Oxford University Hospitals
NHS Foundation Trust

Cover Sheet

Public Trust Board Meeting: Wednesday 25 May 2022

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Title:	**Learning from deaths report – Quarter Q3 2021-22**

Status:	**For Information**
History:	**This is a quarterly paper to the Trust Board**

Board Lead:	**Chief Medical Officer**
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Confidential:	**No**
Key Purpose:	**Assurance**

Executive Summary

1. This paper summarises the key learning identified in the mortality reviews completed for Quarter 3 of 2021/22 and performance for the latest available Dr Foster Intelligence data and provides assurance that any highlighted concerns are investigated thoroughly, and appropriate action is taken.
2. Investigating mortality, and reporting data, enable identification of further ways to improve patient outcomes and safety.
3. During quarter 3 of 2021/22 there were 707 inpatient deaths reported at OUH. 98% (693) cases were reviewed within 8 weeks. Of these reviews, there were 362 (51%) comprehensive Level 2 reviews and 13 (2%) structured mortality reviews completed.
4. All COVID-19 related deaths were subjected to a Level 1 screening mortality review. There have been no COVID-19 related deaths judged more likely than not to have been due to problems in the care provided.
5. An overarching SIRI investigation has concluded for all nosocomial COVID-19 probable or definite deaths resulting from the second wave (Autumn 2020 – end June 2021). This report has been presented at the December Mortality Review Group meeting. A summary of the findings was previously discussed in the Quarter 2 LFD report.
6. One death occurring during Quarter 3 was deemed to be 'avoidable'. This case is now subject to a SIRI investigation. This is ongoing, and the findings will be presented to MRG and will be included in a future quarterly Trust Board report.
7. A detailed analysis of completed structured reviews during the quarter is included in this report.
8. A detailed analysis of Dr Foster alerts that required investigation previously and in this quarter are included in this report.
9. The Summary Hospital-level Mortality Indicator (SHMI) for the data period October 2020 to September 2021 is 0.91. This is rated 'as expected.' The Hospital Standardised Mortality Ratio (HSMR) is 93.2 for the data period December 2020 to November 2021 and remains rated positively as 'lower than expected'.

Recommendations

10. The Public Trust Board is asked to receive this paper for information.

Contents

Learning from deaths report – Quarter Q3 2021-22

1. Purpose

1.1. This paper summarises the key learning identified in the mortality reviews completed for Quarter 3 of 2021/22.

1.2. This report provides a quarterly overview of Trust-level mortality data for the period of Quarter 3: October 2021 to December 2021, and performance for the latest available Dr Foster Intelligence data, providing assurance that any highlighted concerns are investigated thoroughly, and appropriate action is taken.

2. Background and Policy

2.1. OUH is committed to accurately monitoring and understanding its mortality outcomes. Reviewing patient outcomes, such as mortality, is important to help provide assurance and evidence that the quality of care is of a high standard and to ensure any identified issues are effectively addressed to improve patient care. Reviewing mortality helps fulfil two of the five domains set out in the NHS Outcomes Framework:

2.1.1. Preventing people from dying prematurely.

2.1.2. Treating and caring for people in a safe environment and protecting them from avoidable harm.

2.2. OUH uses mortality indicators such as the Hospital Standardised Mortality Ratio (HSMR) and Summary Hospital Level Mortality Indicator (SHMI) to compare mortality data nationally. This helps the Trust to identify areas for potential improvement. Although these are not a measure of poor care in hospitals, they do provide a ‘warning’ of potential problems and help identify areas for investigation.

2.3. The Trust Mortality Review policy requires that all inpatient deaths be reviewed within 8 weeks of the death occurring. All deaths have a Level 1 review.

2.4. The aim is for all Level 1 mortality reviews to be completed by a Consultant independent of the case however with the current capacity constraints this is not possible in all cases. To mitigate this 25% of Level 1 reviews are selected at random for a Level 2 review and all (100%) of deaths undergo scrutiny from the Medical Examiner’s office.

2.5. If there are any concerns identified, a comprehensive Level 2 review is completed involving one or more consultants not directly involved in the patient's care. A structured review, completed by a trained reviewer who was not directly involved in the patient's care, is required if the case complies with one of the mandated criteria.

2.6. Each Division maintains a log of actions from mortality reviews and monitors progress by their clinical units. The clinical units are responsible for disseminating learning and implementing the actions identified.

2.7. The Divisions provide updates on actions in the monthly quality reports to the Clinical Governance Committee (CGC). The Divisions also provide updates to the Mortality Review Group (MRG) on the previous quarter's actions as part of the next quarter's mortality report. The Mortality Review Group reports to the Clinical Improvement Committee.

3. Mortality reviews during quarter 3 of 2021/22

Table 1: Number of mortality reviews completed during Quarter 3 of 2021/22:

Total deaths	Total reviews (L1, L2 or SJR)	Deaths not reviewed within 8 weeks
707	693	14

3.1 During quarter 3 of 2021/22 there were 707 inpatient deaths reported at OUH. Compliance with mortality reviews as per the agreed policy is presented in Table 1. There were 693 (98%) cases reviewed within 8 weeks. Of these reviews, there were 362 (51%) comprehensive Level 2 reviews and 13 (2%) structured mortality reviews. The 14 remaining cases have been escalated and discussion at local M&M meetings is planned and these outstanding reviews will be followed up at MRG.

3.2 The New Oxford Critical Care unit is now open. As bed numbers increase, it is anticipated that the case mix will change to a great extent to include a higher volume and proportion of level 2 patients. The SMR as well as other quality metrics will be under close review during the transition and beyond.

3.3 Trust wide, there were 13 structured reviews completed during Quarter 3 of 2021/22. The reasons for completing the structured review include individuals with a learning disability, concerns raised by staff of families and concerns raised during the Medical Examiner scrutiny. Learning and recommendations from the completed structured reviews are included in this report.

3.4 During quarter 3 of 2021/22, there was one patient death at the OUH judged more likely than not to have been due to problems in the care provided.

4. The Medical Examiner system

4.1. The purpose of the Medical Examiner system is to provide greater safeguards for the public by ensuring proper scrutiny of all non-Coronial deaths, ensure appropriate direction of deaths to a Coroner, provide a better service for the bereaved, provide an opportunity for them to raise any concerns to a doctor not involved in the care of the deceased, improve the quality of death certification and improve the quality of mortality data.

4.2. The Medical Examiners (MEs) have monthly meetings to review progress and discuss cases. The feedback received by the MEs from bereaved families as to how they are informed of the deaths of their relatives has led to discussion and review of processes in wards.

4.3. The feedback received by the MEs has been shared promptly with the ward teams. This has raised the profile of the ME system within the Trust and clinical teams are recognising and appreciating the ME role as part of the existing Bereavement system.

4.4. The opportunity for families to discuss the care their relative received with an ME has been positively received.

4.5. Planning is now underway to confirm a process for the scrutiny of deaths by the ME in the community.

5. Child death overview process

5.1. The statutory requirement to establish a panel that would review every child death in their local area has been in place since 2006 (section 14 of the Children Act 2004). These regulations were further developed in Working Together to Safeguard Children (2018).

5.2. The specific functions as laid down in the statutory guidance require the panel to review the available information of deaths of all children up to the age of 18 years. This includes the deaths of infants less than 28 days, including those born before viability, but not those who are stillborn or are terminated pregnancies within the law.

5.3. The Oxfordshire child death overview process (CDOP) is committed to the process of systematically reviewing all children’s deaths, ensuring the child

death review process is grounded in respect for the rights of children and their families and focuses, where possible, on preventing future child deaths.

5.4. The administration of the Oxfordshire CDOP is hosted by Oxfordshire Clinical Commissioning Group (OCCG) and is chaired by the Director of Quality and Lead Nurse from the OCCG. The Designated Doctor for Child Death is a Consultant Paediatrician at OUH and is commissioned by the OCCG to undertake this role.

6. Learning and actions from mortality reviews quarter 3 of 2021/22

6.1. The key learning points to emerge from mortality reviews undertaken during Quarter 3 were:

6.2. Reminders have been provided to clinical teams regarding the importance of communication and updating of families when a patient's clinical status changes.

6.3. An issue has been raised with the current use of systems for completing mortality reviews. When an electronic level 1 review is completed, and further review (Level 2 or SJR) is required the system does not automatically flag these cases. Divisional Governance teams have been reminded of the importance of checking the weekly level 1 report to identify deaths requiring further review.

6.4. An SJR was completed for a man who died of necrotizing myositis on ICU. Concerns were raised by family and staff and the medical examiner due to delayed recognition and operative intervention. There has been significant learning from this. A SIRI is ongoing which will be presented to MRG upon its completion.

6.5. An SJR was completed for a man with a learning difficulty who died following emergency laparotomy. He was not admitted to ICU post operatively and on review it was considered that admission to ICU may have been appropriate although it may not have changed the overall outcome.

6.6. ICU compliance with level 1 reviews on EPR had improved in this quarter but a significant number remain undone. Deaths in ICU are triaged for review in any case. There is a new process in place which should improve this in future.

6.7. The SMRs in both AICU and CICU in Q3 are acceptable but cannot be considered excellent as has previously been the case. The causes of this are manifold and under review. The impact of the COVID pandemic is a significant one.

6.8. Ensure VTE assessments are completed and reviewed according to trust guidelines.

6.9. SUWON Division highlighted the importance of ensuring staff remain up to date on trust guidance and policies.

6.10. The need for increasing awareness of the difference between a learning disability and a learning difficulty was highlighted.

6.11. NOTSSCaN learning points focused on managing parental expectations where outlook is poor and ensuring that Organ Donation is offered where relevant. The need to engage Community teams and DGH teams when a child is known to them and the need for high quality documentation were shared. Earlier consideration of palliative care input from the Helen and Douglas House charity is important, as this service is not available within the trust.

6.12. The pathway for referral to Helen and Douglas House for children of all ages has been updated and disseminated.

6.13. The National Bereavement Care Pathway (for pregnancy and baby loss) has now been formally adopted by Maternity. This will better delineate the needs of support for families following Neonatal and small Infant death. It is hoped that this will be the springboard for future development of this much-needed service across Children's. Work is underway to audit current practice against this standard (PCC, ED, Paediatrics).

6.14. A resource for supporting OUH professional staff who themselves have suffered baby or child loss has been developed and shared.

7. Patient safety incidents with an impact of death and subsequent SIRI investigations declared during Quarter 3

7.1. Nine incidents with an impact of death were declared as a Trust Level Serious Incident Requiring Investigation (SIRI) during Quarter 3 2021/22.

7.2. These concerned:

7.2.1. A patient suffered an out of hospital cardiac arrest and later died, there were possible missed opportunities to address an underlying genetic mutation that may have affected the outcome.

7.2.2. A patient with cardiomyopathy related arrhythmia died whilst waiting for a Holter device.

7.2.3. A patient died by suicide using an electrical cord as a ligature inside a hospital bathroom.

7.2.4. A baby was born in poor condition, with profound global hypoxic-ischemic encephalopathy and later died. This case has been referred to the Healthcare Safety Investigation Branch.

7.2.5. A patient had an intra-uterine death. This case has been referred to the Healthcare Safety Investigation Branch.

7.2.6. A woman attended the maternity assessment unit where an intra-uterine death was diagnosed. This case has been referred to the Healthcare Safety Investigation Branch.

7.2.7. Two cases involved nosocomial COVID-19 infections in hospice-based inpatient wards.

7.2.8. A patient died of a subarachnoid haemorrhage whilst waiting for retreatment of a recurrent aneurysm.

7.3. These investigations are currently in progress and any relevant learning will be included in future learning from deaths reports.

8. Further analysis of structured mortality reviews completed during the quarter:

Background

8.1. Structured mortality review blends traditional, clinical judgement-based review methods with a standard format. This approach requires reviewers to make safety and quality judgements over phases of care, to make explicit written comments about care for each phase, and to score care for each phase. The result is a relatively short but rich set of information about each case in a form that can also be aggregated to produce knowledge about clinical services and systems of care.

8.2. The objective of the review method is to look for strengths and weaknesses in the caring process, to provide information about what can be learnt about the hospital systems where care goes well, and to identify points where there may be gaps, problems, or difficulty in the care process.

8.3. Structured review is mandated in the following circumstances:

8.3.1. All deaths where bereaved families and carers, or staff, have raised a significant concern about the quality-of-care provision.

8.3.2. All in-patient, out-patient, and community patient deaths of those with learning disabilities.

8.3.3. All deaths in a service specialty, particular diagnosis, or treatment group where an 'alarm' has been raised with the provider through whatever means (for example via a Summary Hospital-level Mortality Indicator or other elevated mortality alert, concerns raised by audit work, concerns raised by the CQC or another regulator).

8.3.4. All deaths in areas where people are not expected to die, for example in relevant elective procedures.

8.3.5. Deaths where learning will inform the provider's existing or planned improvement work, for example if work is planned on improving sepsis care, relevant deaths should be reviewed, as determined by the provider. To maximise learning, such deaths could be reviewed thematically.

8.3.6. A further sample of other deaths that do not fit the identified categories so that providers can take an overview of where learning and improvement is needed most overall.

8.4. Evidence shows that most care is of good or excellent quality and that there is much to be learned from the evaluation of high-quality care (table 2).

Table 2: Analysis of Structured Reviews

	Surgical?	Admission phase	Ongoing care	Procedural care	Perioperative care	End of life care	Overall assessment
Patient 1	Yes	4	3	3	3	3	3
Patient 2	No	5	4	N/A	N/A	4	4
Patient 3	Yes	4	5	5	4	4	4
Patient 4	No	3	4	N/A	N/A	3	4
Patient 5	Yes	3	3	3	3	3	3
Patient 6	No	3	4	N/A	N/A	3	4
Patient 7	No	3	3	N/A	N/A	3	3
Patient 8	No	3	3	N/A	N/A	3	3
Patient 9	No	3	3	N/A	N/A	3	3
Patient 10	Yes	3	4	3	4	3	4

Patient 11	No	3	4	N/A	N/A	3	4
Patient 12	No	3	4	N/A	N/A	3	4
Patient 13	No	3	3	N/A	N/A	3	3
Total	[redacted]	43/65	47/65	14/20	14/20	41/65	46/65

Phase of care scores are recorded as - 1. Very poor care 2. Poor care 3. Adequate care 4. Good care 5. Excellent care

Analysis
Discussion

8.5. The thirteen patients were all discussed at the mortality review group meetings 21 October, 18 November, and 16 December.

8.6. Of the completed reviews, all learning disability cases, cases involving a serious incident investigation and any case where care quality concerns are identified must be presented to the mortality review group.

8.7. Seven of the reviews involved patients with a learning disability.

8.8. No death was deemed to be avoidable.

Issues identified and learning:

8.9. In one case improved communication between the Emergency Department and on-call Medical teams was noted.

8.10. One case raised a recommendation to Improve the daily summary documentation within CICU and an action will be to perform an audit to review this.

8.11. One case prompted discussion regarding a facility for permanent pacemaker implantation to be available for patients 7 days a week on a routine basis to minimise need for/consideration of prolonged temporary pacing.

8.12. Use of Hospital Passports was commended.

8.13. In several cases, early discussions were held regarding DNACPR decision.

8.14. To ensure a discussion is had with the patient/next of kin in regard to spirituality at the end of life.

8.15. Training to complete reviews is provided internally monthly, the current number of trained reviewers by division can be seen in table 3.

Table 3: Structure Review Training by profession

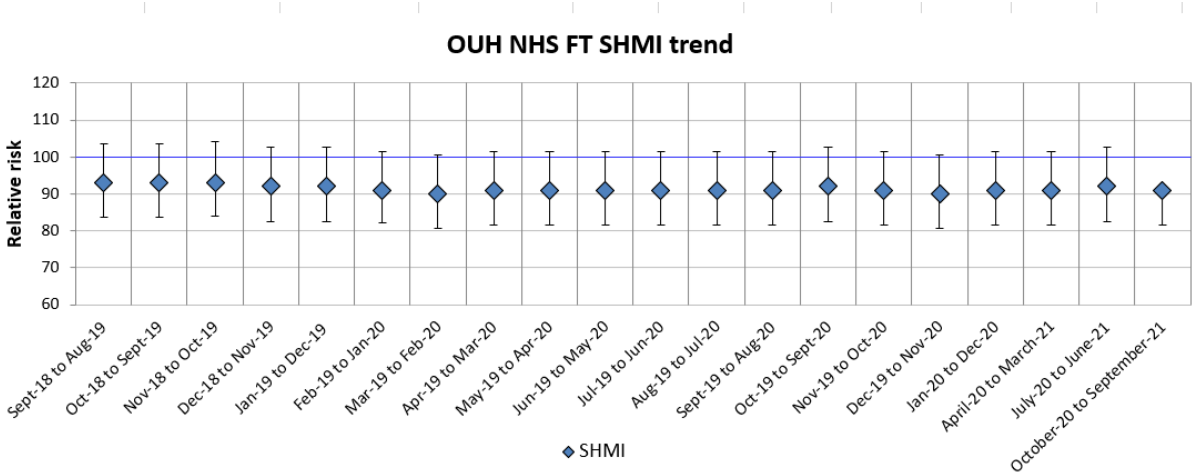
Division	Trained Lead Reviewers	Consultant	Nurses	Other
MRC	66	51	11	4
CSS	23	14	8	1
NOTSSCaN	31	19	10	2
SuWOn	59	33	19	7
Corporate	10	1	1	8
Trust total	**189**	**118**	**49**	**22**

9. Summary Hospital-level Mortality Indicator (SHMI) and Hospital Standardised Mortality Ratio (HSMR)

9.1. There have been no mortality outliers reported for OUH from the CQC or the Dr Foster Unit at Imperial College during Quarter 3.

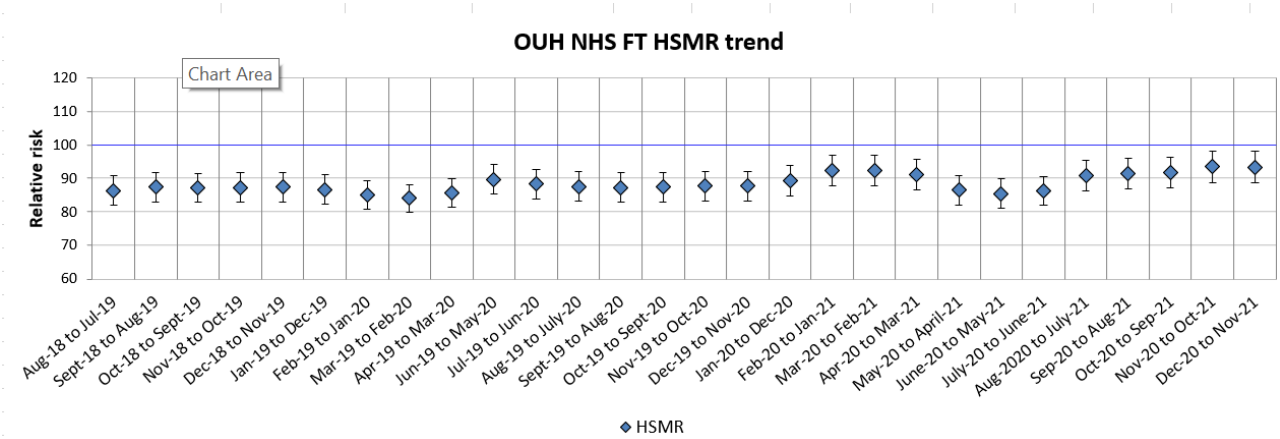
9.2. The SHMI for the data period October 2020 to September 2021 is 0.91. This is rated 'as expected.' Chart 1 depicts the SHMI trend. The SHMI has remained rated 'as expected.

Chart 1: SHMI trend (Presented with a baseline of 100 to enable comparison to the HSMR)



9.3. The HSMR is 93.2 for the data period December 2020 to November 2021. Chart 2 depicts the HSMR trend. The HSMR has remained rated 'lower than expected.'

Chart 2: HSMR trend



Key differences between the SHMI and HSMR

9.4. The Trust references two mortality indicators: the SHMI, which is produced by NHS Digital, and the HSMR produced by Dr Foster Intelligence.

9.5. Both are standardised mortality indicators, expressed as a ratio of the observed number of deaths compared to the expected number of deaths adjusted for the characteristics of patients treated at a Trust.

9.6. While both mortality indicators use slightly different methodology to arrive at the indicator value; both aim to provide a risk adjusted comparison to a national benchmark (1 for SHMI or 100 for HSMR) to ascertain whether a trust's mortality is 'as expected', 'lower than expected' or 'higher than expected'.

Table 4: Key differences between the SHMI and HSMR

Indicator	**Summary Hospital-level Mortality Indicator (SHMI)**	**Hospital Standardised Mortality Ratio (HSMR)**
Published by	NHS Digital	Dr Foster Intelligence
Publication frequency	Monthly	Monthly
Data period to calculate indicator value	Rolling 12-month period for each release, approximately five months in arrears.	Provider-selected period, up to three months in arrears

Indicator	Summary Hospital-level Mortality Indicator (SHMI)	Hospital Standardised Mortality Ratio (HSMR)
Coverage	Deaths occurring in hospital or within 30 days of discharge. All diagnosis groups excluding stillbirths. Day cases and regular attenders are excluded.	In-hospital deaths for 56 selected diagnosis groups that accounts for 80% of in-hospital mortality. Regular attenders are excluded.
Assignment of deaths	Deaths that happen post transfer count against the transfer hospital (acute non-specialist trusts only).	Includes deaths that occur post transfer to another hospital (superspell effect).
Palliative Care	Not adjusted for in the model.	Adjusted for in the model.
Casemix adjustment	8 factors: diagnosis, age, sex, method of admission, Charlson comorbidity score, month of admission, year, birth weight (for individuals aged <1 year in perinatal diagnosis group).	12 factors: admission type, age, year of discharge, deprivation, diagnosis subgroup, sex, Charlson comorbidity score, emergency admissions in last comorbidity score, emergency admissions in last 12 months, palliative care, month of admission, source of admission, interaction between age on admission group and comorbidity admission group.

10. Cancer of Bronchus HSMR alert and Thematic analysis of past Dr Foster alerts and investigation:

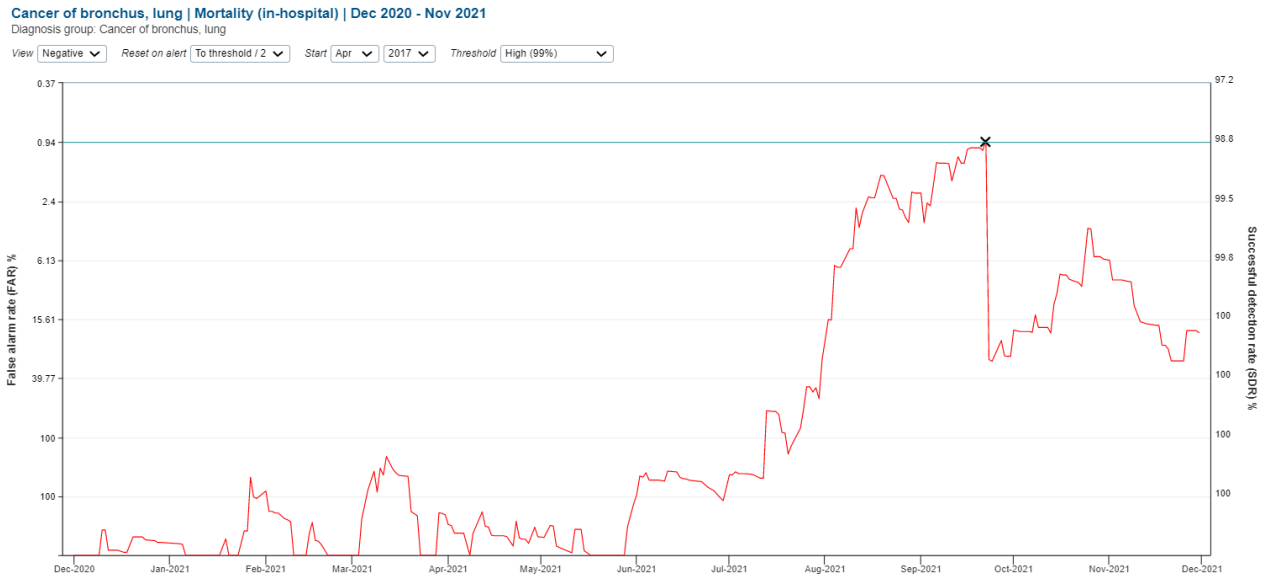
10.1. The September HSMR data release from Dr Foster identified an alert and investigation was requested. Cancer of bronchus lung had 8 observed deaths compared to 5.6 expected deaths.

10.2. There were 667 super-spells and 66 observed outcomes over the 12-month period (Dec-20 to Nov-21). The logistic regression modelling for this diagnosis group predicted 52.8 deaths over this period. The Relative risk of mortality = 124.9 banded as statistically 'within expected'.

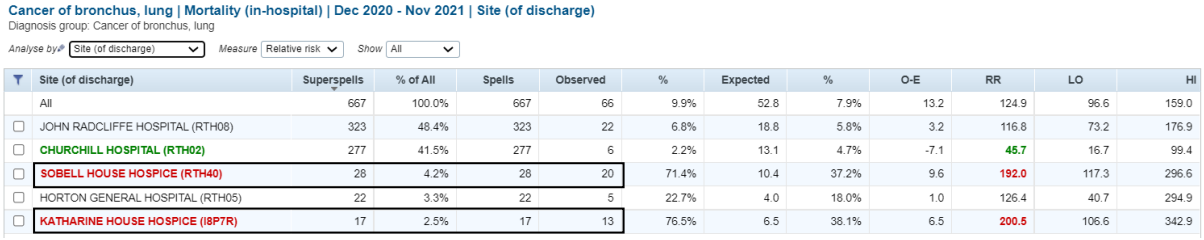
10.3. CUSUM alert (using a 99% detection threshold criteria) triggered in late September-21 by a run of 29 deaths between Jul-21 and Sep-21.

10.4. Monthly trends, secondary Covid-19 diagnosis codes, age, co-morbidities and palliative care coding was all reviewed.

CUSUM chart



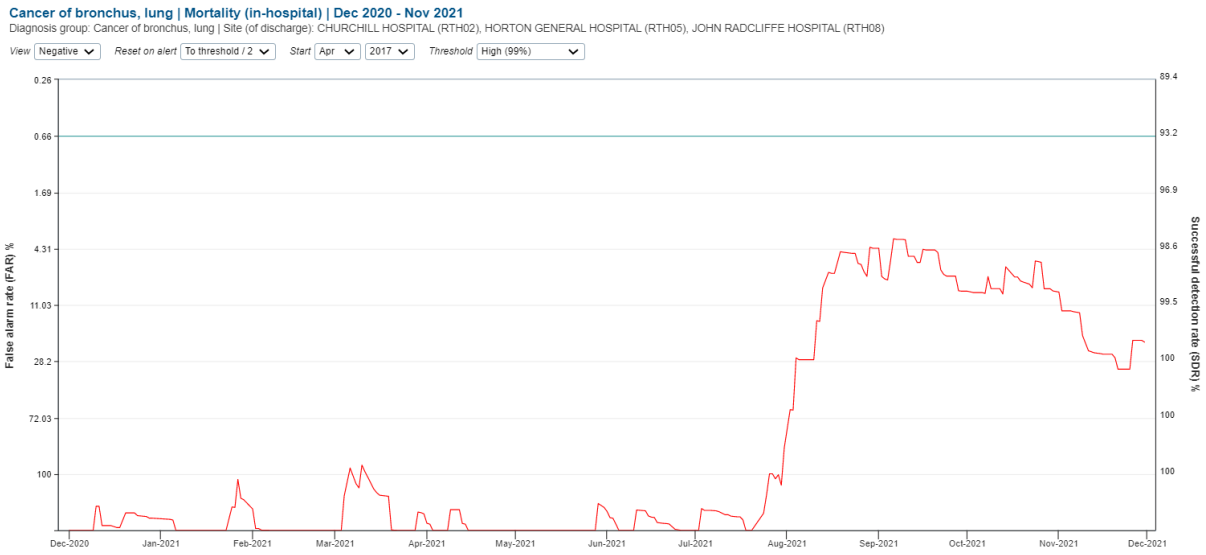
Site of discharge



Site (of discharge)	Superspells	% of All	Spells	Observed	%	Expected	%	O-E	RR	LO	HI
All	667	100.0%	667	66	9.9%	52.8	7.9%	13.2	124.9	96.6	159.0
JOHN RADCLIFFE HOSPITAL (RTH08)	323	48.4%	323	22	6.8%	18.8	5.8%	3.2	116.8	73.2	176.9
CHURCHILL HOSPITAL (RTH02)	277	41.5%	277	6	2.2%	13.1	4.7%	-7.1	45.7	16.7	99.4
SOBELL HOUSE HOSPICE (RTH40)	28	4.2%	28	20	71.4%	10.4	37.2%	9.6	192.0	117.3	296.6
HORTON GENERAL HOSPITAL (RTH05)	22	3.3%	22	5	22.7%	4.0	18.0%	1.0	126.4	40.7	294.9
KATHARINE HOUSE HOSPICE (I8P7R)	17	2.5%	17	13	76.5%	6.5	38.1%	6.5	200.5	106.6	342.9

10.5. If we exclude the 45 super-spells (33 deaths) from this diagnosis group where the site of discharge was a hospice (either Sobell House or Katherine House) the CUSUM chart does not produce an alert.

CUSUM chart (excluding the Hospice discharges/deaths)



10.6. In 2021 it was agreed that when a Dr Foster mortality diagnosis group alerts in two consecutive months, an investigation must be undertaken. To provide further assurance this paper will explore any alerts investigated in the 2020/21 and 2021/22 financial years and identified learning.

ALERT 1:

10.7. September 2019 to August 2020, 'cancer of rectum and anus' was a cumulative sum alert with 18 observed compared to 10.6 expected cases. Sixteen of the observed cases were admitted to SuWOn and 14 of these were Sobell House patients. There were 2 observed cases admitted to MRC under the care of Horton Medicine.

10.8. Conclusion of the MDT Lead: All the cases listed had a heavy burden of metastatic disease no concerns identified from the review regarding quality of care. The Colo rectal MDT continue to closely monitor all radical treatment through the National Bowel Cancer Audit return and that now links up with national chemotherapy and Radiotherapy datasets.

10.9. All patients involved with this alert underwent a level 1 or level 2 mortality review. This concluded that there had been no changes within the period regarding the delivery of the service, patient pathway or national treatment guidelines which may have led to this mortality alert. There were no care concerns noted with the general treatment of specific patients.

ALERT 2:

10.10. For the data period October 2019 to September 2020, ‘cancer of head and neck’ had 16 observed compared to 8.5 expected cases. There were 3 patients who had been transferred to other providers and were included in the OUH alert due to the Dr Foster Superspell Effect[1]. Of the 13 OUH patients, there were 10 patients who were under the care of SUWON and 8 of these patients were admitted to Sobell House.

10.11. All patients involved in the alert underwent a mortality review, no care concerns or recommendations were identified from the investigation of this alert.

ALERT 3:

10.12. Negative mortality alert (significantly higher than expected relative risk). Leukaemia had 28 observed cases compared to 17 expected cases. The data period is September 2018 to August 2019.

10.13. All cases were reviewed apart from one patient who died in the community. No death was judged to have been avoidable and no significant care quality concerns were identified.

10.14. This Dr Foster category covers multiple haematological categories including Chronic Myeloid Leukaemia [CML], BCR/ABL-positive; AML; Myelodysplastic syndrome, unspecified. All of which have different treatment and outcome trajectories. There were: Chronic leukaemia – 4 Acute Leukaemia - 18 Undefined leukaemia - 2 MDS – 5.

10.15. In April / May 2019 there was a cluster of deaths occurring in Clinical Haematology (identified locally during the mortality review process) which was reviewed, and assurance provided to MRG. This concluded that this was a clustering of non-related deaths.

ALERT 4:

10.16. For the data period August 2018 to July 2019; other congenital anomalies is a cumulative sum alert with 9 observed compared to 3.4 expected cases. All cases were reviewed via the perinatal mortality review committee.

10.17. No deaths were deemed to be avoidable.

[1] A **'super-spell'** includes all transfers between care providers.

10.18. In one case the parents declined invasive testing. This meant they were discharged from Fetal Medicine Unit (FMU) care. After the birth the parents commented that they interpreted being discharged from FMU as meaning they were low risk and so were shocked when their baby was born with an anomaly.

10.19. The Fetal Medicine Unit Team has reflected on the learning from this case and has now improved the communication with parents who decline invasive testing, to ensure they understand that they remain high risk for a congenital anomaly.

ALERT 5:

10.20. The procedure group ‘therapeutic operations on jejunum and ileum’ had 20 observed compared to 11.1 expected cases. This referred to 9 cases in General Surgery and 4 in General Medicine.

10.1 This alert did not identify and significant care quality concerns or recommendations.

ALERT 6:

10.21. **Rest of other abdominal organs** procedure group had 10 observed compared to 4.4 expected cases.

10.22. Case reviews highlighted no concerns and no avoidable deaths.

ALERT 7:

10.23. Mortality alert Ca Ovary for the data period March 2019 to February 2020 there were 13 observed compared to 6.7 expected cases.

10.24. No death was felt to have been avoidable and no significant care quality concerns were identified during the review.

10.25. Overall conclusions from the review of the mortality alert:

- During the period of the alert supra-radical surgery was performed at Hammersmith [started late 2018]. There were no other significant changes over the period looked at within the service.
- All cases were very advanced and complicated in terms of disease status.
- The most recent NCRAS figures (covers 2013-17) but 1–5-year outcomes for Thames Valley appeared well within the average for England.

ALERT 8:

10.26. For the data period April 2019 to March 2020; Cancer of brain and nervous system had 18 observed compared to 9.9 expected cases. In 4 of the observed cases the patients died at another acute trust following transfer and were included in the OUH figures due to the Dr Foster 'Superspell Effect' methodology. There were 11 cases identified who died whilst under the care of SuWOn Division, 2 cases in MRC and 1 case in NOTSSCaN.

10.27. All cases underwent a mortality review, and no care quality concerns, or avoidable deaths were identified.

ALERT 9:

10.28. For the data period June 2019 to May 2020, 'primary neck procedures' had 4 observed cases compared to 0.9 expected cases. One of the cases had been transferred to another Trust for on-going care and rehabilitation and was included in the OUH alert due to the Dr Foster Superspell Effect. The remaining 3 cases were under the care of the Spinal Surgery team.

10.29. All 3 cases underwent a mortality review, no care quality concerns were identified, and coding was agreed as correct.

ALERT 10:

10.30. For the data period June 2019 to May 2020, the diagnosis group 'poisoning by psychotropic agents' had 9 observed compared to 3.1 expected cases. There was one case of a patient who had been transferred and was included in the OUH alert due to the Dr Foster Superspell effect. Of the remaining 8 cases; there were 2 Neurosciences Intensive Care Unit, 2 Acute General Medicine, 3 Adult Intensive Care Unit and 1 Palliative Medicine case.

10.31. The review of a case by the Adult Intensive Care Unit noted that neuroprognostication was delayed due to multi-organ failure. The learning point is to consider use of somatosensory evoked potential (SSEP) more routinely and to consider the development of a protocol for neuroprognostication.

10.32. The clinical coding review discovered that seven of the nine patient records described patients with a drugs overdose. In one case a drug toxicity issue was described, and this was incorrectly coded. In another case it was not clear if this was an overdose although 'suspected' and this could be possibly inaccurately coded. For the other 7 cases, the coding assigned

described the conditions accurately; however, these may not have been sequenced correctly.

10.33. Learning identified: Sequencing of codes for those patients who developed problems associated with the overdose and had a longer length of stay due to those associated conditions may not have been applied correctly. In these cases, the clinicians must clarify the 'main condition treated or investigated'.

10.34. The mechanism of overdose was not always clearly described within the clinical record e.g., deliberate, or accidental. The national clinical coding guidance is to always code as 'accidental' unless described as 'deliberate'.

Summary of findings:

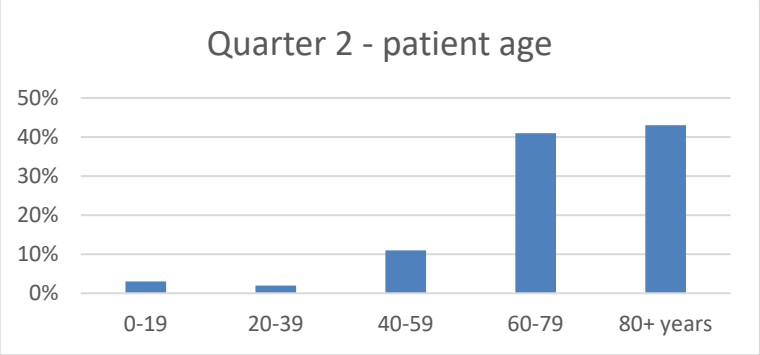
Total alerts	All cases reviewed?	Significant concerns identified?	Number of deaths judged avoidable	Learning points identified
10	Yes	No	0	5

10.35. To conclude, a total of ten investigations relating to Dr Foster alerts were undertaken. Previously an investigation would take place for any alert highlighted from the monthly review of the Dr Foster system. These reviews did not identify any significant care quality concerns and no death was deemed to be avoidable. Therefore, future investigations will only commence if a diagnosis group alerts for two consecutive months.

11. Analysis of mortality during Quarter 3:

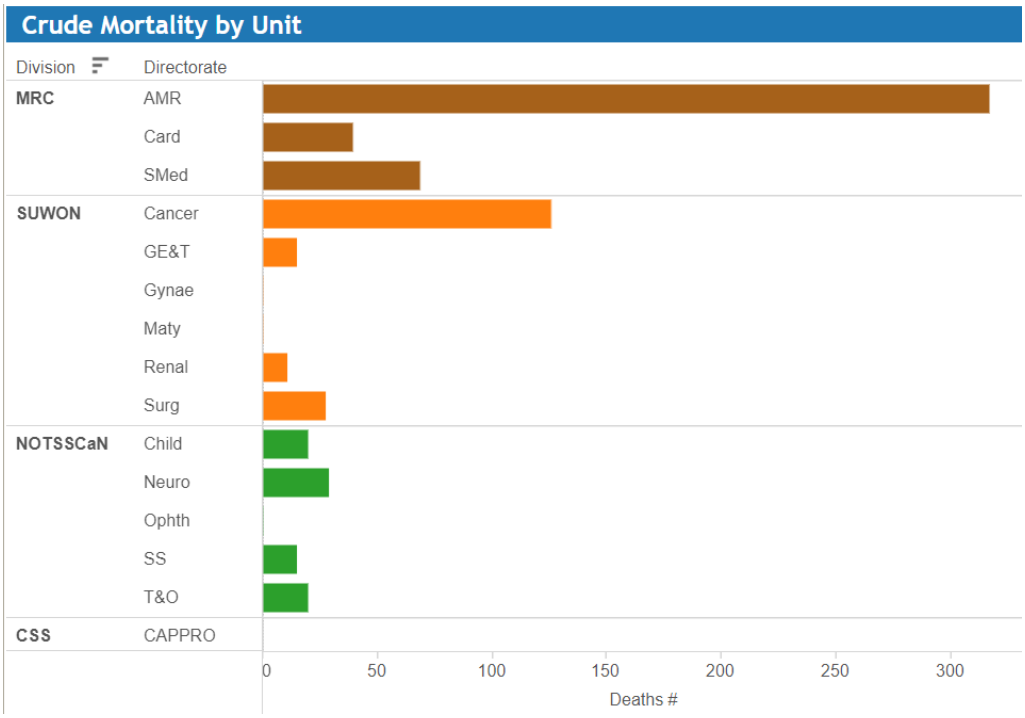
11.1. 37% of deaths occurred in patients aged 60 to 79 years and 48% in patients over 80 years of age (Chart 3). These statistics are in line with previous quarters.

Chart 3: Mortality – patient age



11.2. The highest number of deaths were admitted to the Acute Medicine and Rehabilitation (AMR) Directorate under the MRC Division (Chart 4).

Chart 4: Deaths by Directorate



11.3. Of the 332 deaths for the period of Quarter 3 occurring under the AMR directorate, 231 (70%) of deaths occurred under the speciality of acute general medicine.

11.4. Ethnicity data can be seen below in table 5.

Table 5: Death by ethnic background:

Ethnicity	Total
White British	279
Not Stated	40
Not Known	2
Any Other White Background	6
Any Other mixed background	2
White Irish	1
Any Other Asian Background	4
White and Black Caribbean	2
Pakistani	2
Indian	2
Caribbean	2

11.5. VLAD charts are statistical process control charts which provide a visual comparison between an expected outcome and its associated observed outcome. VLAD charts enable the depiction of trends in outcomes over time and the detection of variations within the reporting period for a particular diagnosis group. These charts facilitate the monitoring of mortality outcomes within the Trust compared to the national baseline and provides trigger alerting when a run of individual patient outcomes trends outside the expected range.

11.6 NHS Digital publishes VLAD charts for 10 SHMI diagnosis groups selected because they have high levels of patient activity and risk models that are considered to have sufficiently explained the expected variation in outcomes due to the case-mix adjustment.

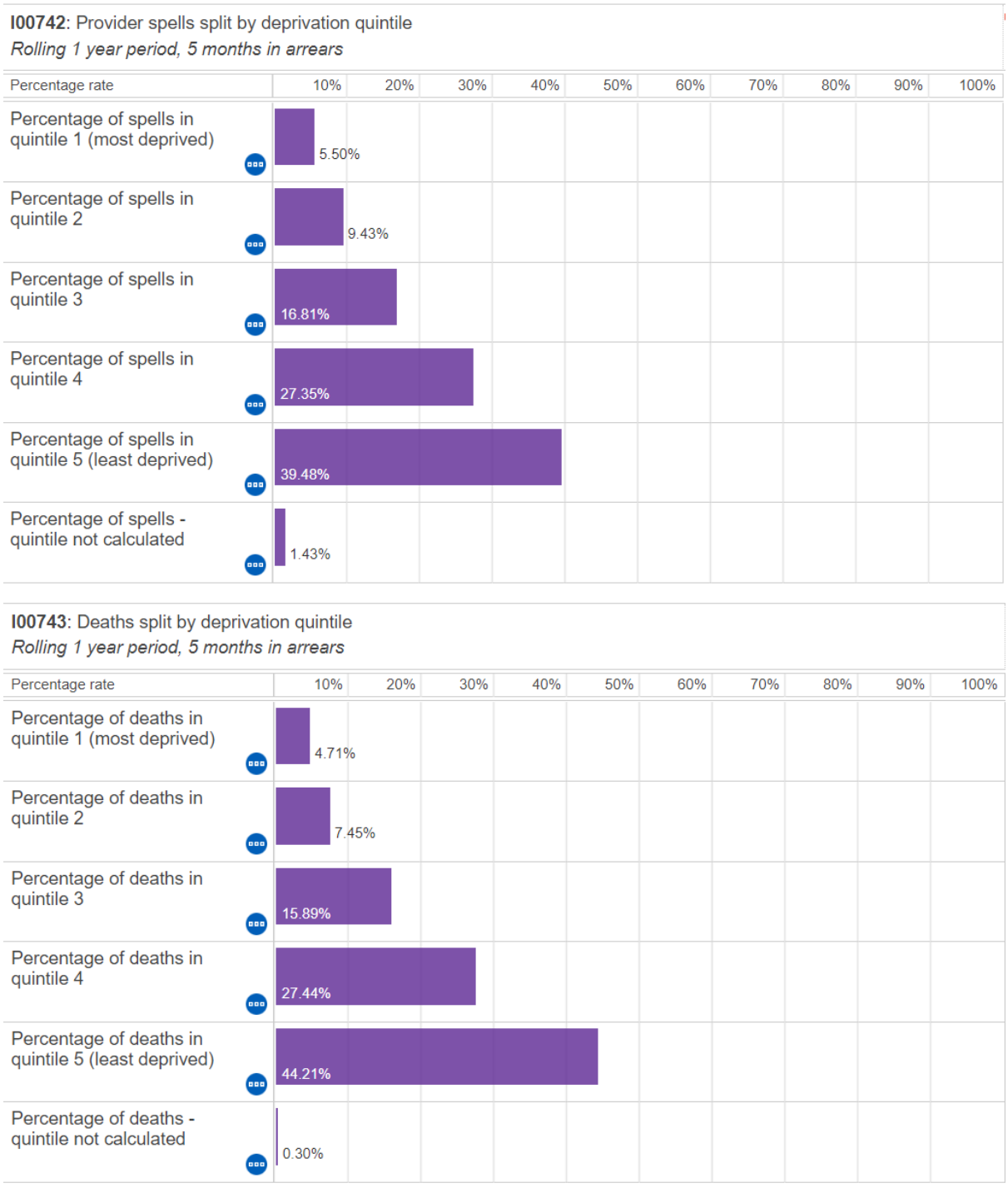
11.7 A downward trend indicates a run of more deaths than expected. An upward trend indicates a run of fewer deaths than expected. The control limits (which are shown with a dotted line) enable alerts to be generated when a run of individual patient outcomes trends outside of expected levels. There were no investigations commenced relating to the published VLAD charts during Quarter 3 2021/22.

11.8 NHS Digital reference the same spell level information which was used to calculate the SHMI to report the percentage rates of deaths under each social deprivation quintile.

11.9 Deprivation quintiles are calculated using the Index of Multiple Deprivation (IMD) Overall Rank field in the Hospital Episodes Statistics (HES) dataset which is based on a weighted combination of factors such as income; employment; health deprivation and disability; education, skills, and training; barriers to housing and services; crime and living environment.

11.10 Chart 5 displays the percentage breakdown of spells and deaths by deprivation quintile. There is a marginally higher percentage of deaths in quintile 4 relative to the percentage of spells attributed to those quintiles.

Chart 5: % SHMI spells and deaths by deprivation quintile

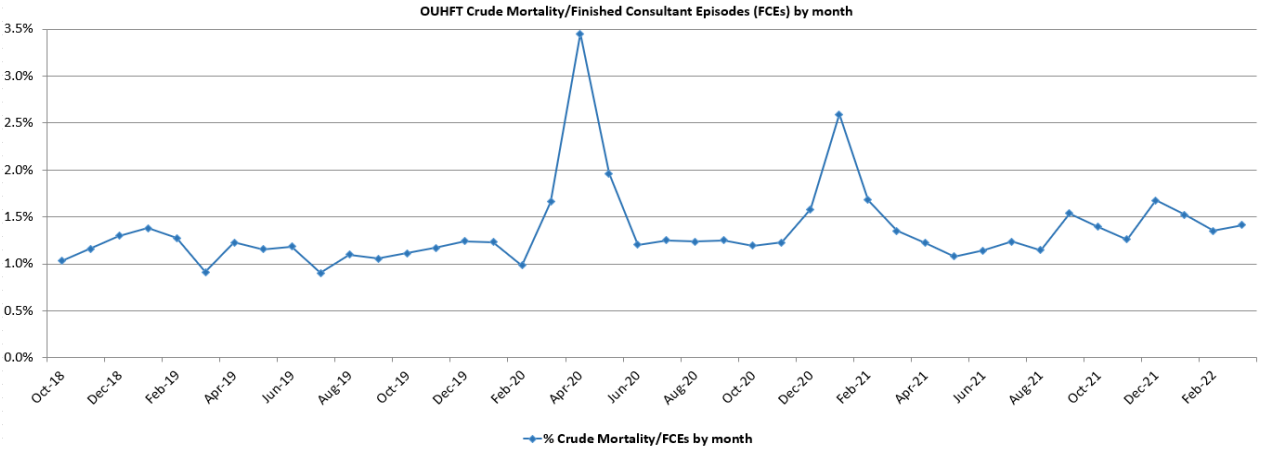


12. Crude Mortality

12.1. Crude mortality gives a contemporaneous, but not risk-adjusted, view of mortality across OUH.

12.2. There was a sharp increase in the mortality rate in April 2020 due to the increased number of deaths and decrease in activity related to the COVID-19 pandemic. There was a rise in the mortality rate in January 2021 resulting from the increase in the number of deaths related to the further wave of the COVID-19 pandemic. Chart 6 depicts the crude mortality rate by Finished Consultant Episodes (FCEs).

Chart 6: Crude mortality rate by Finished Consultant Episodes (FCEs)



12.3. During quarter 3 of 2021/22:

12.3.1. Neurosciences, Orthopaedics, Trauma, Specialist Surgery, Children's, and Neonatology Division reported that 84 patients died from a total of 15,297 discharges.

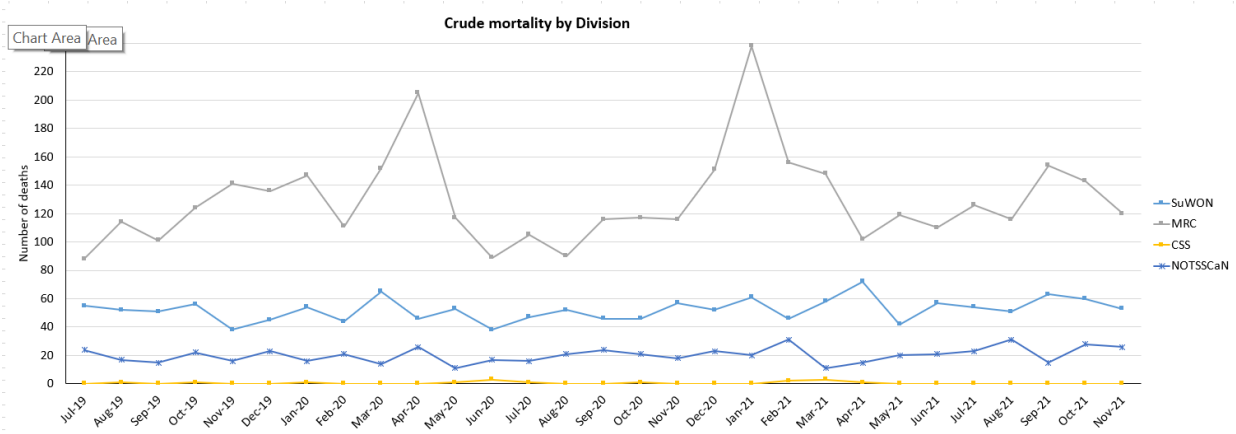
12.3.2. Medical Rehabilitation and Cardiac Division reported that 441 patients died from a total of 15,567 discharges.

12.3.3. Surgery, Women's, and Oncology Division reported that 180 patients died from a total of 17,908 discharges.

12.3.4. Clinical Support Services Division reported 1 death in the Critical Care Units from a total of 516 discharges.

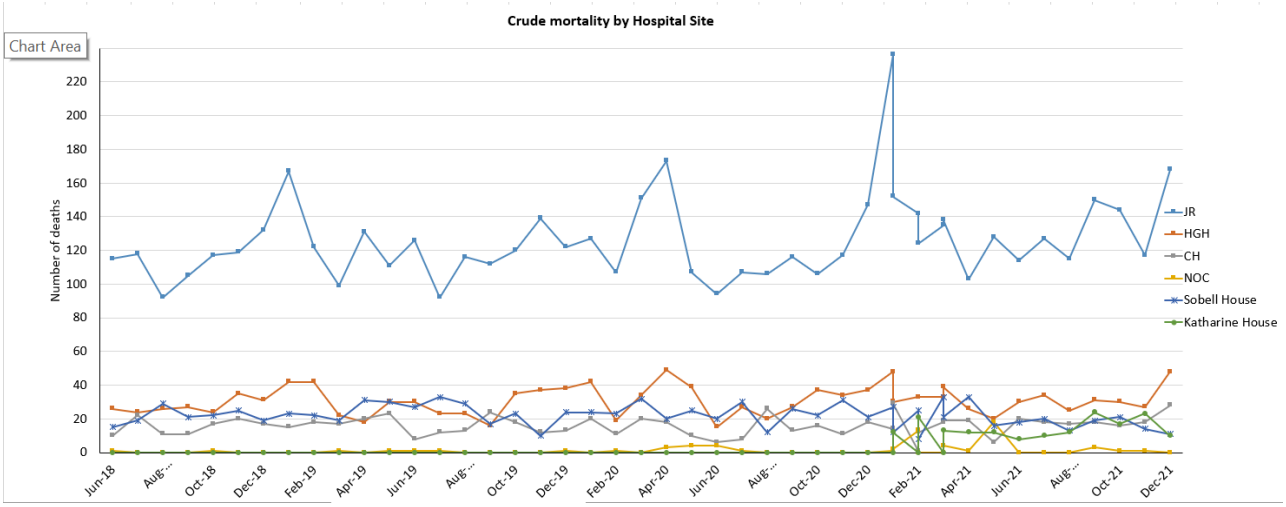
12.4. Chart 7 presents the crude mortality by Division.

Chart 7: Crude mortality by Division



12.5. Chart 8 depicts the crude mortality by hospital site. Most deaths occur at the John Radcliffe Hospital which has the highest activity.

Chart 8: Crude mortality by Site



13. Corporate Risk Register and related Mortality risks

13.1. Relevant mortality risks from the Corporate Risk Register can be seen below:

13.1.1. Failure to care for patients correctly across providers at the right place at the right time.

13.1.2. Trust-wide loss of IT infrastructure and systems (e.g., from Cyber-attack, loss of services etc).

13.1.3. Failing to respond to the results of diagnostic tests.

13.1.4. Patients harmed because of difficulty finding information across two different systems (Paper and digital).

13.1.5. Potential harm to patients, staff, and the public from nosocomial COVID-19 exposure.

13.1.6. Lack of capacity to meet the demand for patients waiting 52 weeks or longer.

13.1.7. Ability to achieve the 85% of patients treated within 62 days of cancer diagnose across all tumour sites.

14. Mortality Review Governance

14.1. A quarterly summary of Directorate and Divisional mortality reports from their respective mortality and morbidity reviews are presented to the monthly Mortality Review Group (MRG) Chaired by the Director of Safety and Effectiveness.

14.2. MRG reports are then presented to the Patient Safety & Effectiveness Committee (PSEC) which is Co-Chaired by the Director of Safety & Effectiveness and a Divisional Nurse.

14.3. PSEC reports `to Clinical Governance Committee (CGC), Chaired by the Chief Medical Officer or the Chief Nursing Officer.

14.4. CGC reports via Trust Management Executive to the Integrated Assurance Committee (subcommittee of the Trust Board).

15. Recommendations

15.1. The Public Trust Board is asked to receive this paper for information.