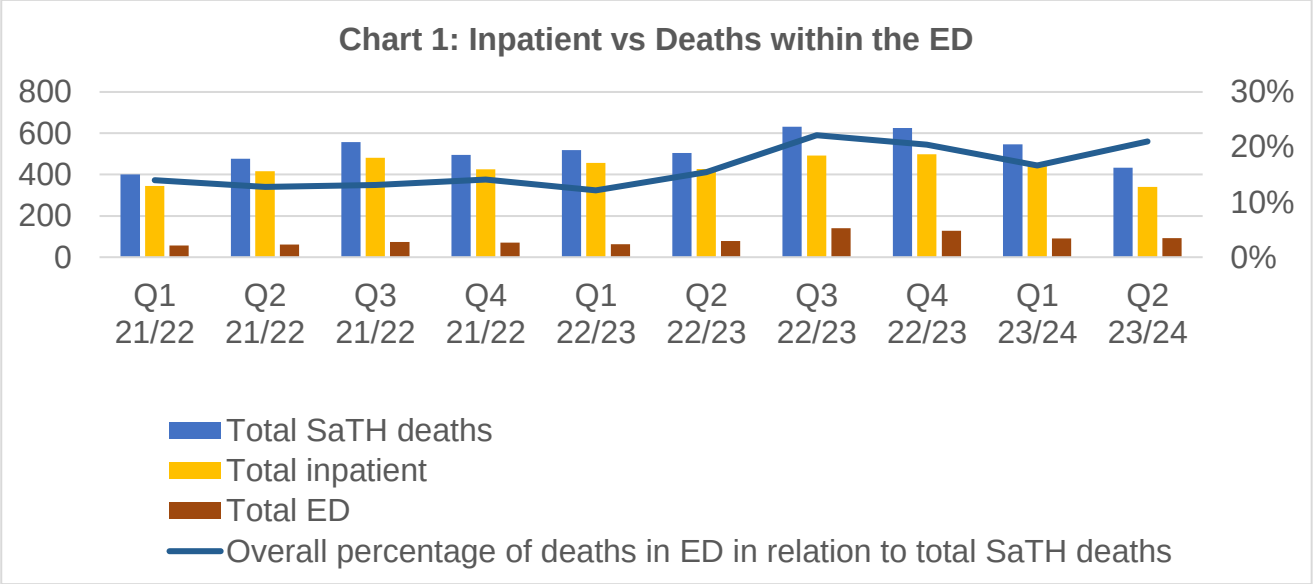
The Shrewsbury and Telford Hospital NHS Trust

Board of Directors' Meeting: 14 December 2023

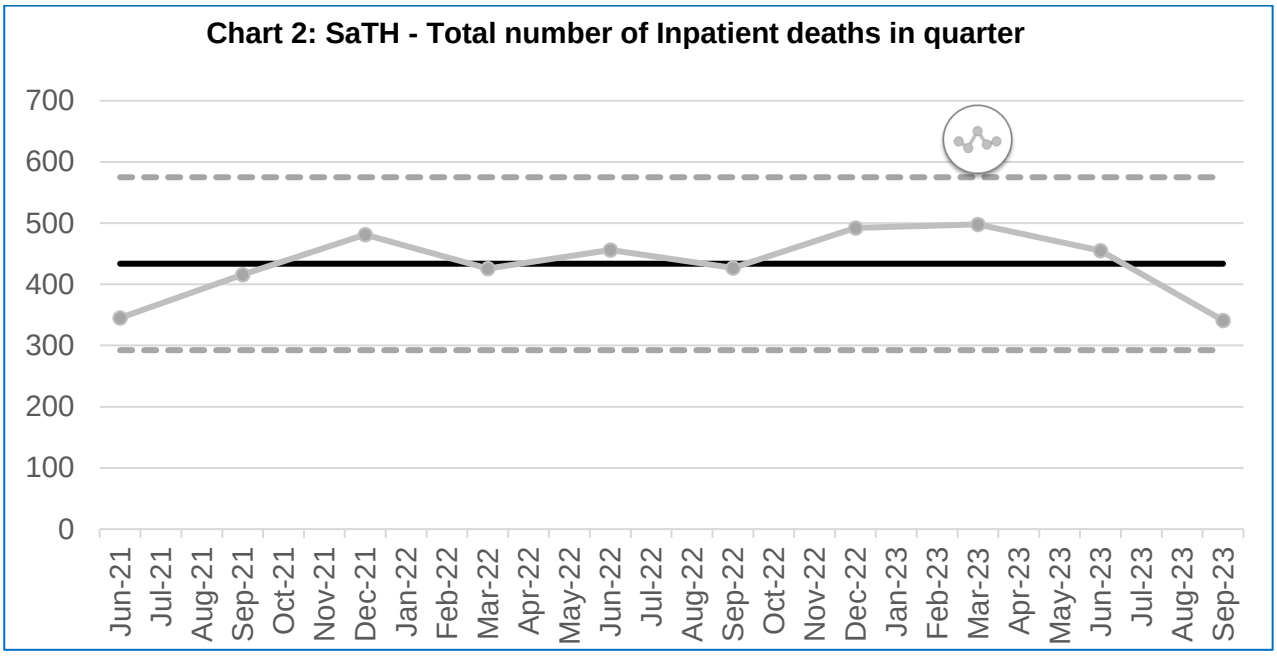
Agenda item		160/23		
Report Title		How we Learn from Deaths Report – *Assurance review into the increase in deaths within the Emergency Department (ED) during Q3 2022-23*		
Executive Lead		Dr John Jones, Executive Medical Director		
Report Author		Dr Roger Slater, Senior Clinical Lead for Learning from Deaths Fiona Richards, Head of Learning from Deaths and Clinical Standards Dr Adrian Marsh, Emergency Medicine Consultant, Mortality Lead		
CQC Domain:		**Link to Strategic Goal:**		**Link to BAF / risk:**
Safe		Our patients and community	√	
Effective		Our people	√	
Caring		Our service delivery	√	**Trust Risk Register id:**
Responsive		Our governance	√	
Well Led	√	Our partners	√	
Consultation Communication		Trust Learning from Deaths Group, Chair's Action given 23/11/23 Quality Operational Committee, Chair's Actions given 23/11/23 Quality & Safety Assurance Committee, 29/01/23		
Executive summary:		• The review of increased deaths within the ED in Q3 22-23 did not identify any overall failures or omissions in medical or nursing care that were considered to have adversely impacted on the outcome for the patients. • The increased deaths within the ED are likely to have been in part related to the increased length of stay within the ED. • Learning has been identified in respect of documentation by clinical teams whilst patients are boarded in the ED. • Internal professional standards in respect of clinical team assessment are regularly breached because of workload. • The incidence of out of hospital cardiac arrests increased, which is unexplained. • There is published evidence that morbidity and mortality increases in older patients who have to wait overnight or for long periods of time in the ED for a ward bed. • The increase in deaths within ED at SaTH is representative of the national picture albeit the increase is greater.		
Recommendations for the Board:		The Board of Directors is asked to **note and take assurance** from this report.		
Appendices: (contained within Board Information Pack)		Appendix A: Medical and Nursing Review Criteria Appendix B: Comparative Data for Q4 2021-22 and 2022-23 Appendices C & D: removed to avoid risk of patient identification Appendix E: Specialist review of 13 patients with sepsis Appendix F: CHKS Peer Group		

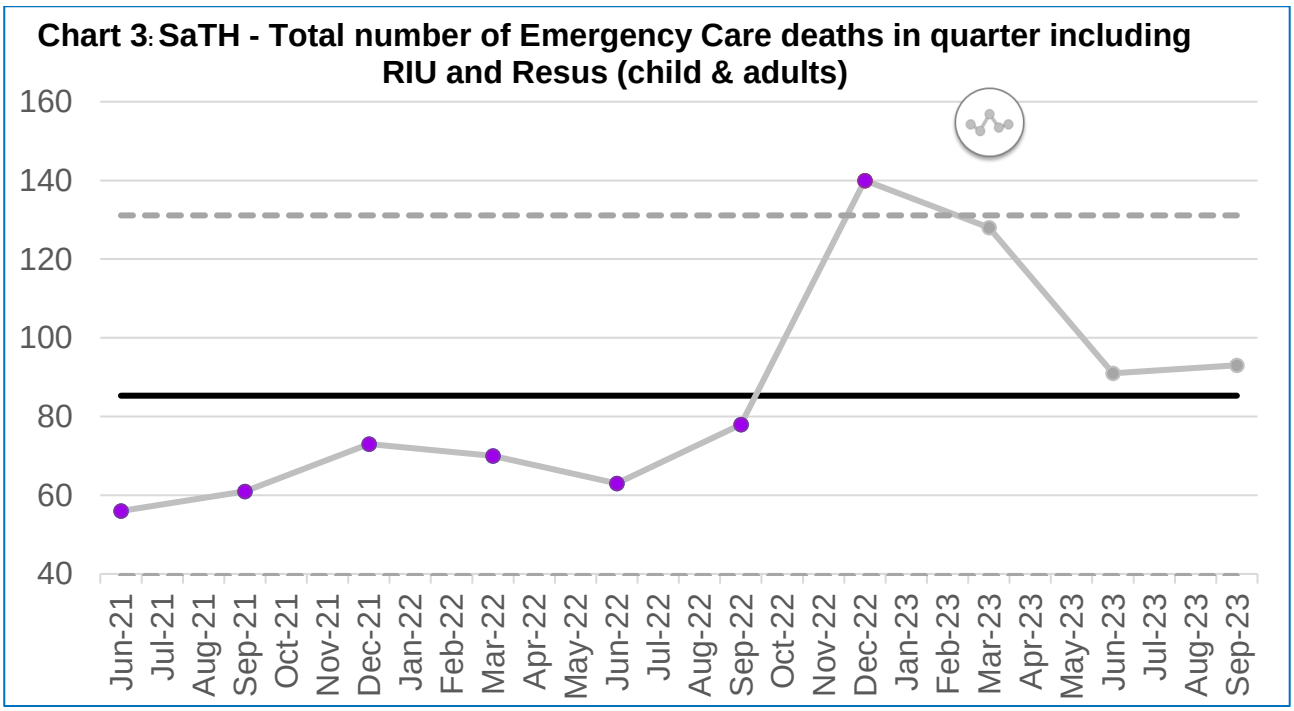
1.0 Introduction

1.1 The following collaborative assurance review was triggered by the increase in deaths within the Emergency Department (ED) at the Shrewsbury and Telford Hospital NHS Trust (SaTH) during quarter 3 (Q3) 2022-23. During this period, the number of deaths which occurred in the ED nearly doubled overall across the two hospital sites, although the increase was slightly more marked at the Royal Shrewsbury Hospital (RSH) than the Princess Royal Hospital (PRH). The period of time is October, November, and December 2022. The increased mortality continued into Q4 2022-23, which is January to March 2023, although subsequently decreased over Q1 2023-24, April to June 2023. This decrease corresponds with anticipated seasonal variation. The increase in deaths in the ED can be seen at chart 1 below.

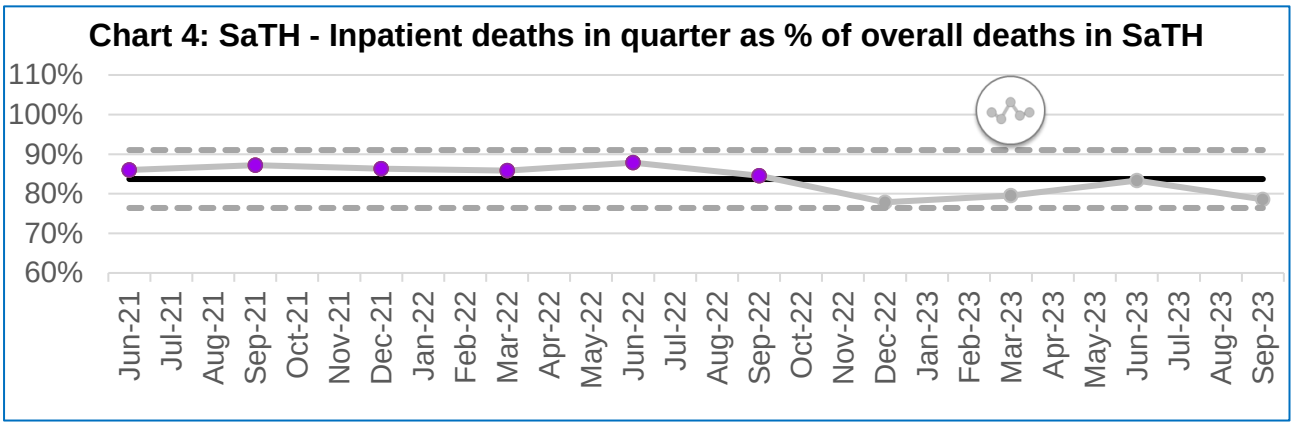


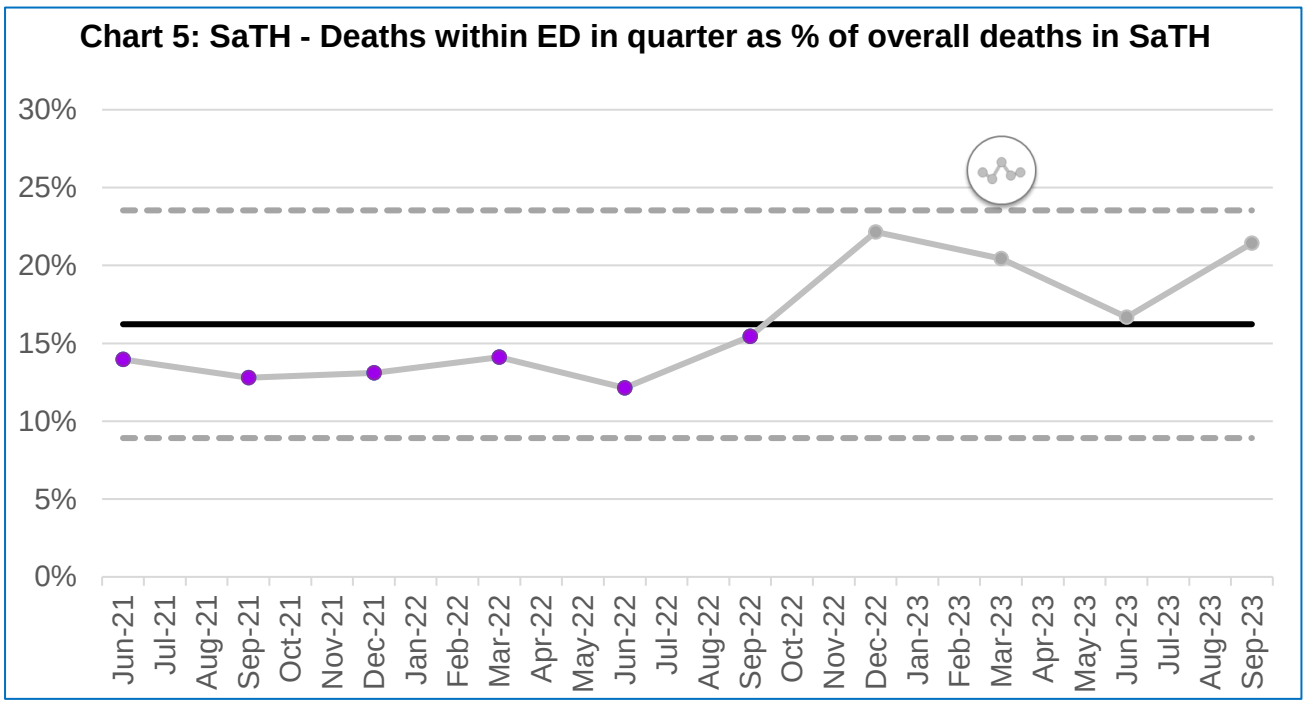
1.2 During Q3 2022-23 mortality figures within SaTH overall increased compared to Q3 2021-22. This increase was attributed to the number of patients dying within the ED rather than as an inpatient, where the numbers were comparable to the same quarter in 2021-22 as can be seen in the statistical process (SPC) charts 2 and 3 below.

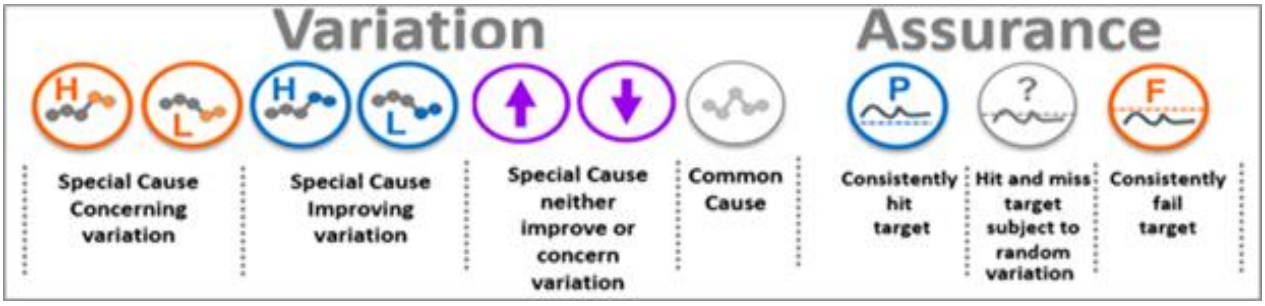




1.3 The percentage split of inpatient deaths compared to deaths within the ED can be seen in charts 4 and 5 below.







2.0 Methodology

2.1 It is acknowledged that mortality within the ED remained high during Q4 2022-23, however, the deep dive review undertaken and detailed in this paper focuses on patients who died within Q3 2022-23.

2.2 A meeting was held in April 2023 between the Corporate Learning from Deaths team, ED Mortality Lead, Medicine and Emergency Care (MEC) Mortality Lead and representatives from the MECC Divisional Quality Governance Team. A plan of action of was agreed and executed as below:

- Comparative baseline data was obtained from Q3 2021-22.
- To undertake a review of the medical care provided to patients within the cohort. Patients who had sustained an out of hospital cardiac arrest (OOHCA) or were admitted into the ED in a peri-arrest condition, were excluded from the review (see section 7.3). The cohort was thus reduced to 83 patients.
- A sample size of just under 40% of the 83 patients was used, equating to 33 patients.
- Fifteen patients out of the 33 were identified as being under the care of an Emergency Medicine (EM) Consultant. These were reviewed by the Clinical Mortality Lead for ED. Fourteen patients were identified as being under the care of a Medical Consultant and were reviewed by the Medicine and Emergency Care (MEC) Division Clinical Mortality Lead, supported by senior colleagues from the MEC Division. Three patients were identified as being under the care of a surgeon and were reviewed by the Clinical Leads for Mortality in General Surgery and Vascular Surgery. One patient was subsequently identified to have been admitted following an OOHCA and was therefore excluded from the review, resulting in a final sample size of 32 patients.
- Triangulation against coroner referrals, serious incident investigations, Datix submissions, formal complaints, mortality screening and Structured Judgement Reviews (SJRs) was completed.
- A review of the nursing care provided to the 32 patients was undertaken. This was completed by a senior nurse within the Trust and former Resuscitation Lead. Following discussion with the matrons for ED on both sites, the criteria agreed to review the nursing care provided to the cohort of 32 patients was based on the Nursing Exemplar document and is detailed at appendix A.
- Out of the sample of 32 patients, 13 were identified as having sepsis. These cases were referred to the Deteriorating Patient Specialist Leads in the Trust for detailed review in addition to the nursing and medical reviews undertaken.

- A review of 30-day mortality from the ED was undertaken across both sites within the Trust.
- A review of relevant patient demographics for the patients who died in Q3 2022-23 within ED excluding those who died following an OOHCA or who were admitted in a peri-arrest condition, was completed.
- ED CasCards were accessed for case record review and relevant electronic patient systems, such as Clinical Portal, Review (blood results), and SEMA.

2.3 Although the increased mortality within the ED continued into Q4 2022-23, this period was not the primary focus of this assurance review. However, as the increase in deaths within the ED was sustained throughout this period, preliminary comparative data in line with that obtained for Q3 2022-23 as shown in section 7 of this paper, was collated as part of the wider review process. The data for Q4 2022-23 can be seen at appendix B. If the depth of review that has been carried out for the deaths within ED in Q3 2022-23 is to be repeated for the Q4 deaths, consideration of the available resource to undertake this, would be required.

3.0 Hypotheses

3.1 The hypotheses presented by the reviewing team at the commencement of this work were:

3.2 Hypothesis 1: The increased mortality in the ED during Q3 2022-23 was as a result of the increased length of time patients were (and continue to be) cared for in the ED, due to wider capacity and flow issues within the Trust. This resulted in the physical location where the patients died being the ED rather than as an inpatient on the wards.

3.3 Hypothesis 2: The increased mortality in the ED was representative of the national picture.

3.4 Hypothesis 3: The increased mortality correlates to Getting It Right First Time (GIRFT) data which suggests that a prolonged stay in ED leads to an increased mortality rate.

4.0 Findings

4.1 The conclusion from the medical review of the case notes for all 32 patients was that the level of care did not impact on the outcome for the patients reviewed who died in the ED during Q3 2022-23. A detailed summary of the reviews undertaken for patients who died under the care of a medical specialty, surgical specialty and those who remained under the care of an ED Consultant is available at appendix C (removed for Public Board due to the risk of patient identification).

4.2 Discrepancies with the recording of the responsible consultant was identified between the Medical Examiner Service team, SEMA and documentation in the CasCards. Validation work to address this is required.

4.3 Issues around ‘ownership’ of patients in the ED when referred to specialty teams were identified although not considered to have impacted on the outcome.

4.4 Challenges around adherence to the 'Internal Professional Standards for Clinicians Working in SaTH Urgent Care Pathways – updated version during Covid-19 pandemic', relating to the time from referral to specialty teams and subsequent assessment, were highlighted during the medical review of patients.

4.5 Triangulation completed for the 32 patients reviewed in detail:

- No formal complaints had been received at the time of this paper being written.
- No serious incidents had been reported for this cohort of patients.
- Online mortality screenings had been completed for 11 cases, all of which were negative. This means there were no concerns or learning identified during the screening process to trigger an SJR.
- A referral to the Coroner was made in 10 cases: For these cases, 4 Form A's were completed, 1 medical certificate of cause of death (MCCD) was subsequently issued by the GP, 3 postmortems were carried out and a Fast Track Inquest was opened for 2 cases. A Coroner's Investigation was opened for 1 case.
- Structured Judgement Reviews (SJRs) were completed for 2 cases in this cohort, neither of which met the threshold for submission of an SJR Datix. A summary of the learning identified is shown at appendix D (removed for Public Board due to the risk of patient identification.
- Relevant Patient Safety Datix submissions were made for 6 patients within this cohort. Of these 2 relate to pressure ulcers, 3 patients had unrelated Datix submissions, and 1 Datix was submitted following an ambulance offload delay and subsequent deterioration of the patient. This patient was 1 of the 3 cases reviewed by the surgeons detailed at appendix C (removed for Public Board due to the risk of patient identification).

4.6 Triangulation of the remaining 51 cases which were not reviewed in detail:

- A Formal Complaint has been received for 1 case, which was also investigated as a serious incident relating to delayed diagnosis. Following conclusion of the investigation, the death was not deemed more likely than not due to problems in healthcare, and therefore was not deemed potentially preventable.
- Serious incidents were reported for another 3 patients in this cohort, 2 of which relate to pressure ulcers. The other again relates to a delay in diagnosis. Following conclusion of this investigation, the death was not deemed more likely than not due to problems in healthcare, and therefore was not deemed potentially preventable.
- Online mortality screenings had been completed for 17 cases within the cohort, all of which were negative and therefore did not trigger an SJR.
- Patient Safety Datix submissions were made for 10 patients within this cohort. Of these, 6 relate to pressure ulcers, 2 relate to the serious incident investigations detailed above, and 2 relate to in hospital cardiac arrests.
- Referral to the Coroner was made in 14 of the cases.
- SJRs had been completed for 6 of the patients, 4 of which triggered an SJR Datix. Learning was identified for all 4 of these cases however none of these were escalated to a serious incident investigation following review within the Trust Governance Framework. A summary of the learning identified in the SJRs is shown at appendix D (removed for Public Board due to the risk of patient identification).

4.7 A deep dive review of the nursing care provided to the 32 patients identified:

- No acts or omissions in care that were considered to have impacted on the death of the patients.
- Most of the patients were very unwell when they arrived and often died within hours of arrival.
- Most patients were very elderly, with many co-morbidities.
- The younger patients who died had significant pre-existing conditions that contributed to their illness.
- Poor nursing documentation across both sites in ED. The reviewer identified that the patient's condition and journey was best documented by the medical staff and far less so by the nursing staff. It was identified that on both sites, nursing documentation omitted significant detail about the deterioration of the patient – the patient was 'ok', awaiting admission and then the patient had died without further explanation or intervention being detailed by the nursing staff. Apart from a couple of exceptions the reviewer found the nursing documentation overall to be poor and insufficient to evidence good care. Changes of shift were unclear, and handover of care to other nurses was not documented. On a couple of occasions at the Royal Shrewsbury hospital (RSH), there were large omissions in documentation noted where it was not clear which nurse was caring for the patient.
- ED nurses leave large sections of the ED card blank and as such, the reviewer felt that these omissions may suggest that the nurse had chosen not to complete the elements, rather than specific sections not considered to be relevant to an individual case. Noticeably, safeguarding was not completed. These omissions may pose problematic if nursing staff need to evidence care for example, in response to a coroner investigation or internal review.
- Nursing assessments when completed, were often not signed correctly with a signature, printed name, dated and timed. Where staff had used a name stamp, this made a difference. Notable omissions were:
    - Triage categories documented on the ED documentation, although it is acknowledged that this may be recorded on the SEMA.
    - Pain score.
    - Blood glucose result, although this may be available on the blood gas result.
    - Sepsis screening.
    - Fluid balance charts and fluid balance monitoring.
- A significant lack of nursing documentation relating to communication with relatives was identified. The reviewer was keen to highlight that in her experience ED nurses are heavily involved in communication with relatives but unfortunately the documentation did not support or evidence this.
- Concerns with the completion of ReSPECT forms across both sites was highlighted. ReSPECT forms were poorly completed and lacked Mental Capacity Act (MCA) and Best Interests (BI) decisions without exception. The reviewer identified that a greater understanding of the use of common law (Doctrine of Necessity) in the ED would be useful for staff and prevent poorly written ReSPECT forms being completed in a hurry before a person dies. RSH demonstrated some MCA and BI forms for nursing care but the reviewer was not able to evidence this at the PRH at all.

- Observations did not meet the monitoring criteria of NEWS2 or even departmental guidance. The reviewer acknowledged that this was most likely due to workload and suspected that many patients would have been on continuous monitoring in the resuscitation area. Some concern relating to inaccurate scoring of NEWS2 or not adding the score up at all was highlighted.
- The reviewer stressed that nursing staff need to be able to take credit for the good care they are providing in the ED including the provision of regular food and drink, general nursing care including application of wristbands and managing patient's toileting requirements. The reviewer was unfortunately not able to evidence these aspects from the notes and therefore was unable to provide positive feedback for this element.

4.8 Both positive and constructive learning was identified for the 13 patients who were identified as having sepsis. The Deteriorating Patient Specialist Leads identified that nearly 50% of the cases reviewed had no omissions in care around sepsis or deterioration. The remaining cases identified omissions across recognition, escalation, monitoring and communication. These themes are consistent and representative of the wider system issues regarding the deteriorating patient pathway. The full report provided by the Deteriorating Patient Specialist Leads can be reviewed at appendix E.

5.0 30-day Mortality for patients who died in the ED during Q3 2022-23

5.1 The review into deaths within the ED during Q3 2022-23 also considered whether there was any wider concern around 30-day mortality of patients who had presented to the ED. The findings are presented below.

5.2 **October 2021 to December 2021**

PRH

There was one patient who died within 30 days of discharge who presented to the ED.

Patient 1: Discharged from the ED – death unrelated to prior presentation.

RSH

There were eight patients who died within 30 days of discharge who represented to the ED.

There were three patients under the care of the medial team.

There were five patients under the care of the Emergency Medicine team.

- Patient 1: Represented with hypothermia in cardiac arrest. Concern was raised that clinicians had missed a prolonged QTc interval when "fell" on prior attendance. This case was presented at the ED Morbidity and Mortality (M&M) meeting. Following a separate case that was referred to the Coroner, there has been a significant amount of teaching and input into the calculation of QTc interval and not using the ECG machine interpretation despite NICE guidelines.
- Patient 2: Unrelated prior attendance
- Patient 3: Unrelated prior attendance

- Patient 4: Unrelated prior attendance
- Patient 5: Unrelated prior attendance

5.3 **October 2022 to December 2022**

PRH

There were nine patients who died within 30 days of discharge who presented to the ED.

- 4 patients were under the care of the medical team.
- 1 patient had been reviewed by T&O and was discharged from the ED.

4 patients were discharged by the ED team.

- Patient 1 – Treated for LVF with 1 x dose of frusemide and discharged. This case was presented at the ED M&M meeting and learning identified.
- Patient 2 – Unrelated attendance.
- Patient 3 – Had catheter changed and represented with sepsis. This case was presented at the ED M&M meeting and learning identified.
- Patient 4 – Recurrent falls. Was seen by cardiology – no indication of significant arrythmias/bradycardia requiring pacemaker.

RSH

There were 4 patient who died within 30 days of discharge who presented to the ED.

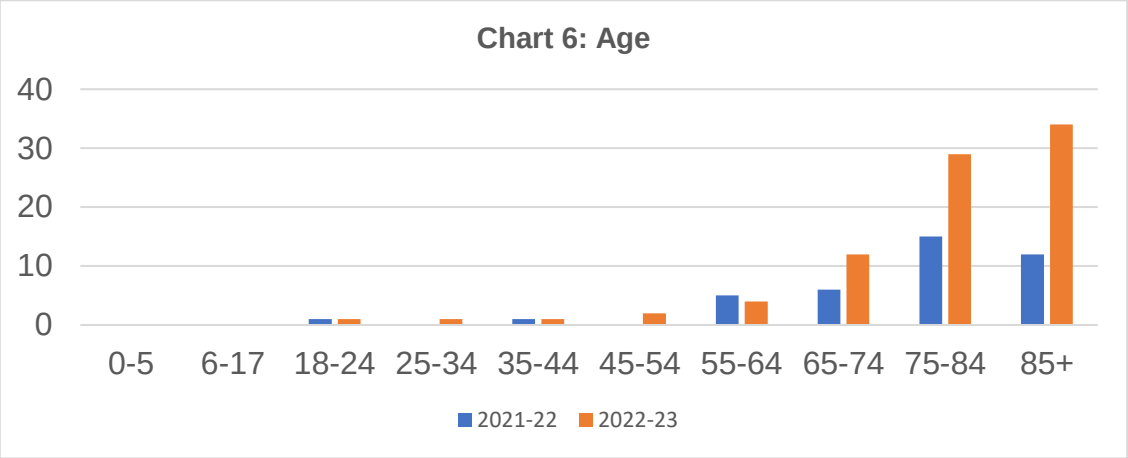
- 2 patients were under the care of the medical team.
- 1 patient had a recent admission to UHNM. This case was presented at the ED M&M meeting with a discussion around events that occurred.
- 1 patient had been seen and discharged by the frailty team.
- 1 patient had been seen in the ED with a head injury. Noted EWS of 10 due to infection. Was being treated in nursing home for this and discharged back to nursing home as per discussion with NOK.

5.4 All cases where the patient died within 30-days of being discharge from the ED, and where concerns were raised and learning identified, have been presented at the ED M&M meetings. Ways to improve dissemination of this learning are being developed including circulating written summaries and sharing M&M minutes and presentations on the Trust Intranet ED page.

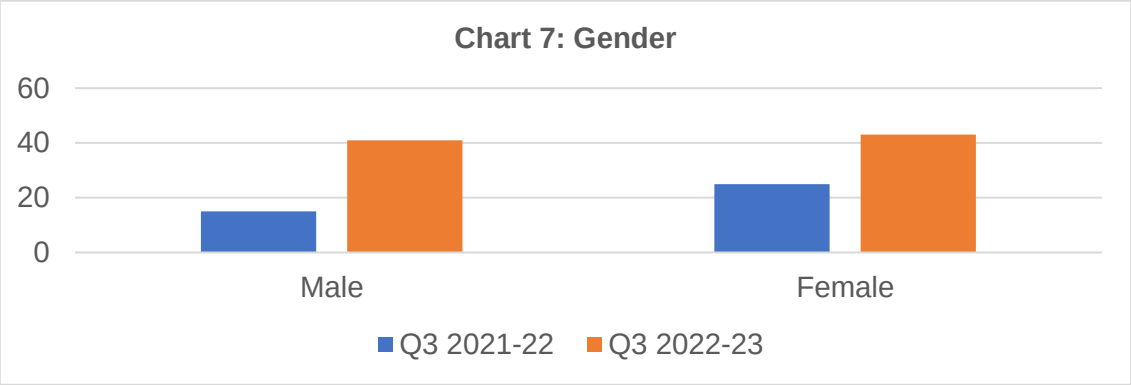
6.0 Demographics of patients who died in Q3 2021-22 and Q3 2022-23 excluding those admitted following OOHCA / peri-arrest

6.1 A summary of the patient demographics for deaths that occurred in the ED during Q3 2022-23 is detailed in charts 6 to 9 below.

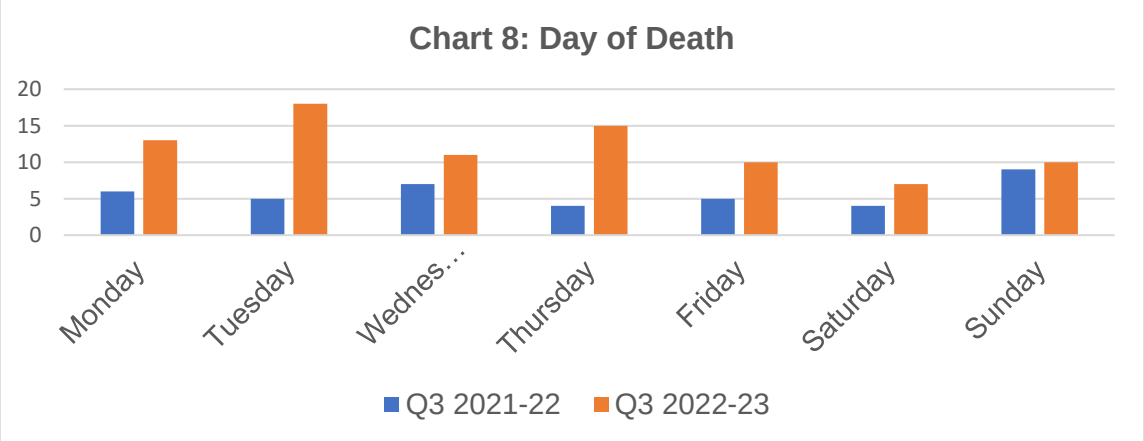
6.2 Age:



6.3 Gender:



6.4 Day of death:



6.5 Residence of patient:

The data demonstrates that in PRH there has been an increase in patients presenting to the ED from their own home. Whereas, in RSH there has been an increase in patients presenting from a care facility.

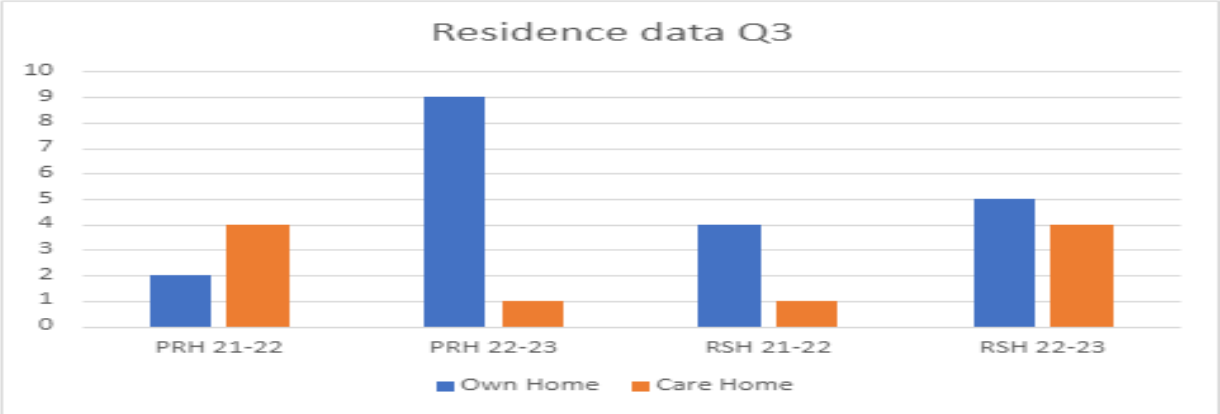


Chart 9

7.0 HYPOTHESIS 1: The increased mortality in the ED during Q3 2022-23 was as a result of the increased length of time patients were (and continue to be) cared for in the ED, due to wider capacity and flow issues within the Trust. This resulted in the physical location where the patients died being the ED rather than as an inpatient on the wards.

7.1 In addition to the clinical review of care detailed above, to explore this hypothesis the following was reviewed:

- Comparative data from 2021-22 to confirm whether the increase in deaths related to patients who were under an ED Consultant at the time of their death or whether they had been referred to a specialty team and were awaiting admission to a hospital bed. Inpatient mortality data was also reviewed.
- Length of stay for patients referred to a specialty team.
- Expected versus unexpected deaths data.

7.2 Whilst the deaths within the ED during Q3 2022-23 increased, inpatient mortality figures for the same period remained similar, increasing by 9 deaths during Q3 2022-23 compared with Q3 2021-22.

7.3 The reviewing team considered whether there was an increase in number of deaths under the care of an Emergency Consultant during Q3 2022-23 compared with Q3 2021-22.

PRH:

Although there is an increase in the number of deaths under the care of an Emergency Medicine consultant, there is also a significant increase in the number of pre-hospital cardiac arrests and those who are under the care of a speciality consultant as seen in chart 10 below.

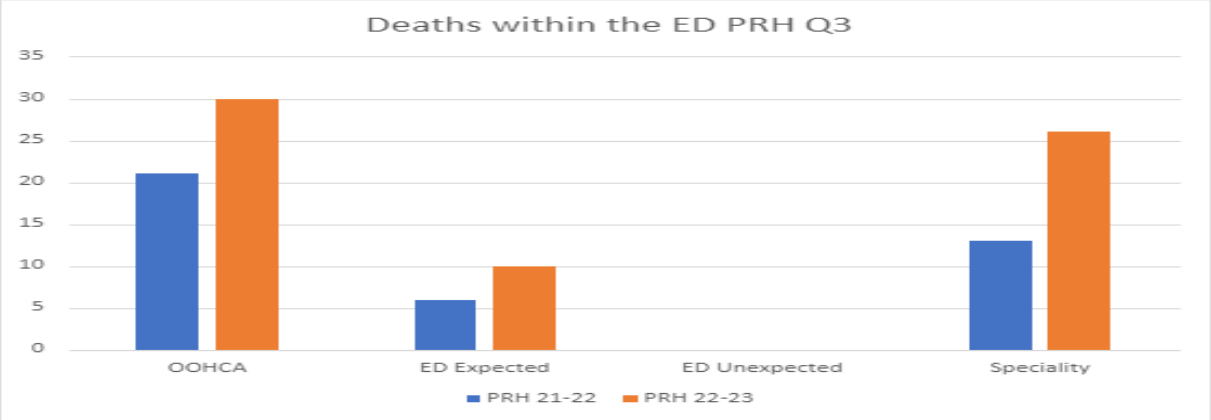


Chart 10

RSH:

Although there is an increase in the number of deaths under the care of an Emergency Medicine consultant, there is also a significant increase in the number of pre-hospital cardiac arrests and those who are under the care of a speciality consultant as seen in chart 11 below.

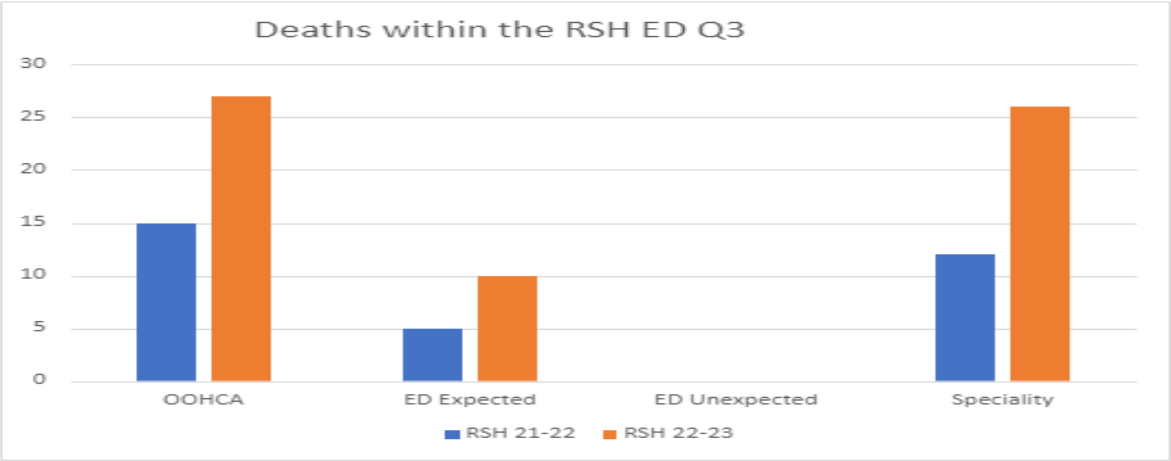


Chart 11

7.4 Length of stay in the ED was analysed for patients attending in Q3 2022-23. The mean length of stay for the 83 patients excluding those presenting following an OOHCA, was 13.5 hours, with the longest stay in the ED recorded as 55 hours and 23 minutes and the shortest being 1 hour and 6 mins. In Q3 2021-22 the longest length of stay in the department was 23 hours and 18 minutes with a mean length of stay of 5 hours and 10 minutes. This data however includes those patients who arrived following an OOHCA so is not entirely comparable with 2022-23 but rather an indicator of the length of stay for all patients who died within ED during Q3 2021-22.

7.5 Length of stay for patients referred to a specialty consultant was reviewed to identify if the increase in mortality related to an increased length of stay for this group of patients. This has resulted in patients residing in the Emergency Departments routinely for over 12 hours in both Emergency Departments. If there had been capacity on the wards, a significant number of patients would have died on the ward rather than within the Emergency Departments. See chart 12 for the number of patients who died within the Emergency Department, stratified into <4 hours, 4-12 hours, 12-24 hours, 24-48 hours and >48 hours.

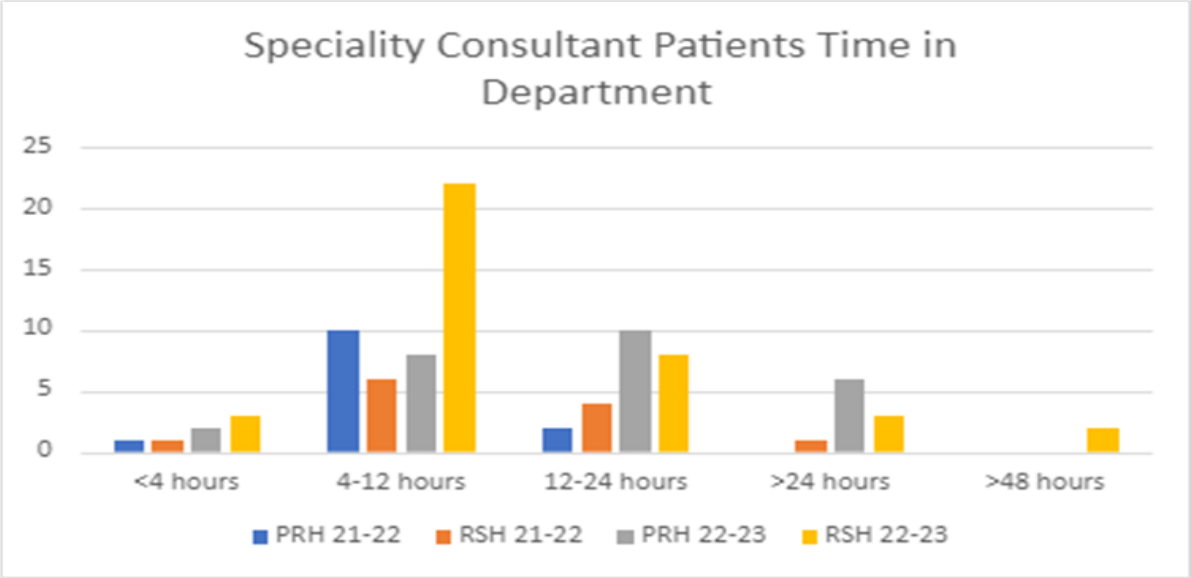


Chart 12

7.6 The reviewing team considered whether there was an increase in expected deaths during Q3 2022-23 compared to Q3 2021-22?

PRH

A notes review of patients under the care of an Emergency Consultant demonstrates that CPR was carried out once in this group of patients in 2021-2022 and no patient underwent CPR in 2022-2023. There was a significant increase in ReSPECT forms being done from 1 in 2021-2022 to 9 in 2022-2023 by the Emergency Department team.

RSH

A notes review of patients under the care of an Emergency Consultant demonstrates that CPR was not carried out in this group of patients in 2021-2022 and one patient underwent CPR in 2022-2023. There was an increase in ReSPECT forms with a valid DNACPR completed in 3 people in 2022-2023 from a baseline of 0.

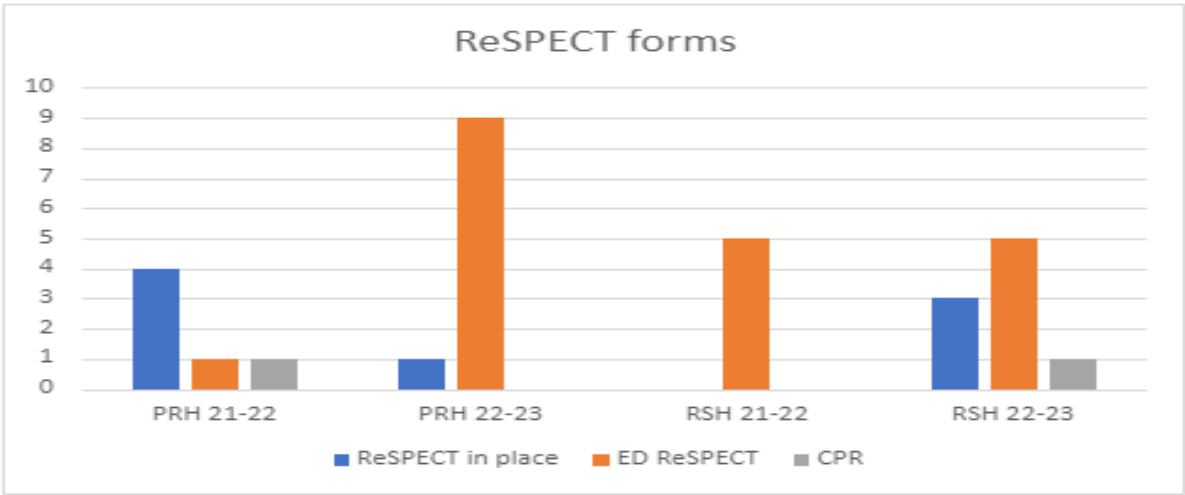


Chart 13

7.7 Unexpected / Expected Deaths as stated by the Medical Examiner:

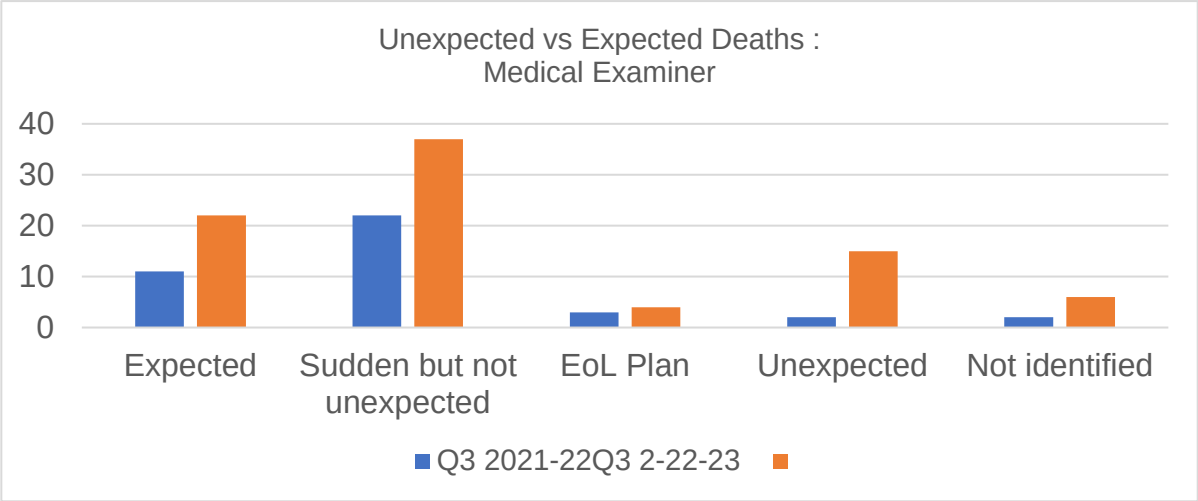


Chart 14

7.8 The hypothesis that the increase in mortality in ED during Q3 2022-23 was as a result of capacity and flow issues across the Trust resulting in patients who would have died previously on the wards, now dying in the ED, is highly likely to be accurate. However, overall, mortality for this quarter has significantly increased which may indicate a wider problem across the whole system.

8.0 HYPOTHESIS 2: The increased number of deaths within the ED during Q3 2022-23 is representative of the national picture.

8.1 Comparison of Q3 2022-23 crude mortality trend data for SaTH against the CHKS peer group as identified in appendix F, demonstrates a sharp increase at the end of Q3 2022-23 which is reflected across the peer group as shown in chart 15 below.

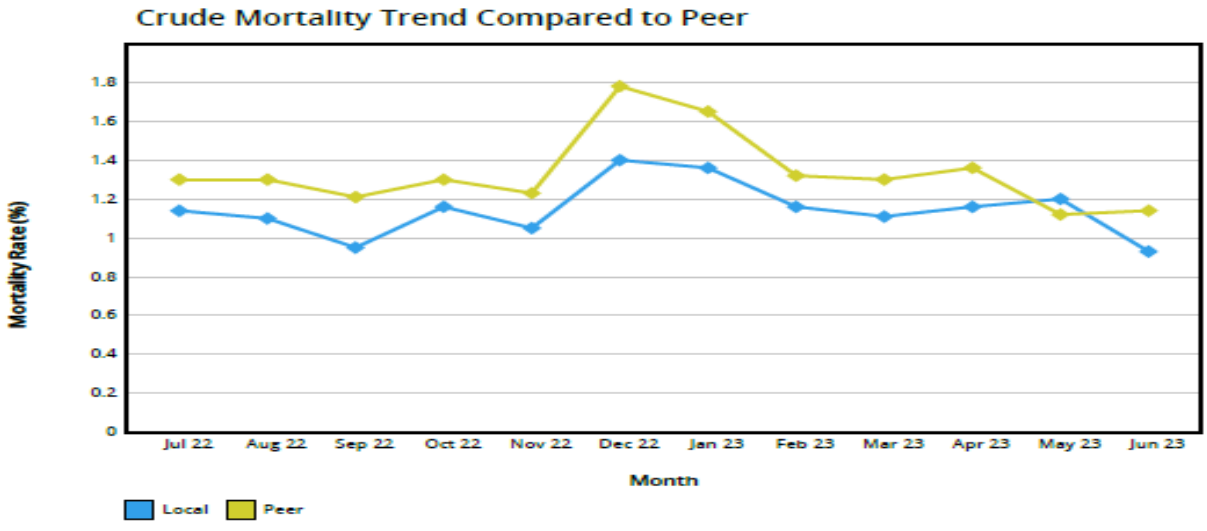


Chart 15: source CHKS

8.2 Chart 16 below shows the monthly mortality rate within the ED at SaTH compared to the Trust Peer over the two-year period of April 2021 to March 2023. This is filtered for both the Trust and the peer to only include activity at general 24-hour emergency departments, excluding urgent treatment centres/minor injury units.

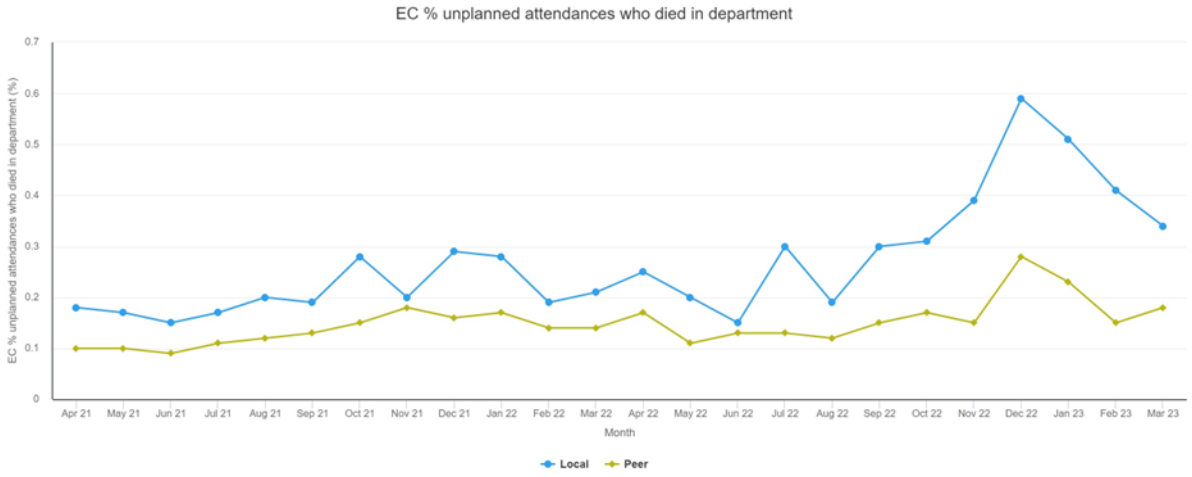


Chart 16: source CHKS

8.3 Chart 17 shows the same Trust information for deaths within the ED, but the peer line on this chart represents the national average rather than the CHKS Trust Peer Group.

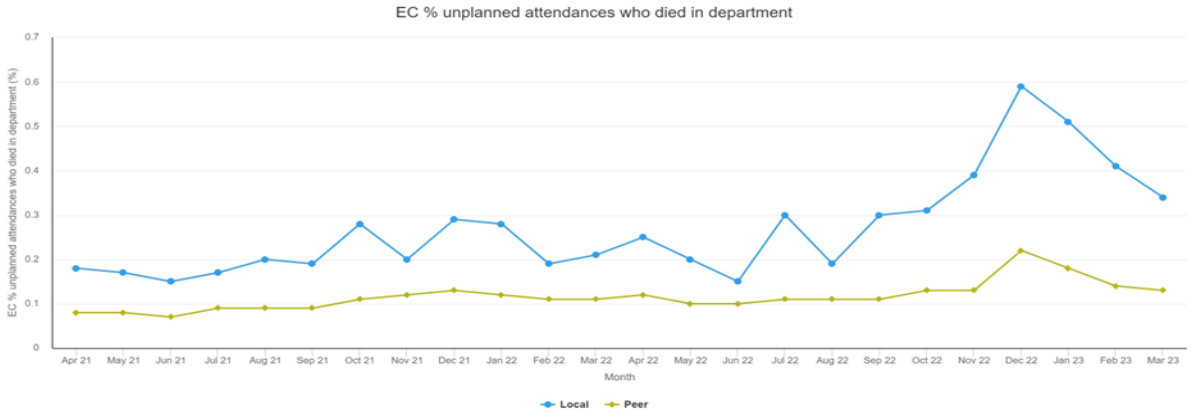


Chart 17: source CHKS

8.4 These charts show a clear increase in the ED mortality rate between November 2022 and February 2023 for SaTH. The rate also increased to a higher rate than previously for both peers in December 2022 and January 2023, but did not increase by as much as at SaTH. The increase in the rate at SaTH was evident at both hospitals.

8.5 Chart 18 below shows the monthly mortality rate for inpatients admitted from ED at SaTH compared to the CHKS Trust Peer Group over the two-year period of April 2021 to March 2023.

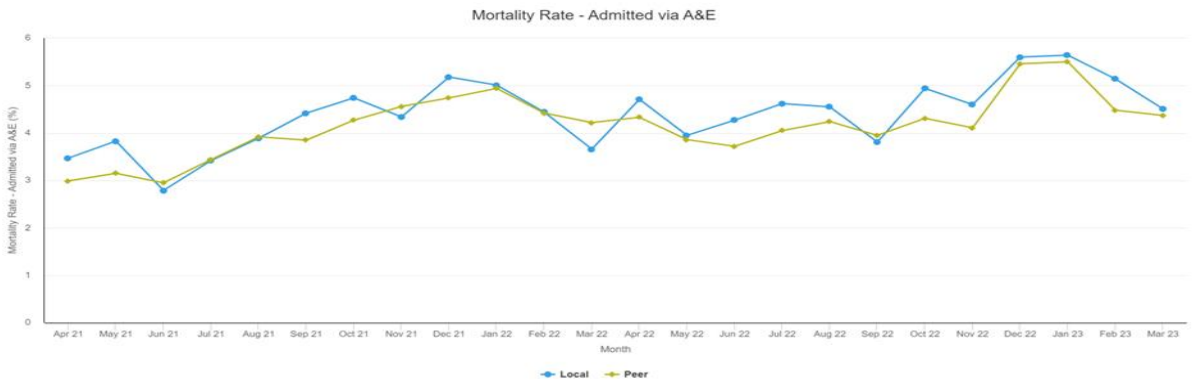


Chart 18: source CHKS

8.6 Chart 19 shows the same Trust information, but the peer line represents the national average instead of the CHKS Trust Peer Group.

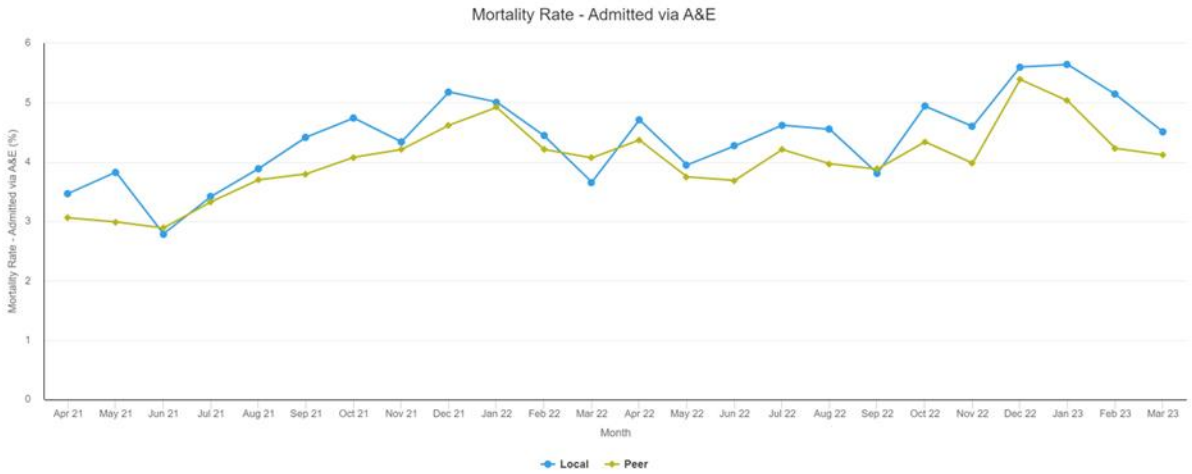


Chart 19: source CHKS

8.7 In summary, in response to hypothesis 2, it can be concluded that there is evidence that the increase in mortality within the ED at SaTH over winter 2022-23 compared to the previous year, has been reflected in mortality within the ED across the CHKS Trust Peer Group as well as nationally, although neither of these increased by as much as at SaTH.

8.8 There is work in progress between CHKS and the Performance Team at SaTH to review data quality for the ED dataset. It should be noted that deaths within the ED are not coded by the Trust Clinical Coding team but by identified personnel within the ED.

8.9 The reviewing team would like to thank the representative for SaTH from CHKS for the support with the above work in section 8 of this paper.

9.0 HYPOTHESIS 3: The increase correlates to GIRFT data and wider published reports which suggest that a prolonged stay in ED leads to an increased mortality rate.

9.1 Length of stay within an Emergency Department and mortality:

There is an association between the length of stay in an Emergency Department and mortality rates. The National Bureau of Economic Research and the IFS in 2018[1] demonstrated that the 30-day mortality rate was 0.4% higher for patients who stayed in an Emergency Department for more than 4 hours. The Hospital-level mortality indicator suggested that this partially explained the 7% variation in mortality between hospital sites.

A cross sectional study in 2022[2] demonstrated that the inpatient hospital morality rate was increased for patients admitted via the Emergency Department if their length of stay was more than 5 hours. This was correct for age, sex, social deprivation, crowding the ED and time of attendance. The study demonstrated that for every 82 patients admitted whose time to inpatient bed transfer is delayed by 6-8 hours there

is an additional death. For those who time to inpatient bed transfer is delayed 8-12 hours there is an additional death for every 72 patients. The mean time for admission to an inpatient bed in November 2023 in SaTH is 21 hours.

A paper from 2011[3] demonstrated that patients who stayed in the Emergency Department for less than 2 hours had a mortality risk of 2.5% whilst those who stayed in the Emergency Department for more than 12 hours had a mortality risk of 4.5%

A French study[4] published in JAMA in November 2023 has demonstrated that in a survey of 1598 75-year-old patients admitted to ED (between December 12-14, 2022, at 97 EDs across France), in those admitted to a ward before midnight the mortality was 11.1%, in those admitted to the ward after spending one night in the ED the mortality was 15.7%. The authors also reported that patients kept in ED overnight were about twice as likely to have a fall during their hospital stay. The conclusion of the study is that for older patients, waiting overnight in the ED for admission to the ward was associated with increased in-hospital mortality and morbidity, particularly in patients with limited autonomy. They further recommended that older patients should be prioritized for admission to the ward.

9.2 Overcrowded Emergency Departments and excess deaths:

Research from America[5] demonstrated that when ED occupancy was above average, inpatients were 3.1% more likely to die. When EDs were most crowded this increased to 5.4%.

9.3 Overcrowded Emergency Departments and length of stay:

A US study[6] demonstrated that an overcrowded ED resulted in an 0.8% increase in length of stay as in patient. A further study[7] demonstrated that a 14 hour wait for an inpatient bed increased the length of stay by a further 6 hours.

9.4 How does this relate to SaTH both for Q3 2022-23 and the current period?

The average length of stay for an inpatient bed is 21 hours, November 2023 against an average length of stay in Q3 2022-23 being. A significant number of our patients are over 75 years of age. The implication is that the overcrowded Emergency Department and length of stay awaiting an inpatient bed result in an increased mortality risk for patients who present to SaTH for acute care requiring an inpatient stay. It is highly likely that this aspect has impacted on mortality figures during Q3 2022-23.

9.5 Handover and inpatient stay:

A paper for 2018 suggested the patient handover increases inpatient stay by 1-2 days. Within the ED at present there is the “post take” and the “post-post take” acute medical ward round. The “post take” ward round is undertaken by a different team than the “post-post take ward round”. This is a handover of care. From observation within the Emergency Departments, medical consultants have been approached about a patient that they have seen on the “post-take” ward round on the next day but they have declined to provide advice or on-going care relating to their management plan as they are not on the “post-post take” ward round.

9.6 How does this relate to SaTH?

Although not looked at explicitly within the scope of this review, the inference is that the “post-take and post-post take” ward rounds are likely to increase the length of stay within the Emergency Department/in-patient hospital bed base and as a result increase the risk of overcrowding and mortality.

10.0 Final conclusion of the assurance review into patients who died within the ED during Q3 2022-23

10.1 The review undertaken has not found a significant lack of medical or nursing care that has resulted in an increased mortality rate in the ED within Q3 2022-23. On the balance of probability, the ambulance off load delays, the ED running in the ‘majors’ area of the department at over 200% occupancy, length of stay in the ED over 21 hours for an in-patient bed, and handover of care within the speciality teams are contributing factors to a total increase in in-patient stay, harm events and mortality.

10.2 The hypothesis that the increase in mortality within ED at SaTH during Q3 2022-23 was as a result of capacity and flow issues across the Trust resulting in patients who would have died previously on the wards, now dying in the ED, is highly likely to be accurate. However, overall, mortality for this quarter has significantly increased which may indicate a wider problem across the whole Integrated care System (ICS) which may require further exploration and is beyond the scope of this review.

10.3 The hypothesis that the increased mortality within the ED at SaTH during Q3 2022-23 does appear to be representative of the national picture although the increase at SaTH is higher than the national average. No firm conclusions have been identified during this review to explain this and it may require further exploration as part of a wider piece of work within the ICS to identify why mortality generally within the system has increased.

10.4 The findings within this review do appear to support the hypothesis that the increase in mortality within ED at SaTH correlates to GIRFT data and wider published reports which suggest that a prolonged stay in ED leads to an increased mortality rate.

10.5 The reviewing team believe that this review has investigated the underlying reasons for the increase in deaths within the ED during Q3 2022-23 as far as is reasonable with the available resources.

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