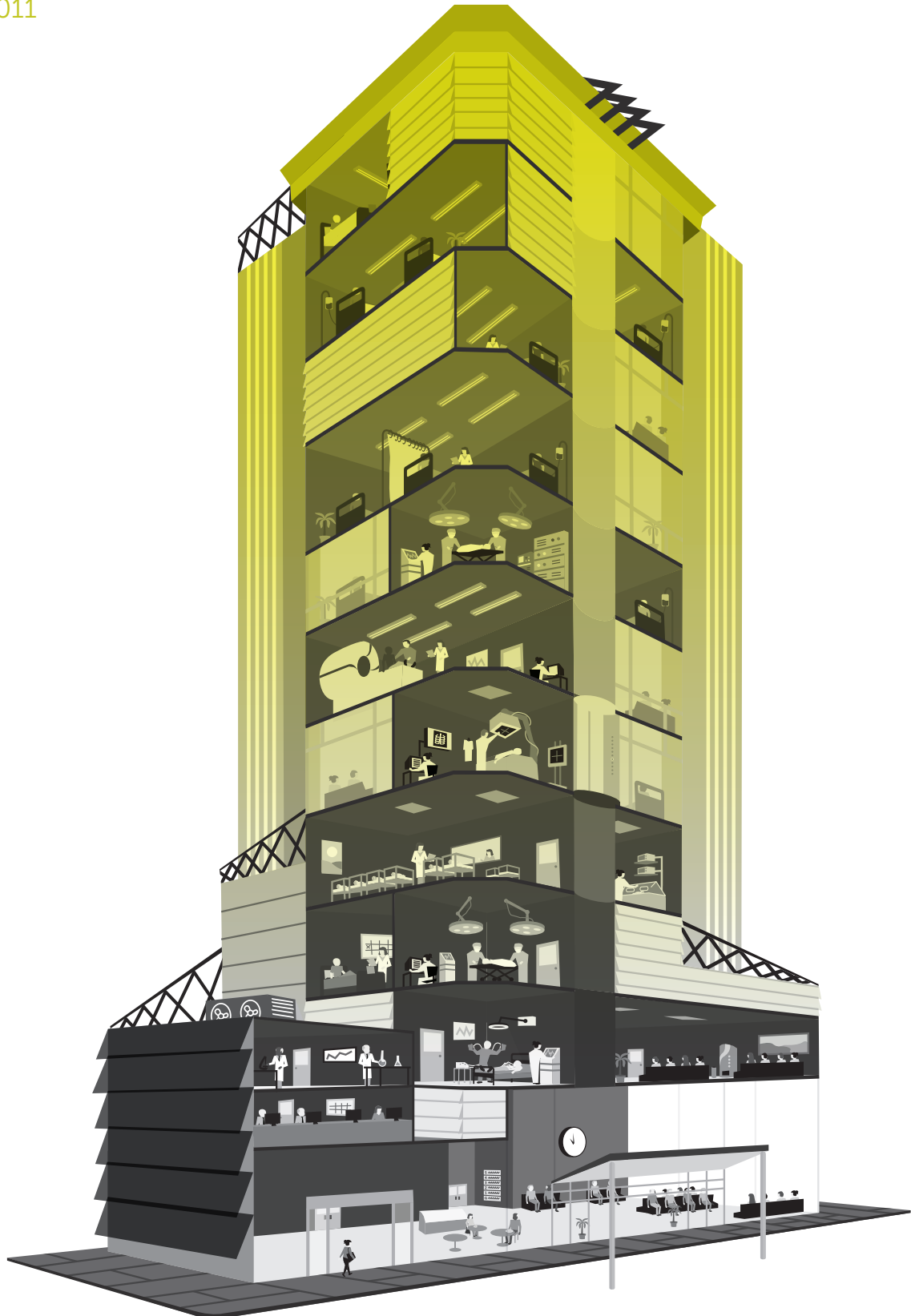


# Inside your hospital

DR FOSTER HOSPITAL GUIDE  
2001-2011



# About Dr Foster

Dr Foster Intelligence aims to improve the quality and efficiency of health and social care through better use of information. We are a joint venture between the Department of Health and Dr Foster Holdings LLP, and provide a unique, innovative public service.

One of Dr Foster's key objectives is to promote the development of an information culture in the NHS by providing appropriate insight and analysis to clinicians, managers and organisations in order to help them deliver the best quality healthcare. We also provide comparative information about the performance of hospitals to consumers, to enable them to make informed decisions about their care. Our thought leadership programme seeks to share new thinking, provoke debate and stimulate action in

transforming data into knowledge. We are committed to transparency and publish all our methodologies in full.

The Dr Foster Unit at Imperial College London has developed pioneering methodologies that enable fast, accurate identification of potential problems in clinical performance, as well as areas of high achievement.

Dr Foster works to a code of conduct that prohibits political bias and requires it to act in the public interest. The code is monitored by the Dr Foster Ethics Committee, an independent body chaired by Professor Alan Maynard, director of the Health Policy Group, York University.



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**All data and methodologies can be accessed via our website:  
[www.drfoosterhealth.co.uk](http://www.drfoosterhealth.co.uk)**

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# Introduction



Roger Taylor  
Co-founder, Dr Foster

## 10 HOSPITAL GUIDES

This is the tenth Dr Foster Hospital Guide. It is a moment to reflect on how healthcare has changed in England over the past ten years. The timeline on page 8 summarises some of the key facts.

Improvements in patient safety, reductions in infection rates and better waiting times have all contributed to an improved NHS.

There has been a remarkable fall in mortality rates. The death rate among the population is over 20 per cent lower than it was a decade ago, helped by better hospital care.

At the same time, it is concerning that many of the issues raised in the first Hospital Guide remain problems ten years later: hospitals performing low volumes of surgery where high levels are needed to ensure good outcomes, and hospitals failing to meet the best standards of care despite many years of evidence of the impact this has on patients.

A safe NHS is an NHS that provides care 24/7. This year's guide shows that we are some way from that target, with significantly reduced services at weekends and nights. It will take hospitals, GPs and ambulance crews working together to configure services in a way that ensures safe care round the clock.

For some conditions, greater concentration of specialist services in fewer but high-performing hospitals is required. For other conditions, providing services locally at weekends and evenings is the answer. It means changing the way our hospitals work.

The examples of best practice in this guide demonstrate that it is possible.



## 10 THINGS WE HAVE LEARNED THIS YEAR:

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1. There are many ways to measure mortality rates but, however you measure it, some hospitals appear to have consistently high and low mortality rates. **Chelsea and Westminster** stands out as a hospital with low rates on every measure. At the other extreme, **Hull and East Yorkshire Hospitals** is notable for consistently high rates. >>> See pages 12–18
2. Being admitted to hospital at weekends is risky. Patients are less likely to get treated promptly and more likely to die. The chances of survival are better in hospitals that have more senior doctors on site. But some hospitals with A&E departments have very few senior doctors in hospital at weekends or overnight. >>> See pages 19–21
3. Delivering safe care 24/7 does not require more resources. Local A&E departments need to identify the services they can provide safely and link with others to provide the services they can't. Examples of best practice, from London to Northumbria, demonstrate what is possible. >>> See page 22
4. London has now achieved the lowest mortality rate following a stroke in England by cutting the number of A&E departments treating stroke from 31 to eight, but making sure those eight provide the highest standards of care. The rest of the country should follow suit. >>> See pages 23–25
5. Do not have an abdominal aneurysm repaired in one of the 39 hospitals that perform the operation infrequently. Patients are much more likely to die. >>> See pages 30–31
6. Private hospitals providing services to NHS patients get good outcomes and positive patient ratings. Of course they have a much easier task, dealing only with relatively fit patients. Nonetheless, if you are one of those patients, these organisations can offer a high-quality service. >>> See pages 34–35
7. Better care saves money. Hospitals that implement best practice in helping patients recover quickly from surgery achieve better outcomes for less money. >>> See page 36
8. Some aspects of patient safety are improving but harm to patients still happens far too often. Unfortunately, we still do not record what happens to patients with sufficient accuracy to properly gauge how best to tackle the problem. Improvements to the data are the first essential step to addressing the problem. >>> See pages 37–39
9. Take note of what other patients say on the web about their care. It provides a valuable insight. In some cases, more than three-quarters of patients commenting say they would not recommend their hospital. In others, over 90 per cent would. >>> See pages 40–42
10. Staff behaviour is crucial to patient experience. Our analysis of patient comments on the internet shows that disrespect and not being kept informed are the two main reasons why patients would not recommend their hospital. This matters to patients far more than single-sex wards or cleanliness. >>> See pages 40–42

# 2001

## *10 Hospital Guides: 10 years of improvement in the NHS*

“ I campaigned for the publication of mortality ratios as I wanted clinicians to use these to monitor and improve care. It is very pleasing that, ten years on, these are now used widely by clinicians, managers, and regulators to check their treatment of patients.

---

*Professor Sir Brian Jarman,  
Director, Dr Foster Unit, Imperial College London*

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# 2011

2011 marks the tenth edition of the Dr Foster Hospital Guide. When we started, our mission was simple: transparency in outcomes, choice for the patient and accountability for the hospitals. It remains the same today.

Progress in some areas has been remarkable, not least the fall in hospital death rates using our key mortality measure, the Hospital Standardised Mortality Ratio (HSMR). Death rates across the UK have fallen dramatically over the past ten years. In 2009, there were under half a million deaths registered. The last time the figure fell this low was in the mid-1950s, when the population was 10 million fewer<sup>1</sup>.

Some of the reasons for this fall are undoubtedly improvements in hospital care. The fall in the HSMR points to this fact. While some of the reasons for the decline are artefacts in the data – improvements in coding and identifying underlying health conditions (co-morbidities) – one cause is surely medical advances and better hospital care. By publishing these data, Dr Foster has helped clinicians and managers become aware that they may have a problem and start to put it right.

Our information directly led to investigations at Mid Staffordshire NHS Foundation Trust and Basildon and Thurrock University Hospitals NHS Foundation Trust. It has also led to many changes in practice across the NHS. Mortality rates, now published on the NHS digital portal NHS Choices ([www.nhs.uk](http://www.nhs.uk)), are an accepted currency in measuring quality and safety in the NHS. The new Summary Hospital-level Mortality Indicator (SHMI) is a welcome contribution to this field.

**HOSPITAL GUIDE  
KEY THEME**



First publication of hospital mortality ratios 01/01



First publication of heart surgery mortality ratios 03/02



Spotlight on long waiting times 04/03



Information on elective operations to support patient choice 05/04



Hospitals rated on quality, efficiency and patient experience 12/05



Problems highlighted at Mid Staffordshire NHS Foundation Trust 04/07



Measurement of 'Darzi' outcomes 11/08



Concerns raised over patient safety failings at Basildon & Thurrock University Hospitals NHS Foundation Trust 11/09



Measuring the NHS outcomes framework 11/10



Safety and quality 24/7 11/11

**STANDARDISED ALL-AGE ALL-CAUSE MORTALITY**

6,650 Per million people

6,631

6,617

6,265

6,131

5,914

5,791

5,746

5,478

5,378

50

**AVERAGE INPATIENT WAITING TIMES<sup>2</sup>**

96 Days

99

95

84

78

79

60

48

50

**HOSPITAL STANDARDISED MORTALITY RATIO**

115 HSMR

114 HSMR

110 HSMR

106 HSMR

100 HSMR

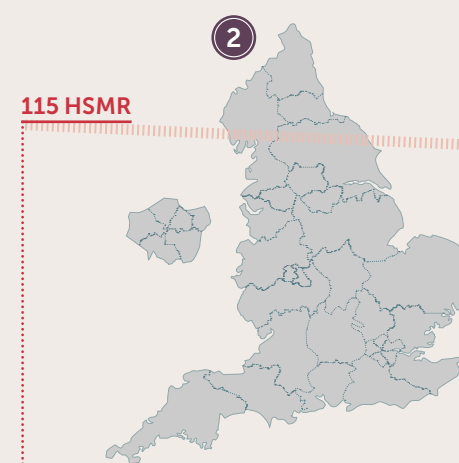
94 HSMR

88 HSMR

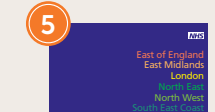
82 HSMR

74 HSMR

67 HSMR



3 Patient Choice introduced



2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011

**REGULATION**

1. Bristol Inquiry report highlights unsafe practices at Bristol Royal Infirmary and recommends greater transparency and use of data to monitor outcomes
2. NHS star ratings published
3. Monitor established to regulate the new, more independent foundation trusts
4. CHI replaced by the Healthcare Commission
5. Shipman Inquiry published, highlighting difficulties in regulation of doctors. It leads to the introduction of re-licensing for doctors
6. Healthcare Commission publishes investigation into infection control at Maidstone and Tunbridge Wells NHS Trust, highlighting failings in quality of nursing care
7. CQC replaces Healthcare Commission
8. Healthcare Commission publishes investigation into Mid Staffordshire NHS Foundation Trust
9. First Mid Staffordshire Inquiry highlights poor quality of care at the hospital following concerns raised by mortality rates published in the 2007 Dr Foster Hospital Guide

**NHS REORGANISATIONS**

1. NHS reform bill receives Royal assent, abolishing Community Health Councils and promoting greater competition within the NHS
2. Strategic Health Authorities and 300 Primary Care Trusts established
3. Patient Choice introduced, allowing patients referred for common elective procedures to choose between local hospitals
4. First foundation trusts established
5. Payment by Results introduced
6. Independent treatment centres begin treating NHS patients
7. PCT and SHA reconfiguration: Annual Health Check replaces star ratings
8. Patient forums replaced by LINKs
9. PCTs separate into commissioning and provider arms
10. Coalition government takes office and publishes Librating the NHS, a white paper proposing clinician-led commissioning
11. NHS reforms pause and Future Forum established

**EVENTS**

1. National Programme for IT (NPIIT) established, with the aim of making electronic patient records available throughout the NHS. Ten years on, the programme will be pulled without having achieved this objective
2. Dr Foster Intelligence, a joint venture between the Department of Health and Dr Foster, is established to encourage a market to develop in analysis and interpretation of healthcare data
3. Dr Foster launches the NHS Choices website to provide better information to the public about NHS services
4. Ban on smoking in public places
5. High Quality Care for All published, making safe, effective care and a good patient experience the key goals of the NHS
6. Dr Foster launches the first global hospital benchmarking project
7. NPIIT abolished after ten years without achieving objectives

**SECRETARY OF STATE FOR HEALTH**

ALAN MILBURN



JOHN REID



PATRICIA HEWITT



ALAN JOHNSON



ANDY BURNHAM



ANDREW LANSLEY



LABOUR GOVERNMENT

COALITION GOVERNMENT

# Hospitals with the *highest and lowest* mortality rates

There are many ways to measure mortality rates. But however we do it, we find enormous differences in the outcomes for patients treated at different hospitals.

## Hospital mortality measures

### Hospital Standardised Mortality Ratio (HSMR)



A measure of deaths while in hospital care based on 56 conditions which represent 80 per cent of deaths. Deaths only take place in hospital

**USES** A check on the quality of care given in hospitals. High ratios can be used to identify underlying problems

### Summary Hospital-level Mortality Indicator (SHMI)



Deaths following hospital treatment. Based on all conditions, deaths are measured which take place in or out of hospital for 30 days following discharge

**USES** A check on the quality of care in hospitals and immediately after discharge

### Deaths after Surgery



Surgical patients who have died from a possible complication

**USES** May indicate problems with surgery, either patients developing complications during surgery or raising questions about whether some operations should have taken place

### Deaths in Low-Risk Conditions



Deaths from conditions where patients would normally survive

**USES** To monitor and investigate particularly unexpected deaths

### We are featuring four measures of mortality in this year's Hospital Guide.

The table to the left summarises what each of these measures looks at. All these measures should be used as 'red flags' or warning signs. They indicate that there is a risk that poor quality care is leading to higher than expected mortality; they do not prove that this is happening.

Clinical leaders in each hospital should investigate incidents where their hospital is what we call an 'outlier' (this means their mortality ratio is significantly higher than the predicted value). Patients and the public should also be aware that these warning signs have been identified.

## Trusts with high mortality rates

No trust is higher than expected on all four mortality measures. Two trusts – **Hull and East Yorkshire Hospitals** and **University Hospital of North Staffordshire** – are higher than expected on three of our four mortality measures. Both are high on deaths after surgery, which looks at patients who undergo surgery and have complications. **Hull and East Yorkshire Hospitals** is also high on HSMR and SHMI. Last year, Hull argued that its high in-hospital mortality rate was due to the fact that more patients remained in hospital to die than at other trusts. The SHMI provides a useful reality check by comparing all deaths within a fixed time of treatment, whether or not they occurred in the hospital. Hull appears high on this measure also. Hull has now registered high mortality rates on a number of measures for two years running.

**University Hospital of North Staffordshire** is one of five trusts that have high mortality rates among patients with conditions where risk of death is very low. The majority of these deaths are among older patients and none of these hospitals has outlying mortality rates if this analysis is limited to patients under 75. The deaths will often relate to pre-existing underlying conditions. Nonetheless, where rates are higher than expected, understanding the causes is important.

The table below lists the 19 hospital trusts that have high mortality rates measured both with the in-hospital measure (HSMR) and the all-deaths measure (SHMI).



<b>Blackpool</b> Teaching Hospitals NHS Foundation Trust	<b>Shrewsbury and Telford</b> Hospital NHS Trust
<b>Buckinghamshire</b> Healthcare NHS Trust	<b>The Dudley Group</b> of Hospitals NHS Foundation Trust
<b>Burton</b> Hospitals NHS Foundation Trust	<b>The Royal Wolverhampton</b> Hospitals NHS Trust
<b>Dartford and Gravesham</b> NHS Trust	<b>United Lincolnshire</b> Hospitals NHS Trust
<b>George Eliot</b> Hospital NHS Trust	<b>University Hospitals of Morecambe Bay</b> NHS Foundation Trust
<b>Hull and East Yorkshire</b> Hospitals NHS Trust	<b>Worcestershire</b> Acute Hospitals NHS Trust
<b>Isle of Wight</b> NHS Primary Care Trust	<b>York</b> Teaching Hospital NHS Foundation Trust
<b>Medway</b> NHS Foundation Trust	
<b>Mid Cheshire</b> Hospitals NHS Foundation Trust	
<b>North Cumbria</b> University Hospitals NHS Trust	
<b>Northampton</b> General Hospital NHS Trust	
<b>Northern Lincolnshire and Goole</b> Hospitals NHS Foundation Trust	

# 19

trusts are high on two key indicators. Two trusts, **Hull and East Yorkshire Hospitals NHS Trust** and **University Hospital of North Staffordshire NHS Trust**, are high on three

## METHODOLOGY

Most of the indicators in this report are risk-adjusted outcomes. We compare the actual number of events (i.e. deaths) in an NHS trust against the number of events 'expected' (i.e. the predicted number of deaths). This latter value accounts for several factors outside the control of a hospital, such as the age and sex of the patient. We determine outliers using 99.8 per cent control limits. This means we are 99.8 per cent certain that the result differs from the expected range and there is a 0.2 per cent risk that it is a 'false positive'. We either calculate adjusted ratios (where performance is compared with a national average of 100) or adjusted rates (which are a percentage).

## Trusts with low mortality rates



Only one hospital, **Chelsea and Westminster Hospital**, achieves low mortality rates across all four of our mortality indicators. This is an impressive achievement and warrants a special mention in our Trust of the Year awards. The **Royal Devon and Exeter** was low for SHMI and deaths after surgery. The following trusts were low on both the HSMR measure of in-hospital mortality and the SHMI measure of mortality in-hospital and after discharge. Those with an asterisk were also low for deaths after surgery. Those marked with † were also low for deaths in low-risk conditions.

<b>Barnet and Chase Farm Hospitals NHS Trust</b>	<b>North West London Hospitals NHS Trust</b>
<b>Barts and the London NHS Trust</b>	<b>Royal Devon and Exeter NHS Foundation Trust*</b>
<b>Cambridge University Hospitals NHS Foundation Trust</b>	<b>Royal Free Hampstead NHS Trust</b>
<b>Chelsea and Westminster Hospital NHS Foundation Trust*</b>	<b>Sheffield Teaching Hospitals NHS Foundation Trust</b>
<b>Epsom and St Helier University Hospitals NHS Trust</b>	<b>South London Healthcare NHS Trust†</b>
<b>Frimley Park Hospital NHS Foundation Trust</b>	<b>St George's Healthcare NHS Trust</b>
<b>Guy's and St Thomas' NHS Foundation Trust</b>	<b>The Whittington Hospital NHS Trust†</b>
<b>Imperial College Healthcare NHS Trust†</b>	<b>University College London Hospitals NHS Foundation Trust†</b>
<b>King's College Hospital NHS Foundation Trust†</b>	<b>University Hospitals Bristol NHS Foundation Trust</b>
<b>Kingston Hospital NHS Trust†</b>	<b>West Suffolk Hospitals NHS Trust</b>
<b>Newham University Hospital NHS Trust†</b>	

## TRUSTS WITH BOTH GOOD AND BAD MORTALITY RESULTS

Because the mortality metrics are constructed differently they sometimes produce results which appear to contradict each other. Three trusts have large differences in their mortality rates depending on whether it is measured using the SHMI measure or the HSMR measure.

**Aintree University Hospitals NHS Foundation Trust** has an HSMR of 89, which is lower than expected, and a SHMI of 111, which is higher than expected. A possible reason is that Aintree has coded 30 per cent of its deaths in the HSMR group with a palliative care code (see section below left). The national average is 15 per cent. If palliative care was taken into account in the SHMI, Aintree's value would fall to 92.

The trust's medical director, Dr Gary Francis, said: "It is important that the national guidance in relation to palliative care coding is clarified to encompass specialist palliative care support that is not wholly bed based. Aintree is justifiably proud of its specialist palliative care services, supporting our dying and chronically sick patients, and their families, in the latter stages of their illness. The current palliative care coding guidance does not effectively cover services where palliation is indicated during a patient's existing stay where cancer or chronic disease makes it appropriate."

Dr Foster is supporting calls for palliative care coding guidelines to be made clearer.

Conversely, **Royal Surrey County Hospital NHS Foundation Trust** has an HSMR of 105 ('within expected') and a significantly low SHMI of 91. Their palliative care coding rate is only four per cent.

**Poole Hospital NHS Foundation Trust** has an HSMR of 109 ('within expected') and a SHMI of 92, which is lower than expected. In this instance, the discrepancy may be to do with the inclusion of out-of-hospital deaths. When these are excluded from the SHMI calculation, the SHMI rises to 100.

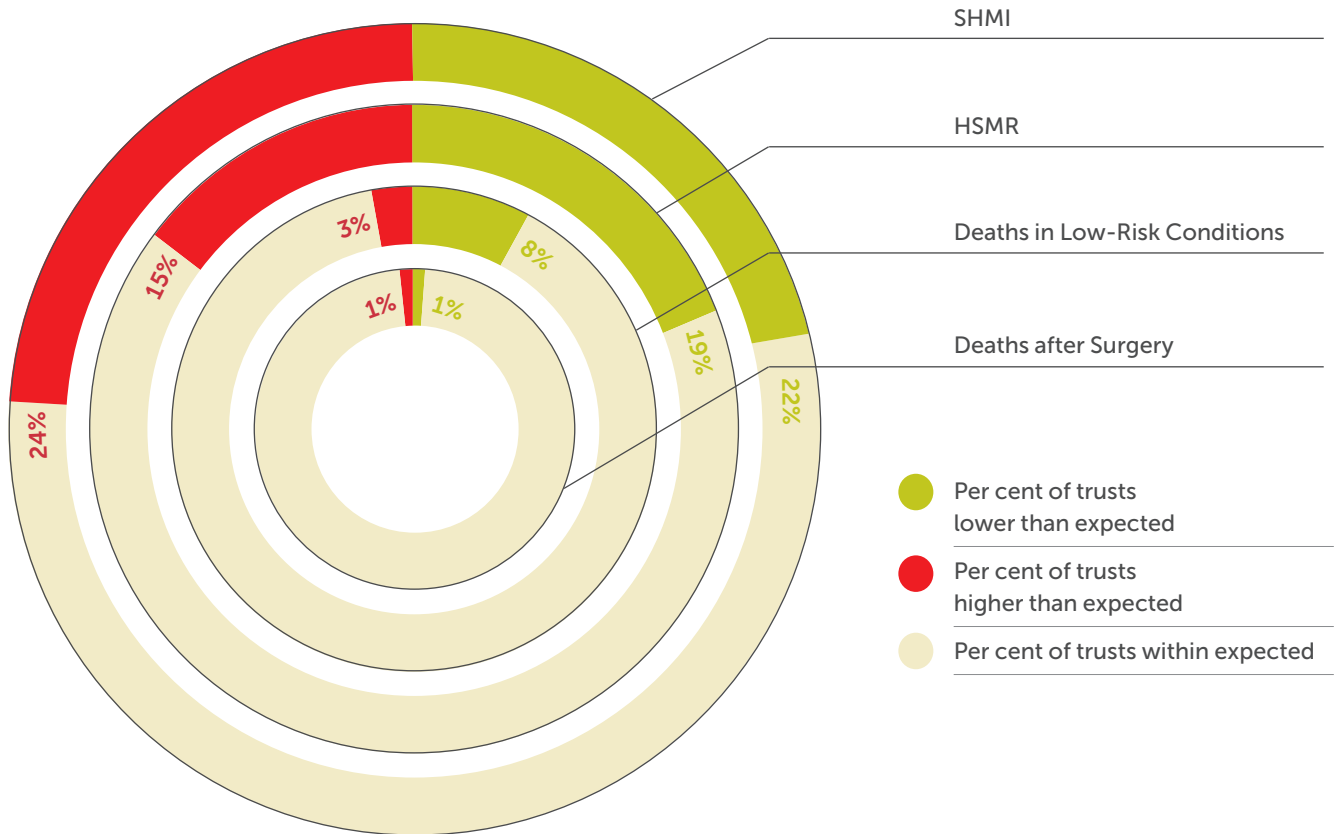
## Coding of end of life care



It is important to adjust death rate measures to take into account patients who are admitted to hospital to die. Hospitals interpret the rules about how to record this in different ways. Higher rates of palliative care recording can lower a hospital's mortality ratio. For this reason, the SHMI measure makes no adjustment for palliative care. In contrast, with the HSMR, we have taken the decision to adjust for palliative care – because it is fairer to trusts that have a hospice on site – but also to publish the rates of palliative care recording by different trusts. The list below shows trusts that code over a quarter of their in-hospital deaths (HSMR) as being palliative care cases. Data for all trusts can be found at our website, [www.drfoosterhealth.co.uk](http://www.drfoosterhealth.co.uk).

<b>Aintree University Hospitals NHS Foundation Trust</b>	<b>Hinchingbrooke Health Care NHS Trust</b>
<b>Basingstoke and North Hampshire NHS Foundation Trust</b>	<b>Imperial College Healthcare NHS Trust</b>
<b>Guy's and St Thomas' NHS Foundation Trust</b>	<b>King's College Hospital NHS Foundation Trust</b>
<b>Heatherwood and Wexham Park Hospitals NHS Foundation Trust</b>	<b>Newham University Hospital NHS Trust</b>
	<b>Salford Royal NHS Foundation Trust</b>
	<b>Western Sussex Hospitals NHS Trust</b>

## An overview of our four measures of mortality



### REDUCING MORTALITY RATIOS: EVIDENCE IN PRACTICE

**North Tees and Hartlepool NHS Foundation Trust** has put in a number of new measures to ensure its clinical practice and coding are as effective as possible.

Every Monday, a team of senior doctors and nurses meet to review the standards of patient safety and quality of care during the previous week. They review incidents, deaths and cardiac arrests and whether or not there is any learning from each event. This ensures that important decisions are made quickly. It has also resulted in excellent communication and co-ordination of clinical improvements.

In the past year, the clinical teams have reviewed the care of more than 650 patients post-discharge. They have scrutinised every element of patient care received by those patients, using the global trigger tool to understand whether there were any opportunities for them to have done things any better.

They have also reviewed more than 150 sets of notes of patients who had died, to establish whether there were opportunities for anything to have been done better. All documentation has been standardised, with all healthcare professionals writing contemporaneously in the same document. These have all helped the trust to reduce its HSMR from 107 in 2009/10 to 95 in 2010/11.

4

**Chelsea and Westminster Hospital NHS Foundation Trust** is the only trust that is low on all four mortality measures

## Mortality ratios 2010/11

We are featuring four measures of mortality in this year's Hospital Guide. All these measures should be used as 'red flags' or warning signs. They indicate that there is a risk that poor-quality care is leading to higher than expected mortality; they do not prove that this is happening. We only apply these analyses to NHS acute (non-specialist) trusts.

\* (per 1,000 patients)

NHS acute trust	SHMI	HSMR	Deaths in Low-Risk Conditions*	Deaths after Surgery
Aintree University Hospitals NHS Foundation Trust	111	89	1.32	130
Airedale NHS Foundation Trust	93	84	0.64	68
Ashford and St Peter's Hospitals NHS Foundation Trust	91	102	0.68	92
Barking, Havering and Redbridge University Hospitals NHS Trust	96	108	0.78	115
Barnet and Chase Farm Hospitals NHS Trust	89	88	0.45	68
Barnsley Hospital NHS Foundation Trust	106	109	0.94	134
Barts and the London NHS Trust	69	79	0.72	92
Basildon and Thurrock University Hospitals NHS Foundation Trust	115	98	0.72	86
Basingstoke and North Hampshire NHS Foundation Trust	114	99	0.25	126
Bedford Hospital NHS Trust	100	93	0.49	121
Blackpool Teaching Hospitals NHS Foundation Trust	117	112	0.96	115
Bradford Teaching Hospitals NHS Foundation Trust	94	85	0.46	76
Brighton and Sussex University Hospitals NHS Trust	101	100	0.85	106
Buckinghamshire Healthcare NHS Trust	112	112	0.64	116
Burton Hospitals NHS Foundation Trust	112	112	1.60	88
Calderdale and Huddersfield NHS Foundation Trust	103	96	0.48	107
Cambridge University Hospitals NHS Foundation Trust	78	75	0.44	91
Central Manchester University Hospitals NHS Foundation Trust	103	100	0.29	82
Chelsea and Westminster Hospital NHS Foundation Trust	78	85	0.35	29
Chesterfield Royal Hospital NHS Foundation Trust	104	105	0.78	117
City Hospitals Sunderland NHS Foundation Trust	107	105	0.54	103
Colchester Hospital University NHS Foundation Trust	113	107	0.98	90
Countess of Chester Hospital NHS Foundation Trust	111	104	1.02	95
County Durham and Darlington NHS Foundation Trust	96	97	0.88	102
Croydon Health Services NHS Trust	105	105	1.01	131
Dartford and Gravesham NHS Trust	109	117	0.93	70
Derby Hospitals NHS Foundation Trust	106	101	0.92	97
Doncaster and Bassetlaw Hospitals NHS Foundation Trust	102	103	0.65	93
Dorset County Hospital NHS Foundation Trust	103	109	0.85	103
Ealing Hospital NHS Trust	87	90	0.88	120
East and North Hertfordshire NHS Trust	118	100	1.08	117
East Cheshire NHS Trust	96	104	0.76	98
East Kent Hospitals University NHS Foundation Trust	95	85	0.92	103
East Lancashire Hospitals NHS Trust	114	108	0.70	70
East Sussex Healthcare NHS Trust	109	106	1.40	88
Epsom and St Helier University Hospitals NHS Trust	91	87	0.99	83
Frimley Park Hospital NHS Foundation Trust	90	78	0.41	86
Gateshead Health NHS Foundation Trust	99	107	0.78	94
George Eliot Hospital NHS Trust	121	117	1.16	151
Gloucestershire Hospitals NHS Foundation Trust	98	99	1.20	72
Great Western Hospitals NHS Foundation Trust	100	98	0.51	109
Guy's and St Thomas' NHS Foundation Trust	91	78	0.49	109
Harrogate and District NHS Foundation Trust	94	101	0.56	81
Heart of England NHS Foundation Trust	104	97	0.77	122
Heatherwood and Wexham Park Hospitals NHS Foundation Trust	100	98	0.49	110
Hinchingbrooke Health Care NHS Trust	90	82	0.58	126
Homerton University Hospital NHS Foundation Trust	95	110	0.83	79
Hull and East Yorkshire Hospitals NHS Trust	115	119	0.79	160
Imperial College Healthcare NHS Trust	75	67	0.40	96
Ipswich Hospital NHS Trust	101	98	0.74	82

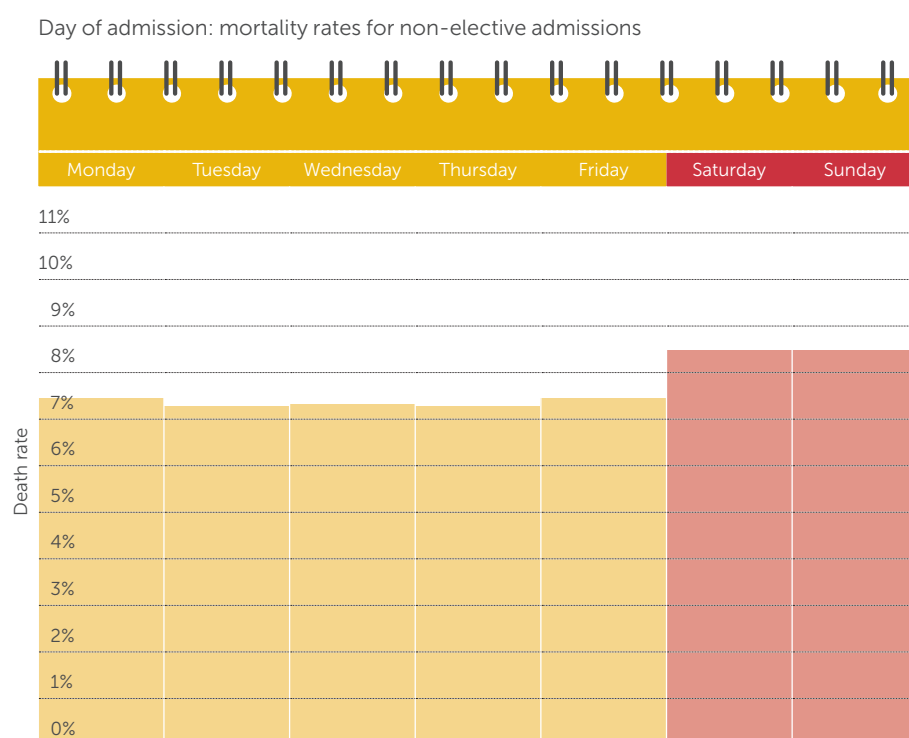
## 1 | HOSPITALS WITH THE HIGHEST AND LOWEST MORTALITY RATES

NHS acute trust	SHMI	HSMR	Deaths in Low-Risk Conditions*	Deaths after Surgery
Isle of Wight NHS PCT	119	123	1.81	119
James Paget University Hospitals NHS Foundation Trust	86	98	0.63	96
Kettering General Hospital NHS Foundation Trust	108	97	0.52	102
King's College Hospital NHS Foundation Trust	92	80	0.41	106
Kingston Hospital NHS Trust	86	73	0.22	86
Lancashire Teaching Hospitals NHS Foundation Trust	98	104	0.69	89
Leeds Teaching Hospitals NHS Trust	94	95	0.73	106
Lewisham Healthcare NHS Trust	95	95	1.18	99
Luton and Dunstable Hospital NHS Foundation Trust	108	105	0.92	76
Maidstone and Tunbridge Wells NHS Trust	104	101	0.86	92
Medway NHS Foundation Trust	116	115	1.04	127
Mid Cheshire Hospitals NHS Foundation Trust	110	114	0.49	83
Mid Essex Hospital Services NHS Trust	107	107	0.88	74
Mid Staffordshire NHS Foundation Trust	99	90	0.38	90
Mid Yorkshire Hospitals NHS Trust	106	98	0.81	79
Milton Keynes Hospital NHS Foundation Trust	103	101	0.78	107
Newham University Hospital NHS Trust	80	78	0.36	113
Norfolk and Norwich University Hospitals NHS Foundation Trust	99	102	0.71	69
North Bristol NHS Trust	98	96	1.11	101
North Cumbria University Hospitals NHS Trust	112	118	0.53	163
North Middlesex University Hospital NHS Trust	94	101	0.44	129
North Tees and Hartlepool NHS Foundation Trust	103	95	1.38	83
North West London Hospitals NHS Trust	84	86	0.45	69
Northampton General Hospital NHS Trust	114	116	0.27	146
Northern Devon Healthcare NHS Trust	93	113	0.96	48
Northern Lincolnshire and Goole Hospitals NHS Foundation Trust	115	116	0.87	93
Northumbria Healthcare NHS Foundation Trust	100	101	0.99	80
Nottingham University Hospitals NHS Trust	97	101	1.06	105
Oxford Radcliffe Hospitals NHS Trust	102	106	0.66	114
Pennine Acute Hospitals NHS Trust	106	100	0.57	125
Peterborough and Stamford Hospitals NHS Foundation Trust	105	98	0.93	116
Plymouth Hospitals NHS Trust	94	90	0.86	79
Poole Hospital NHS Foundation Trust	92	109	0.83	73
Portsmouth Hospitals NHS Trust	99	103	0.83	76
Royal Berkshire NHS Foundation Trust	110	102	0.92	87
Royal Bolton Hospital NHS Foundation Trust	105	104	0.34	110
Royal Cornwall Hospitals NHS Trust	101	103	0.67	71
Royal Devon and Exeter NHS Foundation Trust	92	94	0.84	54
Royal Free Hampstead NHS Trust	77	70	0.55	71
Royal Liverpool and Broadgreen University Hospitals NHS Trust	100	91	1.04	85
Royal Surrey County Hospital NHS Foundation Trust	91	105	1.01	86
Royal United Hospital Bath NHS Trust	94	99	1.74	115
Salford Royal NHS Foundation Trust	95	80	0.78	69
Salisbury NHS Foundation Trust	96	95	0.97	69
Sandwell and West Birmingham Hospitals NHS Trust	101	106	0.55	78
Scarborough and North East Yorkshire Health Care NHS Trust	112	107	0.63	120
Sheffield Teaching Hospitals NHS Foundation Trust	86	92	0.88	101
Sherwood Forest Hospitals NHS Foundation Trust	103	114	0.92	120
Shrewsbury and Telford Hospital NHS Trust	112	115	0.88	129
South Devon Healthcare NHS Foundation Trust	97	96	1.43	81

NHS acute trust	SHMI	HSMR	Deaths in Low-Risk Conditions*	Deaths after Surgery
South London Healthcare NHS Trust	90	90	0.42	96
South Tees Hospitals NHS Foundation Trust	98	98	0.66	101
South Tyneside NHS Foundation Trust	100	111	1.62	99
South Warwickshire NHS Foundation Trust	108	100	1.12	133
Southampton University Hospitals NHS Trust	96	105	0.58	74
Southend University Hospital NHS Foundation Trust	106	100	0.87	81
Southport and Ormskirk Hospital NHS Trust	110	107	0.89	60
St George's Healthcare NHS Trust	78	73	0.41	105
St Helens and Knowsley Hospitals NHS Trust	100	93	0.83	84
Stockport NHS Foundation Trust	91	102	0.74	64
Surrey and Sussex Healthcare NHS Trust	96	104	0.96	86
Tameside Hospital NHS Foundation Trust	117	101	1.14	136
Taunton and Somerset NHS Foundation Trust	94	98	0.63	93
The Dudley Group of Hospitals NHS Foundation Trust	109	116	0.60	130
The Hillingdon Hospitals NHS Foundation Trust	88	97	0.84	99
The Newcastle upon Tyne Hospitals NHS Foundation Trust	94	99	0.55	118
The Princess Alexandra Hospital NHS Trust	99	99	0.86	137
The Queen Elizabeth Hospital, King's Lynn NHS Foundation Trust	97	100	0.67	54
The Rotherham NHS Foundation Trust	102	104	0.55	113
The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	101	99	0.44	62
The Royal Wolverhampton Hospitals NHS Trust	111	112	0.84	146
The Whittington Hospital NHS Trust	67	78	0.22	70
Trafford Healthcare NHS Trust	106	106	1.34	93
United Lincolnshire Hospitals NHS Trust	111	113	0.89	88
University College London Hospitals NHS Foundation Trust	72	72	0.21	124
University Hospital of North Staffordshire NHS Trust	103	116	1.39	146
University Hospital of South Manchester NHS Foundation Trust	88	93	0.50	105
University Hospitals Birmingham NHS Foundation Trust	101	107	1.99	119
University Hospitals Bristol NHS Foundation Trust	92	85	0.51	113
University Hospitals Coventry and Warwickshire NHS Trust	106	98	0.85	121
University Hospitals of Leicester NHS Trust	106	103	0.84	124
University Hospitals of Morecambe Bay NHS Foundation Trust	114	124	1.01	127
Walsall Healthcare NHS Trust	106	106	0.70	132
Warrington and Halton Hospitals NHS Foundation Trust	102	100	0.72	104
West Hertfordshire Hospitals NHS Trust	107	99	0.88	129
West Middlesex University Hospital NHS Trust	88	92	0.58	129
West Suffolk Hospitals NHS Trust	91	90	0.59	73
Western Sussex Hospitals NHS Trust	113	105	1.33	98
Weston Area Health NHS Trust	112	95	1.61	109
Whipps Cross University Hospital NHS Trust	92	97	0.67	93
Winchester and Eastleigh Healthcare NHS Trust	98	101	0.81	64
Wirral University Teaching Hospital NHS Foundation Trust	103	103	0.53	119
Worcestershire Acute Hospitals NHS Trust	110	111	0.75	86
Wrightington, Wigan and Leigh NHS Foundation Trust	106	106	0.77	112
Wye Valley NHS Trust	108	102	1.63	146
Yeovil District Hospital NHS Foundation Trust	108	117	0.88	106
York Teaching Hospital NHS Foundation Trust	115	111	1.13	95

# Reducing mortality at *nights and weekends*

Your chances of surviving hospital treatment depend not just on where you are treated but also when. Patients admitted as an emergency at weekends are significantly more likely to die. The hospitals with the fewest senior doctors available at weekends have the highest mortality rates.



## DIFFERENT DAY OF ADMISSION, DIFFERENT OUTCOME

Evidence that you are more likely to die if you are admitted to hospital at the weekend was first highlighted in 2010 by the Dr Foster Unit at Imperial College London<sup>1</sup>. It showed a higher mortality rate for patients admitted as an emergency at the weekend for many conditions including: heart attack, heart failure, stroke, some cancers and aortic aneurysms. There was, on average, a seven per cent higher mortality rate for these patients compared with people admitted between Monday and Friday.

We look at the picture across England in 2010/11. The results here are worrying. For non-elective care, the national picture confirms the findings of the 2010 study: mortality rates rise sharply for patients admitted on a Saturday or Sunday.

## DO STAFFING LEVELS AFFECT MORTALITY?

Explanations for high mortality rates outside normal working hours include:

- >>> A lack of availability of specialist community and primary care services, resulting in more patients on an end of life care pathway dying in hospital.
- >>> Less consistent specialist services, such as diagnostics, at weekends.
- >>> Differing staffing levels.

Staffing levels differ on weekends and weekdays. Although junior doctors work round the clock (usually on eight-hour shifts), consultants have traditionally worked Monday to Friday on site and on-call out of hours. We surveyed all hospitals in England to find out about staffing outside normal hours.

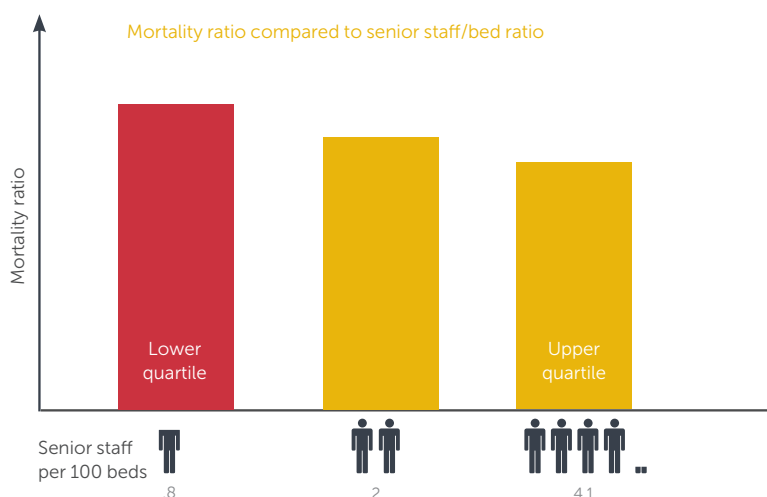
We picked two random Thursdays in March and April 2011 and asked each hospital trust how many doctors of each grade they had on site and on call. We then asked the same question for the following Sundays. We asked both about staff on site (in the hospital) and on-call (available to come into the hospital if needed).

We have mapped these data for 130 (177 hospitals) of the 147 trusts and compared the figures to NHS bed data published by the NHS Information Centre for Health and Social Care<sup>2,3,4,5</sup> and our analysis on weekend mortality. The results are pretty stark:

- >>> More senior staff per bed at weekends is associated with a lower weekend emergency mortality rate (HSMR).
- >>> More senior doctors as a percentage of all doctors is associated with a lower weekend emergency mortality rate (HSMR).

This supports the findings of Sir John Temple's review, *Time for Training*, published in May 2010. The review recommended that consultants must be more directly responsible for the delivery of 24/7 care. In many cases, trainees were responsible for treating the majority of patients out of hours, often with limited supervision.<sup>6</sup>

The mortality ratio for weekend admissions is significantly higher amongst trusts with the fewest doctors (see graph below).



## Where HSMR is higher than expected at weekends only

Here we have attempted to identify hospitals where out-of-hours mortality may be a particular problem. The table shows trusts whose mortality ratio (as defined by the HSMR) is within the expected range for patients admitted from Monday to Friday and is higher than expected for patients admitted at the weekend.

Saturday	Sunday
4 icons	4 icons



<b>Doncaster and Bassetlaw</b> Hospitals NHS Foundation Trust	<b>Scarborough and North East Yorkshire</b> Health Care NHS Trust
<b>George Eliot</b> Hospital NHS Trust	<b>Sherwood Forest</b> Hospitals NHS Foundation Trust
<b>Mid Cheshire</b> Hospitals NHS Foundation Trust	<b>The Royal Wolverhampton</b> Hospitals NHS Trust
<b>Northampton</b> General Hospital NHS Trust	<b>Wrightington, Wigan and Leigh</b> NHS Foundation Trust
<b>Nottingham</b> University Hospitals NHS Trust	

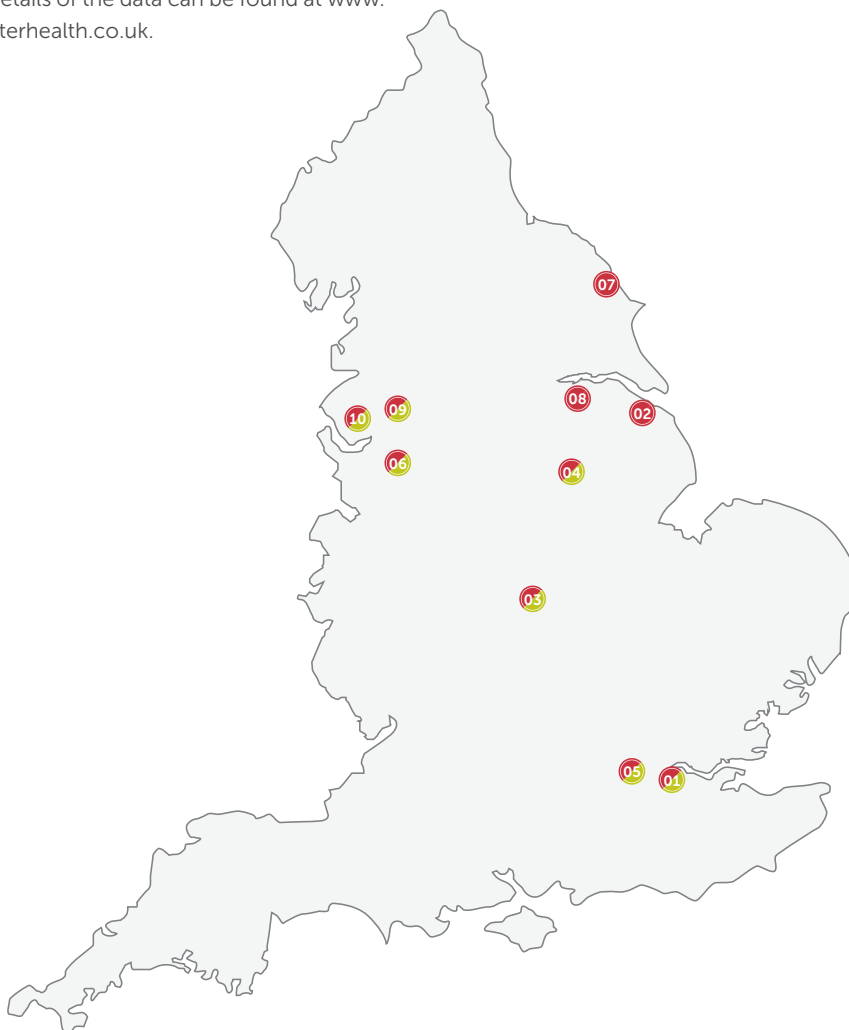
WEEKEND A&E STAFFING

Using this same staffing information we have also looked at the number of senior doctors available out of hours at each hospital with an A&E.

The range of answers was wide. Some hospitals have no consultants on site at night (over 30 per cent) while, at the other extreme, 20 hospitals had five or more consultants on site. Most medical cover out of hours is provided by doctors in training and staff-grade doctors (doctors who are no longer in training but who have not been appointed a consultant). Across all respondents, on one Thursday night at 10pm, there were 358 consultants recorded as working on site compared to over 1,000 registrars (senior trainees) and 2,000 junior doctors. Staffing at weekends is higher than at night with similar numbers of junior doctors but nearly twice as many consultants on site. Full details of the data can be found at [www.drfoosterhealth.co.uk](http://www.drfoosterhealth.co.uk).

The table to the right lists the ten hospitals with the lowest level of senior doctor staffing at weekends. We have limited it to hospitals with A&E departments (as listed on NHS Choices) where the staffing at both hospital level and trust level is relatively low and where the level of senior staff on call is also average or low. We have also identified where there are nearby A&E departments with higher levels of senior staffing.

We have included both consultants and senior registrars (now more properly known as ST3s or higher in specialist training) in our definition of senior doctors. Some hospitals, particularly those with fewer registrar training posts, make more use of staff grade doctors. Our analysis found that, like junior doctors, higher levels of staff-grade doctors were not associated with better mortality rates, so we have not included them in the analysis.



Low levels of weekend staffing

- 01 - Darent Valley Hospital  
+ Queen Elizabeth Hospital, Woolwich
  - 02 - Diana, Princess of Wales Hospital, Grimsby  
● No data on nearby A&Es
  - 03 - George Eliot Hospital, Nuneaton  
+ University Hospital Coventry
  - 04 - King's Mill Hospital  
+ Chesterfield Royal Hospital
  - 05 - Kingston Hospital  
+ West Middlesex University Hospital
  - 06 - Leighton Hospital  
+ Countess of Chester Hospital
  - 07 - Scarborough General Hospital  
● No A&E within 20 miles
  - 08 - Scunthorpe General Hospital  
● No data on nearby A&Es
  - 09 - Trafford General Hospital  
+ Salford Royal
  - 10 - Whiston Hospital  
+ Royal Liverpool University Hospital
- A&E with low hospital staffing  
+ Nearby A&E department with a reported higher hospital staffing level

## Providing safe care round the clock

Safe care round the clock sounds like a good idea. But at a time when the NHS is struggling to maintain existing services within limited budgets, is it fair to expect hospitals to do even more? The answer lies in reorganising the resources we have, to provide care where it is needed. For many frail elderly people, not being

able to see a consultant on Saturday or Sunday can be risky. Another important issue is to work as a network with other hospitals in your area. London has shown this with the reorganisation of stroke care. Instead of having all A&E departments treating strokes, with variable levels of success, a small number of hospitals

now handle all stroke patients but do it to a very high standard, seven days a week, 24 hours a day (see p23). And to those who say that is all very well in London but you cannot do it in more rural areas, Northumbria shows what can be achieved.

### INNOVATIVE PRACTICES IN OUT-OF-HOURS CARE

#### + Northumbria case study



**Northumbria Healthcare NHS Foundation Trust** serves 500,000 people, covering the largest area of any British acute trust. It is soon to reconfigure a number of services, basing care around a new specialist emergency care hospital that will be completed in 2014. This major, whole system change is designed to give patients the best possible treatment and chance of recovery. It provides speedy access to nine clinical teams led by consultants working extended days dedicated only to acute care and a reduction in the reliance on more junior staff. The areas this focuses on include stroke care, cardiac care, respiratory care and emergency surgery. All emergency admissions will be treated at this new facility. The trust undertook an extensive public consultation exercise and 74 per cent of respondents felt this would improve the provision of emergency care.

The trust was one of the first in England to introduce a Hyper Acute Stroke Unit (HASU). See page 23 for more information on these. Northumbria has been rated as one of the best trusts for stroke care in the country in the Hospital Guide for the last two years.

#### + Homerton case study



**Homerton University Hospital NHS Foundation Trust** has introduced an Acute Care Team (ACT), comprised of consultants, specialists and trainees, that delivers a consultant-led, 24/7 service. This was in response to the Temple Report (see page 20).

The ACT has no commitments other than acute care and takes a multi-disciplinary approach across emergency care, orthopaedics, urology and acute medicine. A key change introduced has been the extension of the consultants' 'normal' working day until 10pm on week days and into the weekend. This means that surgery can continue through the evening until 10pm and avoids junior doctors delivering emergency surgery without consultant supervision.

A second key change has been the establishment of distinct 'emergency' and 'elective' teams for both service delivery and training. As well as delivering a consultant-led service, the introduction of the ACT has enabled Homerton to improve training and comply with the European Working Time Directive 2009, two years earlier than required.

#### + Poole case study



**Poole Hospital** serves a large, and growing, older population in east Dorset. In 2010, the geriatricians seized the opportunity to improve patient care and make efficiency savings by converting an inpatient ward into a dedicated assessment unit for older people.

The Rapid Assessment and Consultant Evaluation (RACE) unit is staffed seven days a week by senior doctors, nurses and therapy staff who are all highly skilled in the evaluation of older people.

All patients receive a comprehensive assessment and discharges are carefully planned. A daily emergency clinic is also held on the unit to facilitate admission avoidance.

The RACE unit has made an important contribution to quality, as well as efficiency by allowing the safe closure of 30 acute beds. Nearly one in three elderly patients is now assessed, treated and discharged with a comprehensive plan within 48 hours of admission, while the average length of stay has reduced from 12 days to nine without significant increases in readmissions.

# Hospital networks save lives

It is not possible for every hospital to provide every service 24/7. In London, this problem was solved by strengthening stroke care networks.

## London has overhauled its stroke service.

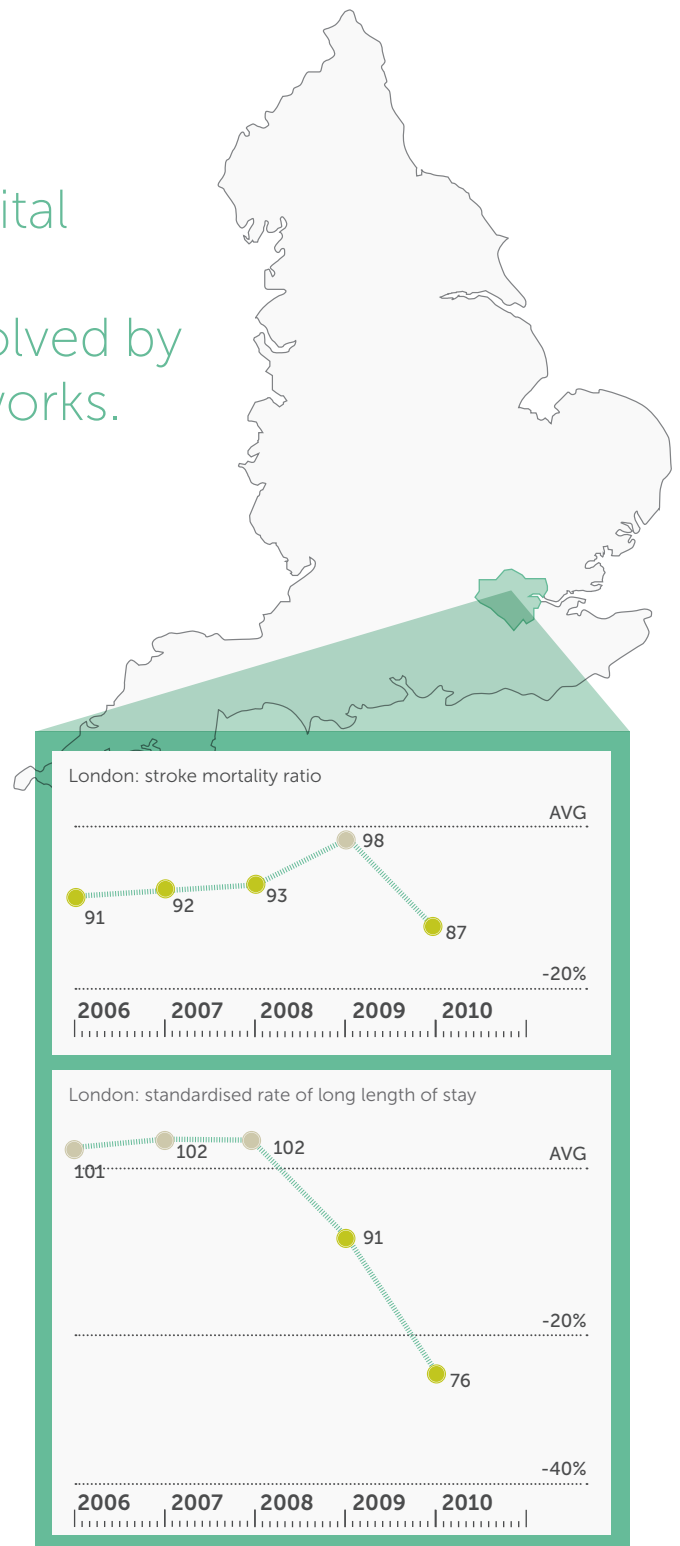
Previously, most hospitals with an A&E attempted to provide stroke care services, with varying degrees of success. Today, just eight hospitals provide consistently high-quality care in units known as Hyper Acute Stroke Units (HASUs). These are staffed 24 hours a day by stroke experts. Arrangements are in place with ambulance services to take patients with a suspected stroke straight to their nearest HASU. So does the data back up the theory that centralised care equals improved outcomes?

## CARE IN THE CAPITAL IS LEADING THE WAY

The reorganisation in London, which was as a result of the National Stroke Strategy (2007)<sup>1</sup> and a stroke strategy for London (2008),<sup>2</sup> is an exemplar of how services should be delivered within today's NHS.

The result has been a significant fall in mortality between 2009/10 and 2010/11. Part of this has been achieved by improving the standards of care out of normal hours. Prior to the reorganisation (2009/10), ten per cent of stroke patients died within seven days of admission if they came into hospital at the weekend, compared with eight per cent admitted on weekdays. After the reorganisation, the weekday mortality rate dropped to 6.4 per cent. But the weekend mortality rate fell even faster to 7.3 per cent.<sup>3</sup>

**87**  
London SHA has the lowest mortality ratio in the country

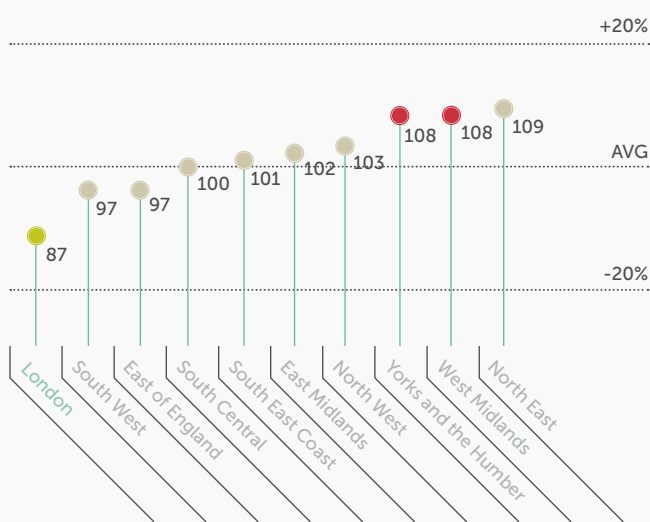


● above expected ● within expected ● below expected

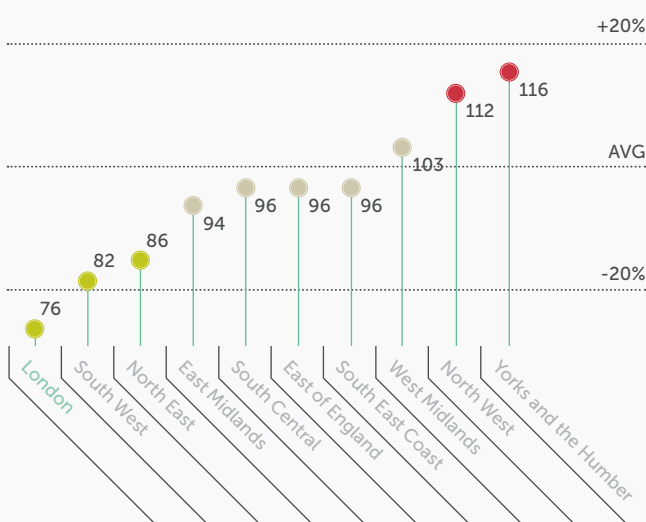
## How does the rest of the country compare?



Mortality ratio by SHA 2010/11



Standardised rate of long length of stay by SHA 2010/11



There is much the rest of the country can learn from London. For weekday admissions, **London** has a mortality ratio significantly lower than expected (all the other SHAs are within the expected range). For weekend admissions, the **North West, Yorkshire and the Humber** and **West Midlands** SHAs have higher than expected ratios.

Reconfiguration is starting to spread across the country. Now every SHA has at least three hospitals that describe themselves as Hyper Acute Stroke Units in the Dr Foster Hospital Guide questionnaire (though definitions of what constitutes a HASU vary). But are services improving?

residence (within 56 days), and patients who developed pneumonia due to swallowing problems. Last year we also looked at rates of scanning and administering clot-busting drugs, but decided not to examine these outcomes this year while we make some refinements to the methodology.

It is reassuring that this year no trusts have an exceptionally high mortality ratio and five have lower than expected ratios. These are: **Gloucestershire Hospitals NHS Foundation Trust, Imperial College Healthcare NHS Trust, Royal Liverpool and Broadgreen University Hospitals NHS Trust, St George's Healthcare NHS Trust** and **University**

**Hospitals Bristol NHS Foundation Trust.** Results for all the other individual indicators can be found on our website, [www.drfoosterhealth.co.uk](http://www.drfoosterhealth.co.uk).

While significant variations in the quality of care between hospitals and between regions remain, mortality rates have fallen year on year since 2006/7. However, the continued gap between mortality rates for patients admitted out of normal working hours and those admitted on weekdays continues to be a source of concern. The good news is that by adopting the networked approach used in London, these problems can be addressed.

### WHICH HOSPITALS PERFORM BEST?

Dr Foster has looked at five measures of patient care derived from routine hospital data: mortality rates, long length of stays, unexpected readmissions to hospital, patients discharged to their usual place of

## No trusts have an exceptionally high mortality ratio for stroke in 2010/11

## Performance

Last year we identified six trusts in our ‘Best performers’ category and eight trusts in our ‘Worst performers’ category. This year we have used the same criteria: ‘Best performing’ means exceeding expectations for at least two of the indicators and not being below expectations on any of the others; ‘Worst performing’ means below expectation for at least two of the indicators and not exceeding expectations on any of the others. This gives the conclusions shown in the table below.

## EXPERT OPINION

Dr Andy Mitchell,  
medical director, NHS London



The case for change in stroke services is compelling. In many parts of the country patients are not offered the evidence-based care that will improve their outcomes because of historical patterns of service delivery.

Following the recommendations of the 2007 National Stroke Strategy, **London** and **Manchester** have led the way in system redesign. Crucial to successful change was a collective determination to realise the vision of improving service quality and outcomes. Strong and inclusive clinical leadership was reinforced by a collaborative, pan-London approach to commissioning. Implementation required potential providers to compete in meeting a demanding service specification, with bids undergoing an assessment and designation process that was independent, transparent, and had guaranteed strategic coherence.

In a constrained financial climate, given the investment required, the key question is, ‘Has this ambitious strategic change project been cost effective?’ Preliminary data suggests that in terms of deaths averted, disability avoided and quality of life years gained, it has. Our challenge for the future will be to replicate such system-wide change, wherever necessary, in a very different commissioning environment.

	Mortality ratio	Long length of stay	Emergency readmission rate (28 days)	Pneumonia due to swallowing difficulty	Discharge home within 56 days
<b>Best performers</b>					
Brighton and Sussex University Hospitals NHS Trust	●	▼	●	▼	●
Guy's and St Thomas' NHS Foundation Trust	●	▼	●	●	▼
North Tees and Hartlepool NHS Foundation Trust	●	▼	●	●	▼
Northumbria Healthcare NHS Foundation Trust	●	●	●	▼	▼
Plymouth Hospitals NHS Trust	●	▼	●	▼	●
Royal Cornwall Hospitals NHS Trust	●	▼	●	●	▼
Royal United Hospital Bath NHS Trust	●	▼	●	▼	▼
South Devon Healthcare NHS Foundation Trust	●	▼	●	▼	●
South Tees Hospitals NHS Foundation Trust	●	▼	●	▼	●
St George's Healthcare NHS Trust	▼	▼	●	●	●
University Hospital of South Manchester NHS Foundation Trust	●	●	●	▼	▼
<b>Worst performer</b>					
Ashford and St Peter's Hospitals NHS Foundation Trust	●	●	●	▲	▲

▲ above expected   ● within expected   ▼ below expected

# Follow *best practice* and treat patients promptly

If you break your hip you have a one in ten chance of dying. But the odds of survival are much better if you are treated quickly – ideally within two days. If you are admitted on a Friday or Saturday your chances of prompt treatment are lower.

**A broken hip** (also known as a fragility hip fracture or fractured neck of femur) is a condition primarily affecting the elderly: the average hip fracture patient in England in 2010/11 was 81 years old. In an ageing society, the burden of hip fracture on the health service is increasing and the 61,000 admissions for hip fracture between April 2010 and March 2011 in the NHS in England represents an increase of 17 per cent since 2001. Projections suggest that the number of hip fracture patients will reach over 100,000 by 2020.<sup>1</sup>

Surgery is the first-line treatment, with more than 98 per cent of patients in 2010/11 undergoing an operation.<sup>2</sup> Almost all hip fracture patients are admitted as an emergency and we have excluded the few elective admissions from our analyses.

Mortality among hip fracture patients is high, with nine per cent of inpatients dying during their hospital stay in 2010/11 and one-year mortality rates at 30 per cent<sup>3</sup>. This represents over 5,500 in-hospital deaths and 18,000 deaths within a year in 2010/11.

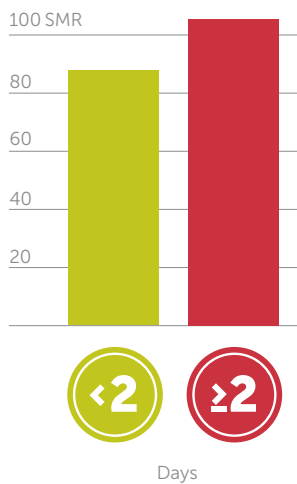
At current rates, this would be 9,000 in-hospital and 30,000 one-year deaths a year by 2020.

In-hospital mortality in 2010/11 varied between provider from 3.2 per cent to 16.3 per cent, suggesting there is room for improvement. Looking at casemix-adjusted mortality, two trusts have higher than expected risk of mortality: **Dartford and Gravesham NHS Trust** and **Western Sussex Hospitals NHS Trust**. Two have lower than expected mortality, **Bradford Teaching Hospitals NHS Foundation Trust** and **Mid Essex Hospital Services NHS Trust**.

Mortality following hip fracture is affected by multiple factors, not least the age and underlying co-morbidities of the patient.

It has been shown in numerous studies that organisational factors in the patient's treatment are a major determinant of patient survival.<sup>3</sup> A crucial factor is how long the patient has to wait for surgery, with longer wait times associated with higher death rates.<sup>4,5</sup>

## 1. Mortality

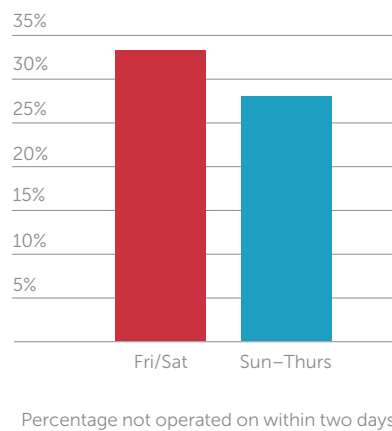


## 2. Waiting

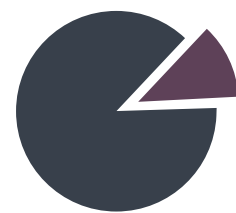


**30%**  
of patients  
wait two days  
or more

## 3. Day of admission affects operation time



## 4. Operations at the weekend



**11%**  
of trusts are  
significantly  
worse at operating  
promptly at the  
weekend

## Operations not within two days



Despite the impact on outcomes of rapid surgery for hip fracture patients, 30 per cent of hip fracture admissions in 2010 were not operated on within two days. The best and worst performing hospitals for this indicator are shown in the table on page 29. In five trusts, 50 per cent or more of all hip fracture patients waited more than two days for an operation: **Doncaster and Bassetlaw Hospitals NHS Foundation Trust, Leeds Teaching Hospitals NHS Trust, Pennine Acute Hospitals NHS Trust, Royal Free Hampstead NHS Trust and South Tyneside NHS Foundation Trust.**

# Access to treatment over a weekend is a weak link in the management of hip fracture patients

In 2007, the British Orthopaedic Association recommended that hip fracture patients are operated on within 48 hours of admission in order to reduce morbidity and mortality.<sup>1</sup>

Dr Foster tracks hip fracture admissions where patients do not undergo an operation within two days of admission. The all-England death rate for hip fracture patients operated on within two days of admission is substantially lower (7.4 per cent) than the rate for patients waiting longer than two days for their operation (10.1 per cent). A casemix-adjusted comparison of the risk of death in these two patient groups also indicated a higher risk of death in patients waiting longer than two days.

This past year has seen increased recognition within the NHS of the need to operate as quickly as possible on hip fracture patients. In June 2011, NICE issued its first clinical guidance for the management of hip fracture, recommending that surgery is performed on the day of or the day after admission. It recommended that correctable co-morbidities are identified and treated immediately so as not to delay surgery unnecessarily.<sup>3</sup>

In addition, the best practice tariff for hip fracture, which was introduced in 2010/11, has been continued in 2011/12,<sup>6</sup> as part of the system by which NHS trusts are paid for the care they provide. The tariff includes an incentive payment that depends upon the patient undergoing surgery within 36 hours

of arrival in an emergency department, or, for inpatients, from the time of diagnosis.

At present, many providers have a way to go to achieve the two day target and will have to significantly rethink their hip fracture patient management pathways to reach eligibility for the best practice payment.

With these central drivers giving hospitals incentives to reduce time to surgery for hip fracture, we hope that the proportion of patients not receiving surgery within two days will decrease substantially over the coming year and that we can test this in next year's Hospital Guide.

An important aspect of minimising delay to surgery for hip fracture patients is to remove administrative and organisational barriers. One such barrier is inefficient patient pathways and unreliable access to clinicians and surgical services at weekends (see p19 for our section on weekend mortality).

We compared the rate of hip fracture patients receiving an operation within two days of admission for patients admitted on a Friday or Saturday with patients admitted on a Sunday to Thursday. Across the country, the number of patients waiting more than two days for an operation was significantly higher, an increase of 4.8 per cent, among patients admitted on a Friday or Saturday compared with patients admitted on a Sunday to Thursday.

## Rate of hip fracture patients not operated on within two days of admission



Above expected	Rate %
Barking, Havering and Redbridge University Hospitals NHS Trust	37.1
Bedford Hospital NHS Trust	40.4
Blackpool Teaching Hospitals NHS Foundation Trust	47.3
Brighton and Sussex University Hospitals NHS Trust	39.8
Central Manchester University Hospitals NHS Foundation Trust	49.2
Doncaster and Bassetlaw Hospitals NHS Foundation Trust	50.5
Heart of England NHS Foundation Trust	44.4
Hinchingbrooke Health Care NHS Trust	42.2
Imperial College Healthcare NHS Trust	44.5
Leeds Teaching Hospitals NHS Trust	50.2
Mid Yorkshire Hospitals NHS Trust	47.4
Newham University Hospital NHS Trust	49.1
North West London Hospitals NHS Trust	44.9
Northern Lincolnshire and Goole Hospitals NHS Foundation Trust	41.0
Pennine Acute Hospitals NHS Trust	53.9
Plymouth Hospitals NHS Trust	40.7
Royal Bolton Hospital NHS Foundation Trust	42.6
Royal Free Hampstead NHS Trust	50.0
Royal Liverpool and Broadgreen University Hospitals NHS Trust	38.3
Royal United Hospital Bath NHS Trust	40.1
Shrewsbury and Telford Hospital NHS Trust	43.3
South Devon Healthcare NHS Foundation Trust	46.1
South Tees Hospitals NHS Foundation Trust	43.8
South Tyneside NHS Foundation Trust	50.9
Southampton University Hospitals NHS Trust	36.5
Tameside Hospital NHS Foundation Trust	40.9
United Lincolnshire Hospitals NHS Trust	37.1
University Hospitals Birmingham NHS Foundation Trust	40.6
West Middlesex University Hospital NHS Trust	40.4
Western Sussex Hospitals NHS Trust	42.0
Worcestershire Acute Hospitals NHS Trust	42.2

Below expected	Rate %
Aintree University Hospitals NHS Foundation Trust	13.6
Basingstoke and North Hampshire NHS Foundation Trust	19.9
Burton Hospitals NHS Foundation Trust	20.8
Calderdale and Huddersfield NHS Foundation Trust	16.8
County Durham and Darlington NHS Foundation Trust	2.0
Dorset County Hospital NHS Foundation Trust	14.9
East Kent Hospitals University NHS Foundation Trust	20.3
East Sussex Healthcare NHS Trust	20.4
Great Western Hospitals NHS Foundation Trust	20.0
Guy's and St Thomas' NHS Foundation Trust	16.3
Ipswich Hospital NHS Trust	17.2
Kettering General Hospital NHS Foundation Trust	18.5
Kingston Hospital NHS Trust	15.4
Medway NHS Foundation Trust	21.7
Mid Essex Hospital Services NHS Trust	22.4
Milton Keynes Hospital NHS Foundation Trust	21.0
Norfolk and Norwich University Hospitals NHS Foundation Trust	18.2
North Bristol NHS Trust	15.6
Northampton General Hospital NHS Trust	19.0
Northumbria Healthcare NHS Foundation Trust	12.1
Portsmouth Hospitals NHS Trust	15.2
Royal Berkshire NHS Foundation Trust	17.5
Royal Surrey County Hospital NHS Foundation Trust	0.8
Scarborough and North East Yorkshire Health Care NHS Trust	19.9
Sheffield Teaching Hospitals NHS Foundation Trust	18.4
South Warwickshire NHS Foundation Trust	16.9
St George's Healthcare NHS Trust	15.2
St Helens and Knowsley Hospitals NHS Trust	16.7
Taunton and Somerset NHS Foundation Trust	15.1
The Dudley Group of Hospitals NHS Foundation Trust	18.3
The Newcastle upon Tyne Hospitals NHS Foundation Trust	18.6
The Princess Alexandra Hospital NHS Trust	19.6
University Hospitals Bristol NHS Foundation Trust	21.6
University Hospitals Coventry and Warwickshire NHS Trust	17.9
West Suffolk Hospitals NHS Trust	13.6
Wrightington, Wigan and Leigh NHS Foundation Trust	14.6

Rate of hip fracture patients not operated on within two days of admission. Expected rates are inside 99.8 per cent control limits

# Avoid hospitals that *only perform operations occasionally*

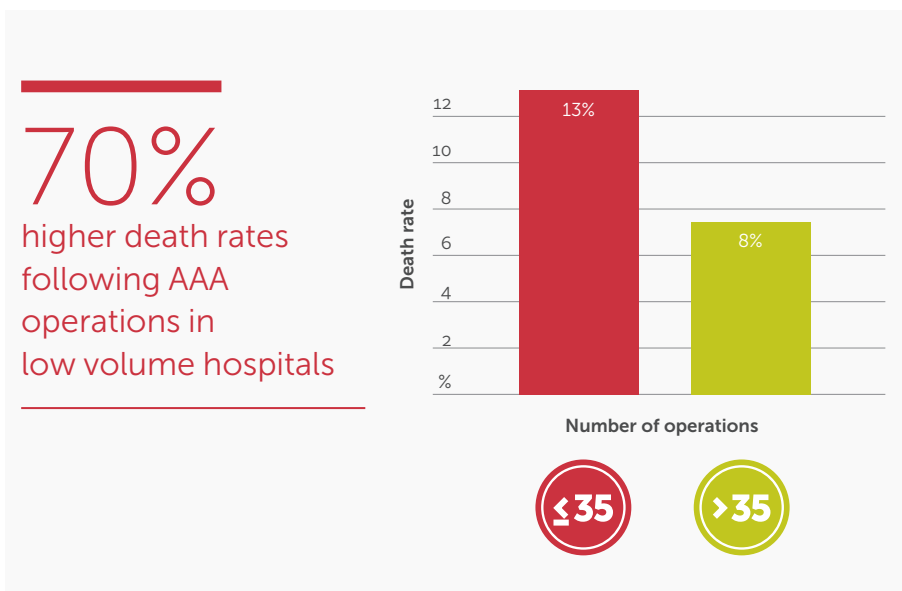
Patients treated in hospitals that perform operations rarely are more likely to die. Evidence of this has been available in many areas of surgery for more than a decade but the problem persists.

**An Abdominal Aortic Aneurysm (AAA)** is a weakening of a major blood vessel in your body. If it ruptures it is often fatal. Surgery is used to treat the condition by repairing the section of artery to prevent the risk of rupture. The severity of rupturing AAAs (and the life-saving potential of AAA surgery) requires surgery to be implemented in the highest quality controlled environments.

The implication of this is that smaller hospitals, or ones with non-specialised units and with fewer specialised surgeons for AAA, should not operate electively on patients at all. Instead, the bigger and busier hospitals should provide centralised care for AAA patients.

A recent review by the Vascular Society, the organisation that represents surgeons who treat aneurysms in the UK, found that: "Mortality rates after elective AAA repair are higher than in the rest of Europe"<sup>1</sup>.

Our data here compares the death rate for AAA in low-volume NHS trusts (35 or fewer procedures a year) and high-volume NHS trusts (more than 35 procedures a year), measured in 2010/11. The 35 threshold is based on evidence cited by the Vascular Society which recommends that hospitals perform at least 100 elective operations over three years<sup>1,2</sup>. Our guide defines low-volume hospitals as those doing more than ten operations and 35 or fewer operations a year.



The death rate is reduced from 13 per cent to eight per cent when hospitals are doing more than 35 AAA procedures a year. A re-structuring of vascular surgery services could improve the situation. Many hospitals have entered into 'vascular networks', under which some or all of their AAA patients are transferred to larger centres. Better informed patients and GPs seeking treatment at more expert centres could also improve outcomes.

The Ipswich Hospital NHS Trust has acknowledged its low volumes and from April 2012 aneurysm repair will be performed at Colchester Hospital as part of a service integrated between the two hospitals. The main reason for this choice was the small number performed at Ipswich compared with Colchester. The reconfiguration was a clinician-led initiative, supported by management.

## EXPERT OPINION

*Mr Toby Richards FRCS MD,  
consultant vascular and endovascular surgeon,  
University College London Hospitals NHS Foundation Trust*



The provision of AAA surgery is under close scrutiny. In 2008, a European report suggested a higher overall mortality in the UK for elective surgical repair of AAA of 7.9 per cent compared to a European average of 3.5 per cent. The data in the Hospital Guide is compelling and aligned to previous volume-outcome analysis, which also suggested that low volume institutions generally had higher mortality.

These differences could be confounded by the more rapid adoption in larger centres of less invasive techniques (known as endovascular), which have lower complication and mortality rates. Other factors that may contribute to variation in results between units include experience and workload of individual surgeons, organisational structure and potentially the development of vascular surgeons in a dedicated speciality. Nevertheless, there is increasing data showing association between better outcomes in high volume units where experience, infrastructure and staff support combine to improve patient care. These data should enable individual surgeons, centres and regions to focus on quality care improvement to achieve optimal results in the management of patients with AAA.

## Trusts that performed 35 or fewer AAA procedures in 2010/11

These trusts, along with their commissioners, should think about either increasing their volumes or ceasing to carry out these operations. If the hospitals performing low volumes had achieved the same survival rates overall as the larger units, it would have

meant 52 fewer people dying, although without knowing the details of each case it is impossible to say how many of those lives might have been saved.



**Aintree** University Hospitals  
NHS Foundation Trust

**Ashford and St Peter's** Hospitals  
NHS Foundation Trust

**Basildon and Thurrock** University Hospitals  
NHS Foundation Trust

**Blackpool** Teaching Hospitals  
NHS Foundation Trust

**Bradford** Teaching Hospitals  
NHS Foundation Trust\*<sup>3</sup>

**Buckinghamshire** Healthcare NHS Trust

**Calderdale and Huddersfield**  
NHS Foundation Trust\*<sup>4</sup>

**Chesterfield** Royal Hospital  
NHS Foundation Trust

**Countess of Chester** Hospital  
NHS Foundation Trust

**Dorset** County Hospital NHS Foundation Trust

**East and North Hertfordshire** NHS Trust

**Epsom and St Helier** University  
Hospitals NHS Trust

**Gateshead** Health NHS Foundation Trust

**Heatherwood and Wexham Park** Hospitals  
NHS Foundation Trust

**Ipswich** Hospital NHS Trust\*<sup>5</sup>

**Kettering** General Hospital NHS Foundation Trust

**Mid Staffordshire** NHS Foundation Trust

**Mid Yorkshire** Hospitals NHS Trust

**Milton Keynes** Hospital NHS Foundation Trust

**Northampton** General Hospital NHS Trust

**Northern Devon** Healthcare NHS Trust

**Northern Lincolnshire and Goole** Hospitals  
NHS Foundation Trust\*<sup>6</sup>

**Peterborough and Stamford** Hospitals  
NHS Foundation Trust

**Royal Berkshire** NHS Foundation Trust

**Royal Bolton** Hospital NHS Foundation Trust

**Salisbury** NHS Foundation Trust

**Sandwell and West Birmingham**  
Hospitals NHS Trust

**Sherwood Forest** Hospitals  
NHS Foundation Trust

**Southend** University Hospital  
NHS Foundation Trust\*<sup>7</sup>

**Southport and Ormskirk** Hospital NHS Trust

**Tameside** Hospital NHS Foundation Trust

**The Hillingdon Hospitals** NHS Foundation Trust

**The Queen Elizabeth Hospital, King's Lynn**  
NHS Foundation Trust

**The Royal Wolverhampton Hospitals** NHS Trust

**Walsall** Healthcare NHS Trust

**Warrington and Halton** Hospitals  
NHS Foundation Trust

**Whipps Cross** University Hospital NHS Trust\*<sup>8</sup>

**Wirral** University Teaching Hospital  
NHS Foundation Trust

**Wrightington, Wigan and Leigh**  
NHS Foundation Trust

Those marked \* have told Dr Foster they have ceased to perform AAA surgery since March 2011 or plan to do so in the near future

# Introduce *new and better* treatments quickly



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It is estimated that it takes 15 years from the discovery of a new treatment to its widespread adoption by doctors. The faster it happens the better. One success story has been the introduction of PCI (Percutaneous Coronary Intervention), a new way to treat heart attacks.

Since 2006, PCIs have been increasingly adopted as a way of treating heart attacks. During a PCI, a catheter is passed into an artery in either the groin or arm. This catheter is then directed to the blocked artery, where a stent is inserted to strengthen the blocked artery. PCI is an alternative to open-heart surgery (coronary artery bypass surgery). It is a less intrusive treatment and is shown to reduce the risk of patient mortality.

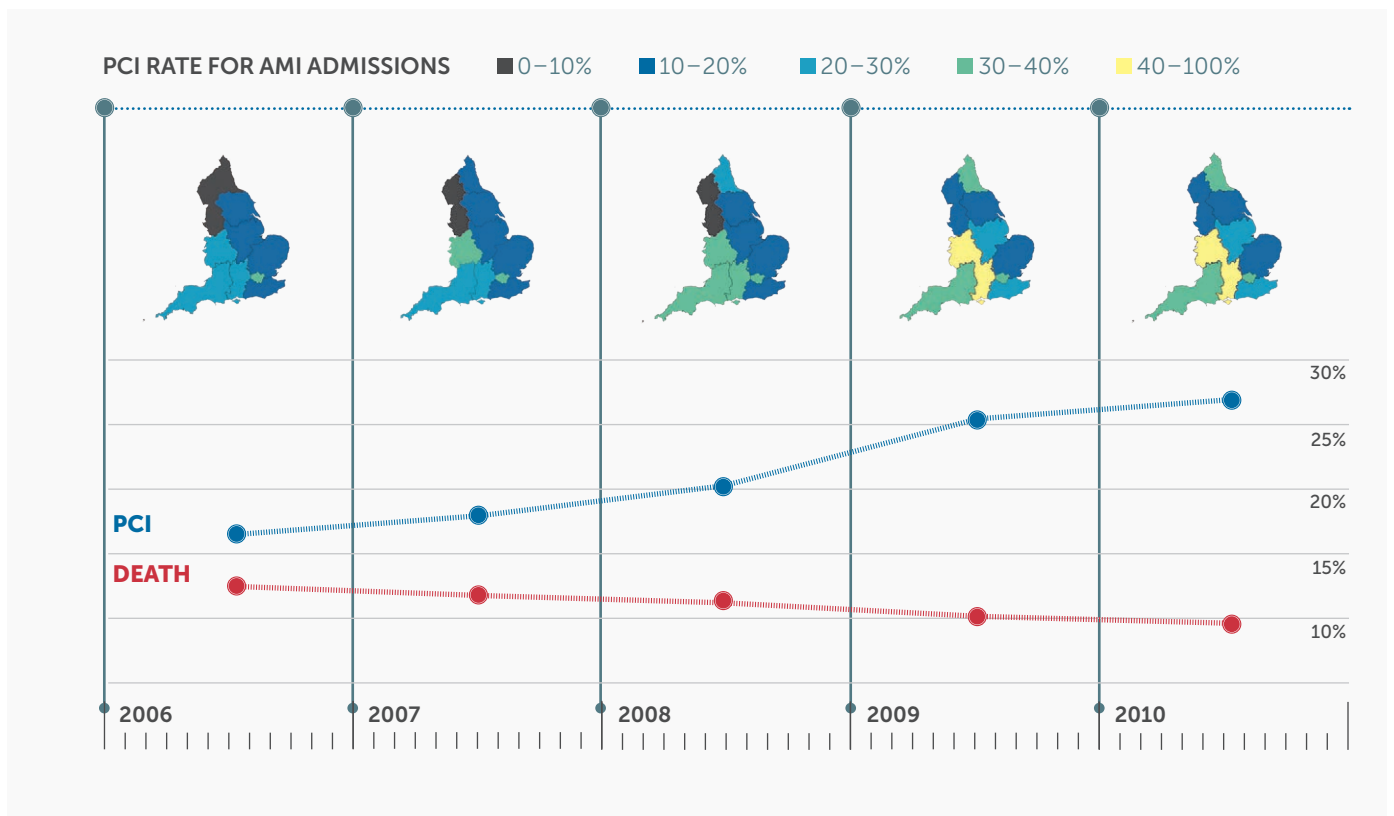
Our data shows how PCIs have increased over the past five years. At the same time, in-hospital mortality rates (SMRs) have fallen.

### PATIENT RESPONSE

Lower mortality rates are not the whole story. The quality of long-term health of the patients who have had PCI does not always compare well with patients who have had a heart bypass operation. Part of the issue may be to do with how patients respond. Both the NHS guidelines on treating heart attacks and patient studies emphasise the importance of educating patients, increasing awareness of heart attacks as an indication of long-term heart disease.

PCI is a treatment that is relatively fast. It may be that this treatment is so quick that patients do not spend sufficient time with cardiac rehabilitation teams learning how to care for themselves. Or perhaps it is so successful that patients are left not fully appreciating the seriousness of their condition and the need to address the fact that they have a life-threatening condition.

**2.5%**  
the rate heart attack deaths have declined by since 2006



# Treatment for *hip and knee* replacement

Better treatment does not have to cost more. Often, the best way to care for patients is also the most cost effective. This is important at a time when the NHS has to save about £20 billion over the next three years.

**Our ageing population is putting severe pressures on the NHS.** The number of people having hip and knee replacements is rising (147,000 this year compared with 124,000 in 2006). But by providing the best care, it is possible to reduce the length of time a patient spends in hospital and reduce the risk of them being readmitted for the same problem – both factors that cut costs to the NHS.

Our survey shows that hospitals that follow best practice have significantly lower numbers of patients spending a long time in hospital. It also shows that too many hospitals are failing to follow this best practice.

Surgery to replace hip and knee joints is one of the most common and beneficial operations done in the NHS. But, as with all major surgery, the process can be risky and frightening. There is much hospitals can do to try to make the patient's experience as quick, safe and free from anxiety as possible. Our rapid recovery pathway, outlined on page 36, highlights the key things hospitals can do to achieve this.

However, as the data shows, not all trusts are signed up to all parts of it, which appears to be having detrimental effects on their lengths of stay.

## TREATMENT BY PRIVATE HOSPITALS

This year, for the first time, we have included independent sector providers of NHS care in our analysis of hip and knee replacements. The independent sector began treating NHS patients in 2003 when the first of a series of purpose-built treatment centres, or ISTCs, was opened to provide treatment in high volume, elective surgery. While the independent sector accounts for just three per cent of all elective NHS surgery, it performed 15 per cent of the 147,000 NHS elective hip and knee replacements carried out in the last financial year. In fact, the three largest providers of NHS hip and knee replacements are all independent sector providers. The independent sector does not treat complex cases by design and, while our risk models use all available data to adjust for the mix of patients treated, it is possible that there are residual differences that have not been taken into account.

Nonetheless, it is notable that the independent sector hospitals achieved some of the best outcomes of all hospitals providing hip and knee replacement surgery.

## OUTCOMES

We looked across three key indicators of quality for both elective hip and knee replacement operations. These are:

- >>> The number of patients with a long length of stay.
- >>> Emergency readmissions to hospital within 28 days of the initial operation.
- >>> Re-do rates (a patient having to have the operation re-done within one year of the initial procedure).

The best performing trusts have fewer long stay patients, lower emergency readmissions and lower revision rates for hip and knee replacement. A well performing trust would score significantly better than average on two out of three of these measures. A poorly performing trust would score significantly worse than average on two out of three of these measures.

## Provider list

### The best performing providers for hip operations

- + Care UK\*
- + Spire Healthcare\*
- + UK Specialist Hospitals\*
- + Ramsay Health Care UK\*
- + South Warwickshire NHS Foundation Trust
- + Wye Valley NHS Trust
- There were no trusts performing poorly on this indicator

### The best performing providers for knee operations

- + UK Specialist Hospitals\*
- + Interhealth Care Services (UK)\*
- + Ramsay Health Care UK\*
- + The Horder Centre\*
- + Spire Healthcare\*
- + Clarent & St Hugh's Hospitals (HMT)\*
- + Care UK\*
- + The Queen Elizabeth Hospital, King's Lynn NHS Foundation Trust
- + The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust
- + City Hospitals Sunderland NHS Foundation Trust
- + Sandwell and West Birmingham Hospitals NHS Trust

### The poorest performing providers for knee operations

- Sheffield Teaching Hospitals NHS Foundation Trust
- Great Western Hospitals NHS Foundation Trust
- Chelsea and Westminster Hospital NHS Foundation Trust

\* Independent sector provider

## REDUCING LENGTH OF STAY

The rapid recovery pathway is an effective way of reducing the amount of time a patient has to spend in hospital before and after orthopaedic surgery. We used the Hospital Guide Questionnaire to understand which trusts are implementing these.

# 20

trusts meeting all steps of the rapid recovery pathway

## EXPERT OPINION

*Robert Middleton, consultant orthopaedic surgeon and Tom Wainwright, clinical researcher in orthopaedics, The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust*



An enhanced recovery pathway (see page 36) aims to improve patient outcomes and speed up recovery following surgery. There is now good evidence from both the academic literature and the experience of exemplar sites to support the implementation of enhanced recovery pathways. Their use is also promoted by the Department of Health and recognised through the quality and productivity challenge (QIPP).

When such a pathway is implemented, the reduced post-operative convalescence period, and early achievement of functional milestones, leads to a shorter length of stay (LOS) in hospital for patients. However, what is clear from national data is that the average LOS varies considerably across hospitals. This variation is not explained by casemix, and is therefore likely to be linked to processes. Hospitals were therefore asked questions about certain characteristics of their hip and knee pathways. While not exhaustive or absolute measures of a high quality pathway, these characteristics were chosen after reviewing the latest evidence describing enhanced recovery pathways.

The responses showed a variation in care processes across different hospitals. Though none of the questions were answered unanimously, some interesting observations can be made. LOS could be reduced in some units by admitting patients on the day of surgery and by providing seven-day-a-week specialist physiotherapy. Length of stay was also higher in units that did not provide weekend physiotherapy.

So, given the proven benefit to patients, an established clinical evidence base, and a current strong economic driver for shorter LOS, why have some hospitals been more successful at implementing enhanced recovery than others? It can be hard to think differently, but the ability for enhanced recovery pathways to improve clinical outcomes and patient experience make a compelling case for change. Often the most difficult challenge is to convince colleagues and staff to break from tradition. This is where comparative data, if used responsibly, can help to challenge the status quo.

# Rapid recovery pathway

**1** Pre-surgery education for patients: helps relieve anxiety and increase understanding by the patient. 14 trusts do not offer pre-surgery education.

**2** Admission on day of surgery: reduces length of stay. Most trusts do admit some patients before the day of surgery for reasons of age and co-morbidities only.

**3** Standardised anaesthetic protocol (SAP): helps with pain management and recovery. 54 trusts do not have an SAP. Of those, seven trusts are in the process of setting one up.

**4** Multi-disciplinary recording of patient records: helps share information and reduce risk of complications. 37 trusts do not use multi-disciplinary recording. Five of these are in the process of adopting this. Three trusts did not answer.

**5** Orthopaedic physiotherapy service available seven days a week: not having this can affect patients who have their operation on a Friday and increase length of stay. 30 trusts don't have a seven-day service, and seven trusts have cover seven days a week but not through specialist teams.

**6** Criteria-based discharge: a checklist that helps to reduce error in discharge process, reducing risk to the patient. 12 trusts said they do not have a criteria-based checklist.

**7** Phoning patients in the 48 hours following discharge: this helps to reduce risk to the patient and readmissions to hospital. Only 47 trusts said they phone within 48 hours.

Trusts that <b>do not follow</b> four or more steps of the pathway	Pathways							Length of stay:	
	1	2	3	4	5	6	7	Hips	Knees
King's College Hospital NHS Foundation Trust	✓	✓	✗	✗	✓	✗	✗	↑	↑
East and North Hertfordshire NHS Trust	✓	✓	✗	✗	✗	✓	✗	↑	↑
Ealing Hospital NHS Trust	✗	✓	✓	✗	✗	✓	✗	●	↑
East Lancashire Hospitals NHS Trust	✗	✓	✓	✓	✗	✗	✗	↑	↑
Mid Cheshire Hospitals NHS Foundation Trust	✗	✓	✗	✓	✗	✓	✗	●	●
Barts and The London NHS Trust	✗	✓	✗	✗	✓	✓	✗	●	↑
Royal Cornwall Hospitals NHS Trust	✗	✓	✗	✗	✓	✗	✗	●	↑
Royal Bolton Hospital NHS Foundation Trust	✗	✓	✗	✗	✓	✗	✗	↑	↑
South London Healthcare NHS Trust	✗	✓	✗	✗	✗	✗	✗	↑	↑
St George's Healthcare NHS Trust	✗	✓	✗	✗	✗	✗	✗	↑	↑
Trusts that <b>follow all sections</b> of the pathway	1	2	3	4	5	6	7	Hips	Knees
Basildon and Thurrock University Hospitals NHS Foundation Trust	✓	✓	✓	✓	✓	✓	✓	●	●
East Kent Hospitals University NHS Foundation Trust	✓	✓	✓	✓	✓	✓	✓	↓	↓
Epsom and St Helier University NHS Foundation Trust	✓	✓	✓	✓	✓	✓	✓	↓	●
Lancashire Teaching Hospitals NHS Foundation Trust	✓	✓	✓	✓	✓	✓	✓	●	●
Mid Staffordshire NHS Foundation Trust	✓	✓	✓	✓	✓	✓	✓	●	●
North Tees and Hartlepool NHS Foundation Trust	✓	✓	✓	✓	✓	✓	✓	●	●
North West London Hospitals NHS Trust	✓	✓	✓	✓	✓	✓	✓	●	↓
Northumbria Healthcare NHS Foundation Trust	✓	✓	✓	✓	✓	✓	✓	↓	↓
Royal Surrey County Hospital NHS Foundation Trust	✓	✓	✓	✓	✓	✓	✓	↓	●
Salisbury NHS Foundation Trust	✓	✓	✓	✓	✓	✓	✓	●	●
South Tees Hospitals NHS Foundation Trust	✓	✓	✓	✓	✓	✓	✓	↓	●
The Dudley Group of Hospitals NHS Foundation Trust	✓	✓	✓	✓	✓	✓	✓	↓	↓
The Newcastle upon Tyne Hospitals NHS Foundation Trust	✓	✓	✓	✓	✓	✓	✓	●	●
The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust <small>(*Step 5 not appropriate as there is no trauma unit)</small>	✓	✓	✓	✓	*	✓	✓	↓	↓
University Hospital of South Manchester NHS Foundation Trust	✓	✓	✓	✓	✓	✓	✓	●	↑
West Hertfordshire Hospitals NHS Trust	✓	✓	✓	✓	✓	✓	✓	●	●
West Middlesex University Hospital NHS Trust	✓	✓	✓	✓	✓	✓	✓	●	●
Winchester and Eastleigh Healthcare NHS Trust	✓	✓	✓	✓	✓	✓	✓	●	●
Wrightington, Wigan and Leigh NHS Foundation Trust	✓	✓	✓	✓	✓	✓	✓	↑	↑
York Hospitals NHS Foundation Trust	✓	✓	✓	✓	✓	✓	✓	●	●

✗ pathway not followed   ✓ pathway followed   ↑ above expected   ● within expected   ↓ below expected

# Patient safety

There are some signs of improvement in patient safety but we still know far too little about how often patients are being harmed by hospital treatment.

**Patient safety is probably improving.** On some key indicators we have seen falls in the number of adverse events. However, in many areas the data is too unreliable to know for sure how hospitals are performing.

We reported the same problem last year. This year's figures show a mixed bag of results. The number of occasions on which an object was left behind in the patient after an operation has dropped to 125, down from 150 last year (it is very likely this is still an under-reported rate). Fewer operations were cancelled this year because the surgeons did not have the patient notes available. Fifty-seven cases of surgery being performed on the wrong body part were reported (56 cases reported last year).

Overall, there are far too many avoidable instances of harm to patients. National hospital data (SUS) shows at least:

- 14,229 incidents of problems post-operation, such as infection, including 7,378 incidences of post-operative pulmonary embolism or deep vein thrombosis (blood clots).
- 11,207 incidences of accidental puncture or laceration.

In addition, hospitals are not always managing to respond in a timely fashion to warnings about patient safety. The National Patient Safety Agency (NPSA) publishes regular alerts warning hospitals about practices that are potentially unsafe. The warnings recommend a date by which changes to practices should be implemented.

The trusts below told us they would not be compliant with all relevant NPSA safety alerts issued in 2010/11 before 1 December 2011. Many of these trusts are keen to meet NPSA alerts but told us they are suffering from a number of problems that are holding them back. Reasons for non-compliance included: a lack of staff training or evidence of staff training, budgetary problems for the commissioning of new equipment and, particularly, sourcing the correct IT systems and devices needed.

## Non-compliant trust list



- **Ashford and St Peter's Hospitals NHS Foundation Trust**
- **Cambridge University Hospitals NHS Foundation Trust**
- **Luton and Dunstable Hospital NHS Foundation Trust**
- **Maidstone and Tunbridge Wells NHS Trust**
- **Medway NHS Foundation Trust**
- **North West London Hospitals NHS Trust**
- **South London Healthcare NHS Trust**
- **United Lincolnshire Hospitals NHS Trust**
- **University Hospitals Bristol NHS Foundation Trust**

# 9

trusts are not compliant with all relevant NPSA alerts issued in 2011

57<sup>1</sup>

cases of surgery performed on the wrong part of the body

Up from 56 last year but down from 82 in 2009

101 trusts recorded 0 incidents

125<sup>1</sup>

incidents of a foreign object left inside a patient after surgery

Down from 150 last year and 209 in 2009

Wrightington, Wigan and Leigh NHS Foundation Trust recorded seven incidents, five of these relate to drill bit shavings being left in situ because, for safety reasons, it was deemed more appropriate not to disturb them

78 trusts recorded 0 incidents

452<sup>1</sup>

operations cancelled due to missing notes

Down from 475 in 2010 and 478 in 2009

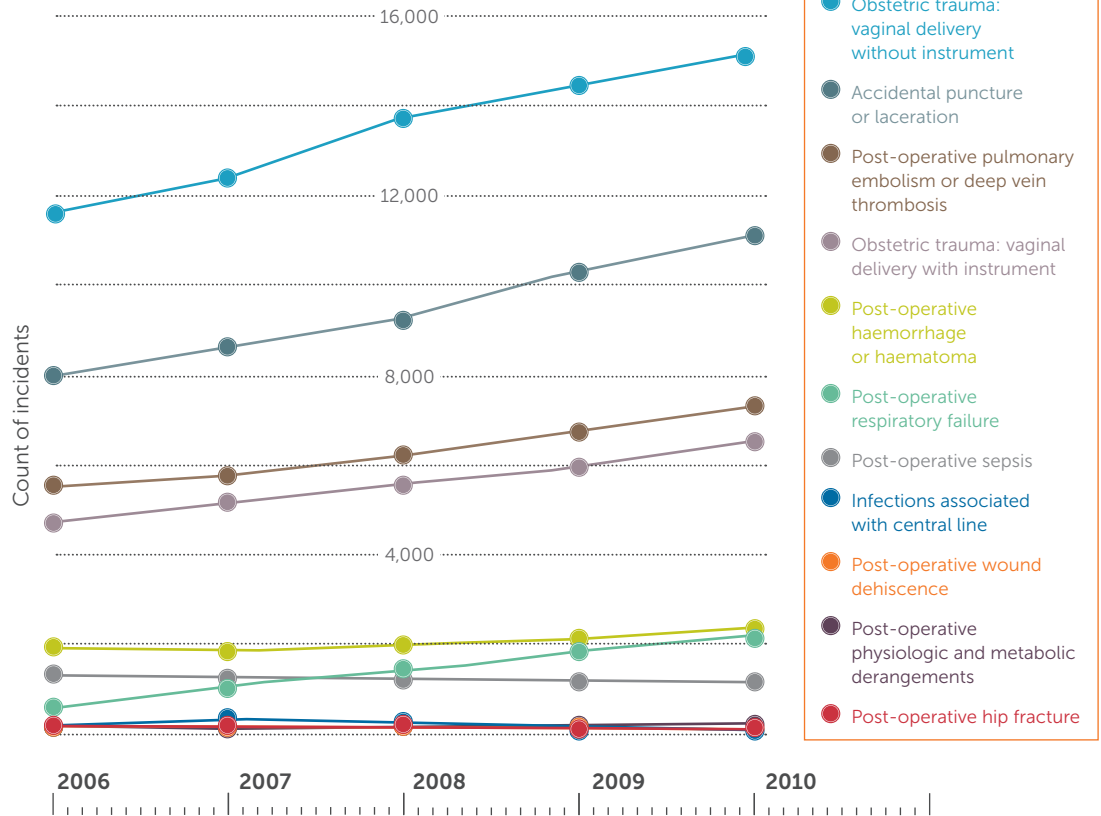
18 trusts had ten or more cancellations

Southend University Hospital NHS Foundation Trust and University Hospital of North Staffordshire NHS Trust recorded 19 cancellations

University Hospitals of Leicester NHS Trust, recorded 21 cancellations

65 trusts reported 0 cancellations due to missing notes

## Trends in patient safety indicators 2006/07 to 2010/11



### HOW BIG IS THE PROBLEM?

The truth is, we still do not properly know. Some records of patient safety problems have shown a sharp rise in recent years. But it is likely that this is happening because we are beginning to record more accurately how often things go wrong.

This is good news, as the first step towards improving patient safety is understanding where the problems are occurring. Trusts that record their data accurately are more likely to be able to identify where incidents are happening, learn from them and prevent them in the future.

SUS data is an extremely valuable source of intelligence about patient safety. However, trusts are still far too haphazard in the way they record this data, with great variability between trusts in the standard of records. Some trusts have remarkably few patient safety incidents recorded. The trouble is, there is a high likelihood that this purely reflects their failure to record the occurrence of misadventure.

One problem with the way patient safety data is recorded at the moment is that too often it is impossible to tell where the incident occurred. When Dr Foster first looked into the data around pressure sores, many trusts said they could not distinguish between those that developed while in hospital care and those that were present when the patient was admitted.

The use of a Present on Admission (POA) flag in the data would give a clear picture, not only of hospital care but of the wider care sector, including care homes. POA flags are routinely used in Australia, Canada and by the Medicare and Medicaid Services in the USA. Knowing where these pressure sores are occurring will help the NHS address what are costly, painful and sometimes fatal problems. The same applies to a range of other conditions such as falls and infections. So far a number of hospital trusts, the Care Quality Commission and a range of other bodies have signed up to support the campaign. View the campaign at [www.drfooster.co.uk](http://www.drfooster.co.uk).

## EXPERT OPINION

*Charles Vincent, professor of clinical safety research,  
Imperial College, London*



In the past decade, considerable efforts have been made to improve the safety of healthcare. Are patients any safer than they were ten years ago? The answer to this simple question is curiously elusive. While some aspects of safety are difficult to measure for technical reasons (defining preventability, say), the more substantive problem is that, for all the energy and activity, measurement and evaluation have not been high on the agenda.

This is a curious state of affairs. If you were engaged in trying to reduce heart disease, cancer or road accidents, your first question would be 'How many people have heart disease?' or 'How many road accidents are there each year?' and then you would want to know if the numbers were reducing year on year.

### Incident reporting

Incident reporting was originally seen as the foundation of patient safety and such systems continue to play a central role in many trusts. However, the results of reporting are often misunderstood in that they are mistakenly held to be a true reflection of the underlying rate of errors and adverse events. In fact, voluntary incident reporting systems are very poor at detecting adverse events, identifying only one in 20 of detected events in record reviews<sup>3</sup>. Most studies have found that reporting systems only detect seven to 15 per cent of adverse events. Incident

reporting cannot therefore be considered as a measure of adverse events, so we need to find other approaches<sup>4</sup>.

### Measuring safety

Measuring safety encompasses both measures of failures and harm and, ideally, assessing how safe the healthcare system is at any one time. A particular challenge is to identify and capture indicators that can be validly measured as rates, in the same way as road accidents or signals passed at danger on the railways.

Common problems are that events are uncommon (such as serious medication errors) or rare (wrong site surgery), definitions are often inadequate, and the denominators are hard to define. For example, when a patient who is hospitalised experiences a narcotic overdose, is the appropriate denominator the patient or patient day, the prescribed or dispensed doses, all administered medication doses, or all administered narcotic doses<sup>5</sup>?

### Patient Safety Indicators

The Patient Safety Indicators (PSIs) were originally developed by the US Agency for Healthcare Research and Quality (AHRQ). It is critical to appreciate that the indicators do not necessarily demonstrate unsafe care, in that some of the events identified may be unavoidable. While this is important for individual cases, however, it is less critical when aggregating data

over time. Any organisation would like to reduce these events and once they are monitored programmes can be put in place to reduce them and the programmes themselves can be evaluated.

Groups around the world have adapted the AHRQ PSIs for use in their own systems. Most indicators appear to be increasing, suggesting that care may be getting steadily less safe<sup>6</sup>. See graph on page 38. However, at this stage of development the most likely explanation for the observed trends is improved coding. This means one should, at least for the time being, be cautious about comparing organisations or units.

The PSIs presented here represent a very important move towards the kind of safety measurement that we need in the NHS. At the moment I would personally be cautious about comparing organisations, because of uncertainty about coding and appropriate denominators. The information is nevertheless potentially very useful for any organisation seeking to improve safety over time and move beyond incident reporting to measurement and monitoring of safety.

We still do not know whether patients are safer in the NHS in 2011 than in 2001. This suggests that much more attention needs to be paid to measurement and evaluation in the next ten years than has been the case in the past.

## IMPLEMENTING THE PRESENT ON ADMISSION FLAG

POAs are currently being reviewed by the NHS Information Centre, but we have developed, in consultation, a simple system that can be adopted in the interim. Code Y95 already exists to denote where a condition is 'Hospital Acquired'. We suggest NHS Connecting for Health develops a new code for 'Present on Admission' and mandates the use of either one or the other for the following 'first round' conditions:

- >>> Acute renal failure
- >>> AMI
- >>> Cardiac/respiratory arrest
- >>> Catheter-associated Urinary Tract Infection (UTI)
- >>> Deep Vein Thrombosis (DVT)/ Pulmonary Embolism (PE)
- >>> Falls and trauma
- >>> GI bleeds
- >>> Manifestations of poor glycaemic control
- >>> Stage III and IV pressure ulcers
- >>> Stroke
- >>> Surgical site infection
- >>> Vascular catheter-associated infection

We would like to see coding rules improved to make routine data more reliable, to improve understanding of the harm done to patients and the outcomes of treatment.

# What patients think of our hospitals

This year, for the first time, the Hospital Guide can say what patients think about individual hospitals, both NHS and private. This is because of the new opportunities on the internet for patients to record their views of hospital treatment.



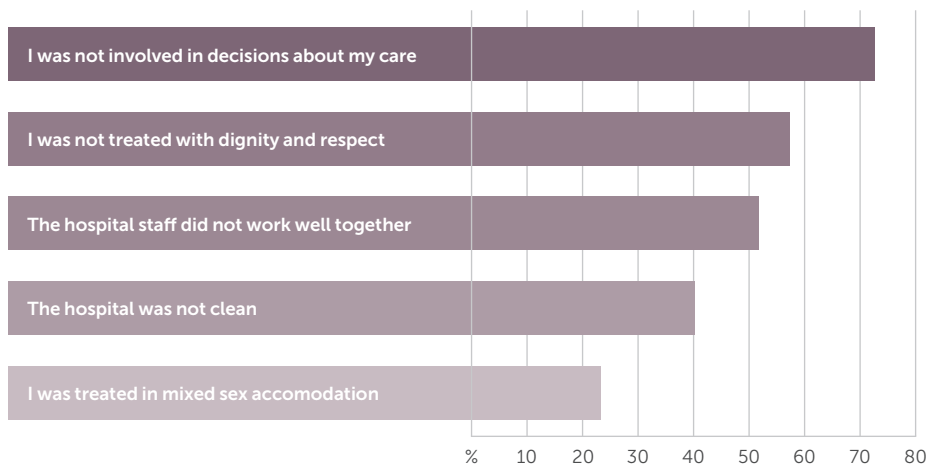
There are now a number of websites where people can comment on their local hospital. On Patient Opinion ([www.patientopinion.org.uk](http://www.patientopinion.org.uk)), people can rate hospitals on a number of key questions about cleanliness, respect and decision making. The service is also used on NHS Choices ([www.nhs.uk](http://www.nhs.uk)), where thousands of patients have recorded their views.

One concern about this is that you do not know whose opinions you are reading. Rather like the reviews on Amazon.com, you cannot be sure whether the people giving their opinion are biased or not. However, we have compared the results to the national patient surveys carried out by the NHS and there is a reasonable degree of agreement between them. NHS trusts that score well on these surveys also tend to score well on the data collected by Patient Opinion and NHS Choices.

On these sites, patients are asked to leave a comment about their care and to say whether or not they recommend the hospital. They are also asked to rate the hospital on five aspects (see graph on page 41).

Over half of patients say they would recommend the place they were treated in.

**What causes dissatisfaction?** Average negative scores for five aspects of care among patients who did not recommend hospitals



But 26 per cent would not and 16 per cent had no opinion.

We have analysed responses to understand the most common complaints among patients who would not recommend a hospital (see graph above). The issues that have most impact are lack of involvement in decisions and not being treated with respect.

A textual analysis of the comments supports these findings. The single word mentioned most often – in both positive and negative comments – is staff. Our word cloud on page 40 graphically represents the most frequent positive comments. It is the quality of the interaction with staff which overwhelmingly makes the difference between a pleasant hospital experience and a dreadful one.

There are some interesting conclusions to be drawn from comparison of hospital results. Firstly, private hospitals score well. It should be noted, though we cannot be sure, that most of these comments were registered on NHS Choices and are likely to relate to treatment of NHS patients by the private units.

It might be argued that the comparison is unfair as the private hospitals do not deal with

more complex patients. On the other hand, there is no reason why we should expect more complex patients to be less happy with their treatment. Another reason may be that private hospitals are smaller. In general, smaller hospitals appear disproportionately in the more highly rated places.

Another important lesson from the data is that different hospitals within the same NHS trust often have very different results. For example, the **Royal Hallamshire Hospital** in Sheffield has one of the highest positive ratings in the country for a large hospital, with 65 per cent of patients saying they would recommend it. The nearby **Northern General**, part of the same trust (Sheffield Teaching Hospitals NHS Foundation Trust), does not do badly but is less well appreciated, with 42 per cent of patients recommending it.

One thing is certain: the information generated by these systems is enormously powerful in understanding patients' experiences and their needs. It is interesting to note the turnaround at **Stafford Hospital**, that became the subject of an inquiry into poor quality care. Prior to March 2010, two-thirds of patients treated there said they would not recommend it. Since March 2010, the majority of patients now say they would recommend it.

## Hospital recommendation<sup>1</sup>

### Hospitals most often recommended\*

% recommending the hospital

- + The Cheshire and Merseyside NHS Treatment Centre Private 97%
- + North Downs Hospital Private 96%
- + Queen Victoria Hospital (East Grinstead) NHS 96%
- + Euxton Hall Hospital Private 95%
- + Fulwood Hall Hospital Private 93%
- + The Royal London Hospital For Integrated Medicine NHS 92%
- + Boston NHS Treatment Centre Private 91%
- + Emersons Green NHS Treatment Centre Private 86%
- + The Heart Hospital NHS 84%
- + Airedale General Hospital NHS 82%
- + Frimley Park Hospital NHS 82%
- + St Richard's Hospital NHS 81%
- + Warwick Hospital NHS 80%
- + Princess Anne Hospital, Southampton NHS 79%
- + Royal Hampshire County Hospital NHS 77%

### Hospitals least often recommended\*

- Medway Maritime Hospital 35%
- The Royal London Hospital 35%
- Whipps Cross University Hospital 35%
- Hull Royal Infirmary 32%
- Royal Bolton Hospital 29%
- Pinderfields General Hospital 27%
- Croydon University Hospital 26%
- Queen's Hospital, Romford 26%
- Newham General Hospital 21%
- Queen's Medical Centre, Nottingham 20%

\*of those with at least 20 opinions recorded

# Over half of patients say they would recommend the place they were treated in

## Hospital response rate

One thing that makes online patient feedback interesting is that we can see whether or not the hospital has responded to patients' comments. Data supplied by Patient Opinion shows us that some manage to respond to all comments. Others have responded to none at all. Worryingly, this includes some of those with the worst rates of recommendation, such as **Whipps Cross Hospital, Queen's Hospital, Romford and Newham Hospital, North West London Hospitals NHS Trust, Northumbria Healthcare NHS Foundation Trust** and **Tameside Hospital NHS Foundation Trust** have over 50 postings and have responded to almost all of them.

Changes have been made across a broad range of services as a direct result of patient feedback. Some changes relate to small things, such as less plastic wrapping on sandwiches so that older patients can eat lunch without help, and changing prescription timings across a location, so that vulnerable service users are not left without support over the weekend. Some changes have been more significant, such as transforming a maternity ward, including retraining staff, increasing staff numbers and a complete refocus on the needs of patients on the ward.



NHS trusts with the best record of responding to comments on the internet<sup>2</sup>  
% of comments with a response

**Burton Hospitals NHS Trust** 100%

**Nuffield Orthopaedic Centre NHS Trust** 100%

**Shrewsbury and Telford Hospital NHS Trust** 100%

**Trafford Healthcare NHS Trust** 100%

**Tameside Hospital NHS Foundation Trust** 99%

**Mid Staffordshire NHS Foundation Trust** 98%

**Northumbria Healthcare NHS Foundation Trust** 97%

**North West London Hospitals NHS Trust** 96%

**East and North Hertfordshire NHS Trust** 94%

**Robert Jones and Agnes Hunt Orthopaedic and District Hospital NHS Trust** 94%

## EXPERT OPINION

*Paul Hodgkin,  
founder and  
chief executive,  
Patient Opinion*



The web has given people new ways to organise, connect and communicate. People are using social media to shape the world, from the demise of the News of the World to the Occupy protests. Patients talk about, and engage with, health services like never before. But what does this mean for the health service? How good is the NHS at really listening to what patients and families are saying?

For the first time, this year's Hospital Guide shows how responsive hospital trusts are to public feedback. It's a very variable picture. Some respond to everything; others don't respond at all, regardless of how much feedback they're getting. But getting a response is only the beginning. People really want to know that their feedback has had an impact, and whether the service has changed. The data from Patient Opinion begins to tell us which providers are the best at learning, changing and improving.

Busy staff often find Twitter or Facebook very difficult to interact with. Patient Opinion is designed with these staff in mind, to make feedback a powerful transformative tool for the NHS. In the coming years, the way that health services engage with the stories people tell about them will be the mark of a 'good' hospital.

## WHAT IS THE LEVEL OF NURSING CARE ON WARDS FOR ELDERLY PEOPLE?

It is important to have appropriate numbers of nurses on hospital wards. Research previously undertaken by Dr Foster and published in the Nursing Times has shown the number of nurses per beds has a direct relationship with hospital mortality rates.<sup>3</sup>

This is especially true of elderly wards, where patients often need greater care and attention. Research by the Alzheimer's Society found that 25 per cent of all inpatients have a diagnosis of dementia.<sup>4</sup> We used the Hospital Guide Questionnaire to examine nursing levels on elderly care wards in our hospitals. We asked every trust to confirm whether they had elderly care wards and the total number of beds on these wards. We then asked how many nurses and healthcare assistants were scheduled to be on duty at 10pm on two Thursdays in March and April 2011 and at 11am on two Sundays in March and April 2011. 137 NHS trusts who have designated geriatric units were able to respond to this request, giving us data for 142 hospitals.<sup>5</sup> The results show wide variation in staffing levels.

The minimum number of nurses who should be covering a ward is two. Of the 142 hospitals who provided data, 37 had just two nurses on duty at night. Of these, 11 had just one nursing assistant – the minimum number of staff found on any wards at night. However, the right level of staffing depends on the number of patients being cared for. Wards with three members of staff varied in size from 13 beds to 28. For this reason we looked at the ratio of nurses and nursing assistants to beds in each hospital.

The lowest level of staffing per bed was found on larger wards where the staffing nonetheless remained low. For example, at **South Tyneside District Hospital**, which has the highest number of beds per nurse

at night, the 59 elderly care beds are looked after at night by two nurses and four healthcare assistants. That is ten beds for each member of staff and 30 beds per nurse. Across all hospitals the average staffing ratio at night is for there to be six beds per member of staff and 12 beds per nurse. The highest level of nurse staffing was at the **Hammersmith Hospital** in London, where the ten elderly care beds are looked after by three nurses on duty at night.

We also looked at weekend staffing. Staffing levels at weekends are higher than on weekdays. Weekend staffing levels are not as low as night time staffing levels. **Kettering General**, which has the lowest levels, has 75 beds that are looked after by four nurses and five assistants. That is equivalent to 19 beds per nurse or eight beds per member of staff. The national average figures are four beds per member of staff and eight beds per nurse. The highest level of staffing at weekends was at the **Northwick Park Hospital** where 50 beds were looked after by 25 nurses and 11 nursing assistants.

**Dewsbury and District Hospital** has the lowest overall staffing levels averaged across all measures of elderly care ward staff, with 8.8 beds per member of staff, compared with the average of 5.3.

One other aspect of staffing that varied widely was the ratio of nurses to nursing assistants. On average there is one nurse per nursing assistant. But many hospitals have more nursing assistants than nurses on duty at nights and weekends. Some, however, go the other way. For example, at **North Middlesex University Hospital**, which had one of the highest levels of nurse staffing, the geriatric wards are looked after at night by eight nurses and two nursing assistants.

## EXPERT OPINION

*Professor Peter Griffiths, chair of health services research, University of Southampton*



Caring for older people in hospital is often seen as a low-skill activity with wards given a lower level of staffing and fewer qualified nurses. Yet many older people in hospital have substantial needs for care, supervision and support. Most have significant medical needs. Even those whose stay is extended while awaiting a social care package are likely to have a high level of need.

Enquiries into deficits of NHS care over recent years have highlighted the potential consequences of insufficient nursing staff to provide support and ensure that safety is maintained (for example, falls, which can lead to serious injuries). Confused older people can become particularly agitated at night, when there are less staff. The demands make this a challenging environment in which to deliver safe and effective care.

These figures show a huge variation in how trusts staff these types of wards at night. Some use only registered nurses; others rely on healthcare assistants. Given the likely needs of these patients and the unfamiliar environment, the staffing levels reported by some trusts seem low. It seems reasonable to ask whether they have clearly assessed the needs of patients and if they are sure that these needs can be safely met with such staffing levels.

# Who are our trusts of the year?

Each year we highlight NHS trusts that have performed consistently well over the metrics highlighted in the guide, naming them our trusts of the year.

## 4

**Chelsea and Westminster Hospital NHS Foundation Trust** is the only trust that is low on all four mortality measures

**This year we have made a change to our approach.** We are giving awards to four excellent hospitals, one in each of the new NHS regions. To identify these trusts we have looked at two measures of hospital quality: mortality and patient experience.

Firstly, we looked across our four measures of mortality (see page 12) and identified hospitals that were not 'above expected' for any of the metrics. We then considered responses from three questions in the national patient

survey and calculated an average score. The questions were:

- >>> Overall, how would you rate the care you received?
- >>> Were you involved as much as you would like in decisions about your care and treatment?
- >>> Did you feel you were treated with respect and dignity while you were in the hospital?

Trust	Region	SHMI	HSMR	Deaths after Surgery	Deaths in Low-Risk Conditions	How would you rate the care you received? <sup>1</sup>	Did you feel you were treated with respect? <sup>1</sup>	Were you involved as much as you wanted to be? <sup>1</sup>
Royal Devon and Exeter NHS Foundation Trust	South	▼	●	▼	●	82	92	75
University College London Hospitals NHS Foundation Trust	London	▼	▼	●	▼	83	91	75
Cambridge University Hospitals NHS Foundation Trust	Midlands	▼	▼	●	●	81	90	75
Sheffield Teaching Hospitals NHS Foundation Trust	North	▼	▼	●	●	82	89	76

▲ above expected   ● within expected   ▼ below expected

## ROYAL DEVON AND EXETER NHS FOUNDATION TRUST

Our patients and their families put their trust and confidence in us to provide safe quality healthcare. At the Royal Devon and Exeter NHS Foundation Trust (RD&E) we have taken this responsibility and duty of care seriously.

With this in mind, a programme of work has been undertaken to review, update and improve aspects of care in theatres, clinics and on wards. Staff awareness has been raised about the correct protocols and good practice and the trust has committed to ensuring that any surgery is performed on the right patient in the right place every time.

The RD&E has also trialled a new approach to patient care that aims to have the patient recovering sooner after major surgery. The Enhanced Recovery Programme includes pre-op assessments to identify and address risks and complications before surgery, and changes in practice to reduce the impact of the procedure on the body and post-op care to aid recovery.

Essential to the success of this approach and other service improvements has been the involvement of patients from the outset in decisions about their care. In addition to established surveys of NHS patient satisfaction, we have developed our own ways of capturing 'real time' feedback on wards from our patients. Of course, none of this progress could have been achieved without the commitment and innovation of our staff to better patient care and experience. The emphasis on teamwork cannot be overstated.

*Angela Pedder OBE, chief executive*

## UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST

We pride ourselves on offering the best possible care to all our patients and this

is a fantastic achievement for everybody connected with University College London Hospitals NHS Foundation Trust (UCLH). You can have new hospital facilities and all the modern equipment money can buy, but our greatest asset will always be our staff.

It is not surprising that the key questions that patients ask their doctor are whether it will be safe, what the outcome will be, and what the experience will be like. These are our priorities: safety, outcomes and experience.

Despite treating patients with some of the most complicated conditions due to the specialist services we provide, our mortality rates are consistently among the lowest in the country. Safety must be at the heart of everything we do.

We have put a lot of work into educating staff about the importance of treating patients with dignity and respect and involving them in decisions about their care. It is really satisfying that this is paying off and is reflected in the experience patients have when they come to UCLH.

*Sir Robert Naylor, chief executive*

## CAMBRIDGE UNIVERSITY HOSPITALS NHS FOUNDATION TRUST

We are committed to putting patients first – and that means not only that their safety is paramount, but that we go out of our way to listen to their views both during their time at the hospital and after they go home.

Both Addenbrooke's and the Rosie Hospitals are recognised as centres of medical excellence and innovation, and our role in Cambridge University Health Partners – one of the first NHS academic health science centres – makes this one of the richest pools of clinical and scientific knowledge in Europe.

When it comes to patient safety, our strategy is to minimise all avoidable risks, but if something goes wrong then we

analyse events and work out what needs to change. We've cut our infection rates for MRSA and C. difficile further than anyone thought possible a few years ago, and our standardised mortality rates are among the best in the NHS.

Our specialist services deal with rare and complex conditions that need the most modern facilities, the most up-to-date treatment, and the best doctors and nurses. But ultimately, we are here to care for everyone who needs our help, and our values – to be kind, safe, and excellent – define the way we work and behave towards our patients, partners and each other.

*Dr Gareth Goodier, chief executive*

## SHEFFIELD TEACHING HOSPITALS NHS FOUNDATION TRUST

The 15,000 people who work for Sheffield Teaching Hospitals are the key to our ability to provide the highest quality of care to patients year after year both in hospital and in the community.

An unrelenting focus on clinical outcomes, patient satisfaction and ensuring we have engaged and committed staff is how we have continued to achieve high standards at the same time as developing innovative, integrated new ways of delivering services in response to the challenging financial climate.

In the last 18 months we have introduced a new 'gold standard' stroke service, seven-day therapy services and implemented a roll-out of a primary angioplasty service for patients across South Yorkshire and North Derbyshire who have suffered a heart attack.

A commitment to patient safety has resulted in significantly lower than average mortality rates, reflected in both HSMR and the new SHMI indicators.

*Sir Andrew Cash, chief executive*

We are making a special award to **Chelsea and Westminster Hospital NHS Foundation Trust** for **BEST OUTCOMES**. This is the only hospital to achieve below expected rates on all four of our measures of mortality.

# Appendix

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### More doctors at nights and weekends

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- 3 We could not obtain bed data for the following trusts: Chesterfield Royal Hospital NHS Foundation Trust, King's College Hospital NHS Foundation Trust, Sheffield Teaching Hospitals NHS Foundation Trust, The Rotherham NHS Foundation Trust.
- 4 The following trusts did not supply staffing information: Aintree University Hospitals NHS Foundation Trust, Barts and The London NHS Trust, Bradford Teaching Hospitals NHS Foundation Trust, Doncaster and Bassetlaw Hospitals NHS Foundation Trust, Great Western Hospitals NHS Foundation Trust, Guy's and St Thomas' NHS Foundation Trust, Hull and East Yorkshire Hospitals NHS Trust, Leeds Teaching Hospitals NHS Trust, Newham University Hospital NHS Trust, Southampton University Hospitals NHS Trust, Winchester and Eastleigh Healthcare NHS Trust.
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- 2 The Provision of Services for Patients with Vascular Disease 2012. <http://www.vascularsociety.org.uk/news-and-press/2011/71-provision-of-services-for-patients-with-vascular-disease.html>.
- 3 Since 2011, Bradford Teaching Hospitals NHS Foundation Trust, Calderdale and Huddersfield NHS Foundation Trust and Airedale NHS Foundation Trust have formed a vascular network to provide vascular services across West Yorkshire. AAA surgery will take place on two sites (Bradford and Huddersfield). Together the centre will undertake 50-60 AAA procedures a year.
- 4 Calderdale and Huddersfield NHS Foundation Trust: since March 2011 the service has been reviewed and a cooperative collaboration implemented with an adjacent provider. The model is supported by local commissioners and the SHA. 21 abdominal aortic aneurysms have

been treated in this trust in the first six months of this year (April to September 2011).

- 5 The Ipswich Hospital NHS Trust: from April 2012, aneurysm repair will be performed at Colchester Hospital as part of a service integrated between the two hospitals. The main reason for this choice was the small number performed at Ipswich relative to Colchester. The reconfiguration was a clinician-led initiative, supported by management.
- 6 Northern Lincolnshire and Goole Hospitals NHS Foundation Trust: a review has been carried out into vascular services and it has been recognised as part of the review that the trust does not undertake the minimum number of AAA repairs recommended annually. It is planned that from April 2012 such procedures will be undertaken at Hull and East Yorkshire Hospitals NHS Trust.
- 7 Southend University Hospital NHS Foundation Trust completed an additional ten operations in 2010/11 but these were incorrectly coded and so did not appear in the SUS data.
- 8 Whipps Cross University Hospital NHS Trust: following a review of vascular services across North East London in 2010, the trust no longer performs complex vascular surgery, with effect from April 2011.

### Patient safety

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## Patient experience

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- 5 The following trusts were unable to supply data: Aintree University Hospitals NHS Foundation Trust, Bradford Teaching Hospitals NHS Foundation Trust, Croydon Health Services NHS Trust, Doncaster and Bassetlaw Hospitals NHS Foundation Trust, Hull and East Yorkshire Hospitals NHS Trust, Leeds Teaching Hospitals NHS Trust, Newham University Hospital NHS Trust, Poole Hospital NHS Foundation Trust, Royal Berkshire NHS Foundation Trust, Southampton University Hospital NHS Foundation Trust, St Helens and Knowsley Hospitals NHS Trust, Whittington Hospital NHS Trust, Yeovil District Hospital NHS Foundation Trust. Two trusts did not respond to the questionnaire: Central Manchester University Hospitals NHS Foundation Trust and University Hospitals Birmingham NHS Foundation Trust

## Trusts of the year

- 1 These are standardised scores produced by the Care Quality Commission. See <http://www.cqc.org.uk/node/1667> for more information

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