

Report on Hospital Mortality for Days of the Week
for Brighton and Sussex University Hospital
Brighton and Hove Health Overview and Scrutiny Committee
May 2012

Introduction

Brighton and Sussex University Hospital (BSUH) subscribe to Dr Foster Intelligence. This is a web based tool which allows the Trust to monitor its performance and benchmark against that of other Trusts. Dr Foster data is refreshed on a monthly basis. The latest report published by Dr Foster 'Inside your hospital, 2001-2011' reports *'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.'* The report then goes on to name nine hospitals where the mortality rate is much higher than expected at the weekend. In general, there was, on average, a seven per cent higher mortality rate for these patients compared with people admitted between Monday and Friday. Overall in terms of mortality Brighton and Sussex University hospital is in the 'top' quartile and so patients have a better outcome when compared to the rest of the country. Our mortality relative risk is at 84.3 for April - January 2011/12. The average nationally for this time period is 91.1.

There are a number of modules within the reporting systems. The 'Real Time Monitoring' (RTM) module alerts Trusts when performance falls outside of that expected (based on the performance of our peers). RTM alerts are produced for mortality, readmissions, length of stay or day-case rates, they can be either positive (green) or negative (red).

The Patient Safety Team review Mortality Alerts and Patient Safety Indicators on a monthly basis. Where Trust performance is found to be significantly below that which is 'expected' by Dr Foster, the Deputy Chief of Safety for the area is notified and a review initiated to identify the causes of the alert. The investigation is coordinated by the Patient Safety Team and involves a systematic review of coding, case mix and quality of care by appropriate senior clinicians and nursing staff together with input from the coding team.

Brighton and Sussex University Hospital

The tables below shows mortality figures for patients admitted on the respective day of the week for the HSMR basket of diagnoses. This covers the main diagnoses that make up 80% of hospital deaths. This is used by Dr Foster when they report on mortality. The figures show the relative risk figure. This is the measure used by Dr Foster. A figure of 100, reflects the number of deaths expected based on the national average for the case mix of patients seen. A figure below the average means that the trust is scoring better than expected. There are also confidence limits applied by Dr Foster. This table shows that for emergency admissions, BSUH performs within the expected performance indicators. The other trusts within our peer selected group include some London teaching hospitals and several outside London hospitals in the South.

Table 1: Relative risk of hospital mortality for non-elective patients by day of admission.

Non-
Elective

<u>Peer (Elected Peer Group)</u>	Sunday	Monday	Tuesday	Wed	Thursday	Friday	Saturday
BSUH	91	81.2	101.3	78.6	87.8	89.3	97.1
Trust A	88.5	78.4	59.8	68.7	64.4	66.1	94.3
Trust B	67.9	59.8	65.2	65.1	72.9	68.4	78.7
Trust C	78.2	79.3	74.3	68.2	78.8	71.1	74.9
Trust D	96.1	101	94.2	94	99.9	95.3	99.3
Trust E	89.9	70.3	74.1	68.5	63.5	82.5	85.1
Trust F	97	103.6	87.1	89.4	97.1	92.1	97.5

There are a number of reasons which may contribute to a higher mortality rates at weekends. Patients who may have been seen by a GP during the weekdays and cared for at home, will access the hospital services at weekends when cover in primary care is less readily available, staffing levels may vary at the weekends and out-of hours especially senior staff and support services maybe less available at weekends.

The data for elective admissions is as follows:

Table 2: Relative risk of hospital admissions for elective patients by day of admission

Elective

<u>Peer (Elected Peer Group)</u>	Sunday	Monday	Tuesday	Wed	Thursday	Friday	Saturday
BSUH	483.8	136.8	120.8	104.6	97	32	78.7
Trust A	66.7	78.9	49.2	56	70.9	47	30.1
Trust B	80.6	98.4	103.7	72.7	65.6	118.9	132.4
Trust C	36.5	110.7	73.3	105.7	99.2	179.7	51.8
Trust D	95.6	64.1	98.6	113	22.2	75	253.2
Trust E	65.2	74.1	66.3	60	84.5	62.4	0
Trust F	125.1	112.3	87.1	85.1	89.9	144	0

The data for Brighton indicates that Sundays have a much higher relative risk (RR) at 483.8 and this is significant enough to cause an alert - however, the numbers (n) are very low. The RR of 483.8 is based on all elective Sunday admissions, n=192 and the number of patients who died was 7. Saturdays have a RR 78.7, n=185 and the number of deaths was 1. Of the 7 patients, five were cardiac surgical patients admitted for surgery on a later date one renal and one amputation of leg.

How is BSUH improving service provision?

BSUH recognises the importance of running a 24 hour and seven day a week service with senior input at all times. Services across the organisation have been developing to ensure that they are able to operate effectively and provide comprehensive services across the week. These include:

- 7 day week medical specialist review which has been introduced since November 2011 and ensures that senior clinicians are involved in the patients care much closer to their point of admission.
- Enhanced Acute Physician Service
- Resident consultant Emergency Department staff 24/7
- Surgical and Gynaecology Assessment Units

A number of other initiatives have been introduced which include, acute oncology, neurosepsis hotline and extending the pharmacy service to improve the provision and advice for clinicians on medicines for in patients and for patients on discharge.

Enhancing quality programme.

Mortality figures are reviewed in the trust for four pathways within the enhancing quality programme. The pathways currently being reviewed are acute myocardial infarction (heart attack), heart failure, pneumonia and hip and knee operations. In the future, the pathways to be reviewed will include dementia and acute kidney injury.

There are of 5 outcome measures which are used as part of the programme which include; length of stay, admission, readmission, mortality and complications.

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Reference

http://drfosterintelligence.co.uk/wp-content/uploads/2011/11/Hospital_Guide_2011.pdf

