National Patient Safety Agency

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The National Patient Safety Agency

- a Special Health Authority within the NHS
- The role of the NPSA is to:
  - collect and analyse information on patient safety incidents in the NHS
  - assimilate other safety related information from within the UK and worldwide
  - learn lessons and ensure that they are fed back into practice
  - where risks are identified - produce solutions to prevent harm, specify national goals, establish mechanisms to track progress
Patient Safety

Patient safety is the freedom from accidental injury in health care

A patient safety incident is any unintended or unexpected incident which could have or did lead to harm for one or more patients receiving NHS funded healthcare

This is also referred to as an adverse event/incident, mistake or clinical error, and includes near misses
Learning from other safety critical industries

To minimise patient safety incidents, healthcare should learn from safety-critical industries and target the underlying systems failures.
Air Safety Reports: Volume & Risk

- Total
- High Risk

Year:
- 1994
- 1995
- 1996
- 1997
- 1998
- 1999

Volume:
- 9000
- 8000
- 7000
- 6000
- 5000
- 4000

Risk:
- 20%
- 2.5%
- 1.5%
- 1.0%
- 0.5%
- 0.0%
Number of incidents reported in England, October 2003 to September 2009
Reported incident types in England, July 2008 to June 2009

The total figures in England are marginally lower than those shown in other tables, as there were two incidents with missing incident type. These incidents are currently being investigated.

Total: 945,518
Care setting of incident reports in England, July 2008 to June 2009

- Acute/general hospital: 693,700
- Community nursing, medical and therapy service (including community hospital): 86,388
- Mental health service: 131,459
- Learning disabilities service: 26,902
- General practice: 3,417
- Ambulance service: 2,546
- Community pharmacy: 728
- Community and general dental service: 566
- Community optometry/optician service: 14

Total: 945,520

Putting Patient Safety First
Reported degree of harm to patients in England, July 2008 to June 2009

Total excludes incidents for which degree of harm was not available, thus total may differ from other figures.

Total: 945,497

No harm 630,363

Death 3,735

Moderate 57,708

Severe 7,773

Low 245,918
Reported incidents associated with severe harm or death, by incident type in England, July 2008 to June 2009

- Other: 1,670 incidents
- Infection control incident: 705 incidents
- Implementation of care and ongoing monitoring/review: 948 incidents
- Self-harming behaviour: 430 incidents
- Treatment, procedure: 1,362 incidents
- Clinical assessment (including diagnosis, scans, tests, assessments): 538 incidents
- Patient abuse (by staff/third party): 71 incidents
- Access, admission, transfer, discharge (including missing patient): 520 incidents
- Consent, communication, confidentiality: 205 incidents
- Medical device/equipment: 153 incidents
- All other incident types: 311 incidents

Putting Patient Safety First
Providing benchmarking data

Figure 2: Incident rate per one hundred admissions

Source: Patient safety incident reports successfully submitted to the NRLS where the incident occurred during the period 1 October 2006 to 31 March 2007.
Are you actively encouraging reporting of incidents?

The comparative reporting rate summary shown below provides an overview of incidents reported by your organisation to the National Reporting and Learning System (NRLS) between 1 October 2009 and 31 March 2010. 5,658 incidents were reported during this period.

Figure 1: Comparative reporting rate, per 100 admissions, for 42 large acute organisations.

Organisations that report more incidents usually have a better and more effective safety culture. You can’t learn and improve if you don’t know what the problems are.
What type of incidents are reported in your organisation?

Figure 2: Top 10 incident types

- **Patient accident**: 31.8% (Your organisation), 26.5% (All large acute organisations)
- **Treatment, procedure**: 12.6% (Your organisation), 10.1% (All large acute organisations)
- **Medication**: 9.5% (Your organisation), 15.1% (All large acute organisations)
- **Access, admission, transfer, discharge**: 8.0% (Your organisation), 11.5% (All large acute organisations)
- **Documentation (including records, identification)**: 7.6% (Your organisation), 7.6% (All large acute organisations)
- **Infrastructure (including staffing, facilities, environment)**: 6.8% (Your organisation), 7.6% (All large acute organisations)
- **Implementation of care and ongoing monitoring / review**: 3.2% (Your organisation), 0.1% (All large acute organisations)
- **Clinical assessment**: 5.6% (Your organisation), 5.3% (All large acute organisations)
- **Consent, communication, confidentiality**: 3.4% (Your organisation), 2.7% (All large acute organisations)
- **Medical device / equipment**: 3.3% (Your organisation), 4.7% (All large acute organisations)
- **All others categories**: 5.3% (Your organisation), 6.7% (All large acute organisations)
Figure 3: Incidents reported by degree of harm for large acute organisations

Do you understand harm?

Nationally, 68 per cent of incidents are reported as no harm, and just under 1 per cent as severe harm or death.

However, not all organisations apply the national coding of degree of harm in a consistent way, which can make comparison of harm profiles of organisations difficult.

Organisations should record actual harm to patients rather than potential degree of harm.

<table>
<thead>
<tr>
<th>Degree of harm</th>
<th>Your organisation</th>
<th>All large acute organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>72.6%</td>
<td>78.0%</td>
</tr>
<tr>
<td>Low</td>
<td>21.5%</td>
<td>20.1%</td>
</tr>
<tr>
<td>Moderate</td>
<td>5.3%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Severe</td>
<td>0.5%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Death</td>
<td>0.2%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Your figures:</th>
<th>None</th>
<th>Low</th>
<th>Moderate</th>
<th>Severe</th>
<th>Death</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4,412</td>
<td>1,137</td>
<td>95</td>
<td>12</td>
<td>2</td>
</tr>
</tbody>
</table>
Problem to be solved

• Inspiring staff to make care as safe as possible
• Making safety ‘real’ for frontline clinicians
• Visible local leadership
• Reliable implementation nationally of proven practices
NPSA solutions work
Reducing harm from omitted and delayed medicines in hospital

**Issue**

Medicine doses are often omitted or delayed in hospital for a variety of reasons. Whilst these events may not seem serious, for some critical medicines or conditions, such as patients with sepsis or those with pulmonary embolisms, delays or omissions can cause serious harm or death. Patients going into hospital with chronic conditions are particularly at risk. For example, patients with Parkinson’s disease who do not receive their medicines on time may recover slowly or lose function, such as ability to walk. This has been highlighted by the Parkinson’s Disease Society’s ‘Get it on time’ campaign, which has produced resources for both patients and staff to help raise awareness and enable patients to get their medication on time.

The Productive Ward initiative from the National Health Service Institute for Innovation and Improvement (NHS III) provides information on minimising interruptions and streamlining the medicines ward round and National Patient Safety Agency (NPSA)/National Institute for Health and Clinical Excellence (NICE) guidance on medicines reconciliation supports the reduction in omitted doses. These are useful resources, but further work is needed in the NHS to address this as an important patient safety issue.

**Patient safety incidents**

Between September 2006 and June 2009, the NPSA received reports of 27 deaths, 68 severe harms and 21,383 other patient safety incidents relating to omitted or delayed medicines. Of the 95 most serious incidents, 31 involved antimicrobials (antibiotic and antifungals), and 23 involved anticoagulants. Wider evidence suggests that the true rate of harm may be much higher, as events such as these are often not reported.

Work on reducing risks with omitted and delayed critical medicines is needed over a long period. The NPSA is recommending a staged approach, with initial actions now focused on specific critical medicines and longer term work with stakeholders over the next two years to sustain improvements over time.
For IMMEDIATE ACTION by all organisations in the NHS and independent sector who admit patients for in-patient treatment. Deadline for ACTION COMPLETE is 24 February 2011.

An executive director, nominated by the chief executive, working with the chief pharmacist and relevant medical/nursing staff should:

1. identify a list of critical medicines where timeliness of administration is crucial. This list should include anti-infectives, anticoagulants, insulin, resuscitation medicines and medicines for Parkinson’s disease, and other medicines identified locally;

2. ensure medicine management procedures include guidance on the importance of prescribing, supplying and administering critical medicines, timeliness issues and what to do when a medicine has been omitted or delayed;

3. review and, where necessary, make changes to systems for the supply of critical medicines within and out-of-hours to minimise risks;

4. review incident reports regularly and carry out an annual audit of omitted and delayed critical medicines. Ensure that system improvements to reduce harm from omitted and delayed medicines are made. This information should be included in the organisation’s annual medication safety report;

5. make all staff aware (by wide distribution of this RRR) that omission or delay of critical medicines, for inpatients or on discharge from hospital, are patient safety incidents and should be reported.
Reducing treatment dose errors with low molecular weight heparins

Issue
Prescribed doses of low molecular weight heparins (LMWHs) for the treatment of a thromboembolic event are dependent on the weight of the patient and renal function. Underdosing has an increased risk of a further thromboembolic event, while overdosing can increase the risk of bleeding. Dosing errors with LMWHs can occur if the prescribed treatment dose is not calculated using the patient’s current weight. Reports to the National Reporting and Learning System (NRLS) indicate that some patients are not weighed prior to dosing, that body weight is estimated or recorded inaccurately, or that doses based on a patient’s weight are miscalculated. Additionally, there are numerous reports where the prescribed, dispensed or administered dose and frequency of LMWH were outside accepted guidelines for the required clinical indication and other predisposing conditions such as renal failure. Limited patient information (i.e. weight, dosage, indication and intended duration of treatment) communicated at transfers of care has also led to reports of harm.

Evidence of harm
Between January 2005 and September 2009, the NPSA received 2,716 patient safety incident reports relating to dosing errors concerning LMWHs. These include one incident reported to have led to death and three reports of severe harm. A review of NHS Litigation Authority claims identified one further death.
An executive director, nominated by the chief executive, working with the chief pharmacist and relevant medical/nursing staff should ensure that:

1. A patient’s weight is used as the basis for calculating the required treatment dose of LMWH. The weight must be accurately recorded in kilograms (kg) in the inpatient medication chart (when in use) and clinical record. Patients should be weighed at the start of therapy and, where applicable, during treatment.

2. Renal function is considered when prescribing treatment doses of LMWHs. The renal function test should not delay initiation of the first dose but every effort must be made to base subsequent dosing on these results.

3. Dose calculation tools are available for a range of body weights, specific clinical indications and LMWH products, and that consideration is given to rationalising the range of LMWH products used in the organisation.

4. Essential information such as dose, weight, renal function, indication and duration of treatment is communicated at transfers of care (e.g. by discharge letters) and used to ensure that future doses are safe.

5. Dosing checks based on patient information are made by healthcare professionals who review, dispense or administer LMWHs when this information is readily available to them.

6. System improvements should be demonstrated through the collection and review of data, such as incident reports, clinical pharmacy interventions, audit or other relevant outcome measures.
Challenges

• Local organisations making better use of their own patient safety data
• Improved incident reporting by primary care
• Accuracy, completeness and timeliness of incident reports
• Can we move beyond ‘blame and train’?
• Will and skill for process and service redesign – human factors
• Harnessing the power of design