

The never events list;
2013/14 update

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Description This is the list of never events for use in the NHS from 2013/14 onwards. The document is unchanged from the previous versions except where clarification has been made around the definition of 'Retained foreign object post procedure'. It should be read in conjunction with 'The Never Events Policy Framework: an update to the never events policy.'

Cross Reference The Never Events Policy Framework: an update to the never events policy.

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Introduction

This is the list of never events for use in the NHS from 2013/14 onwards. The document is unchanged from the previous versions except where clarification has been made around the definition of 'Retained foreign object post procedure'. This does not change the definition of the never event, but clarifies it to deal with feedback from NHS providers and commissioners which suggested some uncertainty about the application of the definition. Some examples of how this definition can be applied have been provided as an appendix (Appendix A)

Never events are a sub-set of Serious Incidents and are defined as 'serious, largely preventable patient safety incidents that should not occur if the available preventative measures have been implemented by healthcare providers'¹

Incidents are considered to be never events if:

- There is evidence that the never event has occurred in the past and is a known source of risk (for example, through reports to the National Reporting and Learning System or other serious incident reporting system).
- There is existing national guidance or safety recommendations, which if followed, would have prevented this type of never event from occurring (for example, for 'Retained foreign object post procedure' the referenced national guidance is related to the peri-operative counting and checking processes that would be expected to occur at the time of the procedure, including suturing after a vaginal birth).
- Occurrence of the never event can be easily identified, defined and measured on an ongoing basis.

Some types of never events hold high potential for significant harm, and are designated never events regardless of the actual degree of harm that occurred. Some types of incidents are designated never events only if death or severe harm² results. Death and severe harm are defined as:

Severe: Any patient safety incident that appears to have resulted in permanent harm to one or more persons receiving NHS-funded care. Permanent harm is defined as permanent lessening of bodily functions, sensory, motor, physiologic or intellectual, directly related to the incident and not related to the natural course of the patient's illness or underlying condition.

Death: Any patient safety incident that directly resulted in the death of one or more persons receiving NHS-funded care.

Each individual never event definition shows clearly whether it applies to all incidents or only those causing death or severe harm.

¹ NHS Commissioning Board, Serious Incident Framework March 2013: *An update to the 2010 National Framework for Reporting and Learning from Serious Incidents Requiring Investigation*, available at <http://www.england.nhs.uk/wp-content/uploads/2013/03/sif-guide.pdf>

² National Patient Safety Agency, 'Seven Steps to Patient Safety', 2004 – 2009. Available at <http://www.nrls.npsa.nhs.uk/resources/collections/seven-steps-to-patient-safety/>

Notes:

- This is clarification of the previous guidance, not a revision and as such would be expected to apply from April 2013
- Hyperlinks to national guidance within this document have been updated to reflect new/ revised guidance that is available
- This document should be read in conjunction with 'The Never Events Policy Framework: an update to the never events policy' <http://www.idsc-uk.co.uk/docs-2012/never-events-policy-framework-update-to-policy.pdf>

SURGICAL**1. Wrong site surgery**

A surgical intervention performed on the wrong site (for example wrong knee, wrong eye, wrong patient, wrong limb, or wrong organ); the incident is detected at any time after the start of the operation and the patient requires further surgery, on the correct site, and/or may have complications following the wrong surgery.

- Includes biopsy, radiological procedures and drain insertion, where the intervention is considered surgical.
- Excludes wrong site anaesthetic block.
- Excludes interventions where the wrong site is selected because of unknown/unexpected abnormalities in the patient's anatomy. This should be documented in the patient's notes.

Setting: All healthcare premises.

Guidance:

- *Safer Practice Notice – Standardising Wristbands improves patient safety, 2007*, available at <http://www.nrls.npsa.nhs.uk/resources/?entryid45=59824>

- *Patient Safety Alert – WHO Surgical Safety Checklist, 2009*, available at <http://www.nrls.npsa.nhs.uk/resources/clinical-specialty/surgery/>

- *How to Guide to the five steps to safer surgery*, 2010, available at <http://www.nrls.npsa.nhs.uk/resources/?EntryId45=92901>

2. Wrong implant/prosthesis

Surgical placement of the wrong implant or prosthesis where the implant/prosthesis placed in the patient is other than that specified in the operating plan either prior to or during the procedure. The incident is detected at any time after the implant/prosthesis is placed in the patient and the patient requires further surgery to replace the incorrect implant/prosthesis and/or suffers complications

following the surgery.

- Excludes where the implant/prosthesis placed in the patient is intentionally different from the operating plan, where this is based on clinical judgement at the time of the operation.
- Excludes where the implant/prosthesis placed in the patient is intentionally planned and placed but later found to be suboptimal.

Setting: All healthcare premises.

Guidance:

- *Safer Practice Notice – Standardising Wristbands improves patient safety, 2007*, available at <http://www.nrls.npsa.nhs.uk/resources/?entryid45=59824>
- *Patient Safety Alert – WHO Surgical Safety Checklist, 2009*, available at <http://www.nrls.npsa.nhs.uk/resources/clinical-specialty/surgery/>
- *Safer Surgery Checklist for Cataract Surgery, 2010*, available at <http://www.rcophth.ac.uk/page.asp?section=365§ionTitle=Information+>
- *How to Guide to the five steps to safer surgery', 2010*, available at <http://www.nrls.npsa.nhs.uk/resources/?EntryId45=92901>

3. Retained foreign object post-procedure

Retention of a foreign object in a patient after a surgical/invasive procedure.

'Surgical/invasive procedure' includes interventional radiology, cardiology, and interventions related to vaginal birth.

'Foreign object' includes any items that should be subject to a formal counting /checking process at the commencement of the procedure and a counting /checking process before the procedure is completed (such as swabs, needles, instruments and guidewires) **except where:**

- Items are inserted during the procedure but are intentionally retained after completion of the procedure, with removal planned for a later time or date
- Items are known to be missing prior to the completion of the procedure and may be within the patient (e.g. screw fragments, drill bits) but where further action to locate and/or retrieve would be impossible or be more damaging than retention
- Items were inserted at an earlier date or time and not removed as planned during a later surgical/invasive procedure

See the **Appendix A on page 15** for examples of correct application of this never event definition.

Settings: All healthcare premises.

Guidance:

Standards and recommendations for safe perioperative practice, 2011, available at <http://www.afpp.org.uk/books->

[journals/books/book-123](#)

Accountable items, swab, instrument and needle counts 2012, available at

<http://www.afpp.org.uk/careers/Standards-Guidance>

Patient Safety Alert – WHO Surgical Safety Checklist, 2009, available at

<http://www.nrls.npsa.nhs.uk/resources/clinical-specialty/surgery/?entryid45=59860&p=3>

Reducing the risk of retained swabs after vaginal birth and perineal suturing, 2010 available at

<http://www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=74113>

Reducing the risk of retained throat packs after surgery, 2009, available at

<http://www.nrls.npsa.nhs.uk/resources/?EntryId45=59853>

MEDICATION EVENTS

4. Wrongly prepared high-risk injectable medication

Death or severe harm as a result of a wrongly prepared high-risk injectable medication.

- High-risk injectable medicines are identified using the NPSA's risk assessment tool³. A list of high-risk medicines has been prepared by the NHS Aseptic Pharmacy Services Group using this tool⁴. Organisations should have their own list of high-risk medications for the purposes of the never events policy, which may vary from the NHS Aseptic Pharmacy Services Group list, depending on local circumstances.
- The patient receives a wrongly prepared high risk injectable medication if it was not;
 - prepared in accordance with the manufacturer's Specification of Product Characteristics;
 - prepared in accordance with a protocol formally agreed by the local organisation (for example for off-label or unlicensed product use);
 - prepared in accordance with patient specific directions of a prescriber in an urgent or emergency situation and supported by evidence or expert advice.
- This event excludes any incidents that are covered by other never events.
- Where death or severe harm cannot be attributed to incorrect preparation, treat as a Serious Untoward Incident.

Setting: All healthcare settings.

Guidance:

- *Patient Safety Alert - Promoting safer use of injectable medicines, 2007*, available at

<http://www.nrls.npsa.nhs.uk/resources/patient-safety-topics/medication-safety/?entryid45=59812&p=4>

- *Multiple use of single use injectable medicines, 2011*, available at

<http://www.nrls.npsa.nhs.uk/resources/type/signals/?entryid45=130185>

³ NPSA High Risk Medication Risk Assessment Tool, 2007, available at

<http://www.nrls.npsa.nhs.uk/EasySiteWeb/getresource.axd?AssetID=60097&type=full&servicetype=Attachment>

⁴ Pharmaceutical Aseptic Services Group. Example risk assessment of injectable medicines. 2007. Available at <http://www.civas.co.uk/>

5. Maladministration of a potassium-containing solution

Death or severe harm as a result of maladministration of a potassium-containing solution.

Maladministration refers to;

- selection of strong⁵ potassium solution instead of intended other medication,
- wrong route administration, for example a solution intended for central venous catheter administration given peripherally,
- infusion at a rate greater than intended.

Setting: All healthcare settings.

Guidance:

- *Patient safety alert – Potassium chloride concentrate solutions, 2002 (updated 2003)*, available at <http://www.nrls.npsa.nhs.uk/resources/?entryid45=59882>

- *Standard Operating Protocol fact sheet; Managing Concentrated Injectable Medicines*, part of the WHO High 5's project, available at <https://www.high5s.org/bin/view/Main/WebHome>

6. Wrong route administration of chemotherapy

Intravenous or other chemotherapy (for example, vincristine) that is correctly prescribed but administered via the wrong route (usually into the intrathecal space).

Setting: All healthcare premises.

Guidance:

- *HSC2008/001: Updated national guidance on the safe administration of intrathecal chemotherapy*, 2008, available at

http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_086844.pdf

- *Rapid Response Report NPSA/2008/RRR004 using vinca alkaloid minibags (adult/adolescent units)*, 2008, available at <http://www.nrls.npsa.nhs.uk/resources/?entryid45=59890>

- *Minimising Risks of Mismatching Spinal, Epidural and Regional Devices with Incompatible Connectors*, 2011, available at <http://www.nrls.npsa.nhs.uk/resources/?entryid45=132897>

- *Safer spinal (intrathecal), epidural and regional devices*, 2011, available at <http://www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=94529>

7. Wrong route administration of oral/enteral treatment

Death or severe harm as a result of oral/enteral medication, feed or flush administered by any parenteral route.

Setting: All healthcare settings.

Guidance:

- *Patient Safety Alert NPSA/2007/19 - Promoting safer measurement and administration of liquid medicines via*

⁵ ≥10% potassium w/v (eg ≥ 0.1g/ml potassium chloride, 1.3mmol/ml potassium chloride)

oral and other enteral routes, 2007, available at <http://www.nrls.npsa.nhs.uk/resources/?entryid45=59808>

8. Intravenous administration of epidural medication

Death or severe harm as a result of intravenous administration of epidural medication.

- A broader never event covering intravenous administration of intrathecal medication or intrathecal administration of intravenous medication is intended once the deadlines for both parts A (updated) and B of the *Safer spinal (intrathecal), epidural and regional devices* patient safety alert have passed.

Setting: All healthcare premises.

Guidance:

- *Patient Safety Alert NPSA/2007/21, Safer practice with epidural injections and infusions*, 2007, available at <http://www.nrls.npsa.nhs.uk/resources/?entryid45=59807>
- *Safer spinal (intrathecal), epidural and regional devices*, 2011, available at <http://www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=94529>
- *Minimising Risks of Mismatching Spinal, Epidural and Regional Devices with Incompatible Connectors*, 2011, available at <http://www.nrls.npsa.nhs.uk/resources/?entryid45=132897>

9. Maladministration of Insulin

Death or severe harm as a result of maladministration of insulin by a health professional.

Maladministration in this instance refers to when a health professional

- uses any abbreviation for the words 'unit' or 'units' when prescribing insulin in writing,
- issues an unclear or misinterpreted verbal instruction to a colleague,
- fails to use a specific insulin administration device e.g. an insulin syringe or insulin pen to draw up or administer insulin, or
- fails to give insulin when correctly prescribed.

Setting: All healthcare settings.

Guidance:

- *Rapid response report – Safer administration of insulin*, 2010, available at <http://www.nrls.npsa.nhs.uk/alerts/?entryid45=74287>
- *NHS Diabetes – Safe use of insulin*, 2010, available at http://www.diabetes.nhs.uk/safe_use_of_insulin/
- *NHSIII Toolkit – Think Glucose*, 2008, available at www.institute.nhs.uk/thinkglucose
- *NHS Diabetes guidance - The Hospital Management of Hypoglycaemia in Adults with Diabetes Mellitus*, 2010, available at http://www.diabetes.org.uk/About_us/Our_Views/Care_recommendations/The-hospital-management-of-Hypoglycaemia-in-adults-with-Diabetes-Mellitus/
- *The adult patient's passport to safer use of insulin*, 2011, available at <http://www.nrls.npsa.nhs.uk/resources/?entryid45=130397&p=2>

10. Overdose of midazolam during conscious sedation

Death or severe harm as a result of overdose of midazolam injection following use of high strength midazolam (5mg/ml or 2mg/ml) for conscious sedation.

- Excludes areas where use of high strength midazolam is appropriate. These are specifically only in general anaesthesia, intensive care, palliative care, or where its use has been formally risk assessed.
- Excludes paediatric care.

Setting: All healthcare premises.

Guidance:

- *Rapid Response Report - Reducing risk of overdose with midazolam injection in adults*, 2008, available at <http://www.nrls.npsa.nhs.uk/resources/patient-safety-topics/medication-safety/?entryid45=59896&p=2>
- *Guidelines for nursing care in interventional radiology*, 2006, available at <http://www.rcr.ac.uk/docs/radiology/pdf/GuidelinesforNursing.pdf>
- *Safe sedation, analgesia and anaesthesia with the radiology department*, 2003, available at <http://www.rcr.ac.uk/publications.aspx?PageID=310&PublicationID=186>
- *Over sedation for emergency procedures in isolated locations*, 2011, available at <http://www.nrls.npsa.nhs.uk/resources/type/signals/?entryid45=94848>
- *Prevention of Harm with Buccal Midazolam*, 2012, available at <http://www.nrls.npsa.nhs.uk/resources/type/signals/?entryid45=132975>

11. Opioid overdose of an opioid-naïve patient

Death or severe harm as a result of an overdose of an opioid given to a patient who was opioid naïve. Specifically this means:

- Where a dose is used that is not consistent with the dosing protocol agreed by the healthcare organisation, or the manufacturer's recommended dosage for opioid-naïve patients*.
- Where the prescriber fails to ensure they were familiar with the therapeutic characteristics of the opioid prescribed.
- Excluded are cases where the patient was already receiving opioid medication.

Setting: All healthcare settings.

Guidance:

- *Rapid Response Report – Reducing dosing errors with opioid medicines*, 2008, available at <http://www.nrls.npsa.nhs.uk/resources/?entryid45=59888>
- *Intravenous morphine administration on neonatal units*, 2011, available at <http://www.nrls.npsa.nhs.uk/resources/?entryid45=130181&p=2>
- *Opioids in palliative care: safe and effective prescribing of strong opioids for pain in palliative care of adults*, 2012, available at <http://guidance.nice.org.uk/CG140>
- *End of life care for adults quality standard*, 2012, available at <http://www.nice.org.uk/guidance/qualitystandards/endoflifecare/home.jsp>
- *Specific Product Characteristics available at www.medicines.org.uk

12. Inappropriate administration of daily oral methotrexate

Prescription, supply or administration of daily oral methotrexate to a patient for non-cancer treatment including supply to the patient with the instruction to take daily.

- Excludes cancer treatment with daily oral methotrexate
- Excludes where the error is intercepted before the patient is supplied with the medication.

Setting: All healthcare settings.

Guidance:

- *Patient safety alert - Improving compliance with oral methotrexate guidelines*, 2006, available at <http://www.nrls.npsa.nhs.uk/resources/?entryid45=59800>

MENTAL HEALTH

13. Suicide using non collapsible rails

Death or severe harm to a mental health inpatient as a result of a suicide attempt using non collapsible curtain or shower rails.

Setting: All mental health inpatient premises.

Guidance:

- *NHSE SN (2002) 01: Cubicle rail suspension system with load release support systems*, 2002, available at http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Estatesalerts/DH_4122863?PageOperation=email

- *NHSE (2004) 10: Bed cubicle rails, shower curtain rails and curtain rails in psychiatric in-patients settings*, 2004, available at www.dh.gov.uk/en/publicationsandstatistics/lettersandcirculars/estatesalerts/dh_4119476

- *Clinical guideline 16 – self-harm: the short term physical and psychological management and prevention of self-harm in primary and secondary care*, 2004, available at www.nice.org.uk/guidance/CG16

- *DH (2007)08: Cubicle curtain track rails (anti-ligature)*, 2007, available at http://www.dh.gov.uk/en/publicationsandstatistics/lettersandcirculars/estatesalerts/dh_076400

14. Escape of a transferred prisoner

A patient who is a transferred prisoner escaping from medium or high secure mental health services where they have been placed for treatment subject to Ministry of Justice restriction directions.

Setting: All medium and high secure mental health inpatient premises.

Guidance:

- *Standards for medium secure units*, 2007, available at

<http://www.rcpsych.ac.uk/pdf/Final%20Standards%20for%20Medium%20Secure%20Units%20PDF.pdf>

- *Best Practice Guidance: Specification for adult medium-secure services*, 2007, available at

http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_078744

GENERAL HEALTHCARE

15. Falls from unrestricted windows

Death or severe harm as a result of a patient falling from an unrestricted window.

- Applies to windows “within reach” of patients. This means windows (including the window sill) that are within reach of someone standing at floor level and that can be exited/fallen from without needing to move furniture or use tools to assist in climbing out of the window.
- Includes windows located in facilities/areas where healthcare is provided and where patients can and do access.
- Includes where patients deliberately or accidentally fall from a window where a restrictor has been fitted but previously damaged or disabled, but does not include events where a patient deliberately disables a restrictor or breaks the window immediately before the fall.

Setting: All healthcare premises.

Guidance:

- *Health Technical Memorandum (HTM) 55: Windows*, available via <http://www.spaceforhealth.nhs.uk/England/space-health> (login required)
- *DH(2007)09 – Window restrictors, 2007*, available at http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_080164.pdf
- *Risk of falling from windows*, available at <http://www.hse.gov.uk/healthservices/falls-windows.htm>

16. Entrapment in bedrails

Death or severe harm as a result of entrapment of an adult in bedrails that do not comply with Medicines and Healthcare products Regulatory Agency (MHRA) dimensional guidance.

Setting: All adult inpatient care premises.

Guidance:

- *Safer practice notice – Using bedrails safely and effectively, 2007*, available at <http://www.nrls.npsa.nhs.uk/resources/?EntryId45=59815>
- *DB 2006(06) Safe use of bed rails, 2006*, available at http://www.mhra.gov.uk/home/idcplg?IdcService=GET_FILE&dDocName=CON2025397&RevisionSelectionMethod=LatestReleased
- *Local Authority Circular - Bed Rail Risk Management, 2003*, available at <http://www.hse.gov.uk/lau/lacs/79-8.htm>
- *Safe use of bedrails*, available at <http://www.hse.gov.uk/healthservices/bed-rails.htm>

17. Transfusion of ABO-incompatible blood components

Death or severe harm as a result of the inadvertent transfusion of ABO-incompatible blood components.

- Excludes where ABO-incompatible blood components are deliberately transfused with

appropriate management.

Setting: All healthcare premises.

Guidance:

- *Safer Practice Notice – Right Patient, Right Blood*, 2006, available at <http://www.nrls.npsa.nhs.uk/resources/?entryid45=59805>
- *SHOT Lessons for clinical staff*, 2007, available at <http://www.shotuk.org/wp-content/uploads/2010/03/SHOT-lessons-for-clinical-staff-website.pdf>
- *SHOT Lessons for Clinical Staff* 2009, available at <http://www.shotuk.org/wp-content/uploads/2010/12/Lessons-for-Clinical-Staff-Dec-2010.pdf>

18. Transplantation of ABO incompatible organs as a result of error

Death or severe harm arising from inadvertent ABO mismatched solid organ transplantation.

- Excluded are scenarios in which clinically appropriate ABO incompatible solid organs are transplanted deliberately
- In this context, 'incompatible' antibodies must be clinically significant. If the recipient has donor specific anti-ABO antibodies and is therefore, likely to have an immune reaction to a specific ABO compatible organ then it would be a never event to transplant that organ inadvertently and without appropriate management.

Setting: All healthcare premises.

Guidance:

- *BSHI and BTS Guidelines for the Detection and Characterisation of Clinically Relevant Antibodies in Allotransplantation*, 2010, available at http://www.bshi.org.uk/pdf/BSHI_BTS_guidelines_2010.pdf
- *Antibody incompatible transplant guidelines*, 2011, available at <http://www.bts.org.uk/transplantation/standards-and-guidelines/>
- *Patient Safety Alert – WHO Surgical Safety Checklist*, 2009, available at <http://www.nrls.npsa.nhs.uk/resources/?EntryId45=59860>

19. Misplaced naso- or oro-gastric tubes

Death or severe harm due to a misplaced naso- or oro-gastric tube being used where the misplacement of the tube is not detected prior to commencement of feeding, flush or medication administration.

- Where appropriate checks are conducted and documented and demonstrate that the tube is in the correct place, but the tube is subsequently found to have become misplaced, for example after becoming dislodged, provided there has been regular checking of tube placement, this is not a never event.

Setting: All healthcare premises.

Guidance:

- *Patient safety alert – Reducing harm caused by misplaced nasogastric feeding tubes*, 2005, available at <http://www.nrls.npsa.nhs.uk/resources/?entryid45=59794>

- *Patient safety alert – Reducing harm caused by misplaced naso and orogastric feeding tubes in babies under the care of neonatal units*, 2005, available at <http://www.nrls.npsa.nhs.uk/resources/?entryid45=59798&q=0%acnasogastric%ac>
- *Reducing the harm caused by misplaced naso-gastric feeding tubes in adults, children and infants*, 2011, available at <http://www.nrls.npsa.nhs.uk/resources/?entryid45=129640&p=2>
- *Harm from flushing of naso-gastric tubes before confirmation of placement*, 2012. available at <http://www.nrls.npsa.nhs.uk/resources/?entryid45=133441>

20. Wrong gas administered

Death or severe harm as a result of the administration of the wrong gas, or failure to administer any gas, through a line designated for Medical Gas Pipeline Systems (MGPS) or through a line connected directly to a portable gas cylinder.

Setting: All healthcare premises.

Guidance:

- *Health Technical Memorandum 02-01 parts A & B*, 2006, available via http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/DH_4118956
<https://www.gov.uk/search?q=Health+Technical+Memorandum+02-01+parts+A+%26+B%2C+2006&tab=government-results>
- *Rapid Response Report - Oxygen Safety in Hospitals*, 2009, available at <http://www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=62811>
- *NHSE SN (2003) 02: Medical liquid oxygen supply systems*, 2003, available at http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Estatesalerts/DH_4121318
- *NHSE SN (2003) 01: Oxygen cylinder manifolds used to supply oxygen for patient use*, 2003, available at <http://webarchive.nationalarchives.gov.uk/+neverevents.dh.gov.uk/gas-administration/>
- *DH (2008) 06 - Medical air plant*, 2008, available at http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_087060.pdf

21. Failure to monitor and respond to oxygen saturation

Death or severe harm as a result of failure to monitor or respond to oxygen saturation levels in a patient undergoing general or regional anaesthesia, or conscious sedation for a healthcare procedure (e.g. endoscopy).

- Includes failure to physically have monitoring in place, and failure to act on relevant information from monitoring oxygen saturation.
- Excludes where action is taken in response to recorded adverse oxygen saturation levels, but this fails to prevent death or severe harm for other reasons (e.g. pre-existing problems with oxygenation that cannot be resolved).
- Excludes incidents where the accepted limitations of monitoring equipment mean that adverse readings may be artefactual (e.g. shock/vasoconstriction).

Setting: All healthcare premises.

Guidance:

- *Recommendations for the Standards of Monitoring During Anaesthesia and Recovery (4)*, 2007, available at <http://www.aagbi.org/publications/guidelines/docs/standardsofmonitoring07.pdf>
- *Royal College of Anaesthetists, Guidance on the provision of anaesthetic care in the non-theatre environment*, revised 2011, available at <http://www.rcoa.ac.uk/node/766>
- *British Society of Gastroenterology, Guidelines on safety and sedation during endoscopic procedures*, 2003, available at <http://www.bsg.org.uk/clinical-guidelines/endoscopy/guidelines-on-safety-and-sedation-during-endoscopic-procedures.html>
- *Academy of Royal Medical Colleges, Implementing and ensuring safe sedation practice for healthcare procedures in adults. Report of an intercollegiate working party chaired by the Royal College of Anaesthetists*, 2001, available at <http://aomrc.org.uk/publications/reports-a-guidance.html>
- *Over sedation for emergency procedures in isolated locations*, 2011, available at <http://www.nrls.npsa.nhs.uk/resources/type/signals/?entryid45=94848>

22. Air embolism

Death or severe harm as a result of intravascular air embolism introduced during intravascular infusion/bolus administration or through a haemodialysis circuit.

- Excludes the introduction of air emboli through other routes. This therefore excludes introduction via surgical intervention (particularly Ear, Nose and Throat surgery and neurosurgery), during foam scleropathy and during the insertion of a central venous catheter.
- Introduction of an air embolism after the insertion of a central venous catheter, through the line, and during its removal, is included.
- Excludes where the introduction of the air embolism was caused by the actions of the patient.

Settings: All healthcare premises.

Guidance:

- *Risk of air embolism when removing central lines*, 2011, available at <http://www.nrls.npsa.nhs.uk/resources/?entryid45=132830>
 - *Section 9.8 - Air Embolism, RCN; Standards for Infusion Therapy*, 2010, available at http://www.rcn.org.uk/_data/assets/pdf_file/0005/78593/002179.pdf
- Avoidance of air embolism is part of basic training of clinicians, hence a lack of additional alerts to date. More information and basic instruction is available from the following medical texts;
- pp 366-372, *Lippincott's Nursing Procedures*, Lippincott, Williams and Wilkins
 - pp254-256, *Clinical Dialysis*, Nissenson AR and Fine RN

23. Misidentification of patients

Death or severe harm as a result of administration of the wrong treatment following inpatient misidentification due to a failure to use standard wristband (or identity band) identification processes.

Failure to use standard wristband identification processes means;

- failure to use patient wristbands that meet the NPSA's design requirements,

- failure to include the four core patient identifiers on wristbands – last name, first name, date of birth and NHS number,
- failure to follow clear and consistent processes for producing, applying and checking patient wristbands,
- printing several labels with patient details at one time.

This event does not apply to those units where wristbands are not used, for example some mental health inpatient units (this requires local agreement).

This event excludes where the patient refuses to wear a wristband despite a clear explanation of the risks of not doing so, or where it has been documented that the patient cannot wear a wristband due to their clinical condition or treatment, or in emergency care environments where high patient turnover, insufficient patient identity information, or the need for rapid treatment can delay wristband use.

Setting: All healthcare premises.

Guidance:

- *Patient Identifiers for Identity Bands: Information standard; Information Standards Board for Health and Social Care* - DSCN 04/2009, March 2009, available at <http://www.isb.nhs.uk/library/standard/175>
- *Safer Practice Notice – Standardising Wristbands improves patient safety, 2007*, available at <http://www.nrls.npsa.nhs.uk/resources/?entryid45=59824>
- *Safer practice notice – Safer Patient Identification, 2005*, available at <http://www.nrls.npsa.nhs.uk/resources/patient-safety-topics/patient-admission-transfer-discharge/?entryid45=59799>

24. Severe scalding of patients

Death or severe harm as a result of a patient being scalded by water used for washing/bathing

- Excludes scalds from water being used for purposes other than washing/bathing (e.g. from kettles)

Settings: All healthcare premises.

Guidance:

- *Health Technical Memorandum 04-01 - The control of Legionella, hygiene, "safe" hot water, cold water and drinking water systems*, 2006, available via <http://www.whitlimited.com/doc/lib/98/htm-04-01-part-b-20061009113435.pdf>
- *Hospital Technical Memorandum HTM64 (Sanitary assemblies)*, 2006, available from http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/DH_4118956
(login required)
<http://www.bing.com/search?q=Hospital+Technical+Memorandum+HTM64+%28Sanitary+assemblies%29%2C+2006&src=IE-SearchBox&FORM=IE8SRC&adlt=strict>
- *NHS Model Engineering Specification D08 (Thermostatic Mixing Valves – healthcare premises)*, 1999, available from http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/DH_4118956

(login required)

<http://www.bing.com/search?q=NHS+Model+Engineering+Specification+D08&src=IE-SearchBox&FORM=IE8SRC&adlt=strict>

- *Scalding risks from hot water in health and social care LAC: 79/5*, 2007, available at <http://www.hse.gov.uk/lau/lacs/79-5.htm>

- *Scalding and burning*, available at <http://www.hse.gov.uk/healthservices/scalding-burning.htm>

MATERNITY

25. Maternal death due to post partum haemorrhage after elective caesarean section

In-hospital death of a mother as a result of haemorrhage following elective caesarean section.

- Excludes cases where placenta accreta is found, or where there is a pre-existing bleeding disorder, or the mother refuses blood components for any reason.
- Excludes emergency caesarean section and where a scheduled elective caesarean section is brought forward.

Setting: All healthcare premises.

Guidance

- *The role of emergency and elective interventional radiology in postpartum haemorrhage, good practice No. 6*, 2007, available at <http://www.rcog.org.uk/womens-health/clinical-guidance/role-emergency-and-elective-interventional-radiology-postpartum-haem>

- *Saving mothers' lives: Reviewing maternal deaths to make motherhood safer – 2006-2008*, 2011, available at <http://onlinelibrary.wiley.com/doi/10.1111/bjo.2011.118.issue-s1/issuetoc>

- *Patient Safety alert – WHO safer surgery checklist*, 2009, available at <http://www.nrls.npsa.nhs.uk/resources/clinical-specialty/surgery/>

- *BCSH Guidelines on the Management of Massive Blood Loss*, 2006, available at http://www.bcsghguidelines.com/documents/massive_bloodloss_bjh_2006.pdf

Appendix A: Retained foreign object post procedure

Earlier definitions of the never event type 'Retained foreign object post operation' were not consistently applied, so examples are provided below to assist consistent application of the current clarified definition. The examples below are intended solely as **illustrative examples of the principles of the definition**, not a complete list of circumstances where the definition applies.

Note that the principles of the definition relate to items that should be subject to a formal counting or checking process at the commencement of the procedure and a counting or checking process before the procedure is completed. The size of the retained foreign object and the potential for harm from the retained foreign object is irrelevant to its designation as a never event.

Circumstances	Does this fit the never event definition?
<i>A patient underwent gynaecological surgery and had a vaginal pack/vaginal tampon intentionally left in place at the end of surgery, with removal planned for 48 hours after surgery. Unfortunately, the planned removal did not take place, and the error was only brought to light after the patient was sent home and she went to her GP complaining of vaginal discomfort and discharge. He examined her and found the pack.</i>	This does not meet the definition of a never event, as the vaginal pack was intentionally retained after the procedure; once outside the controlled counting processes in theatre, the never event principle of being eminently preventable if existing guidance was followed does not apply. This incident is still likely to fit the definition of a Serious Incident and should be reported via STEIS and the NRLS, with all possible steps taken to prevent similar events occurring in future.
<i>A patient needed suturing after an episiotomy during vaginal birth. To create a clear view for the suturing procedure, three swabs were placed in the vagina. The intention was to remove these as soon as suturing was complete, but only two swabs were removed. The error was only brought to light when the swab fell out a few days after the patient and her baby went home.</i>	This meets the definition of a never event; the swab was not intentionally retained and all swabs should have been counted at the time of the procedure.
<i>A patient undergoing eye surgery as day case had a pledget (a small swab) inserted under her eyelid an hour pre-operatively to deliver topical medication. The pledget should have been removed during the surgery but was not. The patient telephoned for advice on a painful eye the day after her procedure and when she came back to the unit to be examined the pledget was found and removed.</i>	This does not meet the definition of the never event, as the pledget was inserted outside the controlled counting processes in theatre, therefore the never event principle of being eminently preventable if existing guidance was followed does not apply. This incident is still likely to fit the definition of a Serious Incident and should be reported via STEIS and the NRLS, with all possible steps taken to prevent similar events occurring in future.

<p><i>A patient undergoing eye surgery as day case had a pledget (a small swab) inserted under her eyelid at the beginning of the procedure. The pledget should have been removed at the end of the surgery but was not. The patient telephoned for advice because her eye was painful the day after her procedure and when she came back to the unit to be examined the pledget was found and removed.</i></p>	<p>This meets the definition of a never event; the pledget was not intentionally retained and all pledgets should have been counted at the time of the procedure.</p>
<p><i>A patient had an interventional cardiology procedure using a guidewire. When the doctor tried to remove the guidewire, it appeared to be stuck. It was left in place so that x-rays could be taken and expert advice sought before its removal was attempted.</i></p>	<p>This does not meet the definition of the never event, as the guidewire was known to be retained prior to the completion of the procedure, but immediate action to retrieve it would be impossible or be more damaging than retention. This incident is still likely to fit the definition of a Serious Incident and should be reported via STEIS and the NRLS, with all possible steps taken to prevent similar events occurring in future. Additional reporting to the MHRA would also be required if an equipment fault could have been implicated.</p>
<p><i>A patient had an interventional cardiology procedure using a guidewire. No problems with the procedure were noticed at the time, but when an x-ray was taken for another reason several days later, a broken-off guidewire tip was found lodged in a blood vessel.</i></p>	<p>This meets the definition of a never event as the guidewire should have been checked for completeness when it was removed at the end of the procedure.</p>