

Safer practice notice

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Notice

20 May 2004

Issue 1

Improving infusion device safety

Fifteen million infusions are performed in the NHS every year. The vast majority are delivered safely. However, at least 700 unsafe incidents are reported each year, of which 19 per cent are attributed to user error.

A National Patient Safety Agency (NPSA) pilot study has helped to confirm the root causes of those incidents where no fault with the equipment has been identified. These are:

- 1 trusts have a wider range of infusion device types than they need and too many with a higher specification than is necessary;
- 2 staff training is not a priority or competency-based;
- 3 devices of the same type have multiple configurations and react differently under the same circumstances.

Action for the NHS

To reduce the risk of patient safety incidents involving infusion devices, NHS acute trusts in England and Wales are advised to take the following steps within the NHS financial year 2004/5:

- 1 review how purchasing decisions are made;
- 2 evaluate the necessity for an infusion device before it is purchased;
- 3 reduce the range of infusion device types in use and, within each type, have agreed default configurations;
- 4 investigate the benefits of a centralised equipment library.

The NPSA has developed a toolkit to help trusts review their existing device management systems, as well as assess the potential for significant cost benefits and improved patient safety.

For response by:

- NHS acute trusts in England and Wales

For action by:

- Safety Alert Broadcast System liaison officers (England) and clinical governance leads (Wales) - to distribute to:
- Heads of clinical/medical engineering departments

We recommend you also inform:

- Finance directors
- Board member with responsibility for device management

- Nursing directors
- Medical directors
- Medical device liaison officers
- Risk managers
- Procurement managers
- Communications leads
- PALS officers (England)

The NPSA has also sent to:

- Chief executives of NHS acute trusts in England and Wales
- Chief executives/regional directors and clinical governance leads of strategic

health authorities (England) and regional offices (Wales)

- Medicines and Healthcare products Regulatory Agency (MHRA)
- The Independent Healthcare Forum (IHF)
- The Healthcare Commission (CHC)
- Royal College of Nursing/Midwives/Physicians/Anaesthetists
- Community Health Councils (Wales)
- Healthcare Inspectorate Wales (HIW)
- Welsh Health Supplies
- Infusion device manufacturers

Are there areas in your hospital that look like this?

Picture (A) was taken by one of the pilot sites as part of its review. The trust found that many devices were not being used, and is now setting up an equipment library (as depicted in picture (B))



The NPSA toolkit

The NPSA recommends that clinical governance leads identify a senior member of staff, such as the head of clinical/medical engineering, to coordinate the review.

The toolkit and further information are on a website hosted by the NHS Purchasing and Supply Agency (NHS PASA) at www.pasa.nhs.uk/infusiondevices

On the website are:

- the NPSA toolkit:
 - baseline assessment and decision-making guidance;
 - questionnaire which helps evaluate the usability of a particular type of infusion device prior to purchase;
 - advice on developing a centralised equipment library;
 - spreadsheet for carrying out an economic appraisal to establish potential cost benefits;
- links to manufacturers' websites;
- evaluation of the NPSA pilot study;
- NHS PASA guidance on tendering and purchasing infusion devices;
- patient information tested in the pilot sites, for including in patient publications.

Benefits

Implementing the actions recommended above has the potential to:

- 1 reduce the risk of patient harm or death through better management of infusion devices;
- 2 save money through better purchasing decisions and more efficient use of stock. Based on the information provided by the NPSA pilot study, the Department of Health estimates that trusts could save £120,000 a year;
- 3 reduce the number of patient safety incidents that lead to litigation;
- 4 improve Controls Assurance, Clinical Negligence Scheme for Trusts (CNST) and Welsh Risk Pool scores.



Next steps

The NPSA will review the toolkit's success in a year's time.

More work still needs to be done by the NPSA to address other risks highlighted during the project. The NPSA and the NHSU are developing an accredited e-learning programme for NHS clinical staff using infusion devices. The aim is that this will be available in the autumn.

Background

The Medicines and Healthcare products Regulatory Agency (MHRA) receives over 700 reports of unsafe incidents with infusion devices (including ten deaths) every year. 19 per cent of problems are attributed to user error.

The NPSA pilot study

The NPSA pilot study in six acute trusts found an average of:

- 321 reported incidents linked to infusion devices annually in those six trusts;
- 31 different types of infusion device available for use;
- 65 per cent of infusion devices idle for most of the time.

In response to these findings, five of the acute trusts participating in the pilot study are implementing a central system for purchasing, managing and maintaining infusion devices. The sixth trust was an exemplar site that already had most of the systems in place. The trusts have also put in place measures for:

- involving stakeholders in the purchasing process;
- purchasing based on appropriate information;
- sharing data on how infusion devices are being used with purchasers and manufacturers.

An evaluation of the pilot study can be found on the NPSA website at www.npsa.nhs.uk



Existing guidance and standards on infusion device management

Controls Assurance: Standard 15 (Medical Device Management) National Health Service Litigation Authority (NHSLA) – National guidance on purchasing, management and user practice. Trusts are assessed annually to ensure progress is being maintained against standards. www.hcsu.org.uk

Clinical Negligence Scheme for Trusts (CNST) NHSLA. www.nhsla.co.uk

There is a separate risk standard for Wales under the Welsh Risk Pool Scheme (Welsh Risk Management Standard 30). howis.wales.nhs.uk

Medicines and Healthcare products Regulatory Agency (MHRA): Device Bulletin 2003 (02) '*Infusion Systems*' – This document has practical, evidenced-based guidance on infusion device management and use. The advice is underpinned by the European Medical Devices Directive and follows recognised standards of practice. www.medical-devices.gov.uk

Further details

For further details about this safer practice notice please contact the NPSA patient safety manager in your area. You can find their contact details on the NPSA website at www.npsa.nhs.uk/static/contacts

Representatives from pilot study trusts can advise on using the NPSA toolkit. Your patient safety manager can give you their contact details.

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This safer practice notice is written in the following context:

It represents the view of the National Patient Safety Agency, which was arrived at after consideration of the evidence available. It is anticipated that healthcare staff will take it into account when designing services and delivering patient care. This does not, however, override the individual responsibility of healthcare staff to make decisions appropriate to local circumstances and the needs of patients and to take appropriate professional advice where necessary.

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