Board of Directors Meeting in Public

Subject:	Learning From Deaths	**Date:**	3rd April 2025
Prepared By:	John Tansley, Chair Learning from Deaths Group		
Approved By:	Dr Simon Roe, Acting Medical Director		
Presented By:	Dr Simon Roe, Acting Medical Director		

Purpose

The purpose of this paper is to present a Summary of Mortality intelligence reviewed by the Learning from Deaths group and the ongoing resultant work to both respond to and improve that intelligence.	**Approval**	
	Assurance	**X**
	Update	**X**
	Consider	

Strategic Objectives

Provide outstanding care in the best place at the right time	Empower and support our people to be the best they can be	Improve health and wellbeing within our communities	Continuously learn and improve	Sustainable use of resources and estates	Work collaboratively with partners in the community
X	**X**	**X**	**X**		**X**

Identify which Principal Risk this report relates to:

PR1	Significant deterioration in standards of safety and care	**X**
PR2	Demand that overwhelms capacity	**X**
PR3	Critical shortage of workforce capacity and capability	
PR4	Insufficient financial resources available to support the delivery of services	
PR5	Inability to initiate and implement evidence-based Improvement and innovation	
PR6	Working more closely with local health and care partners does not fully deliver the required benefits	**X**
PR7	Major disruptive incident	
PR8	Failure to deliver sustainable reductions in the Trust's impact on climate change	

Committees/groups where this item has been presented before

None

Acronyms

- **SFH** Sherwood Forest Hospitals
- **HES** Hospital Episode Statistics
- **HSMR** Hospital Standardised Mortality Ratio
- **HSMR+_Hospital Standardised Mortality Ratio plus (Telstra's new HSMR metric)**
- **SHMI** Summary Hospital-Level Mortality Indicator
- **CuSUM** Cumulative Sum
- **ICB/S** Integrated Care Board/ System
- **SJR** Structured Judgement Review
- **MCCD** Medical Certificate of Cause of Death
- **ME** Medical Examiner
- **PSC** Patient safety Committee
- **SPC** Statistical Process Control
- **MHA** Mental Health Act
- **LD/ LeDeR** Learning Disabilities/ Learning Disabilities Mortality Review
- **ReSPECT** Recommended Summary Plan for Emergency Care and Treatment

- **PSIRF** Patient Safety Incident Response Framework
- **NUH** Nottingham University Hospitals

Executive Summary

This report provides an overview of mortality intelligence reviewed by the Learning from Deaths Group, detailing progress on actions to enhance data quality, clinical practices, and system-wide collaboration. It seeks assurance on current performance and outlines future priorities.

Key Metrics

- **SHMI** (Summary Hospital-Level Mortality Indicator): Stable at 106.15 ("as expected").
- **HSMR+** (Hospital Standardised Mortality Ratio+): Stable at 102.2 ("within expected"), reflecting improved alignment with national benchmarks. This is Telstra's new metric, adopted following independent consultation, which they believe to be more representative of the National mortality picture and more equitable.

The report provides an update of a number of areas of work described in previous reports:

- Analyse and understand the effects of changes in adjusted mortality rates.
- Continue work on accuracy of records and coding
- System working around place of death.
- Complete tender and contracting process for provision of Mortality Intelligence either independently or as part of a system approach.
- Report on findings of visit to The Dudley Group NHS Foundation Trust.
- Continue to develop our in-house mortality intelligence capacity.

Clinical Reviews & Learning

- **Diagnosis Groups:** Alcohol-Related Liver Disease, Intestinal Infection, and Anaemia outliers now resolved. Clinical reviews highlighted coding limitations particularly when coding is based on initial diagnosis.
- **Structured Judgement Reviews (SJRs):** 6.4% of deaths reviewed, with plans to standardize outputs for governance.
- **LeDeR Reviews:** Five reviews received; LD Nurse supports system-wide learning.

Coronial Cases: Five inquests concluded, improvements identified.

The Board is also asked to note our plans for the next year:

- Continue to work with clinical colleagues to improve accuracy of clinical documentation to enable effective diagnosis, treatment and coding.

- Agree arrangements for provision of benchmarking and analysis which will be of best value to the Trust.

- Continue to work towards pivoting to clinically-led, closer to real time learning supported by quantitative and qualitative data.

1 Mortality Surveillance Data

1.1 Crude and adjusted mortality rates

The most up-to-date high-level Trust mortality data is shown in figure 1.1.1 below.

Fig 1.1.1 Crude and adjusted SFH mortality rates

HSMR+ (Hospital Standardised Mortality Ratio), SHMI (Summary Hospital-level Mortality Indicator)

As we have reported to the Board previously, adjusted mortality rates all rely on quality of documentation and coding and they are produced by models based on a number of assumptions. Each model differs by more than one parameter which makes comparison difficult although we feel we have a robust approach triangulating outliers in HSMR, CuSUM and SHMI reports. Dr Foster (Telstra) have launched their new model (HSMR+)

- The average difference across trusts is +1.8pts (Jul23 - Jun24), with SFH having seen the second largest decrease of all trusts (-23.5pts) and to be 1 of 9 trusts reporting a lower banding (i.e. from "higher" to "within expected"). A retrospective comparison is shown in figure 1.1.2 below
- Peer Relative Risk analysis now sees SFHT placed within the middle of a funnel-plot distribution and towards the centre of a Relative Risk Peer Ranking chart (Figure 1.1.3)

Figure 1.1.2 Retrospective comparison of HSMR and HSMR+

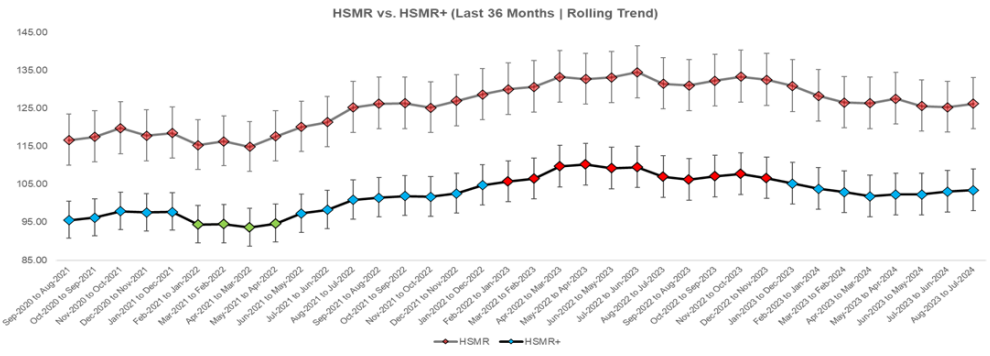
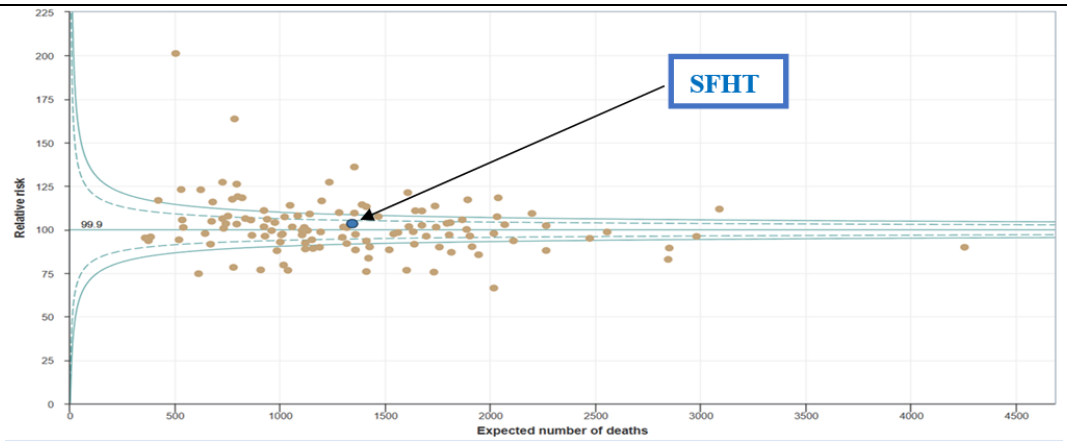


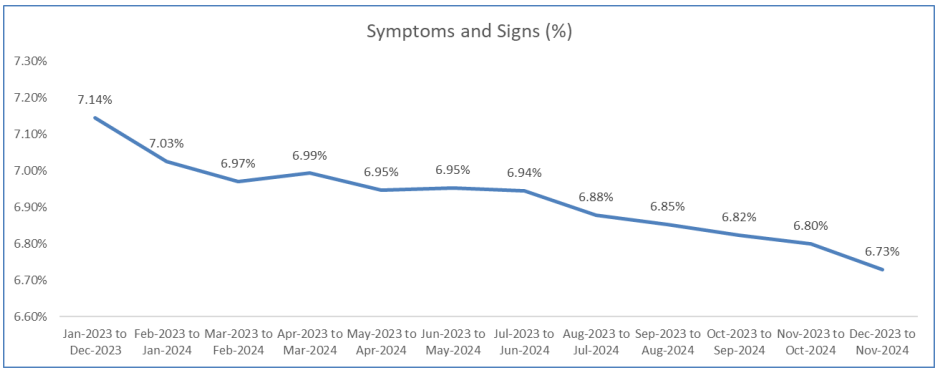
Figure 1.1.3 Funnel plot showing Trust's mortality relative to peers



Amongst other changes, this new model removes palliative care which appears to confirm our longstanding interpretation of our outlier status against this measure and, we believe, a significant contributor to the difference between HSMR and SHMI (which does not account for palliative care coding).

One focus of improvement continues to be a wide-ranging educational approach emphasising the importance of good documentation and coding at Grand Rounds, meetings for governance leads, Medical Managers and Clinical Chairs. A marker of good documentation is the percentage of episodes which are coded as symptoms and signs rather than diagnoses (e.g. chest pain vs. angina)- lower is better. Figure 1.1.4 shows a continuing improvement in the form of trend in this measure for HSMR data over the last year.

Fig 1.1.4 Percentage of Spells in Symptoms & Signs Chapter (Last 12 Months | Rolling Trend)



Looking at our SHMI data in Figure 1.1.5, the depth of coding (the mean number of additional codes above the acute diagnosis) had been showing a decline. Over this reporting period there has been further improvement for elective cases and the more-modest improvement for non-elective cases has been maintained despite unprecedented pressures on Urgent and Emergency Care.

Fig 1.1.5 Depth of coding for Elective and Non-elective deaths (3 year trend)

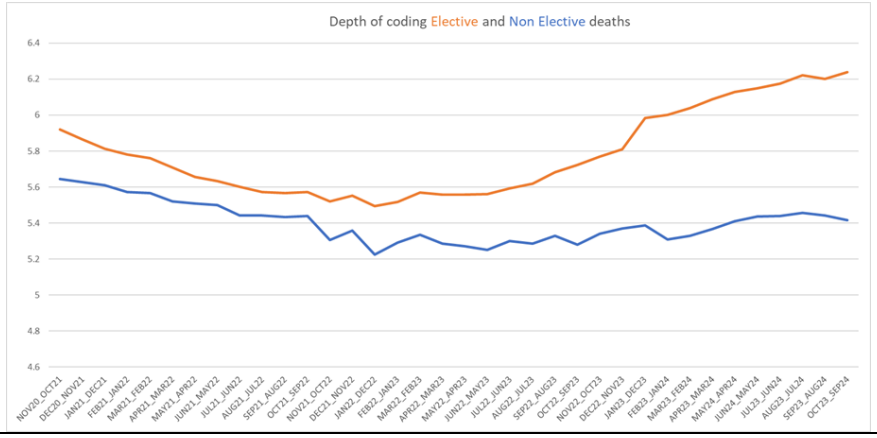
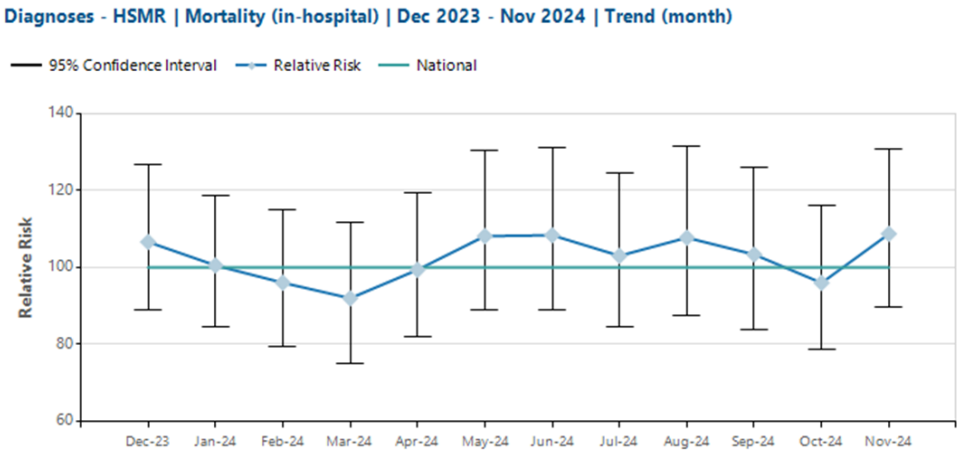
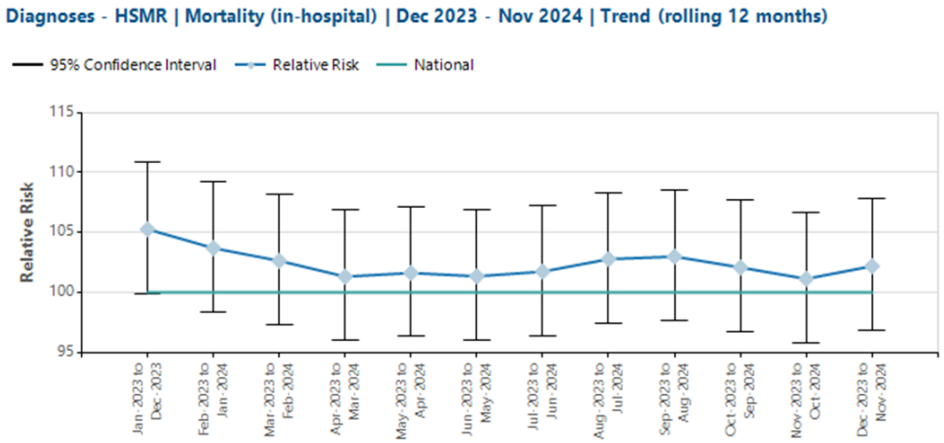
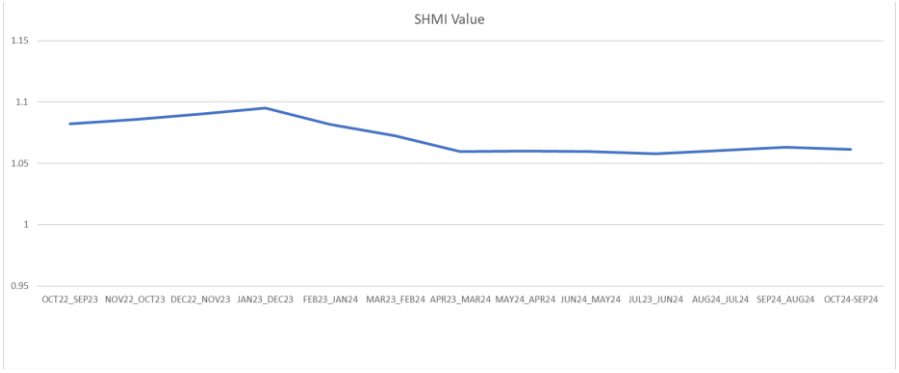
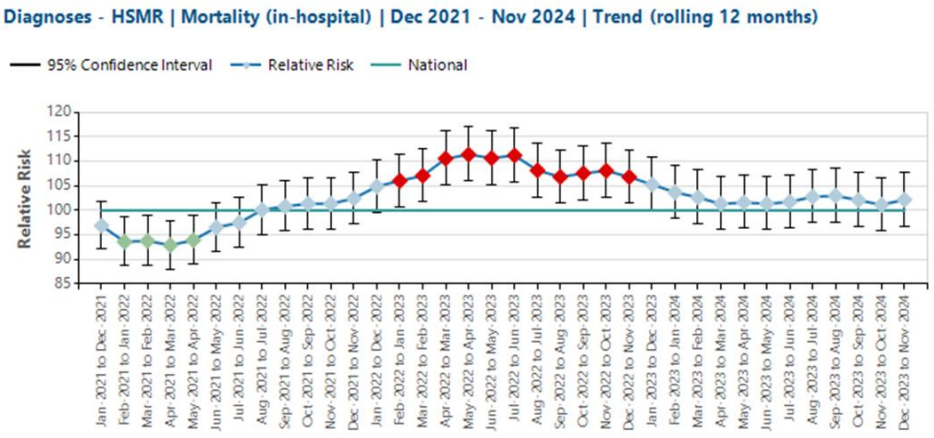


Figure 1.1.4 Trends for HSMR (in-Month), HSMR+ (rolling 12-month) and SHMI (rolling 12-month). Note that whilst the graphs below are titled HMSR the metric reported is the new HSMR+.









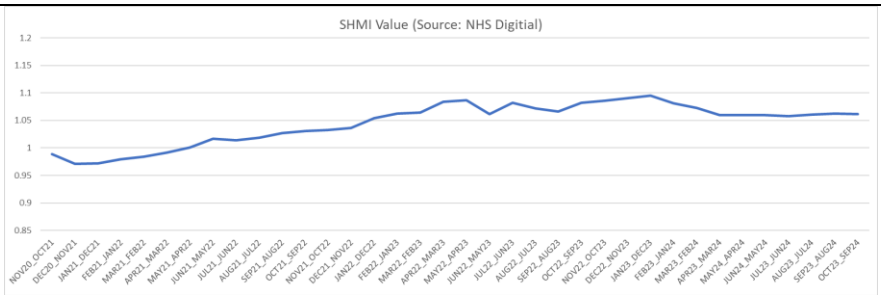
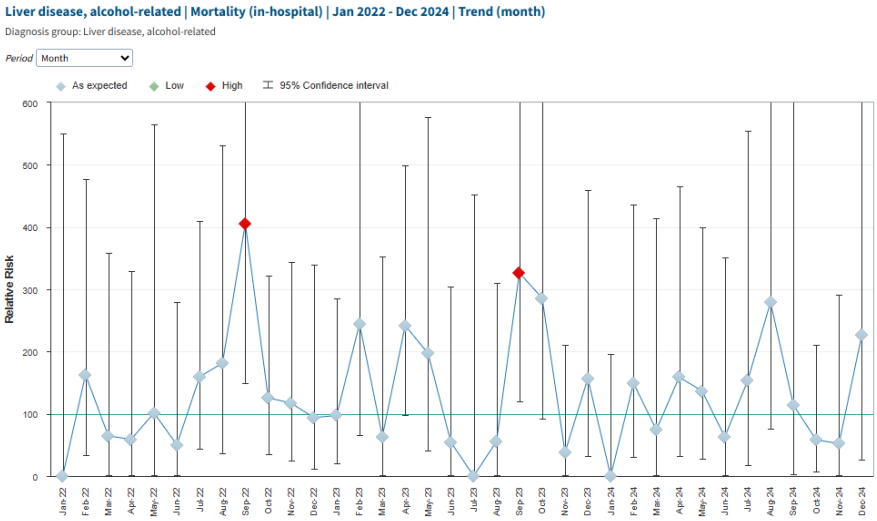


Figure 1.1.4 shows that HSMR+ and SHMI 12 month rolling data are now more closely aligned over short and longer term timescales. Both measures are "as expected" and appear to be stable.

1.2 Clinical review of outlying diagnosis groups and progress on actions

1.2.1 Alcohol Related Liver Disease (ARLD) update
No further outlier alters since the last report as shown in Figure 1.2.1 below

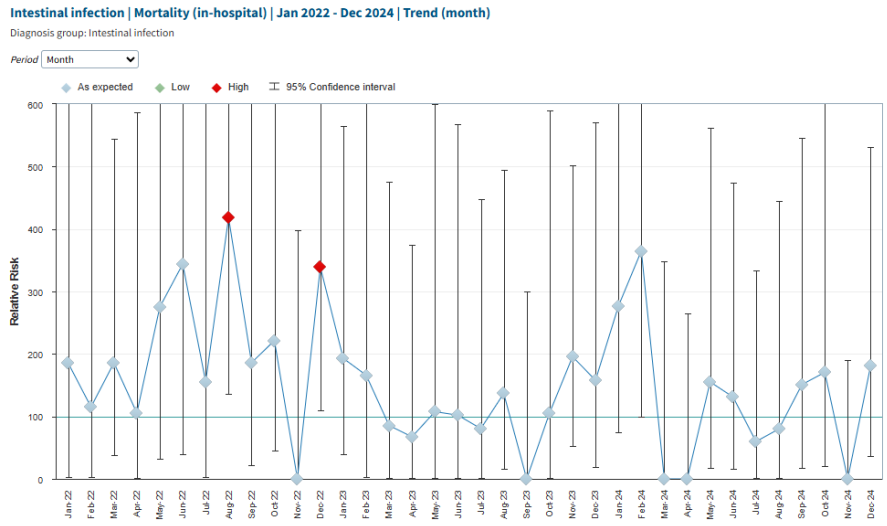
Figure 1.2.1 Relative Risk Alcohol Related Liver Disease



1.2.2 Intestinal Infection-

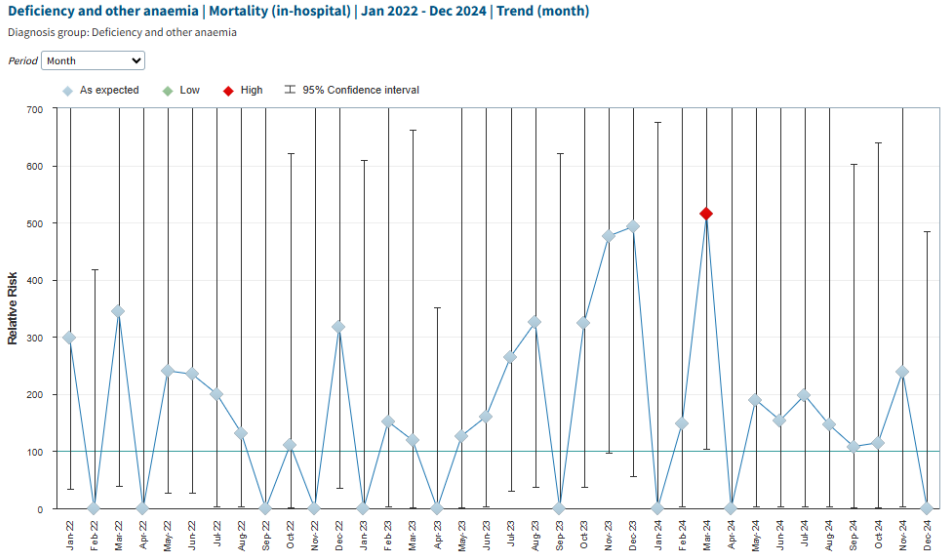
- This diagnosis alert highlighted a cohort of elderly, frail patients with a background of multiple episodes of care, high co-morbidity scores and with a length of stay (LOS) greater than 1 week. However, a small number of deaths were also reported with zero-comorbidity.
- Clinical review of these cases has revealed a range of alternative, non-infective diagnoses, including bowel obstruction which would present with non-specific abdominal symptoms.
- There have been no further alerts in this diagnosis group in this reporting period.

Figure 1.2.2 Relative Risk Intestinal infection



1.2.3 Deficiency and Other Anaemia

- A spike in recent HSMR, with similar trend in 2021-2, has led to targeted review of both time periods and cohorts.
- As with intestinal infection a range of alternative diagnoses were returned on clinical review. In many of these cases anaemia was a result of chronic diseases (e.g. malignancies) which are associated with a higher mortality.
- This diagnosis no longer flags as an outlier during the reporting period.

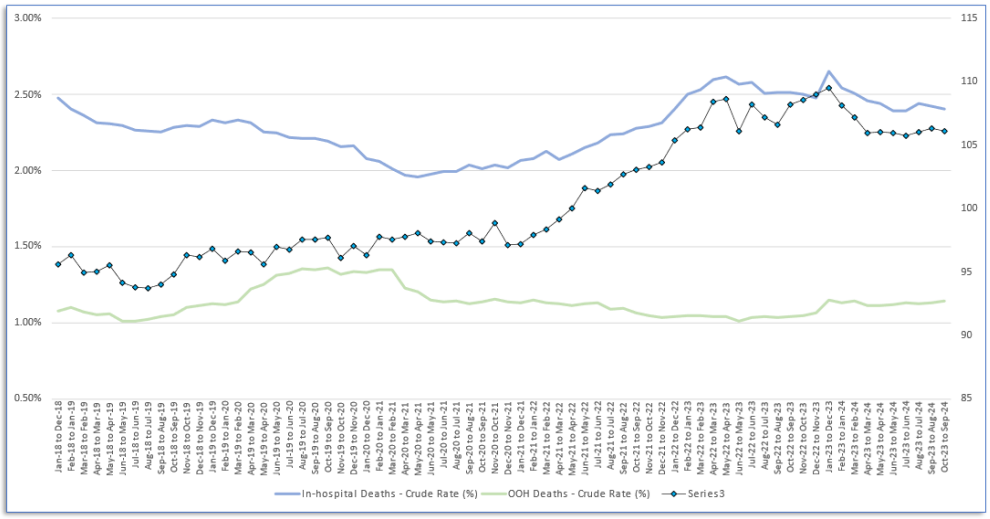


The two most recent clinical reviews illustrate one of the disadvantages of both national-level mortality comparators that we have access to (HSMR and SHMI) which is that they report based on what clinicians believed the patient came in with rather than what they died of. Coding at an early stage, prompted by the first transfer of care may result in a significant change in admission diagnosis once additional information becomes available. We believe, from our Telstra consultant, that other Trusts retrospectively adjust their submissions based on clinical review of the coding data to account for this. We have explored with our colleagues whether this is a possibility but at the moment the Trust coding team, and likely clinical teams, do not have capacity for this work.

1.2.4. Place of death

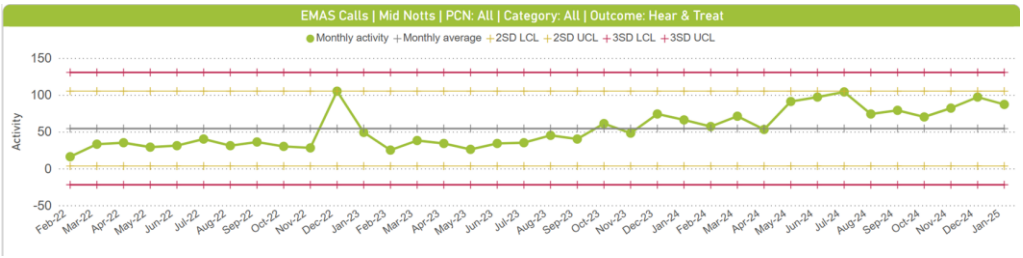
We reported previously that there had been a significant (18%) reduction locally in the number of deaths registered from care homes. This was accompanied by a picture of a widening gap in the number of deaths occurring in hospital and after discharge. As many patients express a preference for dying at home it is reassuring to see that this gap has begun to narrow (Figure 1.2.4.1)

Figure 1.2.4.1 In hospital, out of hospital SHMI deaths and Relative Risk (series 3)



Work from elsewhere in the ICB on admission avoidance highlighted to the group shown in 1.2.4.2 also gives encouraging signs of effective system working.

Figure 1.2.4.2 EMAS calls where admission has been appropriately avoided



1.2.5 End of Life Care (EoLC)

We have reported to the Board previously that although we are a low outlier in terms of Specialist Palliative Care coding (due to strict inclusion requirements) we believe we provide good care to patients at or nearing the end of life. We are able to report that over the last quarter;

- We have received no EoLC related complaints,
- Only one concern related to recognition of dying and
- 6 compliments that referenced high standard of care, compassionate staff and the memory making trolleys.

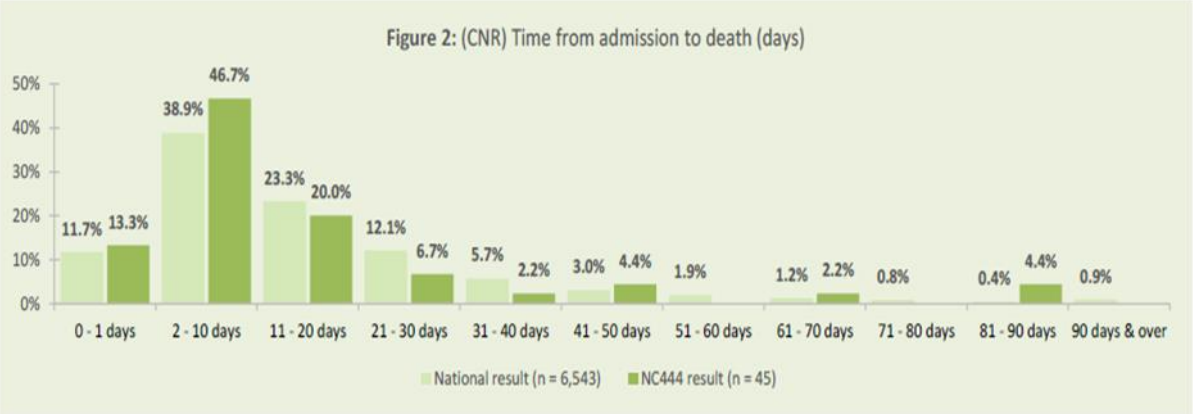
There is always room for improvement. The National Audit of Care at the End of Life (NACEL) 2022 results for Sherwood Forest Hospitals NHS Foundation Trust (SFHFT) identified that we need to:

- Improve the recognition of patients who are at risk of deterioration with an uncertain outcome
- Prompt advanced care planning/completion of ReSPECT plans to identify patients' wishes and preferences in a timely way if appropriate

We are able to report that roll-out of the Amber Care bundle (for this specific group of patients where outcome is uncertain, but death is a possibility) has been agreed in Health Care of the Older Patient and the digital documentation has been built and approved in preparation for roll out. We will bring information around changes resulting from this to the Board in future reports when data becomes available from NACEL.

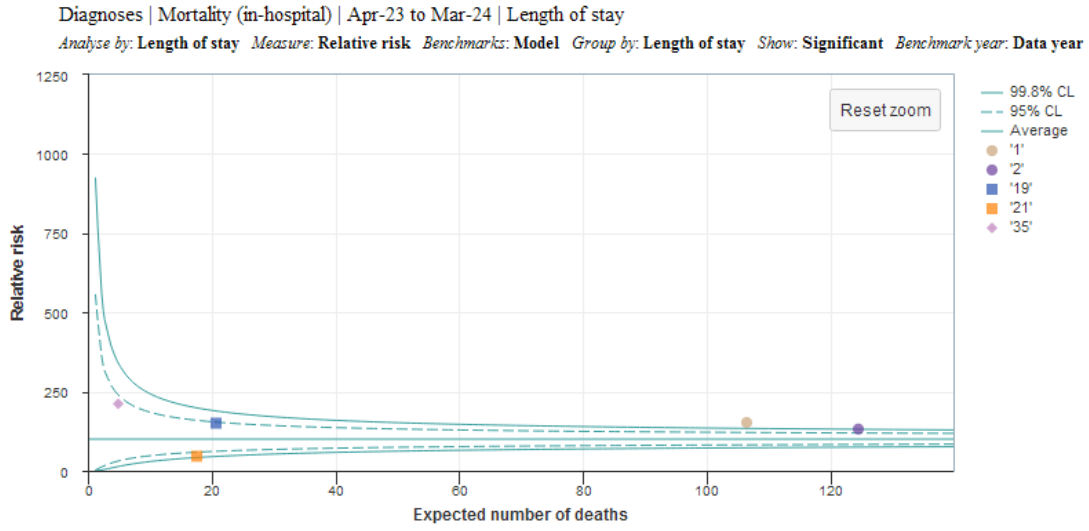
We have received a specific query regarding deaths in the early period after admission.Information from the NACEL 2022 report does indicate that SFH has a higher than average number of patients dying within 0-1 days and 2-10 days of admission as shown in Figure 1.2.5.1 below

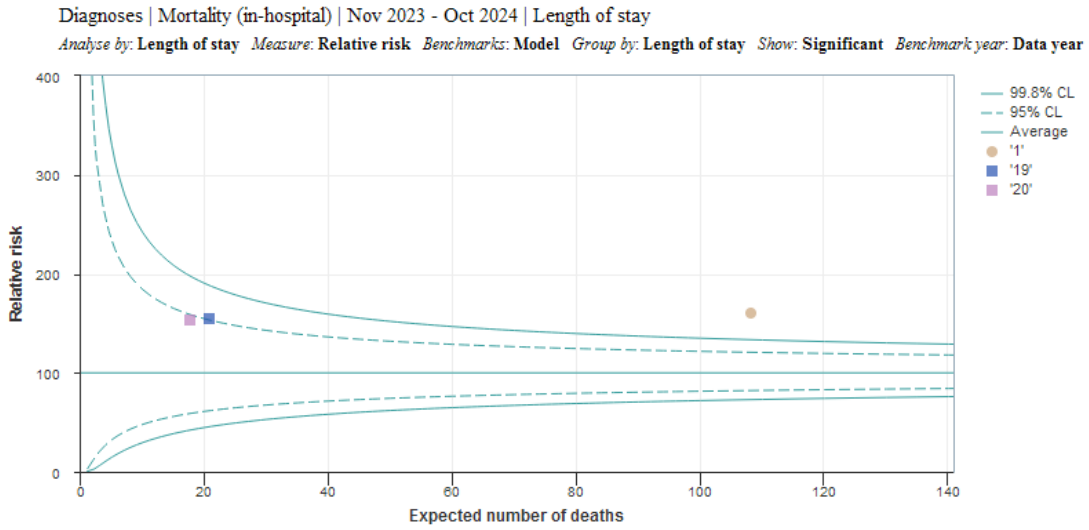
Figure 1.2.5.1 Time from admission to death (days) National and Trust data



The figure 1.2.5.2 below confirms SFH is an outlier for 1 and 2 day LOS in the all diagnosis group for the Apr 23-March 24 time period. More recent data shows persisting outlier status for 1 day LOS, but the 2 day LOS has dropped off.

Figure 1.2.5.2 Funnel plots of mortality against length of stay





From a SFH perspective, this latest data supports our suspicion that increasingly patients are coming in to (and staying in) hospital to die. There has been no clear signal from our medical examiners of a theme of concern about quality of care received in the Trust for this sub group of deaths and the NACEL report suggests that the care received at end of life is good.

Dr Fischer-Orr (acute medical consultant and end of life care lead) is planning to undertake an audit to review deaths in the Emergency Department and across Acute Medicine to understand the reasons for admission and

whether they were avoidable (i.e whether an advanced care plan was in place and whether the patient's wishes regarding hospital admission were known or documented. The results of this audit will be shared via our learning from deaths group..

1.2 External Mortality Intelligence Provider

Our national-level comparator metrics continue to be provided by Telstra (Dr Foster) following a 1 year extension to the contract to align with renewals elsewhere in the ICS. This has coincided with the revision of the Telstra algorithm which, as reported elsewhere, is more closely aligned to the SHMI (which is available at no cost but has more limited benchmarking ability). We do however benefit from a useful working relationship with the Telstra analyst.
Significant progress has been made with using our local Trust data (see 1.3.1 below) which has the advantage of being more up-to-date than both SHMI and SHMI. A gap analysis of whether the analytical function can be brought in house will be part of the procurement process.

1.3.1 Use of Trusts local data

Our hospital episodes are reliable coded within 5 days of discharge. Using this data we have been able to populate many of the current mortality analytics and create some new ones relevant to local priorities. Less than 0.1% of the cases are unmatched compared to the SHMI. This may be an alternative to our current provision and support a future state where we are able to respond to signals from clinical colleagues in the data rather than explore signals from the data with clinical reviews which have both an opportunity cost in terms of time, as discussed elsewhere rarely reveal a true signal and are typically 6 months to 1 year out of date by the time they report. Given that we appear to be in a stronger position in terms of our mortality benchmarking and our understanding of the data this may be an opportunity for a trial period without an external provider.

Figure 1.3.1 Screen shot of Power BI mortality dashboard based on Trust's own data.

1.4 Independent Validation

- As part of the Trust's desire to improve and learn from others, a working group from SFHT undertook a visit to Dudley Group Hospitals (DGH) on 1st October.
- DGH had been on a similar journey in relation to HSMR and had reported improvement in their general understanding and metrics.
- The visit was a useful insight into processes, internal management of mortality metrics, coding practice and approach to clinical engagement and responsibility.
- Highlights included a focus on coding accuracy, documentation, capture of key information (including co-morbidities) and effective medical handover, all supported through robust clinical engagement.
    - A significant contributor to their improved performance was attributed to the allocation of dedicated clinical time to work with the coding team.
- Other areas of discussion included Palliative Care coding, ReSPECT documentation and escalation planning (especially at the interface between Primary and Secondary Care).
    - Local agreements around the inclusion criteria for "Specialist Palliative Care" increased their coding

of this. This element is no longer relevant as Telstra have removed it from their algorithm.

- We also discussed the Medical Examiner Service and are pleased to be able to report to Board that our local arrangements seem to be both more mature and collaborative than elsewhere.

2. Review of Deaths and Structured Judgement Review (SJR)

2.1 Mortality Review Tool

The Datix IQ mortality review tool went fully live in October 2024. Whilst the Bereavement Team have been using the system for their processes we are now able to request and manage mortality reviews in addition to the mandated Attending Qualified Practitioner/ Medical Examiner review. This includes Structured Judgement Reviews (SJRs), avoidability assessments and capture of outcomes and learning.

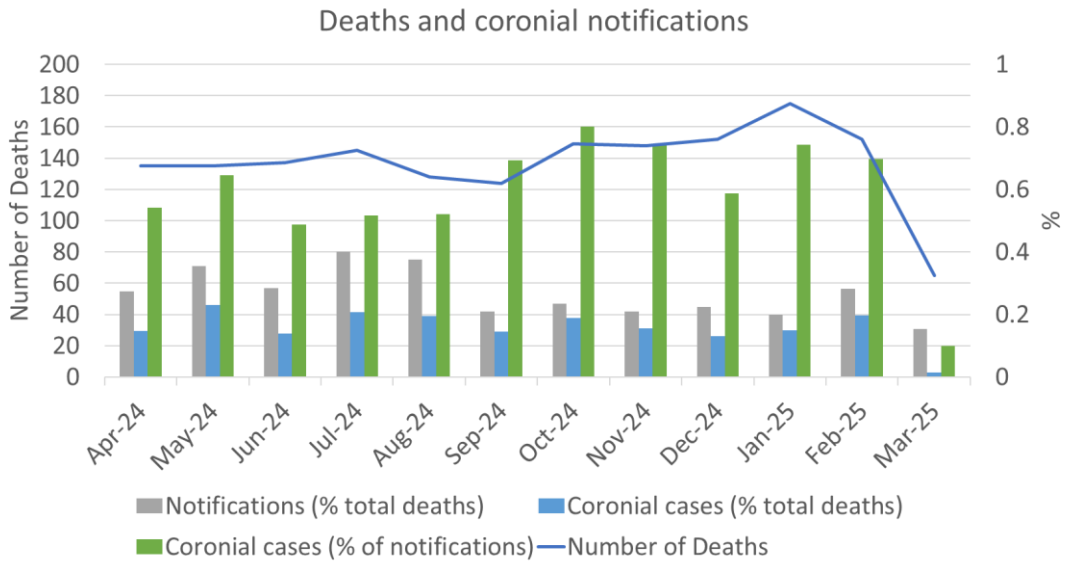
Training in both case review methodology and use of the system has been provided to specialty mortality leads as cases have been added for review prior to access being granted with the aim of quality assurance. This has been well received and several specialties have asked for the training to be made available to all consultants as this is a useful skill for wider governance activities. We hope to report on the impact of this in the next report.

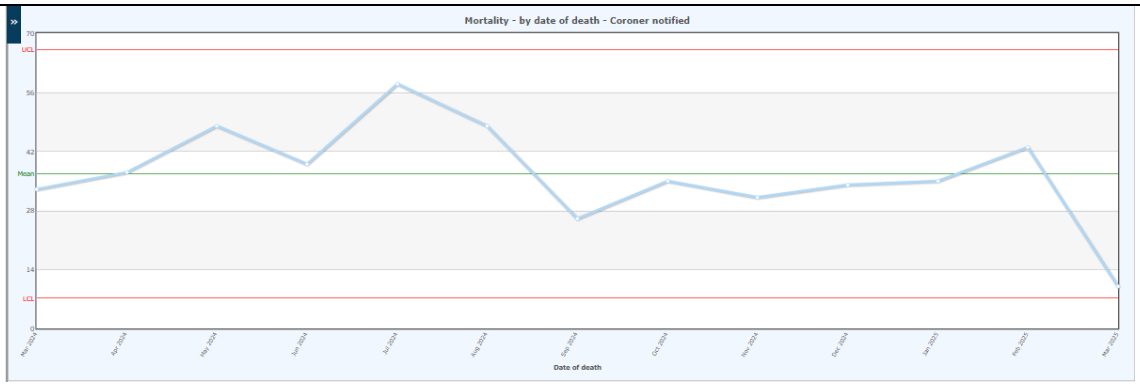
As reviews are completed, we will agree standardised outputs to be fed into existing governance structures. The old system will be closed and archived in Q1 2025-6.

2.2 Data from Medical Examiner Service Office

Monthly mortality figures captured by the Medical Examiner service are shown in Figure 2.2.1.

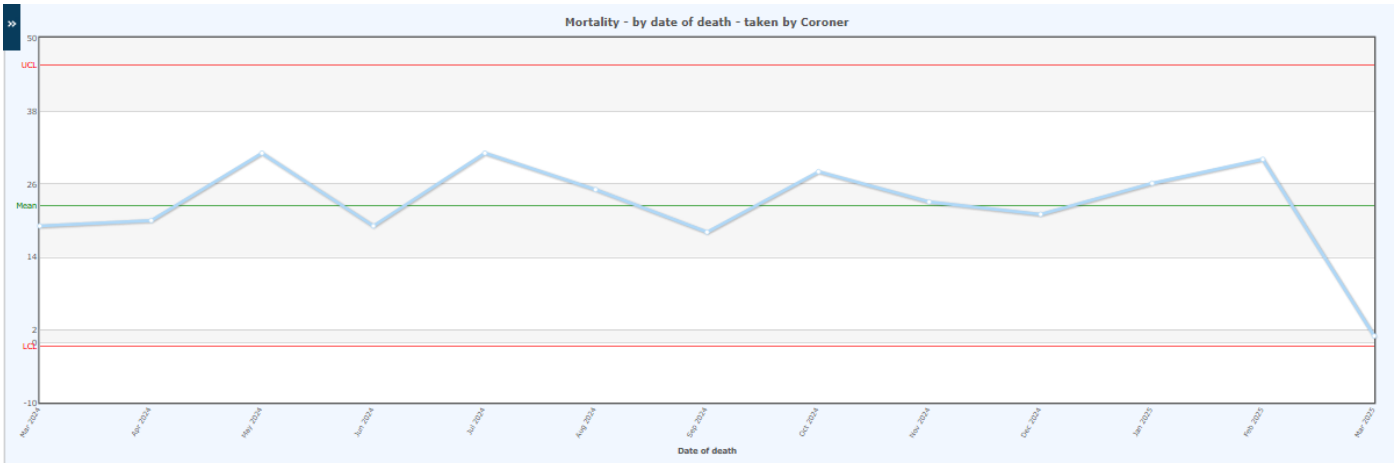
Fig 2.2.1 Mortality trends- monthly hospital deaths 2024-5 at 13/3/2025





Changes to the Medical Examiner Service which took effect in September has reduced the number of cases requiring discussion with the Coroner which is seen in the SPC chart in Figure 2.2.1. whilst the proportion of referrals take for further action has increased the number of Coronial matters remains stable as shown in the up-to-date data below in Figure 2.2.2.
The increase experienced over the past few years is not reversing. The time and resource required to prepare for and attend these inquests is under review and will require allocated job-plan time for senior clinical colleagues in addition to that allocated from other Patient Safety Incident Investigations and Responses.

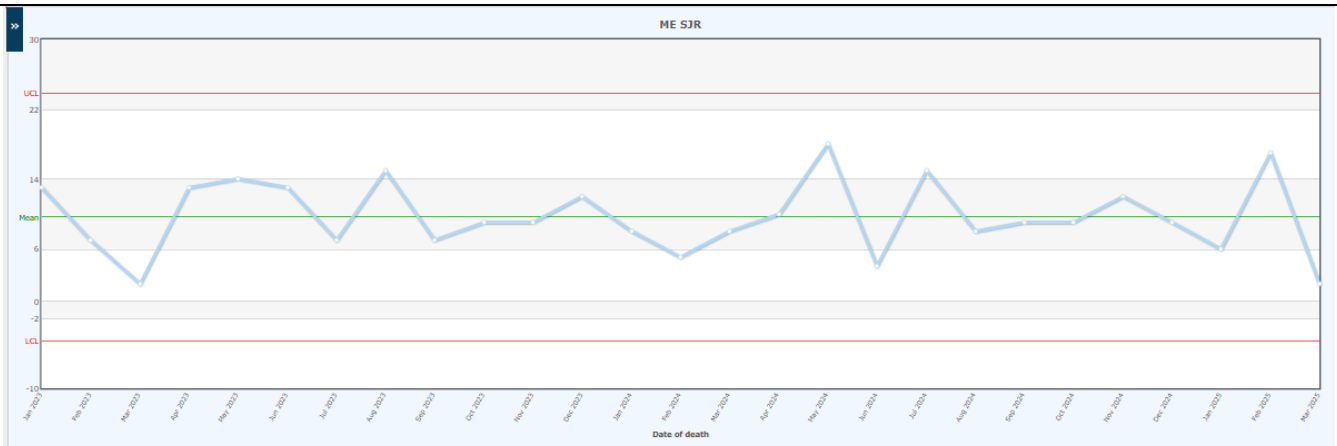
Figure 2.2.2 Number of cases taken by the coroner for further investigation (at 13/3/2025)



2.3 Structured Judgement reviews

Further investigation, following scrutiny of hospital deaths, using the Royal College of Physicians' Structured Judgement Review (SJR) Methodology remains stable as shown in Figure 2.3.1

Fig 2.3.1 Structured Judgement review requests at Q4 2023/24



	2024-5 Q3	2024-5 Q4
Deaths	449	392
SJR	30	25
% Reviewed	6.7	6.4

SJR was requested in 55 cases which includes mandatory cases such as Learning Disabilities or patient detained under the Mental Health Act. This is approximately 6.4% of deaths in this reporting period. This is slightly fewer but not statistically significant. With the launch of the new platform we expect to be able to present summary data from these reviews and the learning in the next report.

2.4 Feedback from LeDeR reviews

Since September 2024 there have been 10 deaths in patients with learning disabilities in the Trust. Four of these female, six were male.

The LD nurse receives data shared from the LeDeR reviews relating to patients who have died whilst at Sherwood Forest Hospitals. The aim of this is to look for themes and trends which can support learning across the organisation. During this reporting period there have been five new LeDeR reviews shared from deaths at Kingsmill hospitals.

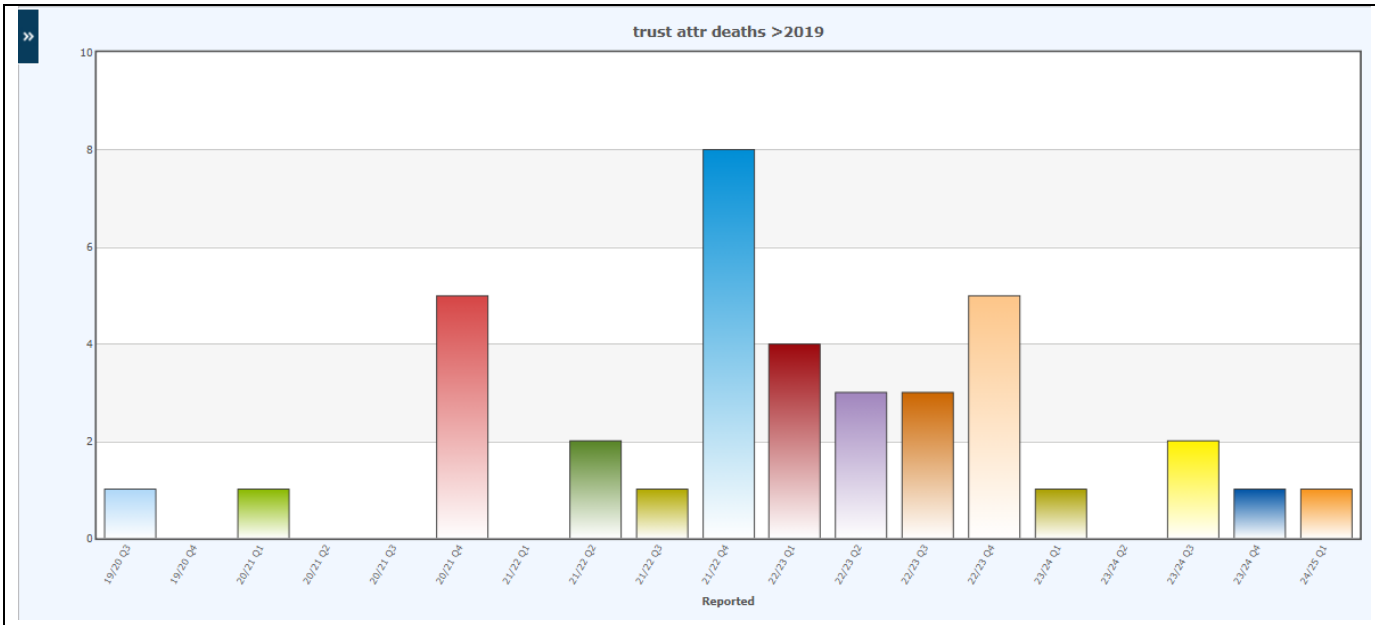
Feedback:
The LD Nurse has been supporting the new LeDeR reviewers by providing additional information and inviting them to come in and review the paper records if required.
The LD Nurse continues to attend the LeDeR working group meetings which are to held monthly by the ICB LeDeR team.

LeDeR reviews:
There have been five redacted reviews received during this reporting period. Much positive feedback. Colleagues have been reminded that the LeDeR team is available to assist with breaking bad news such as cancer diagnosis, end of life and DNACPR discussions.

3. Feedback and Learning Serious Incident Investigations and from Coroner.

We are required to report to the board an estimate of those deaths where a problem in care has contributed to a death. We believe that reviewing those deaths subject to Incidents Investigations (STEIS and latterly PSII) which are almost invariably taken for Coronial Investigation gives us the best insight into these rare cases.

Figure 3.1 Deaths where a problem in care has contributed (Trust-apportioned catastrophic harm)



The numbers for the last 5 years shown in figure 3.1 are small. Hospital acquired infection (which has included COVID since the pandemic) is now included in the numbers and as reported in previous updates represents a proportion of the cases. As investigations and inquests take several months to sometimes a year to report and allow us to confirm the role of problems in care these data are in arrears. We will continue to report learning from significant cases as it becomes available.

Five inquests have concluded since the last report which have resulted in significant learning for the Trust.

- Neonatal death contributed to by neglect; Regulation 28 – antepartum haemorrhage guidelines give insufficient guidance on urgency. Guidelines have been reviewed.
- Low magnesium result not dealt with. Regulation 28 avoided. Action plan from PSII to include updates to ICE (the trust digital results reporting platform) and grouping of results to improve visibility of abnormal returns. Review of arrangements for telephone alerts for critical results currently with Acting Deputy Medical Director and Clinical Chairs. This case is an example of particularly effective engagement with the family and sharing of the report as part of the Trust's investigation.
- Elderly patient, surgery to hip fracture. Post op deterioration reported by family but not recognised until renal failure established. Narrative conclusion that this contributed to death. Regulation 28 avoided. The Trust is (independently of this case) currently engaged as a pilot site for Martha's Rule which is exploring ways of enabling patients and their relative's to raise concerns using a dedicated telephone number and also incorporating holistic wellness assessments into daily observations.
- 11 year old with complex medical history and previous abdominal surgery, attended unwell with abdominal pain and retching. Early attempts to transfer to NUH paediatric surgeons who are commissioned to deal with such patients were unsuccessful as they erroneously told us they had no bed. Extensive unsuccessful attempt to insert NG tube by paediatric consultant present in KMH ED. Accepted delay administering prescribed antibiotics, and coroner concluded fluids too. Transferred to NUH 7 hours after attendance, where found to have unsurvivable ischaemic bowel at surgery. Ultimately natural causes as coroner concluded unlikely to survive with early transfer, and Regulation 28 report to prevent future deaths avoided as issues covered by previous Regulation 28s. Regarding SFH, coroner expressed concerns, particularly on paediatric nursing provision in ED, failure to administer antibiotics / sufficient fluids, failure to capture regular observations from the continuous monitoring in Resus, and not obtaining early detailed accounts from staff on deaths that might go to inquest. Additionally, wider concerns about the process for finding a tertiary bed for paediatric surgery patients when NUH unit actually is full are being worked through by NUH. Ongoing question remains about how much involvement SFH surgeons should have with paediatric surgery cases attending KMH, and local escalations when early transfer not possible. Similar issues exist in other DGH's and this is being picked up by the paediatric surgery operational delivery network.

- Out of hospital cardiac arrest. 1 year previously had attended SDEC as getting chest pain when running. Slightly raised troponin and abnormal ECG. Initial plan was to see cardiologist but before seen discharged for rapid access chest pain clinic appt on erroneous basis this was stable angina rather than unstable. Patient died 11 months later before routine investigations had been carried out. On investigation an Angiogram was not booked with Catheter Lab, but even if had been routine investigation is unlikely to have been done by time died due to waiting time. Other missed opportunities to detect and rectify this oversight were discovered on investigation. The death was determined to be of natural causes on a technicality as, whilst Trust accepted should have been admitted for inpatient angiogram on first attendance probably leading to stenting, there is no clear evidence that this would have improved life expectancy as opposed to symptom control. Regulation 28 avoided as angiogram wait had markedly improved by inquest. Changes were made to booking process due to a thorough investigation and process mapping exercise led by the Trust's improvement team with excellent clinical and non-clinical engagement.

4. Learning from Deaths meetings.

4.1 Attendance at meetings

The meeting continues to be well attended by the multidisciplinary clinical teams from SFH together with representation from Palliative Care and End of Life teams from the community and representation from the ICB. We have also added quarterly attendance from the Mortuary team to represent their important work in caring for the deceased after their death which has seen some significant improvements in response to incidents over the last 6 months.

4.2 Focus of learning

Much of the agenda for the meetings is driven by problems and negative outcomes. We are increasingly confident that we are not an overall outlier in terms of mortality and we hope to be able to transfer some of our focus towards improving the quality of deaths and learning from those areas where we perform well (safety II). Early work has been done on analysing compliments received from the bereaved and we aim to update in the next report.

5. Plans for Q1&2 2025/6

- Continue to work with clinical colleagues to improve accuracy of clinical documentation to enable effective diagnosis, treatment and coding.

- Agree arrangements for provision of benchmarking and analysis which will be of best value to the Trust.

- Continue to work towards pivoting to clinically led, closer to real time learning supported by quantitative and qualitative data.