Learning from deaths

Investigation of Deaths in NHS Trusts

Monday 8th May 2017
De Vere West One, London

Mr Tony Roberts
Better Knowledge Better Care Better Outcomes
Overview

- overview of the CQC review into investigations of deaths in NHS Trusts and the new regulations for Trusts to estimate avoidable deaths

- implementing the National Quality Board National Guidance on Learning from Deaths: Identifying, Reporting, Investigating and Learning from Deaths in Care – what we know so far

- findings and learning from our regional mortality review programme
New requirements from April 2017

http://www.cqc.org.uk/content/learning-candour-and-accountability


Jeremy Hunt on the Care Quality Commission’s report into the way NHS trusts review and investigate the deaths of patients in England.

This year, I asked the CQC to conduct an investigation into lessons that needed to be learned following the tragic death of Connor Sparrowhawk in 2013 at Southern Health NHS Trust. I want to start by paying tribute to his family, and particularly his mother Sara Ryan, for her persistent and determined campaigning for a proper investigation into what happened. The lessons of Mid Staffs, Morecambe Bay and indeed other injustices like Hillsborough is that when families speak out we must listen. And in this case thanks to Dr Ryan’s efforts many improvements will be made to the care of people with learning disabilities and many lives saved.

I asked the CQC to look at what happened at Southern Health NHS Foundation Trust but also to assess more broadly what lessons there are for the NHS as a whole. Their findings make sobering reading. Among other things, the report said:

Better Knowledge Better Care Better Outcomes
Seven Recommendations

Recommendation 7:

Provider organisations and commissioners must work together to review and improve their local approach following the death of people receiving care from their services. Provider boards should ensure that national guidance is implemented at a local level, so that deaths are identified, screened and investigated, when appropriate and that learning from deaths is shared and acted on. Emphasis must be given to engaging families and carers.
National Guidance on Learning from Deaths

A Framework for NHS Trusts and NHS Foundation Trusts on Identifying, Reporting, Investigating and Learning from Deaths in Care

National Quality Board
First edition March 2017


BetterKnowledge BetterCare BetterOutcomes
From April 2017 the NQB National Guidance on Learning from Deaths require:

- Acute, mental health and community NHS Trusts and Foundation Trusts should ensure their governance arrangements and processes include, facilitate and give due focus to the review, investigation and reporting of deaths, including those deaths that are determined more likely than not to have resulted from problems in care. Trusts should also ensure that they share and act upon any learning derived from these processes.

- Non Executive Director and Executive Director Board responsibility

- Enhance skills and training

- A clear policy for engagement with bereaved families and carers

- Each Trust should publish an updated policy by September 2017 on how it responds to, and learns from, deaths of patients who die under its management and care.
From March 31 2017 the boards of all NHS Trusts and Foundation Trusts will be required to:

- The policy should include how its process respond to the death of an individual with:
  - a learning disability
  - a mental health need
  - an infant or child death
  - a still birth or maternal death

- Undertaking case record reviews: selection of cases, method and reporting

- From April 2017, Trusts will be required to collect and publish on a quarterly basis specified information on deaths. This should be through a paper and an agenda item to a public Board meeting in each quarter to set out the Trust’s policy and approach (by the end of Q2) and publication of the data and learning points (from Q3 onwards)

- Changes to the Quality Accounts regulations will require that the data providers publish be summarised in Quality Accounts from June 2018
From March 31 2017 the boards of all NHS Trusts and Foundation Trusts will be required to:

In 2017-18, further developments will include:

- The Care Quality Commission will strengthen its assessment of providers learning from deaths
- NHS England, led by the Chief Nursing Officer, will develop guidance for bereaved families and carers.
- Acute Trusts will receive training to use the Royal College of Physicians’ Structured Judgement Review case note methodology
- NHS Digital is assessing how to facilitate the development of provider systems and processes
- The Department of Health is exploring proposals to improve the way complaints involving serious incidents are handled
National MCRRP for acute hospitals

National Mortality Case Record Review Programme

The National Mortality Case Record Review (NMCRR) programme aims to develop and implement a standardised way of reviewing the case records of adults who have died in acute hospitals across England and Scotland by improving understanding and learning about problems and processes in healthcare associated with mortality, and also to share best practice. The 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.

What we are doing

We are working with hospital teams in England and Scotland to test the review methodology.

We are actively recruiting hospitals to be part of the early adopter phase of the national programme. The phase will comprise a cohort of 30-40 hospitals throughout England and Scotland which will commence the case record review process in early 2017. Hospital teams participating in this phase will be required to provide evidence of Executive and Board level support for implementing the NMCRR programme and commit to healthcare quality improvement through the mortality case record review process. They must also ensure multi-disciplinary clinicians are available for training during quarters 3 and 4 of 2016/17.

Advantages for early adopter hospitals:

- Early adopter status and recognition within the NMCRR programme.
- Being at the forefront of NMCRR programme implementation.
- Support from the NMCRR programme team.
- Early case record reviewer training.
- Opportunity to contribute to shaping the NMCRR programme.
# Grading Deaths or Care

**Expected v unexpected death:**

A death can be said to be unexpected if:

- The patient died of an unexpected illness not suspected by the managing team.

- The diagnosis was suspected and the patient was treated but died despite not having bad prognostic features associated with that diagnosis.

- The diagnosis was suspected and the patient was treated, however the treatment was sub-optimal.

## Avoidability Scale

### Descriptor

<table>
<thead>
<tr>
<th>Avoidability Scale</th>
<th>Descriptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Definitely not avoidable</td>
</tr>
<tr>
<td>2</td>
<td>Slight evidence of avoidability</td>
</tr>
<tr>
<td>3</td>
<td>Possibly avoidable (less than 50:50)</td>
</tr>
<tr>
<td>4</td>
<td>Probably avoidable (more than 50:50)</td>
</tr>
<tr>
<td>5</td>
<td>Strong evidence of avoidability</td>
</tr>
<tr>
<td>6</td>
<td>Definitely avoidable</td>
</tr>
</tbody>
</table>

## NCEPOD grade

<table>
<thead>
<tr>
<th>NCEPOD grade</th>
<th>Descriptor</th>
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<tbody>
<tr>
<td>1</td>
<td>Good practice</td>
</tr>
<tr>
<td>2</td>
<td>Room for improvement in <strong>clinical</strong> care</td>
</tr>
<tr>
<td>3</td>
<td>Room for improvement in <strong>organisational</strong> care</td>
</tr>
<tr>
<td>4</td>
<td>Room for improvement in <strong>clinical and organisational</strong> care</td>
</tr>
<tr>
<td>5</td>
<td>Less than satisfactory</td>
</tr>
</tbody>
</table>

## PRISM Quality Scale

Considering all that you know about this patient's admission, how would you rate the OVERALL quality of healthcare received by the patient from this trust?

<table>
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</tr>
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<tbody>
<tr>
<td>a</td>
<td>Excellent</td>
</tr>
<tr>
<td>b</td>
<td>Good</td>
</tr>
<tr>
<td>c</td>
<td>Adequate</td>
</tr>
<tr>
<td>d</td>
<td>Poor</td>
</tr>
<tr>
<td>e</td>
<td>Very poor</td>
</tr>
</tbody>
</table>

This question recognises that a problem in care can occur against a backdrop of overall good quality of care and the converse, a patient may experience poor overall quality of care without obvious harm.

For this question, do not consider healthcare prior to the admission that ended in the patient's death.
A brief history in the North East

PRISM 1 study

Estimated avoidable mortality

5.2%

JUL 2012
A brief history in the North East

PRISM 1 study

NE Regional Mortality group collaborate to adopt locally adapted PRISM methods

Estimated avoidable mortality
5.2%
A brief history in the North East

JUL 2015

PRISM 2 study

PRISM 1 & 2
Estimated avoidable mortality

3.6%
Mortality Review South Tees

Centralised review system

Commenced October 2013

2786 REVIEWS
Centralised review system
In the last 12 months...

676 REVIEWS

- 0.2% >50/50 preventable
- 2.7% some preventability
- 16% NCEPOD “room for improvement”
- 86% excellent, good
- 12% adequate
- 2% poor

Mortality Review South Tees
Centralised review system

Key Lessons...

- Documentation
- Delays and problems with end of life care and DNACPR
- Issues with tertiary referral or repatriation
Centralised review system
Team...

Based on 2 consultants
Each 1 PA/week

Administrator and In-house database

Support from...
Nurses

& Other Specialties
Mortality Review South Tees

CASES: RANDOM 25% of all deaths And selected groups of patients:

- Patients with any incident or complaint recorded
- Following surgery or a procedure
- 4 or more medical “triggers”
- Adults aged <50
- Learning disabilities
- Referred by clinical teams or at the request of the Medical Director
Currently we are looking at 40% of all deaths in our trust.
Moved to secure, on line system

Improved security, reliability and functionality and offers the opportunity to share our reviews with specialty teams more easily and potentially with other parts of the system including GPs and mental health trusts
North East secure, on-line mortality review system

Basic Information pre-populates form

- Demographics
- Date of admission
- Date of death
- Specialty
- Consultant
- Coding
North East secure, on-line mortality review system

A range of review forms included for centralised review

Locally adapted ‘PRISM’
NMCRRP
SJR
Specialty
Mental Health
GP
North East secure, on-line mortality review system

**Grading of Care:**

1. Preventability (PRISM/SJR)
2. NCEPOD Quality of care
3. PRISM Overall Quality scale
4. Expected or unexpected
North East secure, on-line mortality review system

A qualitative narrative

Automated reporting of quantitative and qualitative information
A brief history in the North East

JAN 2016

7 Trusts share aggregated data

12626 DEATHS
54% reviewed
0.4% preventable

Better Knowledge Better Care Better Outcomes
A brief history in the North East

MAR 2016

4 Trusts combine patient level review data

Support of AHSN & NEQOS

Single online database

- PAS data
- Case record review of process measures
- Grading of care
- Case narratives
A brief history in the North East

7370 REVIEWS

27 (0.4%)
>50/50 chance of being preventable

20% judged to have room for improvement in clinical, organisational or both aspects of care

Single online database

- PAS data
- Case record review of process measures
- Grading of care
- Case narratives
A brief history in the North East

SEP 2016

Testing of on-line secure system commences
A brief history in the North East

**JAN 2017**
Clarity Informatics Assure system is adopted in South Tees

**FEB 2017**
IG discussions with Mental Health Trusts start in order to set up a pilot

Second acute Trust adopts Assure system
It is feasible to carry out large numbers of case record reviews and to link them locally to other governance processes including investigations of Serious Incidents.
Conclusions

Case record review estimates of rates of avoidable death are subject to ‘denominator’ effects. Internal reviewers, in our experience, report lower rates of preventable mortality than the published literature.
Sharing information about deaths between providers means solving important IG issues. There are technical issues to overcome – but the NHS Number could be used. Ideally we would use one system across a region.
If Medical Examiners are introduced across England by April 2019 we will need to be open to the major advantages that will bring to involve families in a timely manner.
Preventable deaths due to problems in care in English acute hospitals: a retrospective case record review study

Helen Hogan,1 Frances Healey,2 Graham Neale,3 Richard Thompson,4 Charles Vincent,5 Nick Black2

ABSTRACT
Introduction: Monitoring hospital mortality rates is widely recommended. However, the number of preventable deaths remains uncertain with estimates in England ranging from 840 to 4000 per year. This being derived from studies that identified adverse events but whether events contributed to death or shortened length of stay of these patients.

Methods: Retrospective case record reviews of 1000 deaths who died in 2009 in 16 acute hospitals in England were undertaken. Trained physician reviewers estimated length of stay on admission, to identify problems in care contributing to death and judged if deaths were preventable taking into account patients’ medical condition at that time.

Results: Reviewers judged 52% (95% CI 3.3% to 6.6%) of deaths as having a 50% or greater chance of being preventable. The principal problems associated with preventable deaths were poor clinical monitoring (31.3%), 95% CI 29.5% to 33.7%), diagnostic errors (27.9%; 95% CI 25.2% to 31.8%), inadequate drug or fluid management (21.5%; 95% CI 14.9% to 29.5), and inadequate equipment (0.5%; 95% CI 0.0% to 0.8%). These findings suggest that there would have been 513 deaths (95% CI 317 to 610) and preventable deaths in hospitals in England. Most preventable deaths (82%) occur in elderly, frail patients with multiple comorbidities judged to have had less than 1 year of life left to live.

Conclusions: The incidence of preventable hospital deaths is much lower than previous estimates. The burden of harm from preventable problems in care is still substantial. A focus on deaths may not be the most efficient approach to identify opportunities for improvement given the low proportion of deaths due to problems with healthcare.

WHAT IS ALREADY KNOWN ON THIS TOPIC
Hospital-wide standardised mortality ratios (SMRs) are commonly used as an indicator of a hospital’s quality but have not been validated.

WHAT THIS STUDY ADDS
The proportion of hospital deaths judged to be preventable based on retrospective case record review has been reported to be about 6%. The association between hospital-wide SMRs and the proportion of avoidable deaths is uncertain: one study found no association but was too small to provide definitive evidence.

WHAT THIS STUDY ADDS
The lack of a statistically significant association between hospital-wide SMRs and avoidable death rates was confirmed (both hospital-wide SMRs and avoidable death proportions based on the judgment of only one or two reviewers have methodological shortcomings making them unsuitable indicators to compare the quality of hospitals.)

OPEN ACCESS

Avoidability of hospital deaths and association with hospital-wide mortality ratios: retrospective case record review and regression analysis

Helen Hogan,1 Rebecca Ziegel,1 Jenny Neuberger,1 Andrew Hutchinson,1 Ara Darzi,2 Rick Black1

ABSTRACT
OBJECTIVES
To determine the proportion of avoidable deaths due to acts of omission and commission in acute hospital trusts in England and to determine the association between the trust’s hospital-wide standardised mortality ratio assessed using the Hospital Standardised Mortality Ratio (HSMR) and the summary hospital level mortality indicator (SHMIs).

DESIGN
Retrospective case record review of deaths.

SETTING
35 English acute hospital trusts (16 in 2009 and 24 in 2012) randomly selected from across the spectrum of HSMR.

MAJOR OUTCOME MEASURES
The proportion of avoidable deaths, defined as those with at least a 50% probability of avoidability in views of trained medical reviewers. Association of avoidable death proportion with the HSMR and the SHMI assessed using regression coefficients, to estimate the increase in avoidable death proportion for a one standard deviation increase in standardised mortality ratio.

PARTICIPANTS
10% randomly selected hospital deaths from each trust.

RESULTS
The proportion of avoidable deaths was 3.16% (95% confidence interval 2.50% to 4.16%). It was lower in 2012 (3.01%, 2.41% to 4.17%) than in 2009 (0.7%, 0.4% to 1.1%). This difference is subject to several factors, including reviewers’ greater awareness in 2012 of an order to restrict patients, being perceived as sicker on admission, minor differences in review form questions, and cultural changes that might have influenced reviewers from trusting other clinicians. There was a small but statistically non-significant association between SHMIs and the proportion of avoidable deaths (regression coefficient 0.3, 95% confidence interval −0.1 to 0.7). The regression coefficient was similar for both time periods (0.1 and 0.3). This implies that a difference in SHMI of between 15% and 15% would be associated with an increase of only 0.3% (95% confidence interval −0.2% to 0.7%) in the proportion of avoidable deaths. A similar weak non-significant association was observed for SHMIs (regression coefficient 0.3, 95% confidence interval −0.3 to 1.0).

CONCLUSIONS
The small proportion of deaths judged to be avoidable means that any metric based on mortality is unlikely to reflect the quality of a hospital. The lack of association between the proportion of avoidable deaths and hospital-wide SMRs partly reflects methodological shortcomings in both metrics. Instead, reviews of individual deaths should focus on identifying ways of improving the quality of care, whereas the use of standardised mortality ratios should be restricted to assessing the quality of care for conditions with high case fatality for which good quality clinical data exist.

Introduction
For over 20 years (the overall standardised mortality ratio SMR) for all deaths in a hospital has been advocated as an indicator of the quality (comparing both safety and effectiveness of a hospital). Although an association between the SMR and a specific disease such as acute myocardial infarction, pneumonia, and severe sepsis and measures of quality of care (such as adherence to clinical guidelines) has been shown, similar studies on hospital-wide SMRs have not been reported. Despite concerns about the value of hospital-wide SMRs, balancing benefits by the United Kingdom, United States, Canada, and Australia, many countries have adopted them and continue to use them. The North reviews used hospital-wide SMRs to select acute hospital trusts (National Health Service organisations that complete either a single hospital or a group of local hospital in England for detailed clinical and organisational quality. This review was published in February 2013 in the wake of the Second Francis report into Mid Staffordshire NHS Foundation Trust. It aimed to review the quality of care and treatment provided by those NHS trusts and NHS
PRISM Results

- PRISM 1: Reviewers judged **5.2%** (95% CI 3.8% to 6.6%) of deaths as having a 50% or greater chance of being preventable.
- PRISM 2: The proportion of avoidable deaths was **3.6%** (95% confidence interval 3.0% to 4.3%). It was lower in 2012/13 (**3.0%**, 2.4% to 3.7%) than in 2009 (**5.2%**, 3.8% to 6.6%).
- There was a small but statistically non-significant association between HSMR and the proportion of avoidable deaths (regression coefficient 0.3, 95% confidence interval −0.2 to 0.7). The regression coefficient was similar for both time periods (0.1 and 0.3). This implies that a difference in HSMR of between 105 and 115 would be associated with an increase of only 0.3% (95% confidence interval −0.2% to 0.7%) in the proportion of avoidable deaths.
- A similar weak non-significant association was observed for SHMI (regression coefficient 0.3, 95% confidence interval −0.3 to 1.0).