Outstanding Care, Compassionate People, Healthier Communities

Sherwood Forest Hospitals NHS Foundation Trust

**Board of Directors Meeting in Public**

| | | | |
|---|---|---|---|
| **Subject:** | Learning From Deaths | **Date:** | 3/10/2024 |
| **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:**

| | | |
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| **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
- **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

The Board is asked to note the Summary Hospital-Level Mortality Indicator (SHMI) which remains "as-expected" at 106.0. This is now trending down (108.2 at April report). The Hospital Standardised Mortality Ratio (HSMR) which remains "higher-than-expected" at 122.1 but continues to improve towards "as expected" (127.7 at April report). The Learning from Deaths group has seen evidence in measures which we believe represent contributary factors to these improvements (documentation and coding). There appears to be small but sustained improvement in diagnosis coding (reduction in diagnoses in symptoms and signs chapter.) Capture of comorbidities (depth of coding) in elective admissions has improved and to a lesser extent in non-elective admissions. There is still work to do and some specific areas have been identified by focussed clinical reviews in gastroenterology and respiratory. Analysis of place of death has identified some areas where system working may offer some solutions and is a potential focus for the future.

The tender documents for mortality and other clinical intelligence have been prepared following extensive stakeholder engagement. The existing contract with Dr Foster (Telstra) has been extended for a year to give us time to thoroughly assess the responses from the market. This will also give us the opportunity to synchronise with NUH, who are with a different provider, if a more ICS-wide approach represents the best option for SFH. Meanwhile we await with interest the outcome of changes to the Dr Foster (Telstra) model (HSMR+). We continue our work on utilising information from our own data warehouse which will have the advantage of being more up-to-date. We have arranged a visit to the Dudley Group NHS Foundation Trust to observe and discuss their coding and mortality intelligence processes.

The DCIQ Mortality Review Tool will go live on 1st October 2024 following user testing and familiarisation processes. The Mortality Management (Learning from Deaths) Policy has been extensively updated to reflect the new processes and incorporate changes to the Medical Examiner service and our interface with the Patient Safety Incident Response Framework which has now been in place for a year. We have seen renewed interest in Structured Judgement Review methodology training across the divisions to address existing backlogs although making time for these reviews is challenging with continuing high levels of patient-facing work. The Group is supporting the Divisions to prepare more detailed job-descriptions for Mortality Leads to assist the job planning process.

Qualitative information from mortality reviews suggests that the significant majority of care received by patients in our Trust is of appropriate quality. However following inquests at the Coroner's Court the Trust has received further Prevention of Future Deaths Notices (Regulation 28). The Learning from Deaths Group continues to work to support the Trust in interpreting these findings and joining up learning which derives from a range of perspectives and methodologies.

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

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.

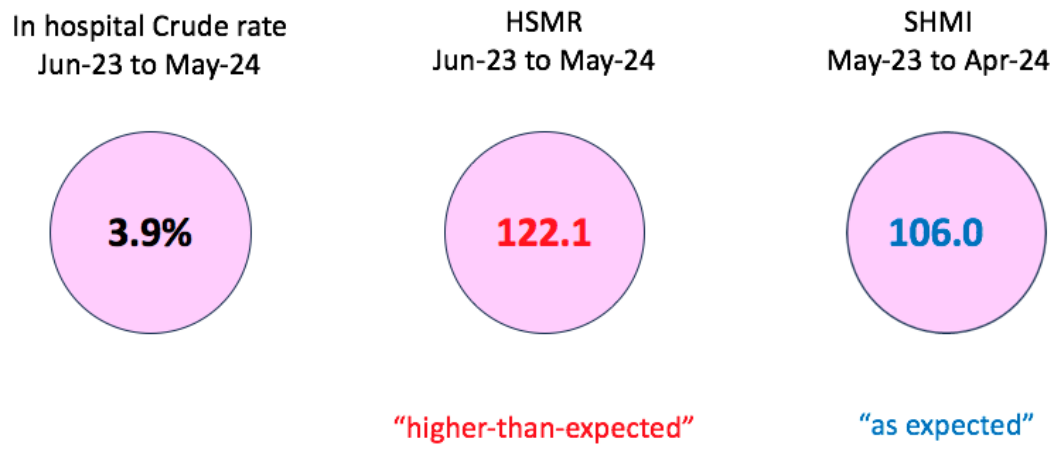
Continue to develop our in-house mortality intelligence capacity.

# 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

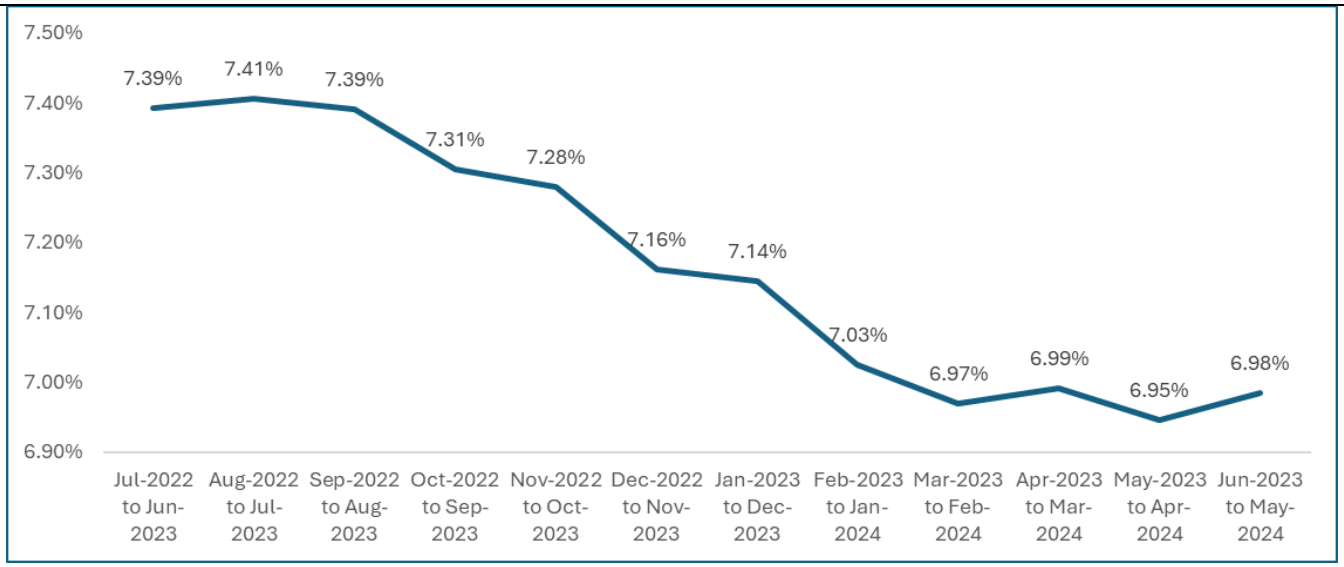



HSMR (Hospital Standardised Mortality Ratio), SHMI (Summary Hospital-level Mortality Indicator)

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) who provide the HSMR are in the process of launching their new model (HSMR+) which removes palliative care which has been a longstanding complication in our interpretation of the measure and we believe a significant contributor to the difference between HSMR and SHMI (which does not account for it). Early information suggests that our HSMR+ will be significantly lower but we are not yet able to say where we will place in comparison to other Trusts. There have also been small changes to SHMI methodology but we are not anticipating significant effects.

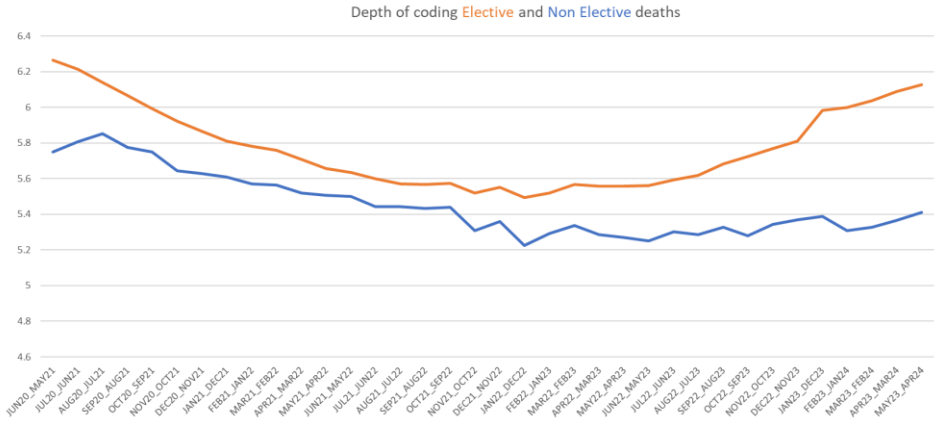
One focus of improvement continues to be a wide-ranging educational approach emphasising the importance of good documentation and coding at Grand Rounds, meetings for governance leads, Medical Managers and Clinical Chairs. A marker of good documentation is the percentage of episodes which are coded as symptoms and signs rather than diagnoses (eg chest pain vs. angina)- lower is better. Figure 1.1.2 shows a definite improvement in the form of trend downwards and signs of a new steady state in this measure for HSMR data over the last year.

Fig 1.1.2 Percentage of Spells in Symptoms & Signs Chapter (Last 12 Months | Rolling Trend)



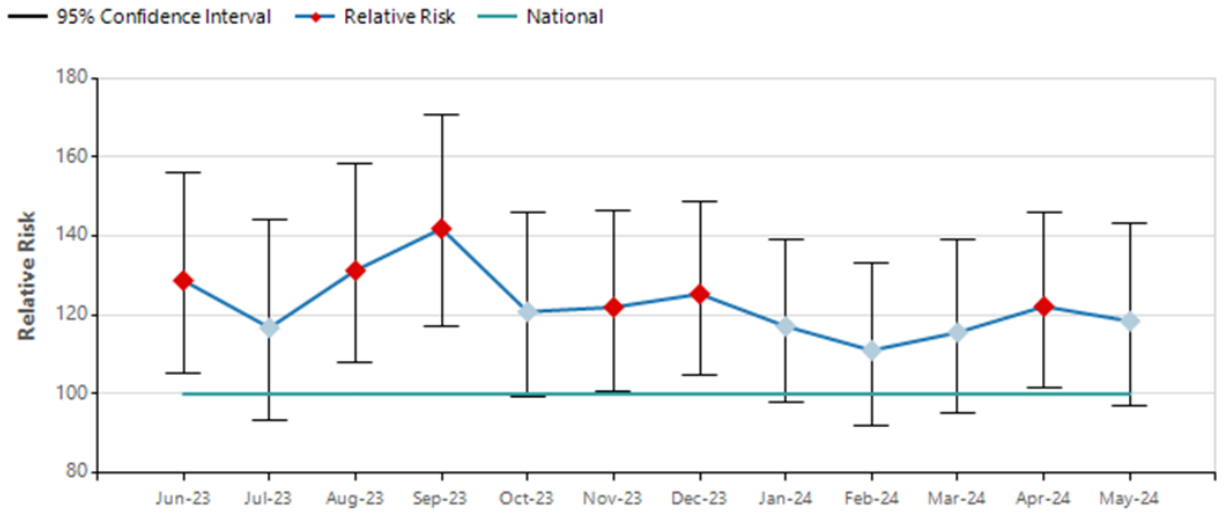

Looking at our SHMI data in Figure 1.1.3, the depth of coding (the mean number of additional codes above the acute diagnosis) which had been showing a decline has almost reversed for elective deaths and seen a small improvement in non-elective admissions. There is still work to do and this is challenging in the face of continuing workload pressures in Emergency departments however the Division has a robust plan and audit process to improve compliance with admission clerking in acute medicine as part of a wider Governance review. On the elective side the introduction of a new digital Pre-operative assessment tool may have a positive impact on capture and accuracy of information and we hope to be able to report continuing improvement in the next paper to Board (April 2025).

Fig 1.1.3 Depth of coding for Elective and Non-elective deaths (3 year trend)




Over the last year Figure 1.1.4 shows an improvement in our in-month HSMR, with 4 of the last 6 months being "as expected." This is also reflected in the rolling 12-month trend for HSMR which continues down and the rising SHMI noted 6 months ago has returned to values we saw a year ago.

**Diagnoses - HSMR | Mortality (in-hospital) | Jun 2023 - May 2024 | Trend (month)**

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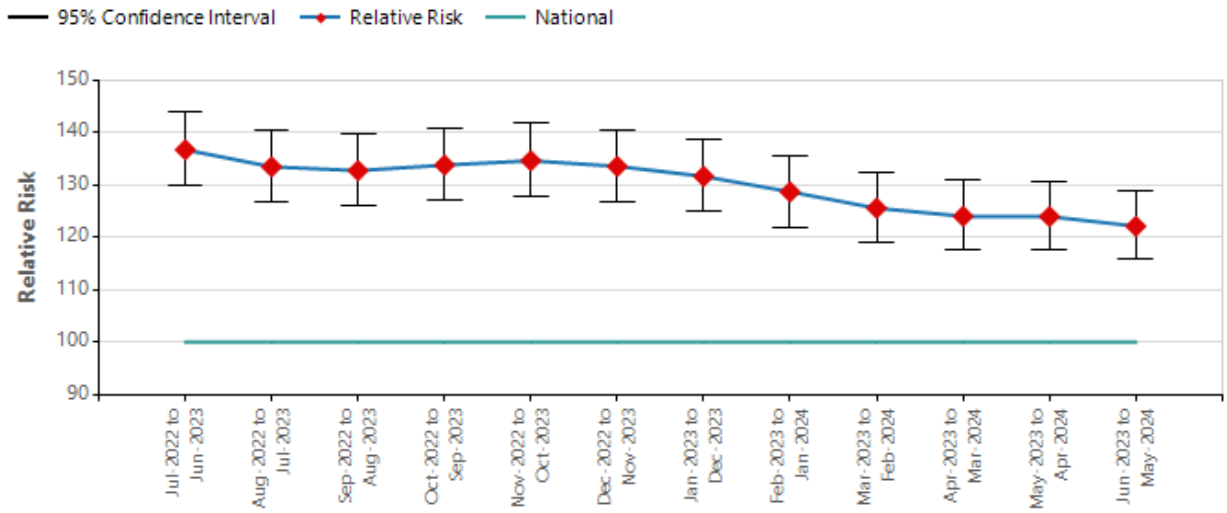
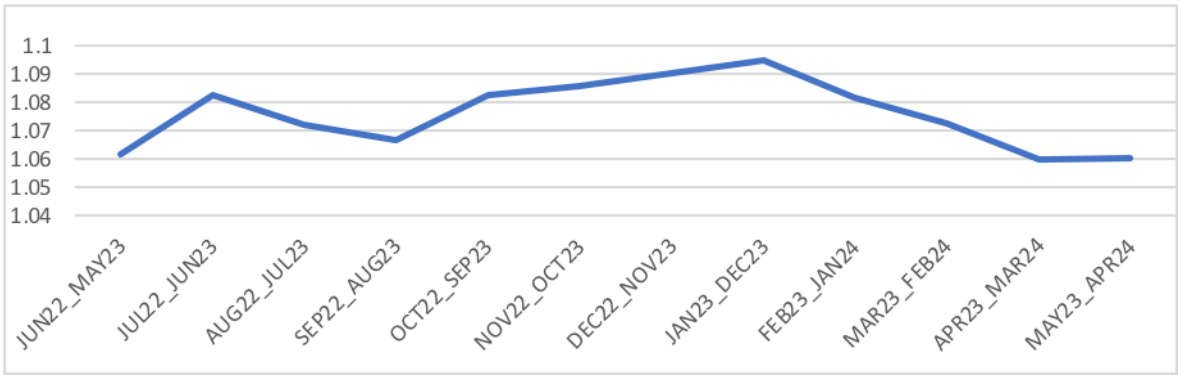



**Diagnoses- SMHI | Mortality |May 2023 – April 24 |Trend (rolling 12 months)**



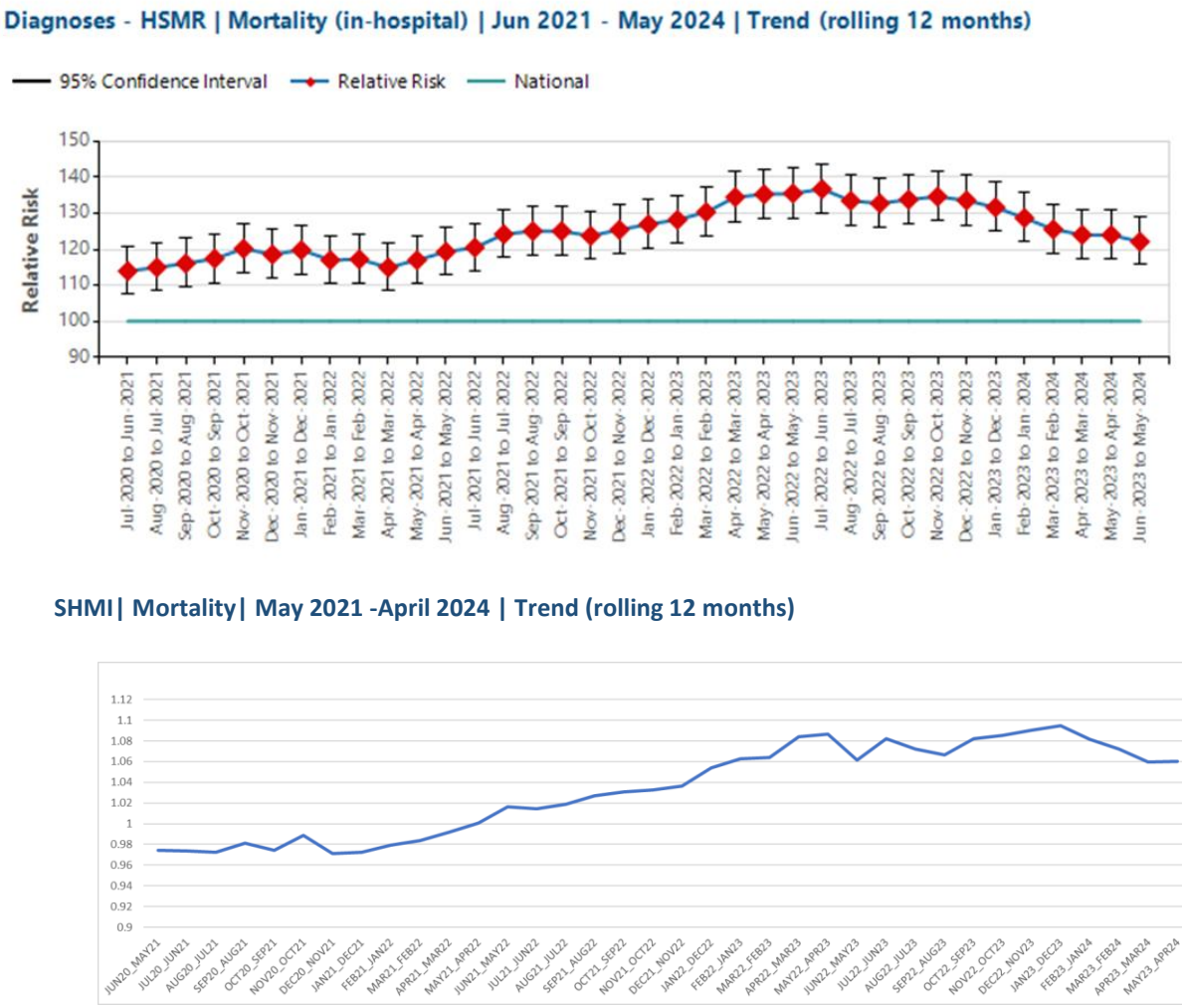
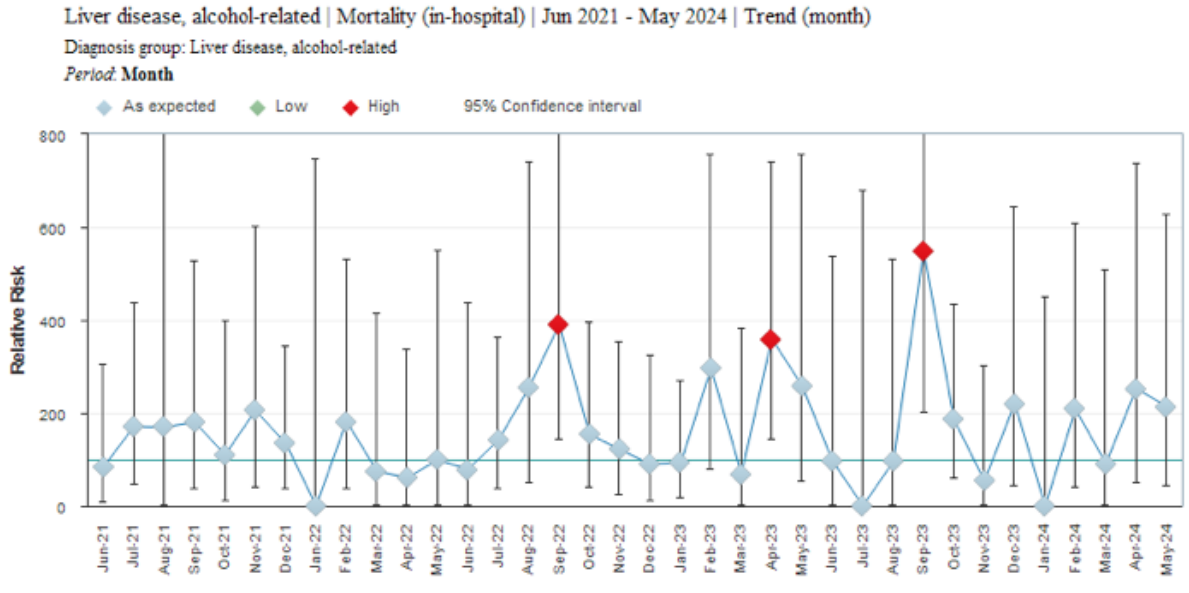



Figure 1.1.4 Trends for HSMR (in-Month), HSMR (rolling 12-month) and SHMI (rolling 12-month)

## 1.2 Clinical review of outlying diagnosis groups and progress on actions

1.2.1 Alcohol Related Liver Disease (ARLD)



Mortality case note reviews have taken place following spikes in HSMR. They have not identified significant deficiencies in clinical care, rather that these patients were all profoundly ill and at high risk of death. All deaths on the Gastroenterology ward are discussed in detail at the Gastroenterology monthly governance meeting. Several areas for improvement were identified in the mortality case reviews.

“Firstly and most importantly, that patients were often not clerked in (either partially clerked or mostly not clerked at all) as they passed through the care of the acute medicine team in EAU. A complete clerking is an important patient safety step as significant illnesses and medications can be missed without it. It’s also very important for accurate HSMR calculations – particularly as chronic liver disease is one of the Charlson comorbidity index factors for calculating HSMR. Missing it also means the denominator for liver disease mortality will be underestimated potentially exaggerating the Dr Foster HSMR figures for this illness.”

This is consistent with the general issue of non-elective documentation identified elsewhere in this report for which there is a plan in place.

“The second factor identified was that the national liver care bundle was often not being completed on admission. An education programme was introduced which drove up compliance with completing the bundle, but sadly compliance has again fallen.”

The Gastroenterology specialty have proposed the following actions

1) Continue to engage with Emergency care leadership team to focus on completing admission clerking documentation

2) Re-initiate education in-reach programme into EAU to drive up completion of the liver care bundle on admission

3) Increase middle grade staffing in Gastroenterology service to provide additional in-reach into EAU to review patients who are waiting to come to Gastroenterology ward to ensure their care is progressing and that they are closely monitored for early signs of deterioration

4) Engage with DrFoster/Telstra consultant to understand calculation basis for ARLD HSMR and what factors drive this so we can ensure that accurate information is being captured

5) Start to use the BSG/BADL decompensated liver disease discharge bundle

6) These steps are on top of a broader plan to improve Gastroenterology care by

    a. increasing substantive consultant staffing,

    b. reducing waiting times,

    c. recruit additional specialist liver nursing,

    d. improve HCC and varices surveillance pathway by moving more patients to nurse lead pathway, using the Infoflex database with increased nurse and admin staffing.

    e. We have recently opened Fibroscan provision to primary care to increase early detection of liver fibrosis and cirrhosis -this has lead to a big increase in demand and increased waiting times- staffing is being increased though there is a training lag, and it is hoped also to provide Fibroscan at the CDC when it opens.

1.2.2 Respiratory Failure and Pneumonia

Follow CuSUM alerts in these areas clinical reviews found that higher levels of respiratory failure and pneumonia where recorded as the primary diagnosis by non-specialists than would have been the case if a specialist had been involved. Work on respiratory failure is ongoing but in the area of pneumonia MDT collaboration between coders, respiratory consultants and specialist nurses, training for the clinical teams on coding requirement and training for the coding teams on respiratory notes has produced a reduction in inappropriate diagnosis. This is shown clearly in figure 1.2.2

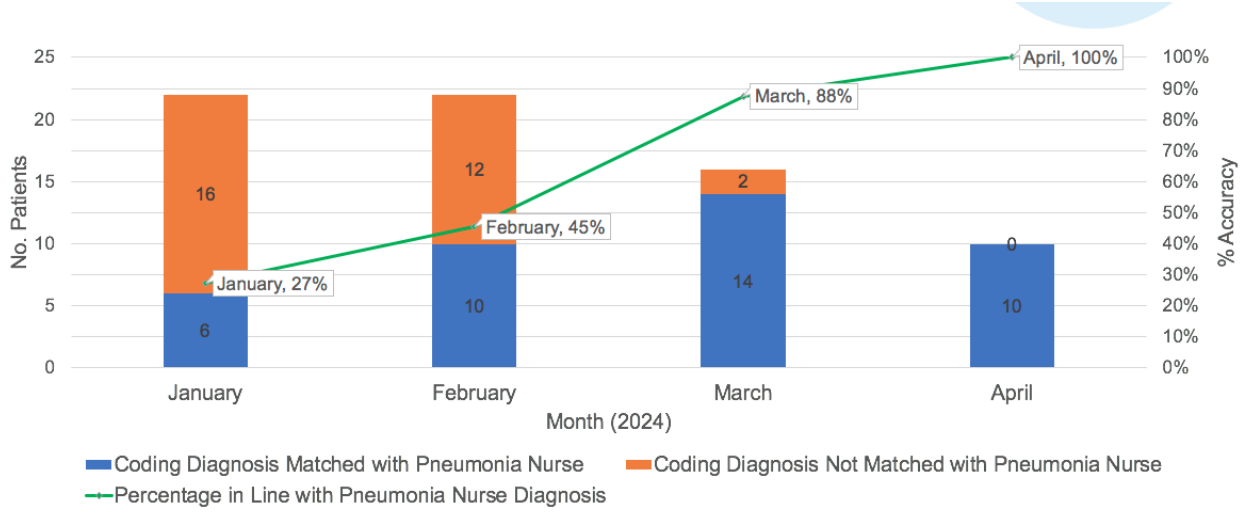



Figure 1.2.2 Audit data showing reduction in inappropriate diagnosis of pneumonia

1.2.3. Place of death

Data from earlier in the year showing in hospital vs out of hospital contributions to the SHMI is shown in Figure 1.2.3.

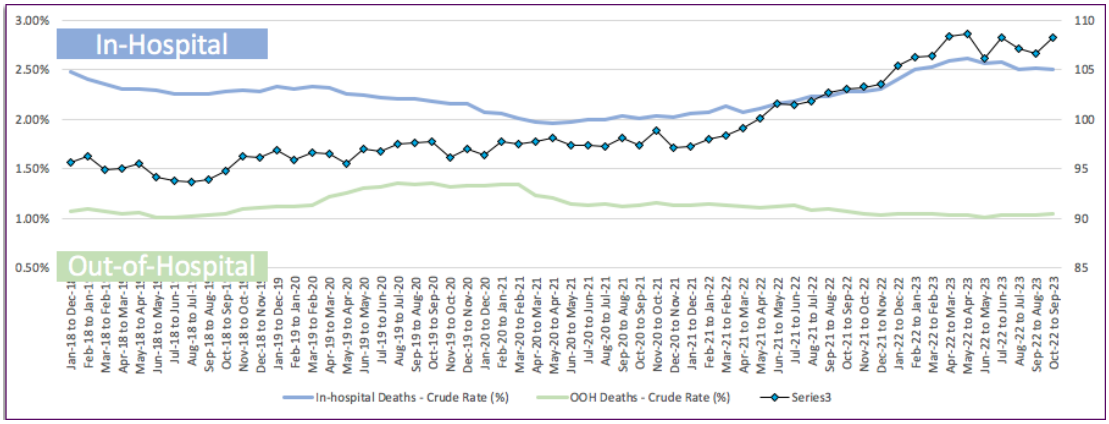



Figure 1.2.3 SHMI methodology in hospital vs out-of-hospital Crude rates

Our colleagues in the ICS have looked into this and discovered an 18% reduction in deaths registered from care homes. Given that we are not seeing an equivalent fall in death rate locally this suggests that an increasing number of people are being admitted to hospital to die. Given that there is evidence that most people who expressed a preference would chose to die at home, this is an area we have identified for further investigation.

1.2.4 End of Life Care (EoLC)

Even though the Trust remains a low-outlier in coding of Specialist Palliative Care due to local provision we continue work towards providing the best care we can to patients approaching the end of their life. The number of patients whose deaths are expected with an individualised care plan was slightly reduced from last year (86.9 vs 89.5%) but we have seen an increase in those patients who wished to be discharged from hospital returning to the community (10.6 vs 6.1%).

Our ward metrics for EoLC have improved and remain high (figure 1.2.4)

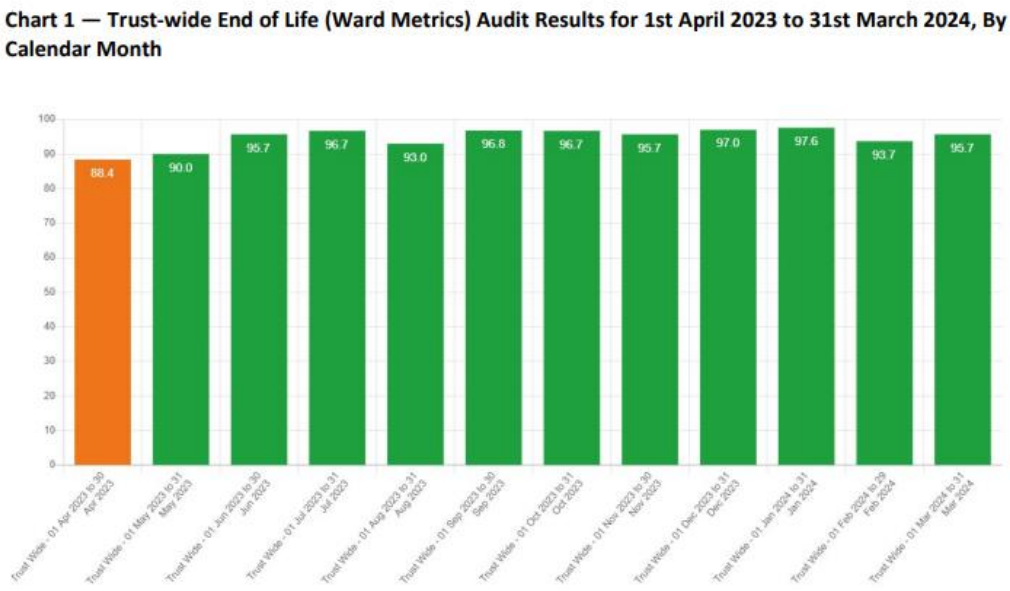



Figure 1.2.4 EoLC metrics

Early identification of patients who are dying is challenging. The last 6 months has seen significant progress with the Amber Care Bundle. The Amber Care Bundle is a tool which aims to support the identification of adult patients whose recovery is uncertain and who may be approaching the end of their life. In collaboration with The Improvement Faculty, a test of the Amber Care Bundle was completed in March 2024 and a phased rollout has begun.

### 1.3 External Mortality Intelligence Provider

The tender documents for mortality and other clinical intelligence have been prepared following extensive stakeholder engagement. The existing contract with Dr Foster (Telstra) has been extended for a year to give us time to thoroughly assess the responses from the market. This will also give us the opportunity to synchronise with NUH, who are with a different provider, if a more ICS-wide approach represents the best option for SFH. Meanwhile we await with interest the outcome of changes to the Dr Foster (Telstra) model (HSMR+). We continue our work on utilising information from our own data warehouse which will have the advantage of being more up-to-date.

### 1.4 Independent Validation

We believe we have a robust understanding of our high-level mortality metrics and the contributing factors influencing our position. We have become aware both through our discussions with Dr Foster (Telstra) and via the early stages of the tendering process which involved product demonstrations from providers that there is variation in approaches to coding which may have impact on our metrics. We have been engaging with The Dudley Group NHS Foundation Trust who were recommended as an exemplar organisation and are sending a delegation to observe their processes on 2nd October 2024. We will update in the next report.

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

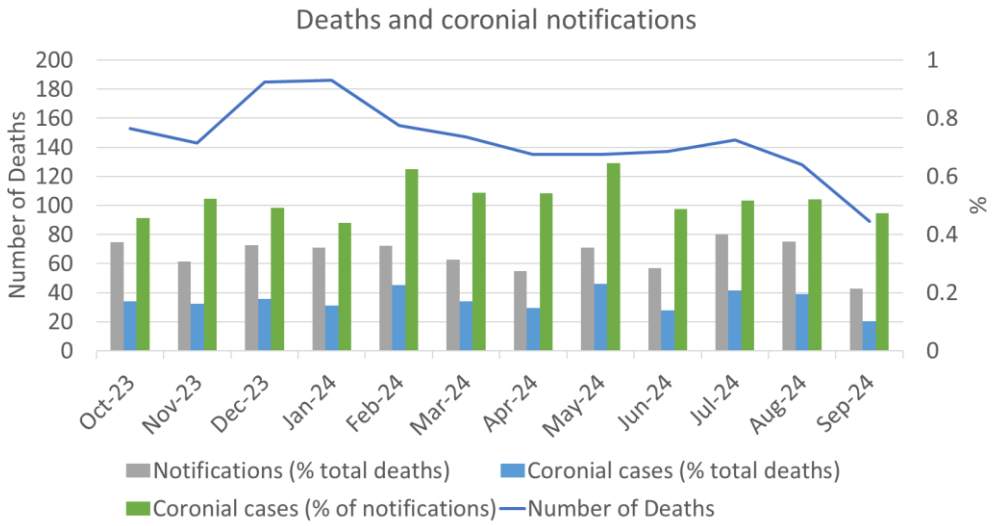
### 2.1 Mortality Review Tool

The Mortality review tool will go live on 1st October 2024 following user testing and familiarisation processes. The Mortality Management (Learning from Deaths) Policy has been extensively updated to reflect the new processes and incorporate changes to the Medical Examiner service and our interface with the Patient Safety Incident

Response Framework which has now been in place for a year. We have seen renewed interest in Structured Judgement Review methodology training across the divisions to address existing backlogs although making time for these reviews is challenging with continuing high levels of patient-facing work. The Group is supporting the Divisions to prepare more detailed job-descriptions for Mortality leads to assist the job planning process.

## 2.2 Data from Medical Examiner Service Office

Monthly mortality figures captured by the Medical Examiner service are shown in Figure 2.2.1. Since the last update to Board 769 deaths have been recorded at the time of reporting. There have been no cases of special cause variation in the last 2 quarters. The service continues to scrutinise 100% of hospital cases.




| | 2024-5 Q1 | 2024-5 Q2 |
|---|---|---|
| Deaths | 407 | 362 |
| SJR | 32 | 30 |
| % Reviewed | 7.9 | 8.3 |

Fig 2.2.1 Mortality trends- monthly hospital deaths 2023-4 at 24/9/2024

The Lead Medical Examiner has identified a theme of anticoagulation cases which he has reviewed and collated. These cases are rarely straightforward as they involve patients with complex conditions and often conflicting requirements for anticoagulation and the ability to stop bleeding (eg emergency surgery). The need for detailed documentation of the various risks and benefits which contribute to the clinical plan and comprehensive handover have been highlighted to the clinical teams for learning.

**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

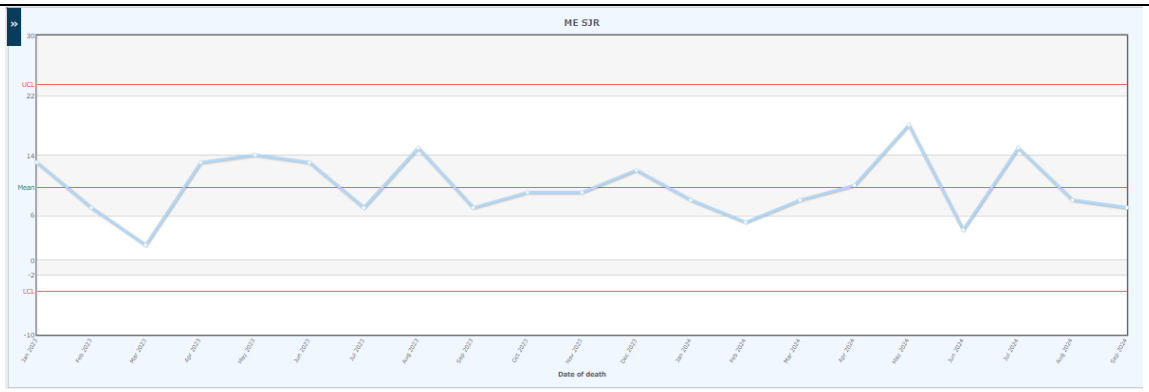



Fig 2.3.1 Structured Judgement review requests at Q4 2023/24

SJR was requested in 62 cases which includes mandatory cases such as Learning Disabilities or patient detained under the Mental Health Act. This is approximately 8% of deaths in each quarter reported here. With the launch of the new platform we expect to be able to present summary data from these review and the learning in the next report.

2.4 Feedback from LeDeR reviews

Since the last update there have been 9 deaths in patients with learning disabilities and 1 death in a patient with Autism who did not also have a learning disability (these patient have recently been added to the scope of LeDeR reviews) and we have received 7 review reports. There was no specific learning for the Trust in 4 of those cases. Feedback around referral and discharge from 2 cases has been identified and fed back to the clinical teams involved for learning. In the remaining case it was noted that an SJR had not been completed. Our LeDeR team facilitated access to the notes for the LeDeR team to allow completion of the review. The SJR has now been completed and the issue has been passed to UEC Division governance team.

## 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 the cases subject to Incidents Investigations which are almost invariably taken for Coronial Investigation gives us the best insight into these rare cases.

The number of Coronial matters remains stable as shown in the up-to-date data below in Figure 3.1

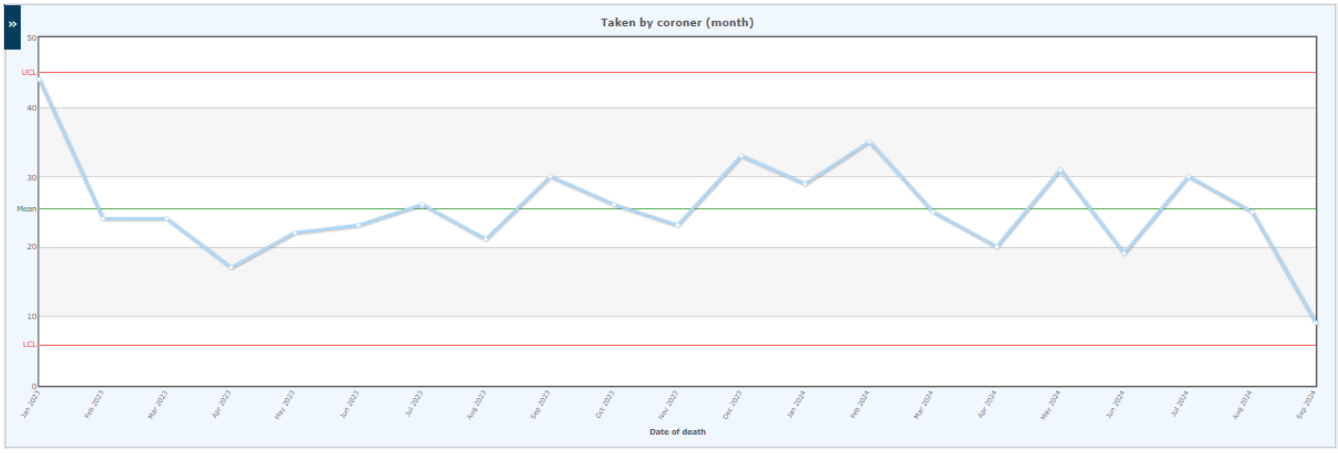



Figure 3.1 number of cases taken by the coroner for further investigation.

Three inquests have concluded in the last 6 months which have identified contributary problems in care and resulted in receipt of a Prevention of Future Deaths Notice (Regulation 28).

The first case involved a baby in the Emergency department and identified problems with staffing and skill mix in both medical and nursing teams and improvements which should be made to work systems and processes, particularly those supporting escalations and handovers. The full response can be found at the following link. Response 2024-0185 - Response from Sherwood Forest Hospitals NHS Foundation Trust (judiciary.uk) Significant work has been undertaken by Emergency Department colleagues to improve the identification and management of sepsis in ED. This work has been brought through the executive-led Emergency Department improvement group. We have recently appointed to a Trust-wide sepsis lead (one of our Consultant paediatricians)

The remaining two of these cases both involved antepartum haemorrhage (APH). It is recognised that the management of APH is not just a local issue and this has been raised at regional forums. The Trust APH guideline has been revised. The Trust has responded to the Coroner in relation to these two PFDs. We will bring these cases through the learning from deaths forum to understand what wider learning there is for the Trust. We have also taken urgent action over one recommendation which is the capturing of individual Factual Recall of Events (FRoE) which has been added to our governance processes. This particular shortcoming has probably been contributed to by PSIRF which focusses more on general system issues rather than the specifics of individual cases. There is increased learning potential from a number of approaches and the Trust has willingly taken this instruction.

## 4. Learning from Deaths meetings.

4.1 Attendance at meetings
The meeting continue 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.

## 5. Plans for Q3&4 2024/5

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.

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| **Prepared By:** | John Tansley, Chair Learning from Deaths Group | | |
| **Approved By:** | Dr Simon Roe, Acting Medical Director | | |
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The tender documents for mortality and other clinical intelligence have been prepared following extensive stakeholder engagement. The existing contract with Dr Foster (Telstra) has been extended for a year to give us time to thoroughly assess the responses from the market. This will also give us the opportunity to synchronise with NUH, who are with a different provider, if a more ICS-wide approach represents the best option for SFH. Meanwhile we await with interest the outcome of changes to the Dr Foster (Telstra) model (HSMR+). We continue our work on utilising information from our own data warehouse which will have the advantage of being more up-to-date. We have arranged a visit to the Dudley Group NHS Foundation Trust to observe and discuss their coding and mortality intelligence processes.

The DCIQ Mortality Review Tool will go live on 1st October 2024 following user testing and familiarisation processes. The Mortality Management (Learning from Deaths) Policy has been extensively updated to reflect the new processes and incorporate changes to the Medical Examiner service and our interface with the Patient Safety Incident Response Framework which has now been in place for a year. We have seen renewed interest in Structured Judgement Review methodology training across the divisions to address existing backlogs although making time for these reviews is challenging with continuing high levels of patient-facing work. The Group is supporting the Divisions to prepare more detailed job-descriptions for Mortality Leads to assist the job planning process.

Qualitative information from mortality reviews suggests that the significant majority of care received by patients in our Trust is of appropriate quality. However following inquests at the Coroner's Court the Trust has received further Prevention of Future Deaths Notices (Regulation 28). The Learning from Deaths Group continues to work to support the Trust in interpreting these findings and joining up learning which derives from a range of perspectives and methodologies.

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

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.