

Guidance notes on National Reporting and Learning System quarterly data summary publications

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Delivering better healthcare by inspiring
and supporting everyone we work with,
and challenging ourselves and others
to help improve outcomes for all.

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1. What is a patient safety incident?

In July 2004, the National Patient Safety Agency (NPSA) defined 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”.¹

Examples of patient safety incidents include:

- a patient has a severe allergic reaction to a medication
- a patient’s breathing is suppressed after a syringe driver’s flow rate is set inappropriately high
- an incision is made on the wrong limb of a patient scheduled for a joint replacement.

2. Can patient safety incidents be prevented?

Some types of incident can be prevented, but in other cases, specific incidents are unavoidable. In general, there are five types of patient safety incident:

- ‘near misses’: an event or situation that could have resulted in an accident, injury or illness, but did not, either by chance or through timely intervention
- serious incidents that are wholly preventable because guidance or safety recommendations that provide strong systemic protective barriers are available at a national level and should have been implemented by all healthcare providers. These incidents are known as Never Events
- incidents where the clinical consensus is that, with the appropriate care, they are ‘largely preventable’ (eg the four adverse outcomes that make up the NHS Safety Thermometer)
- incidents where the emphasis has shifted from preventing the incident to reducing the harm suffered as a result of the incident (eg falls)

¹ www.nrls.npsa.nhs.uk/resources/collections/seven-steps-to-patient-safety/?entryid45=59787

3. Is the National Reporting and Learning System the only database of patient safety incidents?

No, but the National Reporting and Learning System (NRLS) is the only national patient safety incident database that includes all types of patient safety incident. Many of the other databases of patient safety incidents have been created specifically for a particular type of incident or have a broader remit. These include: the Strategic Executive Information System (STEIS); the Care Quality Commission (CQC) notification database; the Medicines and Healthcare products Regulatory Agency (MHRA) 'Yellow Card Scheme' and Serious Adverse Blood Reactions & Events (SABRE); the NHS Safety Thermometer; the Public Health England notifications database; and the Serious Hazards of Transfusion (SHOT) scheme.²

4. Are patient safety incidents the only measures of patient safety?

No. There are many sources of patient safety data: each has a unique perspective, with specific strengths and limitations. Each data source may detect a separate set of safety issues, with little or no overlap between sources. The 'voice of the patient' has been shown to be fundamental to understanding patient safety issues. (A key failure identified in the Mid Staffordshire NHS Foundation Trust Public Inquiry was that the trust board "did not listen sufficiently to its patients and staff."³) The Department of Health has instructed trusts to use the Summary Hospital-level Mortality Indicator (SHMI)⁴ in their quality accounts. (These are reports on quality of the services provided, measured by looking at patient safety, the effectiveness of treatments that patients receive and patient feedback about the care provided.⁵)

² More information on these databases is available at <http://www.nrls.npsa.nhs.uk/EasysiteWeb/getresource.axd?AssetID=135291&servicetype=Attachment>

³ The full Mid Staffordshire NHS Foundation Trust Public Inquiry report (including the executive summary) can be found at: www.midstaffpublicinquiry.com/report

⁴ More information on the SHMI is available at: www.hscic.gov.uk/SHMI

⁵ More information on quality accounts is available at: www.nhs.uk/aboutNHSCoices/professionals/healthandcareprofessionals/quality-accounts/Pages/about-quality-accounts.aspx

5. What is the purpose of the NRLS?

The primary purpose of the NRLS⁶ is to enable learning from patient safety incidents in the NHS. The NRLS was established in late 2003 as a voluntary scheme for reporting patient safety incidents; therefore it does not provide the definitive number of patient safety incidents occurring in the NHS.

6. How are the NRLS data collected?

The NRLS collects data on patient safety incidents in England and Wales.⁷⁷ Most patient safety incident reports are submitted electronically from local NHS organisation risk management systems. Organisations vary in how their local systems are set up, how many incidents are reported locally and how frequently they send data to the NRLS.

View information on [how the data are collected](#).

7. Why are these data published?

A greater level of transparency, together with more thorough reporting and analysis of safety-related incidents, provides a real opportunity for the NHS at a local level and the NRLS at a national level to share experiences and learn from these incidents. The transparency agenda is a pan-government initiative, in which healthcare data figure prominently. We publish these quarterly dataset summary (QDS) workbooks to make data on patient safety incident reports from the NRLS more accessible.

Increased transparency is key to:

- improving outcomes and productivity in NHS services
- promoting higher quality and more efficient services, choice and accountability
- facilitating enhanced commissioning
- driving economic growth by enabling the development of tools to support users, commissioners and providers of NHS services.

^{6,7} For more information on the NRLS improvement.nhs.uk/resources/learning-from-patient-safety-incidents/

8. In what format are the data published?

Since January 2009, this data has been published as Excel data workbooks, which comprise a year's worth of data, presented by quarter. When analysing the data we recommend you compare it with the data for the same quarter in the previous year. This is because patient safety data is affected by seasonality.⁸

9. How often are the data published?

The intention is to publish every quarter but for practical reasons we tend to publish them every six months.

10. What steps does are taken to ensure the data are as accurate and consistent as possible?

Accuracy

Every month, NRLS shares the provisional data received from a submitting organisation with that organisation to help identify possible data quality problems. This gives organisations the opportunity to check the data the NRLS has received and compare it with data in their local risk management system in a timely manner.

Consistency

The datasets underpinning the QDS workbooks are derived using coherent and consistent definitions. The workbooks are also subject to a rigorous quality assurance process. However, the NRLS is a dynamic database, and figures for previous quarters may change slightly when the workbook is updated.⁹

11. Why are some numbers 'hidden' (ie there is a * not a value in the table)?

The numbers are what they are, and some types of incidents are, thankfully, rare. Where the numbers involved are small, statistics (such as percentages) are not calculated and comparisons are not made. This is because statistics based on

⁸ More information on seasonality is available at:

<http://www.nrls.npsa.nhs.uk/EasysiteWeb/getresource.axd?AssetID=135294&servicetype=Attachment>

⁹ For more information on a range of NRLS data quality issues:

<http://www.nrls.npsa.nhs.uk/EasysiteWeb/getresource.axd?AssetID=135288&servicetype=Attachment>

small numbers are unreliable, as it is almost impossible to distinguish random fluctuation from true changes in the statistic.

For the purposes of the QDS workbooks, 'small' is defined as 30 incidents or fewer.

12. Can the data be broken down into the individual NHS organisations?

This dataset gives an overall picture of patient safety incident reporting across England and therefore has never been presented at an organisation level. The Organisation Patient Safety Incident Reports (OPSIR) (NRLS UK Official Statistics) do present NRLS data on patient safety incident reporting, and the characteristics of patient safety incidents, for individual NHS organisations.¹⁰)

13. What are the differences between the QDS workbooks and the OPSIR (NRLS UK Official Statistics) workbooks?

The main differences between the two workbooks are summarised in Table 1 below.

¹⁰ For OPSIR see improvement.nhs.uk/resources/organisation-patient-safety-incident-reports-data/

Table 1: Main features of the QDS and OPSIR workbooks

Feature	QDS	OPSIR: (NRLS UK Official Statistics)
Purpose	To provide a national picture of the reporting of patient safety incidents, and of the characteristics of incidents (type, care setting, degree of harm). This dataset forms the basis of three of the four NRLS indicators within Domain 5 of the NHS operating framework (<i>Treating and caring for people in a safe environment and</i>	To provide comparative data on individual organisations reporting and patient safety characteristics.
Dataset type	Dynamic*	Fixed/static
Time period covered	A rolling year (in quarters)*	Six months
Updated	Every quarter*	Every six months
Units	By country (England)	By individual NHS organisation
Exclusions	Reports from the public or patients	Reports from: <ul style="list-style-type: none"> • the public or patients • non-NHS organisations • clinical commissioning groups and area teams • social enterprises • community

* Figures for previous quarters may change slightly (figures for four consecutive quarters are given in each workbook for incidents ‘occurring’, ie from tab 5 onwards in the workbook) as the NRLS is a dynamic system (and incidents can be reported, or updated, at any time after the event).

14. Why are two datasets used?

To describe NRLS patient safety incident data as accurately as possible, two different datasets are used.

The ‘**reported dataset**’ is used to look at patterns in reporting. It contains incidents that were reported to the NRLS within a specified time period.

The ‘**occurring dataset**’ is used to look at patient safety incident characteristics. It contains incidents that have been reported as actually taking place in a specific time period (because, for a range of legitimate reasons, there are often time lags

between an incident occurring and being reported to the NRLS). Seasonality¹¹ can also be seen in patterns of patient safety incidents. So, to reduce the effects of 'administrative seasonality', when looking at the characteristics of patient safety incidents, we base the dataset on the date the incident was reported to have taken place. This minimises any artificially-created seasonality, while recognising inherent incident seasonality.

15. What types of incident are reported?

There are 15 NLRs codes for type of incident:

1. access, admission, transfer, discharge (including missing patient)
2. clinical assessment (including diagnosis, scans, tests, assessments)
3. consent, communication, confidentiality
4. disruptive, aggressive behaviour
5. documentation (including records, identification)
6. infection control incident
7. implementation of care and ongoing monitoring / review
8. infrastructure (including staffing, facilities, environment)
9. medical device/equipment
10. medication
11. patient abuse (by staff/third party)
12. patient accident
13. self-harming behaviour
14. treatment, procedure
15. other.

16. What types of care setting are there?

There are nine NRLS codes for the type of care setting:

1. acute/general hospital
2. mental health service
3. community nursing, medical and therapy service (including community hospital)

¹¹ More information on seasonality is available at:
<http://www.nrls.npsa.nhs.uk/EasysiteWeb/getresource.axd?AssetID=135294&servicetype=Attachment>

4. learning disabilities service
5. ambulance service
6. general practice
7. community pharmacy
8. community and general dental service
9. community optometry/optician service.

17. Which is the safest care setting?

There is no 'correct' or 'safe' number of patient safety incidents: a 'low' reporting rate should not be interpreted as 'safe', and may represent under-reporting; a 'high' reporting rate should not be interpreted as 'unsafe', and may represent a culture of greater openness.

There are known reasons for 'high' and 'low' reporting. Some NHS organisations report to the NRLS daily, others quarterly. In many cases, incidents are grouped and submitted to the NRLS in large batches. It should never be assumed that the total numbers of patient safety incidents are representative of totals across the NHS. The reporting culture varies between organisation types: reporting in secondary care is far more common than in primary care; ambulance and mental health organisations have the most varied reporting patterns.¹²

18. What does degree of harm mean?

The degree of harm in the NRLS is intended to record the actual degree of harm suffered by the patient as a direct result of the patient safety incident. However, this is not always the case. Sometimes reporters give the **potential** degree of harm of an incident instead of the actual degree of harm that occurred. For example, for 'near misses' (where no harm resulted as the impact was prevented) the resulting degree of harm is occasionally coded as 'severe'.

Reporters may code the degree of harm as 'severe' when the patient is expected to suffer severe but temporary harm (eg severe bruising), which conflicts with the NRLS definition of significant and permanent harm.

There are five NRLS codes for the degree of harm:

¹² For more information on issues affecting the number of incidents reported (including changes in national reporting requirements) see <http://www.nrls.npsa.nhs.uk/EasysiteWeb/getresource.axd?AssetID=135290&servicetype=Attachment>

- no harm
- low
- moderate
- severe
- death.

19. How should NRLS data be compared over time?

Reporting to the NRLS has increased year on year since it began in 2003, and it is anticipated reports will continue to increase as the culture of reporting all incidents spreads more widely and deeply across the NHS. Comparisons over time are confounded by several factors. The NRLS is a dynamic database, and although organisations are encouraged to report promptly, with the option to update incident(s) at a later date (eg once the local investigation is complete), it remains common for organisations to upload their data in large batches.

Careful consideration should be given to the dates of changes in mandatory reporting requirements, as these may have a 'one-off' impact, affecting a specific timeframe. Organisational change should also be borne in mind, as newly created and newly merged organisations take time to mature and set up their systems and processes.

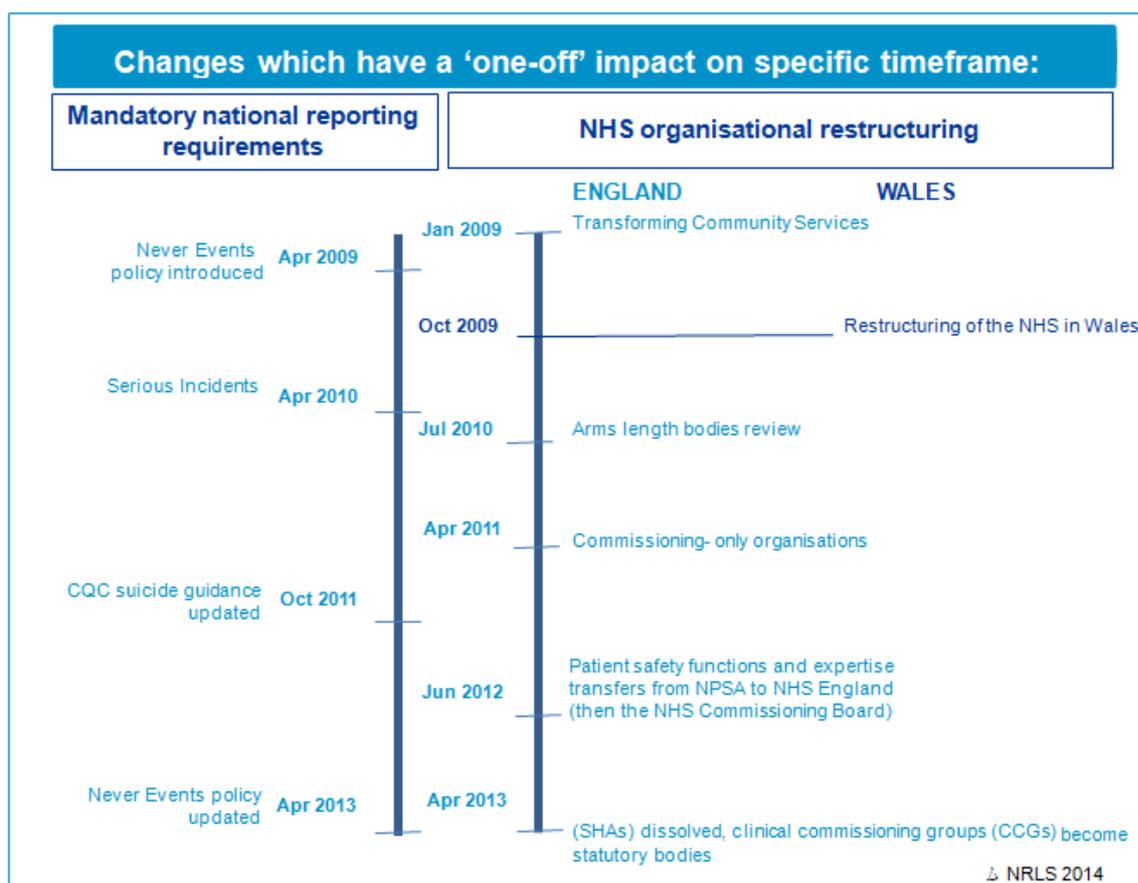
Therefore, when reviewing changes over time, we recommend:^{13,14}

- proportions or percentages are used rather than actual numbers (to allow for the differences in the underlying numbers of incidents)
- either the same time period in the previous year, or a full year's worth of data are used (to take seasonality into account)
- checks are made that any 'change/difference' is not due to new/amended national mandatory reporting requirements or organisational restructuring.

¹³ For more information on mandatory national reporting requirements see <http://www.nrls.npsa.nhs.uk/EasysiteWeb/getresource.axd?AssetID=135292&servicetype=Attachment>

¹⁴ For more information on NHS organisational restructuring see <http://www.nrls.npsa.nhs.uk/EasysiteWeb/getresource.axd?AssetID=135293&servicetype=Attachment>

Figure 1: Changes with a one-off impact on a specific timeframe



20. Where can I find other related information/ resources?

For board members:

www.nrls.npsa.nhs.uk/resources/?EntryId45=59885

Data quality standards (to support organisations in uploading data to the NRLS):

www.nrls.npsa.nhs.uk/resources/?entryid45=62099

General patient safety information/resources:

improvement.nhs.uk/resources/learning-from-patient-safety-incidents/

improvement.nhs.uk/resources/patient-safety-alerts/

www.england.nhs.uk/ourwork/commissioning/spec-services/npc-crg/spec- dashboards/

www.hscic.gov.uk/searchcatalogue?topics=1%2FPatient+experience%2FPatient+safety&sort=Relevance&size=10&page=1

www.cqc.org.uk/content/promoting-patient-safety

21. How can I give feedback?

Please contact us at: nrls.datarequests@nhs.net

Contact us:

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