



Royal College
of Physicians

National Mortality Case
Record Review Programme

Using the structured judgement review method

A clinical governance guide to
mortality case record reviews

Supported by:



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The National Mortality Case Record Review Programme and clinical governance

Introduction

The National Mortality Case Record Review (NMCRR) Programme is a national collaborative project led by the Royal College of Physicians (RCP) in partnership with Yorkshire and Humber Academic Health Science Network's (AHSN's) Improvement Academy and Datix. It is commissioned by the Health Quality Improvement Partnership (HQIP).

The aim of the 3-year programme is to introduce a standardised methodology for reviewing case records of adult patients who have died in acute general hospitals in England and Scotland. The primary goal is to improve healthcare quality through qualitative analysis of mortality data using a standardised, validated approach linked to quality improvement activity. The work will not cover deaths that occur in other settings.

Around 50% of all deaths occur in hospital and most of these are inevitable, but around 3–5% of acute hospital deaths are thought to be potentially preventable.¹

The structured judgement review (SJR) review methodology has been validated² and used in practice within a large NHS region. It is based upon the principle that trained clinicians use explicit statements to comment on the quality of healthcare in a way that allows a judgement to be made that is reproducible. This method is described in detail in the accompanying documentation: *A guide for reviewers* by Dr Allen Hutchinson.

What is the modified SJR?

SJR relies upon trained reviewers looking at the medical record in a critical manner and commenting on specific phases of clinical care. The NMCRR Programme has developed a slightly modified version of the original approach that features some of the elements used in the PRISM2 study.¹ The approach can be used for any patient pathway that has a defined endpoint or characteristic, eg death or a fall. Therefore, while in this programme it is being used to learn from mortality within hospitals, it could be applied to a number of pathways. This makes it an attractive and versatile tool for acute organisations to use once they have a cohort of trained reviewers.

Clinical governance and the SJR method

Any process that can potentially reveal harm must include parallel governance processes. The overarching principles that should be considered when using the SJR reflect the possibilities of outcomes, including:

- problems within healthcare processes in the organisation (eg management of deteriorating patients or high-risk medications)

- identification of aspects of poor care delivered by individual clinicians (eg substandard clinical practice or careless and reckless behaviour).

Process failures are much more common than issues related to the practice of individual clinicians but both will require management by a robust and transparent governance process.

The overarching principles to consider are:

- The hospital can describe and demonstrate the success of the process by which poor outcomes are managed.
- The hospital has an executive-level officer who is responsible for mortality reviews.
- The hospital can demonstrate how individual reviews are managed within mortality and morbidity (M&M) meetings and describe how poor outcomes are reviewed.
- The hospital can describe both a robust governance strategy and the key individuals who are responsible for its delivery.
- The hospital has a Hospital Mortality Committee or a Mortality Governance Group that is executive led and contains appropriate membership.
- Where there is a medical examiner presence (in England) the hospital can demonstrate synergy and commonality of purpose.

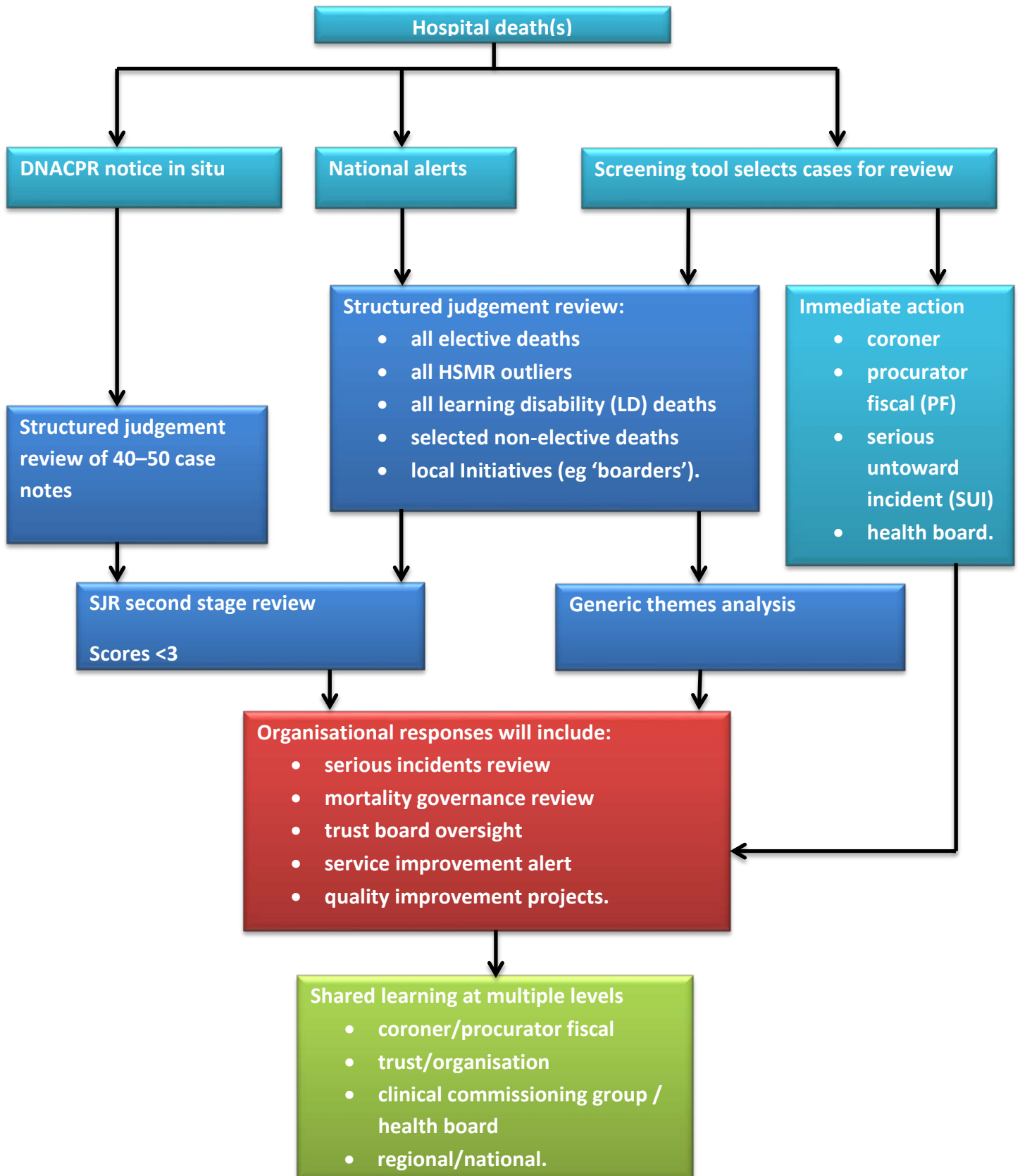
This process is described schematically in Fig 2. The use of a screening tool within the hospital will ensure that immediate concerns are addressed without the need to use the SJR. The screening tool that is used is not mandated within the SJR methodology.

The choice of which case records to review ultimately rests with the hospital in question. A few organisations may wish to review all deaths that are identified internally following the application of a brief screening process. However, there are some groups of patients where serious consideration must be given to reviewing all deaths including (but not exclusive): elective deaths, learning disability deaths, unexpected deaths, deaths in younger patients, deaths following procedures or surgery, deaths following emergency admissions and deaths flagged to be part of an outlier statistic either internally or externally.

Organisations should, independently, be able to describe how they respond to external flags and alerts in respect of high case fatality disorders such as stroke and fractured neck of femur. These alerts can take the form of HSMR statistics or national audits using Hospital Episode Statistics (HES) data sets in England or Scotland. However, and in addition, hospitals may also wish to further modify the suggested list and the way in which non-elective patients or cases are selected for review to reflect unique local circumstances. For example the SJR might be used to analyse in detail the care of a specific cohort of patients such as those that are 'outliers' or 'boarders'.

After the review has taken place, the organisation's governance process and quality improvement process will dictate further responses. Dealing with poor care, if identified, must be well rehearsed within organisations prior to undertaking the reviews. An example of a possible case note review process is shown on the next page.

Fig 1 SJR governance flow chart



The drive to learn from unintended events is a cornerstone of high performing organisations and safety conscious industries. Many patients who die have received good care, and many who receive poor quality care do not die, so reviewing the records of the small percentage of patients who die in hospitals will not tell us everything about the quality of care in that organisation. However there are legitimate public expectations that we will seek to detect potentially avoidable deaths in hospitals and a professional obligation to understand and learn from failures in care.

An open and transparent culture and a desire to change through acceptance and ownership of the data obtained from case note reviews are crucial to learning.

Most hospitals in England and Scotland have some form of mortality review process but these vary widely and few use a recognised, validated approach. Outputs from reviews are also used in a variety of ways but current evidence suggests that learning from analysis of mortality is not the norm and, historically, mortality reviews have led to recrimination rather than learning.

All methodologies have their strengths and weaknesses but SJR has been developed and validated in the UK and is currently used in 12 hospitals in Yorkshire and Humberside. A number of other sites in England and Scotland have been enrolled as pilot sites.

Work from Sheffield Teaching Hospitals NHS Foundation Trust compared information from a review of 49 surgical deaths using the Modified Mortality Review Tool (MMRT) with information obtained from the review of 80 cardiac arrests using the SJR.³ The SJR is superior on a number of levels but in addition this comparison showed that the MMRT uses 'implied criticism' rather than 'explicit judgement'. This difference led to the failure of reviewers using the MMRT to commit to a judgement on the care provided in over 20% of cases, an effect that was not evident with SJR. The clarity of explicit judgements when properly executed allows reproducible assessment of the quality of patient care from which learning flows and, with appropriate quality improvement processes applied, improvement follows.

Cascading training of in-house reviewers is relatively quick and easy, and it rapidly results in a cohort of trained reviewers. These reviewers can be used for both mortality reviews or for analysis of other harm events such as cardiac arrests, falls or pressure area care.

Learning from the outcomes of the SJR: clinical governance in action

As discussed already, there are two potential areas of learning that can be obtained from this method. The detail captured can identify both poor practice and good practice of individual clinicians. When multiple reviews are undertaken within a clinical area or hospital, a thematic analysis can be performed that may highlight process or systemic issues.

Using the SJR to review cardiac arrests produced data that generated nine themes as well as areas of individual concern associated with a low overall phase scores of less than three.

The nine themes generated by this work (see Box 1) were used to create improvement cycles which then resulted in a reduction of cardiac arrest rates as demonstrated in Fig 2.

Box 1 Analysing the SJR to generate themes

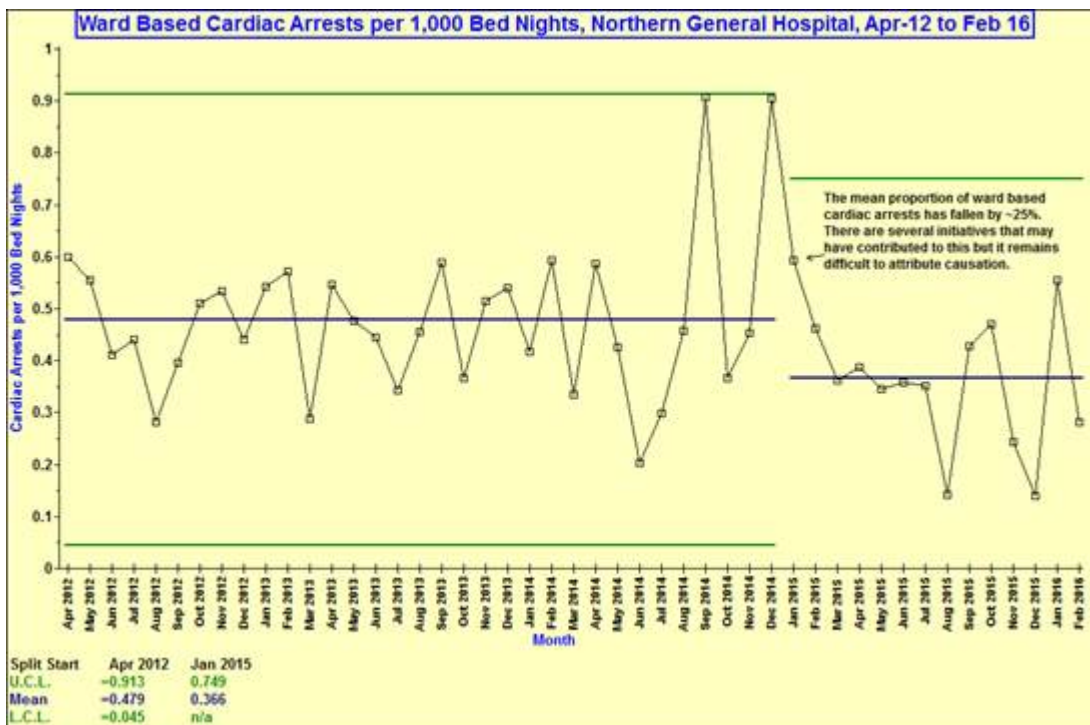
The SJR produces two types of data:

1. a score from 1 to 5 identifies very poor to excellent care respectively in a number of phases of care
2. qualitative data in the form of explicit statements about care using free text.

These outputs allow the identification of those cases with poor care, very poor care or excellent care. The use of qualitative research methods and word detection software then allows identification of recurrent themes. A sample of 50 case notes generates adequate information to direct further study and learning.

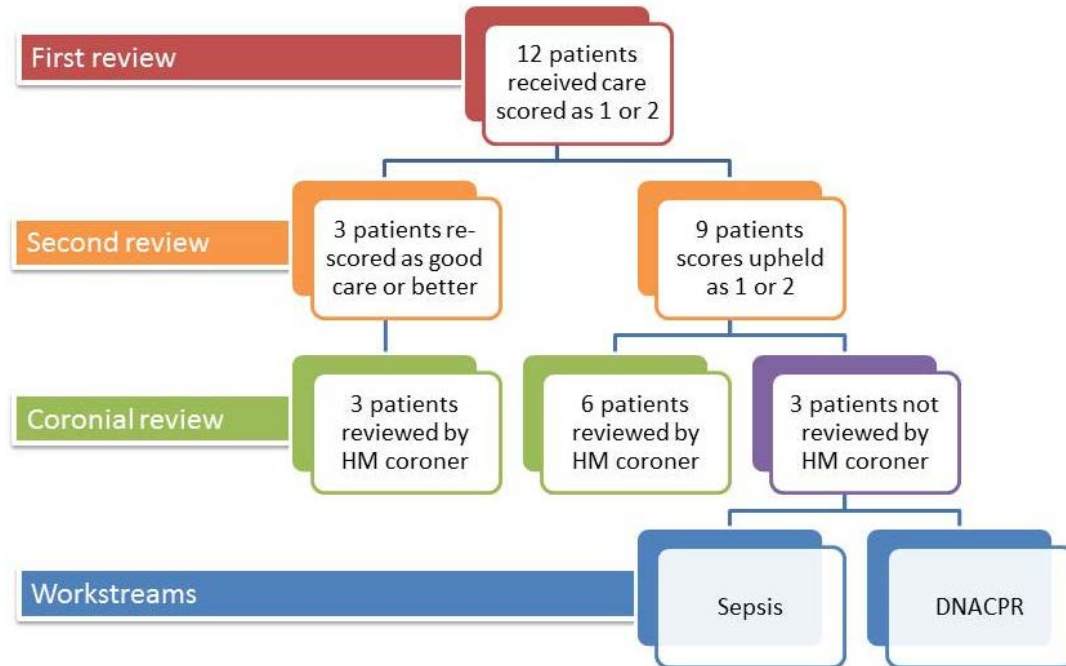
For example, in the cardiac arrest study, it became clear that a recurrent theme was the delay in identifying patient deterioration. This led to a review of the early warning score (EWS) charts, with subsequent modification to include temperature and increased sensitivity of detection of deteriorating patients.

Fig 2 SPC chart showing changes in rates of cardiac arrests 2012–2016



In addition, 12 patients had received scores that required second-stage review. These reviews confirmed that 75% of the scores were correct and 25% were rescored. The flow chart at Fig 3 describes the first- and second-stage reviews and the actions taken, which included the involvement of HM coroner (HMC) and the realisation of the need for further analysis with the incorporation of the learning into new areas of work.

Fig 3 First- and second-stage reviews with subsequent actions



This included a DNACPR workstream, which highlighted a number of other issues leading to further learning and continued analysis. A number of other examples, derived from local and regional analysis, can be found on the Improvement Academy website:

www.improvementacademy.org.

Box 2 Case study: setting up mortality reviews in the hospital setting using the SJR

You will need:

- a safety orientated culture with executive engagement
- identified champions and clinical leaders who are enthusiastic about mortality reviews and have adequate time allocated to do the work
- an active faculty or hospital committee with senior clinicians and medical director representation that regularly meets and creates the hospital’s vision about mortality reviews
- a training programme and trainers, who should also be members of the faculty
- widespread advertising of the process and multiple training sessions
- faculty oversight of how the process is embedded
- an explicit description and acknowledgement of what happens if poor care is identified
- an ability to analyse complex quantitative and qualitative data using a variety of means (eg cumulative sum (CUSUM) and SPC charts).

Quality improvement and the SJR methodology

The methodology described thus far does not of itself lead to changes in the quality of the delivery of healthcare. The analysis of the outcomes of reviews simply describes either themes for exploration or individual areas of care. Transforming the results of the reviews into healthcare reform requires hospitals to act on the outcome of the analysis.

This means that there is only likely to be quality improvement when the results of the SJR are transformed into meaningful and tangible actions that impact on the delivery of patient care.

What about clinical governance and other national initiatives?

In parallel with the NMCRR, a number of other initiatives are being developed which will provide consistent information and instruction to hospitals. Hospitals will need to be aware of the moves to standardisation and learning, and prepare for them accordingly. The clinical governance associated with these changes will require modification from time to time.

For example, the delivery of a national M&M strategy in Scotland is a key interdependent, which will be delivered in tandem with the role out of the NMCRR.⁴

A parallel in England is the desire to see consistency of approach to both hospital mortality and the development of executive-led hospital mortality committees or mortality governance committees. These groups will oversee both the analysis of SJR and the associated governance of M&M. It is envisaged that these groups will have a strategic role within hospitals. This will ensure that appropriate governance exists alongside robust mortality review that supports learning and quality improvement in healthcare.

It is also envisaged that the Care Quality Commission will visit English acute trusts to further investigate the relationship between mortality and quality improvement.

In addition, the medical examiner system that will hopefully emerge from the extended national pilot schemes in England will also affect this process. One possibility is that there is a single review process common to both the hospitals in England and the medical examiner review. It would be mutually helpful if this were the SJR, as this would allow a true integration of the two processes. This would allow each to support the other and, in doing so, reduce the magnitude of the task that each has in attempting to review all hospital deaths.

Summary

The use of the SJR methodology should be preceded by a clear description of the organisation's clinical governance process. The clinical governance guidance in this document is purposely non-prescriptive, as it is acknowledged that most hospitals already have robust governance arrangements. However the guidance also allows, where appropriate, modification of those processes in order to further promote best practice.

A number of examples are presented to describe the use of the SJR with associated learning and clinical governance responses.

The key to the delivery of quality improvements associated with the use of the SJR methodology is the prior existence of robust and timely interventions that reflect a hospital's effective clinical governance processes.

Editorial note

Please note that this guide is subject to change following conclusion of the pilot phase of the programme.

References

1. Hogan H, Zipfel R, Neuberger J, Hutchings A, Darzi A, Black N. Avoidability of hospital deaths and association with hospital-wide mortality ratios: retrospective case record review and regression analysis. *BMJ* 2015;351:h3239.
2. Hutchinson A, Coster JE, Cooper KL, Pearson M, McIntosh A, Bath PA. A structured judgement method to enhance mortality case note review: development and evaluation. *BMJ Quality and Safety* 2013 doi:10.1136/bmjqs-2013-001839.
3. Gibson A. Regional Mortality Conference Yorkshire and Humber Improvement Academy Leeds 2014.
4. Manoj Kumar, Health Improvement Scotland. Personal communication, 2016.