St George's University Hospitals NHS
NHS Foundation Trust

Hip Fracture Mortality:

From mortality case note review to service improvement.

Dr NL Kennea
Consultant Neonatologist
Lead for Learning from Deaths

Outstanding care every time

Outline

- Mortality profile and review systems at St George's
- Improving hip fracture care with 50% reduction in mortality
    - Board to ward team effort !
    - Best Practice Criteria in SJR mortality review
    - The National Hip Fracture Audit

Building Systems to Analyse Mortality

Local Service-Level and Trust-Level Processes (and Medical Examiner)

- Review has to be timely
- Good access to clinical records is necessary
- Support families and clinical teams
- Systems need to be able to join together
- Link with other Trust processes
    - Risk, governance, complaints, legal, etc

- **Focus on improvement**

GOOD EARLY CASE REVIEW - AVOID DUPLICATION

Triangulation of data

Vital to link mortality case note review work with other data:

For example:

- Service-level performance data
- **National Audit and Best Practice Criteria**
- Published mortality data
- HES data (Dr Foster, HED, etc)
- Consultant-level data

Case note reviewers may be non-specialist but need to link to service directly, or understand best practice, to optimise reviews

Unadjusted Mortality – timely data vital

Combined IP & ED Deaths - Weekly Trend

All admissions methods and specialties included for inpatient component

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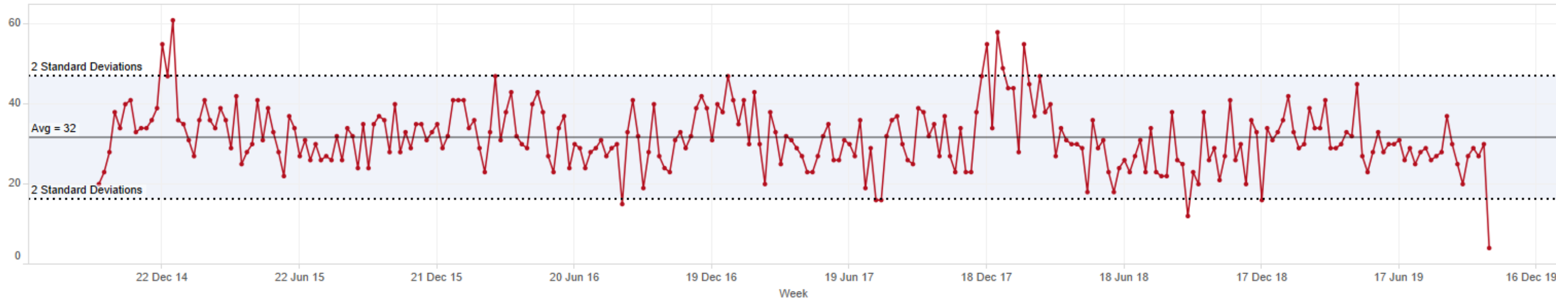
Combined IP & ED Deaths (absolute numbers)



Filters

Site Name
All

Date Based On
Admission Date
Date of Death

Time Period
Custom Date

Custom Start Date
01/10/2014

Custom End Date
15/10/2019

Combined IP & ED Deaths

Select a day or range of days to see details (right)

	M	T	W	T	F	S	S
October 2019		4	3	5	6	4	4
	3	4	2	8	7	3	3
	4	0					
September 2019							4
	4	4	4	2	7	2	2
	3	2	2	5	2	4	2
	5	4	6	4	2	3	3
	2	3	6	5	7	3	3
	1						
August 2019				3	5	7	2
	4	7	5	3	3	2	3
	8	6	1	3	2	4	4
	4	6	6	2	9	6	4
	6	6	2	2	3	7	
July 2019	5	3	4	2	4	4	7
	3	2	5	3	3	5	4
	3	5	2	4	3	9	2
	5	5	4	3	5	4	3
	4	5	0				
June 2019						4	5
	3	3	6	3	7	6	2
	4	5	6	5	2	3	5
	2	6	6	4	5	5	3
	2	3	2	1	4	7	7
May 2019			6	7	6	3	1
	3	2	6	3	4	3	2
	6	5	3	3	3	3	5
	6	4	4	6	4	3	6
	3	1	5	6	4		

Good systems to evaluate deaths essential:

- Trends and teams involved
- Timing – recognition and response
- Challenges of multiple teams / community / other providers / GPs

Mortality – by day of admission

Combined IP & ED Deaths

Select a day or range of days to see details (right)

	M	T	W	T	F	S	S
October 2019		4	3	4	1	3	2
	8	5	1	0	2	0	1
	0						
Septembe r 2019							4
	7	2	5	1	1	4	2
	5	3	4	1	6	2	1
	3	2	4	3	5	3	4
	5	3	2	5	1	2	1
	0						
August 2019				4	3	4	5
	5	5	2	4	3	2	2
	6	1	4	6	5	3	6
	4	1	6	4	5	4	3
	1	10	3	4	4	6	
July 2019	5	2	3	4	6	6	8
	5	0	6	3	5	3	4
	2	6	4	2	3	4	5
	2	8	2	4	7	1	5
	4	3	6				
June 2019						8	1
	5	10	3	2	3	2	4
	8	5	7	5	2	3	3
	3	4	3	4	2	5	2
	5	2	7	4	6	3	4
May 2019			5	4	2	0	2
	3	4	5	7	7	3	1
	3	1	3	5	5	5	4
	5	5	4	3	2	5	3

Our Processes

Trust-level Mortality Review - change with ME system

- Review of deaths in bereavement office from FULL case-notes

  (all reviewers trained in RCP SJR review methodology)
- Feedback to teams and trust governance processes
- Triangulation of information – Audits, AI, complaints, Coroner, legal, etc

'Local' service processes

- Service-level review of deaths – documented outcomes / learning
- Coding review / Best Practice review

Reviewers are focussed on opportunities to improve and balance reviews against expected practice (ie national standards, NICE, etc)

Data – background (2018/2019)

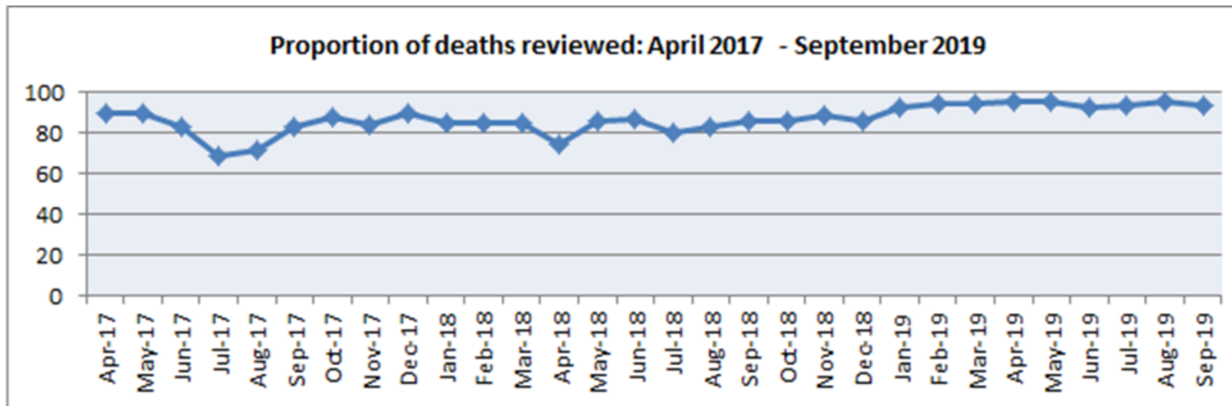
- 1550 deaths in the Trust

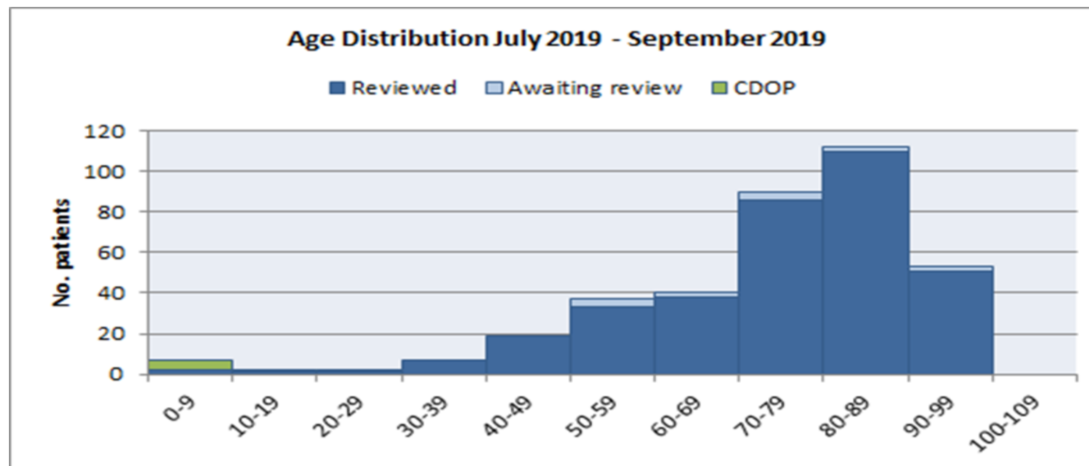
- 9 deaths in patients with learning disability
- 16 deaths in patients with severe mental health diagnoses
- 80 child deaths

- Almost 10% of our deaths follow out of hospital cardiac arrest
    - Heart
    - Brain
    - Trauma

- Almost 20% deaths occur on critical care

Mortality Monitoring Group Reviews





One or more problem in care in 14.9% patients

Hip Fracture Mortality: Focus on Improvement

History

Higher than expected mortality Jan 16 – Dec 16 (NHFD)

BUT

Double than national average predicted mortality

Poor data (ASA grades not filled in)

28 deaths (median age 87, range 71-104)

Hip Fracture Mortality: Focus on Improvement

Case note review didn't raise major individual issues until referenced with best practice criteria:

(excellent that NICE, NHFD and BPT concordant)

- Average time from ED to orthopaedic ward = 5.23hrs (target < 4hrs)
- Average time to Orthogeriatric review = 27.8hrs (target <72hrs)
- 100% of patients received orthogeriatric review
- Average time to theatre = 57.8hrs (target <36hrs).
- 15/23 operated went to theatre within 36hrs
- Only 13/23 (57%) patients who were operated were mobilised on day one post op.

Only 4 patients had specific further learning including <u>inpatient falls</u>

Hip Fracture Mortality: Focus on Improvement

BIGGEST RISK TO HIP# PATIENTS ARE DELAYS

- Ownership of issues
- Recognition of causes of mortality
- Need for proactive case management

  - Orthopaedic perspective change
  - Orthogeriatric leadership of cases
  - Board and theatre prioritisation

  (LFD Board report)

Hip Fracture Mortality: Focus on Improvement

- Mortality case note review focussed on best practice criteria
- Local mortality discussions refer to best practice
- Orthogeriatric team review all hip # deaths

- Medical care and optimisation led by orthogeriatric team

- Speed important and prioritisation of these patients
- Orthopaedics, anaesthetics, theatre, mobilisation
- Board reporting and responsibilities

- Reduction in inpatient falls
- Better coding

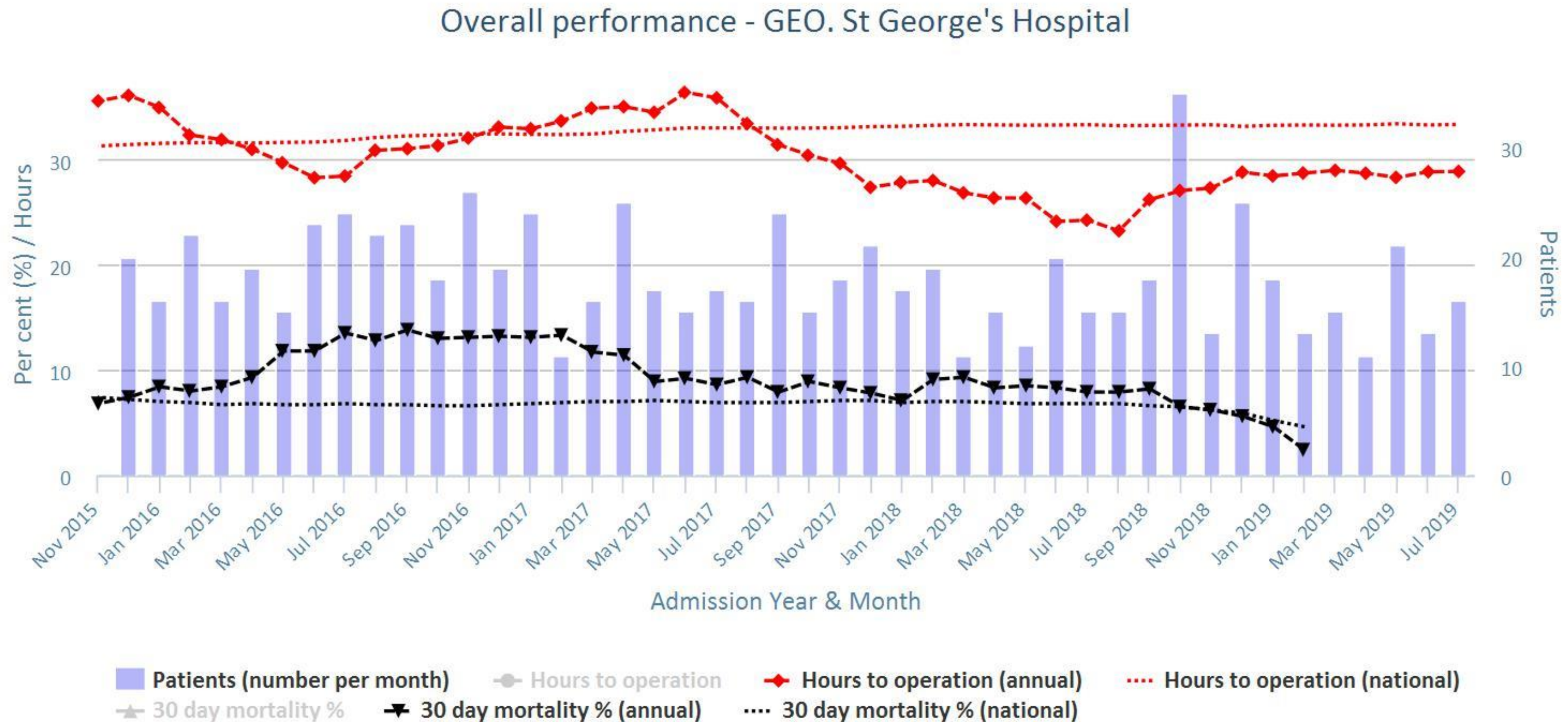
Hip Fracture Mortality: Focus on Improvement

- What happens now …

- Cases prioritised over other trauma
- Care led by orthogeriatric team
- Better (?less) pre-theatre optimisation and medical care
- More rapid operation – Board, theatres, anaesthetics, orthopaedics
- Enhanced post-op recovery checklist
- More rapid mobilisation (7 day physio)

- Fewer inpatient falls

Hip Fracture Mortality: Focus on Improvement



Source: NHFD

Hip Fracture Mortality: Focus on Improvement

- Prompt orthogeriatric review 98% (national 91%)
- Prompt surgery 83% (national 69%)
- Prompt mobilisation 96% (national 81%)

- 30 day mortality reduction (NHFD) from 13.2% (Dec 2016) to 4.2% (Mar 2019). 5.6% for year in 2018.

- Average mortality risk remains above national predicted

Hip Fracture Mortality: Focus on Improvement

Higher best practice tariff too !

(87.5% June 2019)

Summary

- Mortality case note review identifies case-specific areas for learning and improving
- Timely notes review enables best investigation and learning
- Case review against best practice criteria where possible
- Avoid ‘predictable’ deterioration with good patient pathways
- *Use Trust Board reporting to promote areas for improvement and thought*

Thank you

'Simply a really good team effort !'

@DrNLK0