nottingham	12.01	-3.89
England average		15.90	

Table 2: NHS Trusts with longest length of stay for bowel surgery in England (2006/7).

Trust	Location	Average LoS (days)	Days above national average
Southport and Ormskirk Hospital NHS Trust	Merseyside, Lancashire	27.94	12.05
Hammersmith Hospitals NHS Trust	West London	22.47	6.58
Stockport NHS Foundation Trust	Manchester	22.31	6.41
Royal Free Hampstead NHS Trust	North London	22.07	6.17
Whipps Cross University Hospital NHS Trust	East London	21.43	5.53
England average		15.90	

encouraging. Patients prefer to recuperate at home, and it is in everyone’s interest to make sure that they are well enough to be discharged as quickly as possible.”

The audit looked at 81 surgical patients during 2006-07, and found that patients who underwent colorectal surgery spent, on average, eight and a half days in Hospital, compared with 13 days for patients in 2005-06. Those who had general surgery spent four days less in Hospital, while urology and orthopaedic

patients also had reduced lengths of stay.

A team headed by Andy Williams, a consultant general and colorectal surgeon at Guy’s and St Thomas’ NHS Foundation Trust, also adopted the same ERP principles with excellent results. His team reduced the length of stay to just 10.7 days, compared with 19.54 for the Trust as a whole.

Lord Maurice Peston, aged 76, recently underwent major bowel surgery at the Trust and experienced ERP care first hand. He was given a dedicated ERP specialist nurse, who explained every aspect of his surgery, so that he knew exactly what to expect.

“I felt completely reassured and cared for, and prepared for every eventuality. I had had a similar operation a few months earlier, without ERP, but this time I was out earlier, and the medical support both before and after the surgery was outstanding,” he commented.

Andy Williams, who operated on Lord Peston, remarked: “We introduced ERP in order to provide our patients with the best possible standards of care. Elements of enhanced recovery – eliminating bowel preparation, carb-loading patients to reduce the stress of surgery, and moving to early mobilisation – had been happening successfully in a number of places, but we put these together with innovative technologies like key-hole surgery and specialist fluid monitoring during the operation, which has made a real difference to patients.”


For further information, please visit: www.reducinglengthofstay.org.uk 

Table 3: NHS Trusts with shortest length of stay for hip replacement in England (2006/7).

Trust	Location	Average LoS (days)	Days below national average
United Bristol Healthcare NHS Trust	Bristol	4.43	-5.96
Northern Devon Healthcare NHS Trust	Barnstaple	6.50	-3.89
Epsom and St Helier University Hospitals NHS Trust	South East	6.76	-3.63
Poole Hospitals NHS Trust	Poole	7.01	-3.39
Queen Mary’s Sidcup NHS Trust	South East London	7.07	-3.32
England average		10.39	

Table 4: NHS Trusts with longest length of stay for hip replacement in England (2006/7).

Trust	Location	Average LoS (days)	Days above national average
Kingston Hospital NHS Trust	South London	17.20	6.80
St Mary’s NHS Trust	West London	17.66	7.26
St Helens and Knowsley Hospitals NHS Trust	Merseyside	17.99	7.60
Mayday Healthcare NHS Trust	South London	18.71	8.32
West Middlesex University Hospital NHS Trust	South West London	26.00	15.61
England average		10.93	