

CIVITAS: Online Briefing – June 2007

Patient safety: the NHS

Improving patient safety was identified as a key goal for the NHS in the DoH report, *Building a Safer NHS for Patients* (2001). This built on the seminal report, *An Organisation with a Memory* (2000), which estimated that adverse events in which harm is caused to patients happen in an unnerving 10% of admissions to NHS hospitals (c.850,000 cases a year) costing at least £2bn p.a. The report considered around half these incidents to be preventable.

Data collection on patient safety measures in the NHS and other healthcare systems is in its infancy. As is acknowledged in the first report of the National Patient Safety Agency (NPSA) in 2005: "not enough has been known about what kinds of incidents happen and what their underlying causes are". Neither is there an internationally agreed taxonomy for logging patient safety incidents (although the WHO and OECD are currently working on this). Thus assessing the NHS' patient safety record, both compared with other healthcare systems and across time is difficult.

The NPSA defines a patient safety incident as:

"Any unintended or unexpected incident that could have, or did lead to, harm for one or more patients receiving NHS-funded healthcare".

The number of patient safety incidents reported by NHS staff to the new central NRLS patient safety system (administered by the NPSA) was 611,000 in 2005/06. Based on the 85,342 patient safety incidents reported up to March 2005 in the NPSA's first report, c.32% of these result in some degree of harm to patients.

However NAO surveys of acute, mental health and ambulance trusts reveal that the actual number of patient safety incidents is almost certainly much higher. In 2004/05 Trusts reported:

- 973,560 incidents or near misses in 2004/05, **and** c.300,000 healthcare associated infections;
- 2,181 deaths from patient safety incidents (considerably higher than the 840 estimated by the NPSA);
- an additional 22% of incidents and 39% of near misses went undetailed.

Looking at survey results from previous years, the NAO found that the number of reported incidents per 1,000 members of staff increased by 24% from 2001/02 - 2004/05, and that the total number of reported incidents almost doubled:

	Number of reported incidents and near misses (all trusts)	
	per 1,000 members of staff	Total number of incidents
2001/02	1,000	447,228
2002/03	1,148	707,509
2003/04	1,190	885,832
2004/05	1,201	973,560*

*extrapolated to all trusts (256) from statistics taken from 212 trusts

NAO, *A Safer Place for Patients: Learning to improve patient safety*, November 2005, p.24
www.nao.org.uk/publications/nao_reports/05-06/0506456.pdf

Nonetheless, this does not necessarily mean the number of incidents or near misses has increased; a more likely explanation is that it is a reflection of the increased importance being given to patient safety and incident reporting. Indeed, the DoH has welcomed the increase as evidence of a more open and fair safety culture, conducive to learning from mistakes.

The most comprehensive analysis of patient safety in the NHS thus far, carried out by Dr. Foster Intelligence, revealed significant variation between trusts on patient safety indicators (developed by the AHRQ). It found, for example, rates of 'harm' above expected levels in 36 trusts for decubitus ulcers, 18 trusts for selected infections due to medical care, and 28 trusts for obstetric trauma (vaginal delivery without instrument).

While we should be careful in interpreting this information due to the quality of data collection in Hospital Episode Statistics (some trusts may have higher rates purely because they have better reporting systems), it is clear from other sources that the NHS is struggling with at least one key measure of patient safety; hospital acquired infections.

Rates of *MRSA* have remained roughly the same, despite government targets to halve the number contracting the 'superbug' between 2004 and 2008, and NHS Trusts have failed to contain the increase in the number of patients contracting *C. difficile*:

	MRSA bacteraemia <i>(meticillin resistant Staphylococcus aureus)</i>		
	Total cases	Estimated rate per 10,000 bed days	Total death certificates where <i>MRSA</i> mentioned*
2001/02	7,291	1.70	734
2002/03	7,426	1.78	800
2003/04	7,700	1.83	955
2004/05	7,233	1.76	1,168
2005/06	7,095	1.77	1,629

	Clostridium difficile <i>(C. diff.)</i>		
	Total cases**	Estimated rate per 10,000 bed days for patients ≥ 65 yrs	Total death certificates where <i>C.diff.</i> mentioned *
2003/04	47,034	1.91	1,788
2004/05	63,411	2.22	2,247
2005/06	66,005	2.39	3,807

HPA, *Quarterly Reporting Results for Clostridium difficile Infections and MRSA Bacteraemia, April 2007*

http://www.hpa.org.uk/infections/topics_az/hai/Mandatory_Results.htm

*ONS, *Health Statistics Quarterly: 33, Spring 2007, p.71-81*

http://www.statistics.gov.uk/downloads/theme_health/hsq33web.pdf

**Shapps, G, *C-Difficile – The Complete Germ Map of Britain, May 2007*

www.shapps.com/reports

Indicative of this is the stagnant picture of hospital hygiene reflected in NHS Trusts' annual declarations on standards to the Healthcare Commission. Already featuring in the list of standards hospitals most struggle to meet, the number of trusts declaring non-compliance in 2006/07 with standards on infection control, decontamination and the healthcare environment/hygiene actually increased by 6.8%, 1.7% and 2.5% respectively on 2005/06 figures. In total, 110 trusts (28% of all trusts) declared non-compliance with one or more of these standards in 2006/07. A slight increase was also witnessed in the number of trusts declaring non-compliance with one or more of all nine parts of the core standards relating to patient safety, from 37.2% in 2005/06 to 38.9% in 2006/07.

A similar pattern is evident in patient impressions of hospital cleanliness in the Healthcare Commission's annual inpatient surveys. The number of patients ranking the hospital ward they stayed in as 'very clean' actually decreased 2002-06:

	Q.34. In your opinion, how clean was the hospital room or ward that you were in?					
	Very clean (%)	Fairly clean (%)	Not very clean (%)	Not clean at all (%)	Total specific responses	Missing responses
2002	57	36	6	2	93,628	-
2004	54	38	7	2	86,792	1,516
2005	52	40	6	2	79,599	1,194
2006	53	40	6	2	79,579	1,115

Source: Healthcare Commission, *Inpatient Surveys 2002-06*

<http://www.healthcarecommission.org.uk/nationalfindings/surveys.cfm>

These results are somewhat mirrored by the findings of PEAT, the arm of the NPSA charged with reviewing hospital cleanliness. While PEAT found progressive improvements in cleanliness scores between 2000-03, results since they switched to a more rigorous inspection regime in 2004 have been ambiguous. There have been improvements in the number of hospitals with 'good' or 'excellent' ratings on cleanliness, but also a rise in those ranked 'poor' or 'unacceptable'.

	Hospital cleanliness – PEAT ranking				
	Excellent (%)	Good (%)	Acceptable (%)	Poor (%)	Unacceptable (%)
2004	10.0	38.5	49.2	2.0	0.3
2005	10.3	44.8	40.1	4.6	0.2

Source: NPSA, *PEAT Survey Data, 2004-06*

<http://www.npsa.nhs.uk/health/resources/peat>

The international picture:

Rates of MRSA in the UK are certainly extremely high compared with other European countries of similar development. The UK registers both the highest reported rate of *Staphylococcus aureus* and the highest proportion of the bacteria that is MRSA:

	MRSA (<i>Staphylococcus aureus</i> - SAU)	
	Total invasive SAU isolates	Proportion resistant to methicillin (% MRSA)
Austria	1471	13
Denmark	874	21
Germany	1350	2
France	3483	27
Hungary	527	19
Italy	1431	37
Netherlands	1401	1
Spain	1337	27
Sweden	1774	1
United Kingdom	3967	44

EARRS Annual Report 2005, Annex 3.2.

http://www.rivm.nl/earss/Images/EARSS%202005_tcm61-34899.pdf

However, the jury is still out as regards the overall prevalence of hospital-acquired infection, and patient safety as a whole, in the UK compared with other countries.

The Commonwealth Fund, in its 2005 survey of sicker adults, found that 10% of UK respondents who had been hospitalised reported getting an infection compared with, for example, just 3% in Germany and 7% in Canada and the US.

However, based on data for 111,361 surgical procedures from over 600 hospitals, HELICS estimated that rates of surgical-site infection in NHS hospitals are similar or better than those of comparable development. Procedure involving caesarean section is the exception to this, where rates are significantly higher than the average:

	Cumulative incidence of registered surgical site infection (%)					
	Coronary artery bypass surgery	Cholecystectomy	Colon surgery	Caesarean section	Arthroplasty of the hip	Laminectomy
France	7.9	1.0	9.3	2.6	2.1	1.5
Germany	2.8	1.5	7.9	1.1	1.5	0.1
Hungary	-	0.3	6.5	-	3.4	-
Netherlands	-	2.0	11.7	0.8	2.9	0.5
Spain	-	4.4	8.6	3.7	3.7	-
UK (East)	2.9	-	8.4	9.3*	2.1	-

*Figure taken from UK (South). No data available for East.

HELICS-SSI Statistical Report 2004, p.32

<http://helics.univ-lyon1.fr/documents/HELICS->

[SSI%20Stat%20Report%202004%20Final%20Version%20180406.pdf](http://helics.univ-lyon1.fr/documents/HELICS-SSI%20Stat%20Report%202004%20Final%20Version%20180406.pdf)

Moreover, both the Commonwealth Fund and the OECD find favourable results for the NHS in terms of medical mistakes. The UK had the lowest rate (12%) of sicker patients surveyed saying they believed a medical mistake was made in their treatment and the second lowest rate (11%) for being given incorrect test results or experiencing a delay in getting abnormal test results, over the past 2 years, when compared with Australia, Canada, Germany, New Zealand and the US. The UK also had comparable rates to OECD countries on harm caused to patients receiving healthcare in hospitals:

	Misadventures to patients during surgical or medical care (deaths / 100,000 pop.)			
	2000	2001	2002	2003
Australia	0.5	0.3	0.4	0.4
Canada	0.3	0.3	0.5	0.5
France	0.4	0.5	0.5	0.5
Germany	0.5	0.4	0.5	0.5
Italy	0.3	0.3	0.4	0.4
Netherlands	0.2	0.1	0.3	0.1
Sweden	0.4	0.4	0.6	0.6
United Kingdom	0.5	0.5	0.5	0.5
United States	0.8	0.8	0.7	0.7

OECD, Health Data 2006

http://www.oecd.org/document/16/0,2340,en_2649_37407_2085200_1_1_1_37407,00.html

What should be remembered, however, is that none of these sources give a comprehensive international comparison of patient safety – for one an agreed taxonomy does not even exist. As yet there is little, if any, evidence that patient safety is linked to a particular healthcare system: all, including the NHS, have considerable work to do.

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