

## Cover Sheet

Public Trust Board Meeting: Wednesday 14 July 2021

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**Title:** Learning from deaths report – Q4 2020-21

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**Status:** For Information

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

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**Confidential:** No

**Key Purpose:** Assurance

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## Executive Summary

1. During Quarter 4 of 2020/21 there were 825 inpatient deaths reported at OUH. 83% of cases reviewed within 8 weeks. Of these reviews, 10 (1.2%) received structured mortality reviews, which include 5 structured reviews for patients with learning disabilities. There were no deaths judged more likely than not to have been due to problems in the care provided.
2. The NHSE COVID-19 Patient Notification System reports 484 deaths from the start of the pandemic to the end of quarter 4 involving COVID-19 at OUH. Of these cases, there were 41 probable hospital-onset healthcare associated COVID-19 infection deaths, and 8 which were definite (see Section 4 below for definitions).
3. All COVID-19 related deaths are subjected to a Level 1 screening mortality review. Two of the 10 structure mortality reviews from Quarter 4 concerned patients with COVID-19 listed as a cause of death, and neither related to deaths judged more likely than not to have been due to problems in the care provided.
4. In accordance with national guidance, all probable or definite hospital-onset healthcare associated COVID-19 infections are reported and investigated as patient safety incidents.
5. 242 (29%) of the Quarter 4 deaths have been reviewed by the medical examiners.
6. The Summary Hospital-level Mortality Indicator (SHMI) for the data period January to December 2020 is 0.91 and remains rated 'as expected.' The Hospital Standardised Mortality Ratio (HSMR) is 92 for the data period March 2020 to February 2021 and remains rated 'lower than expected.'

## Recommendations

7. The Public Trust Board is asked to receive the report and note that learning identified from mortality reviews is discussed at Clinical Governance Committee and in Divisions and Directorates.

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## Learning from deaths report – Q4 2020-21

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### 1. Purpose

- 1.1. This paper summarises the key learning identified in the mortality reviews completed for Quarter 4 of 2020/21.
- 1.2. The approach to reviewing deaths involving COVID-19 is presented with analysis of the cases.

### 2. Background

- 2.1. 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. The Level 1 review is a peer review by a consultant not directly involved in the patient's care.
- 2.2. 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.
- 2.3. The clinical units are responsible for disseminating the learning and implementing the actions identified in mortality reviews. Each Division maintains a log of actions from mortality reviews and monitors progress by their clinical units. 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.

### 3. Mortality reviews Quarter 4 of 2020/21

- 3.1. During Quarter 4 of 2020/21 there were 825 inpatient deaths reported at OUH. Table 1 shows the level 1, level 2 and structured judgement reviews completed.
- 3.2. Some patients may have had more than one level of review detailed below (e.g., level 1 review leading to level 2 review), and 20 perinatal deaths follow a different review process. The Divisions have confirmed that at this point 56 patients who died in Quarter 4 are awaiting completion of a review at any level (6.4%) this compares favourably with 112 patients out of 658 (17%) who had not been reviewed at time of reporting for Quarter 3.

**Table 1: Number of mortality reviews Quarter 4 of 2020/21**

Total deaths	Level 1 reviews	Level 2 reviews	Structured judgement reviews
825	479	266	10

- 3.3. There were 5 structured reviews for patients with learning disabilities and one structured review requested at the Serious Incident Requiring Investigation (SIRI) Forum; the other four were instigated because of concerns raised by family members or staff.
- 3.4. During Quarter 4 of 2020/21, there were no patient deaths judged more likely than not to have been due to problems in the care provided following structure judgement reviews. Five of the 10 structured reviews completed were for patients with learning disabilities.
- 3.5. The Coroner did not raise any Prevention of Future Deaths alerts in Quarter 4.

#### 4. Approach to COVID-19 deaths

- 4.1. NHS England and NHS Improvement guidance defines a probable or definite hospital-onset healthcare associated COVID-19 infection death as:
- the death of a patient who has a positive result where the swab was taken within 28 days of death and/or COVID-19 is cited on either Part 1 or Part 2 of the death certificate (i.e., the death resulted from a COVID-19 clinically compatible illness with no period of complete recovery between the illness and death)
  - and the COVID-19 infection linked to the death meets the definition of 'probable' or 'definite' hospital-onset healthcare associated infection:
    - Hospital-Onset Probable Healthcare-Associated - a positive specimen date 8-14 days after hospital admission
    - Hospital-Onset Definite Healthcare-Associated – a positive specimen date 15 or more days after hospital admission
- 4.2. All probable or definite hospital-onset healthcare associated COVID-19 infection deaths are reported and investigated as patient safety incidents.

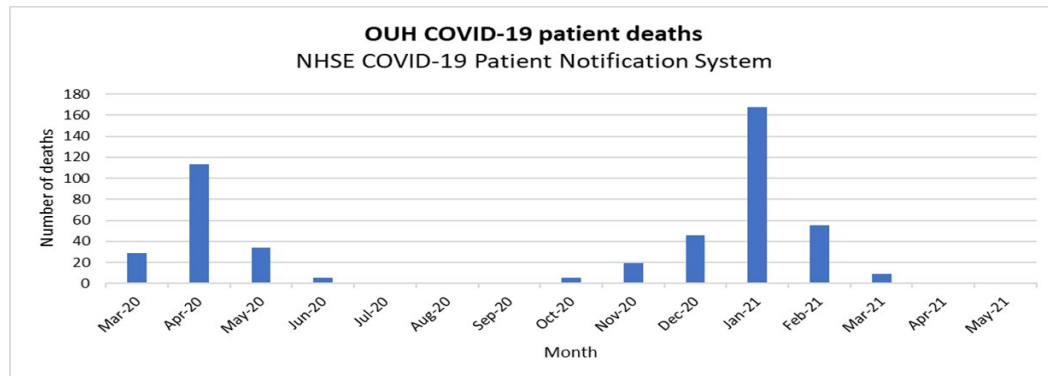
#### 5. Analysis of COVID-19 deaths

- 5.1. The NHSE COVID-19 Patient Notification System reports 484 deaths involving COVID-19 at OUH from 1 March 2020 up to 31 March 2021. Of these cases, there were 41 probable hospital-onset healthcare-associated COVID-19 infection deaths, and 8 definite.

5.2. All COVID-19 related deaths are being subjected to a Level 1 mortality review. Two of the 10 structure mortality reviews from Quarter 4 concerned patients with COVID-19 listed as a cause of death, and neither involved deaths judged more likely than not to have been due to problems in the care provided.

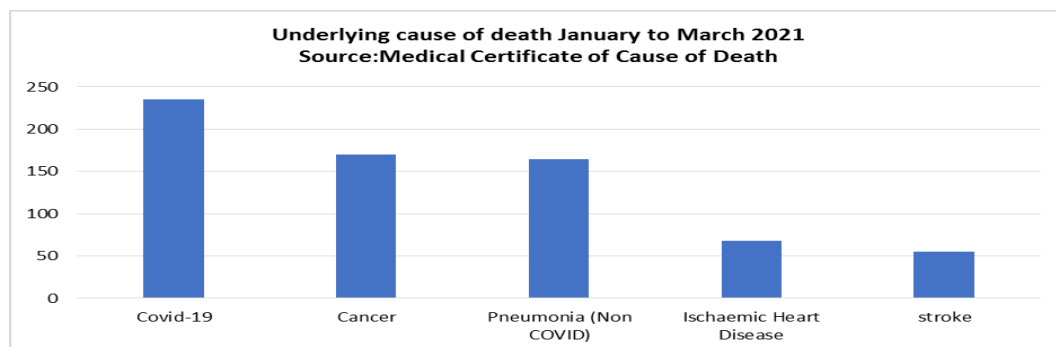
5.3. The majority of COVID-19 deaths occurred in April 2020 and January 2021 (Chart 1).

**Chart 1: OUH COVID-19 patient deaths by month of death**



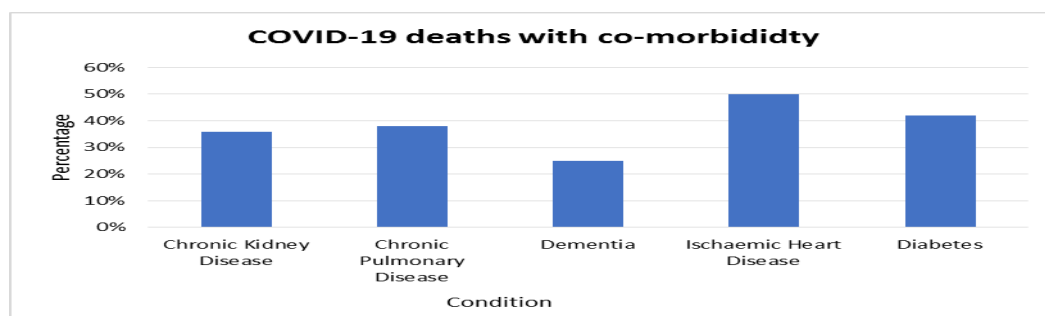
5.4. Between January and March 2021, the most frequently recorded underlying cause of death was cancer or COVID-19 (Chart 2).

**Chart 2: Underlying cause of death on Medical Certificate of Cause of Death (MCCD)**



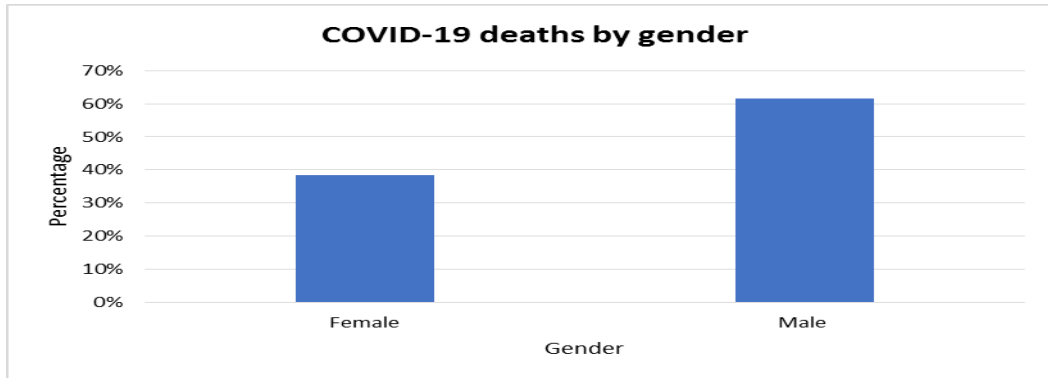
5.5. Ischaemic heart disease and diabetes were the most common co-morbidity found in deaths involving COVID-19 (Chart 3).

**Chart 3: COVID-19 deaths with co-morbidity**



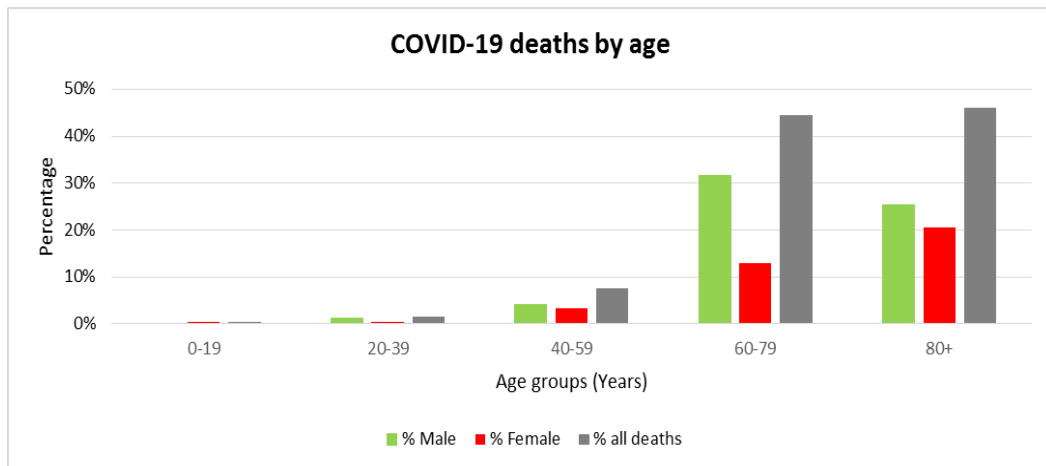
5.6. Male patients had a higher mortality due to COVID-19 when compared to female patients (Chart 4).

**Chart 4: COVID-19 deaths – male compared to female patients**



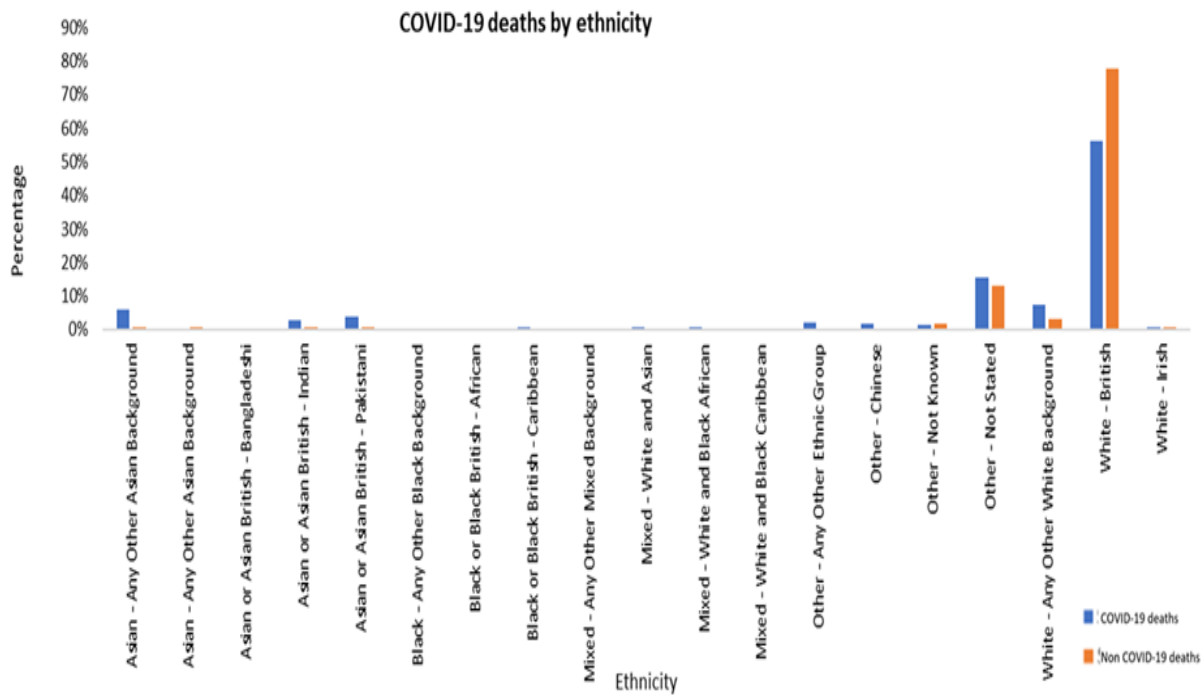
5.7. The majority of COVID-19 deaths were reported in patients over 80 years of age (Chart 5).

**Chart 5: COVID-19 deaths – patient age**



19% of COVID-19 deaths were of BAME patients, or patients with a mixed heritage including BAME. As can be seen in Chart 6 this is a far higher rate than seen with non-COVID deaths (5%).

**Chart 6: COVID-19 deaths – ethnicity**



5.8. In line with national guidance, all patients who died with a probable or definite diagnosis of nosocomial COVID-19 (see 4.1b, above, for definitions), are being investigated at SIRI level. This is the case if COVID-19 is listed anywhere in cause 1 or 2 of the MCCD.

5.9. Originally each case was called as a separate SIRI, but following discussion with NHS England, and in agreement with commissioners, these were downgraded, and a single SIRI is being used to manage all cases. The local reference for this SIRI is 2021-071.

5.10. To date, 49 probable and nosocomial cases have been added to this over-arching SIRI, along with 2 further cases where nosocomial infection was indeterminate, but which had been flagged by the Medical Examiners.

5.11. The Trust is creating brief individual summaries for each of these cases and to offer them to the patients’ relatives. Once all individual investigations have been completed, a final report against 2021-071 will be created by Patient Safety to summarise all causative issues and learning.

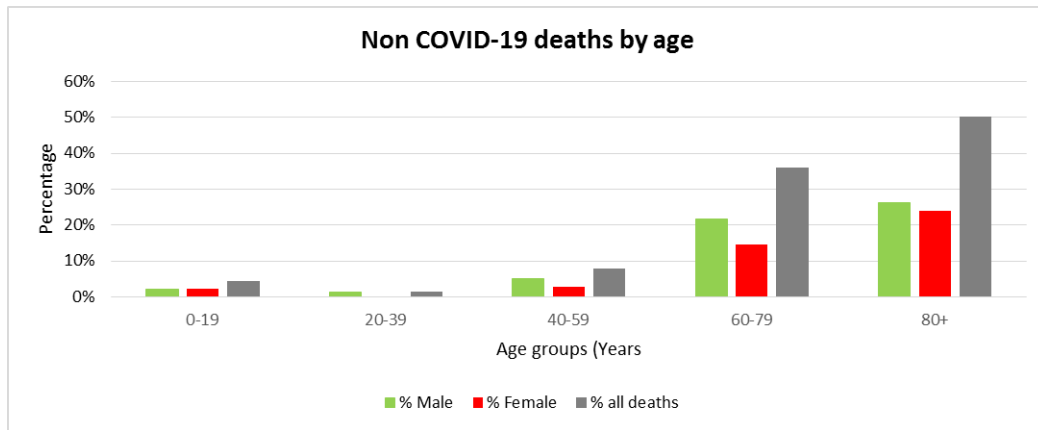
5.12. In Quarter 4 the Deputy Chief Medical Officer instigated regular meetings to manage this process, to review draft summaries and to identify thematic issues across all cases.

**6. Analysis of non COVID-19 deaths**

6.1. Of the non COVID-19 deaths reported; 50% of deaths occurred in patients over 80 years of age, and 86% in patients over 60 years of age (Chart 7).

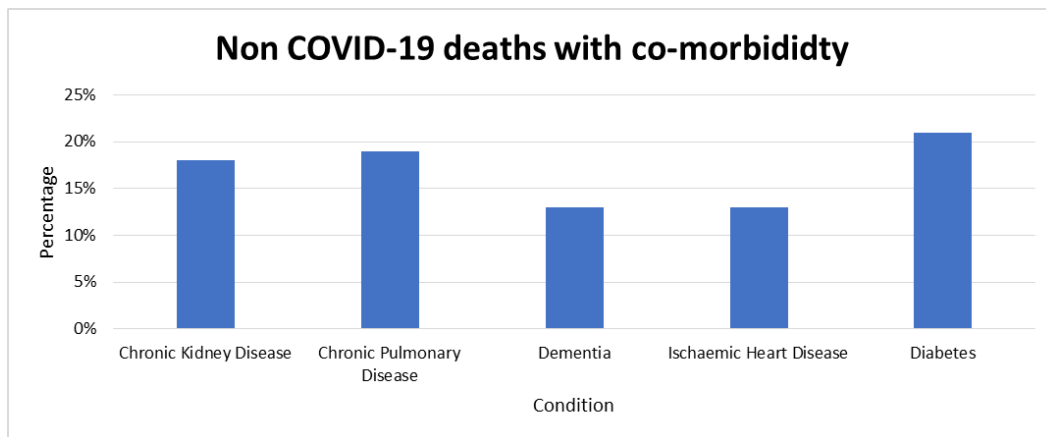


**Chart 7: Non COVID-19 deaths – patient age**



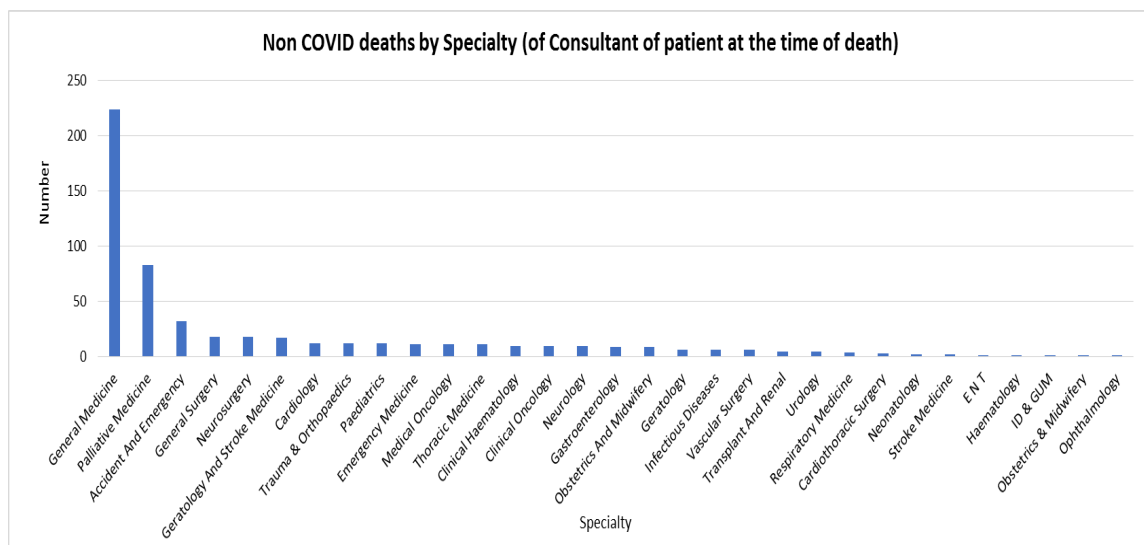
6.2. Diabetes and chronic pulmonary disease were the most common co-morbidities found among non COVID-19 deaths (Chart 8).

**Chart 8: Non-COVID-19 deaths with co-morbidity**



6.3. Of the non COVID-19 deaths the highest number of cases, 41%, died under General Medicine (Chart 9).

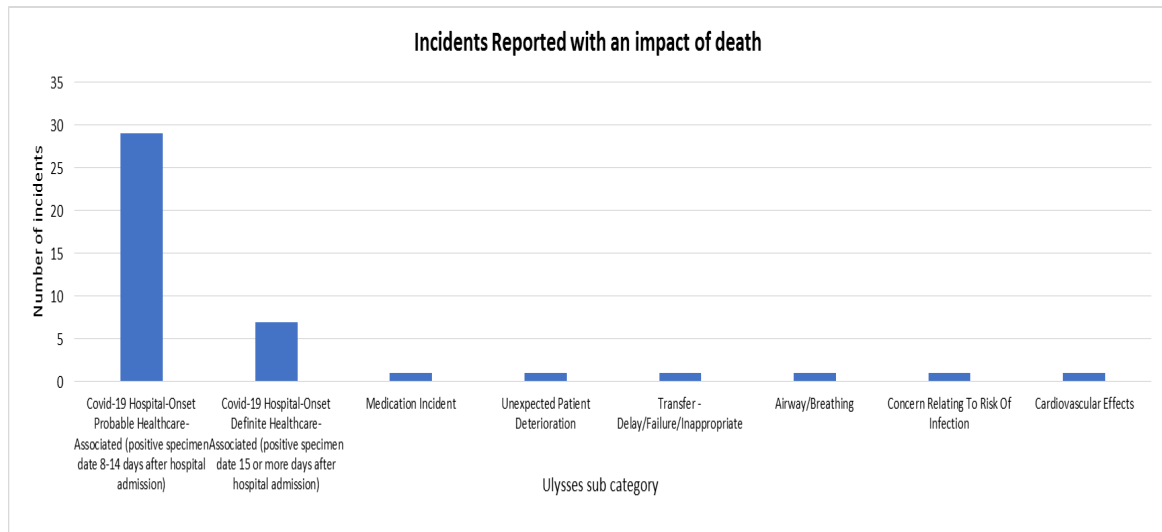
**Chart 9: Non COVID-19 deaths – speciality**



## 7. Patient safety incidents with an impact of death

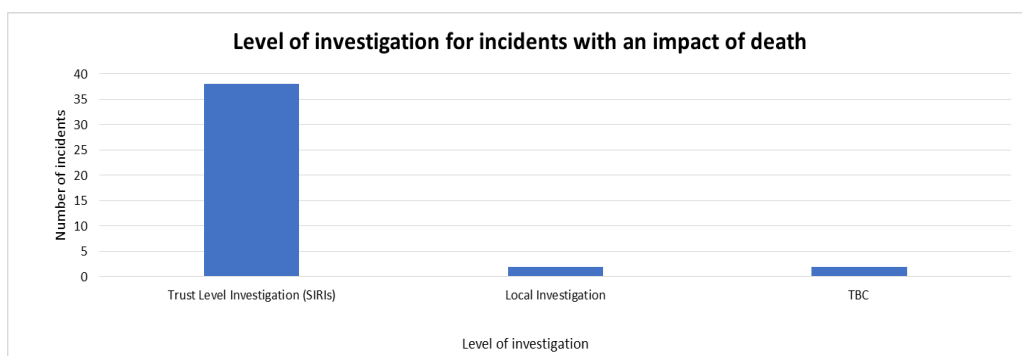
7.1. During the data period January to March 2021 the most common type of incident with an impact of death reported was hospital onset probable and definite COVID-19 infection, which accounted for 86% of incidents (Chart 10).

**Chart 10: Main type of incident with an impact of death**



7.2. The majority of incidents with an impact of death are the subject of a Trust Level Serious Incident Requiring Investigation (SIRI) following national guidance for the probable/possible nosocomial COVID-19 patient deaths (Chart 11).

**Chart 11: Level of investigation for incidents with an impact of death**



7.3. During Quarter 4 the trust confirmed 5 SIRIs relating to incidents graded as entailing an impact of death (excluding investigations subsequently downgraded from SIRI status). These concerned:

- 7.3.1. A patient who died after being admitted with probable sepsis.
- 7.3.2. A patient who died following a hypoxic arrest that occurred whilst their endotracheal tube was being changed.
- 7.3.3. An outlying respiratory patient who deteriorated and died.

7.3.4. A patient who developed hospital-acquired pulmonary emboli and subsequently died. The death occurred in quarter 3, but the SIRI was called in quarter 4, once the hospital-acquired thrombosis review was completed.

7.3.5. A single over-arching SIRI to cover the investigations into the patients who died with probable or definite nosocomial COVID-19 infections (see 5.10-5.14 above). This SIRI therefore covers some deaths that occurred before quarter 4.

7.4. A total of 13 'death graded' SIRIs were reported in 2020-21 (excluding downgrades). This is in line with financial year 2019-20, in which 12 'death graded' SIRIs were identified.

## **8. Themes from mortality reviews Quarter 4 of 2020/21**

8.1. In many cases learning has been identified through mortality reviews. Most of this is local learning for specialised teams. Some issues of a wider nature have been summarised below.

### **Nosocomial COVID-19 cases**

8.2. Standard PPE has been amended to include the use of short-sleeved gowns, which have been proven to reduce the transfer of infection.

8.3. A joint mortality and morbidity meeting between ICU and Respiratory is planned to optimise the learning from Quarter 4, which was dominated by wave 2 of the pandemic.

8.4. COVID-19 affects post-surgical recovery, Spinal surgery is now being delayed for patients with a COVID-19 infection, to allow full recovery.

### **Non COVID-19 cases**

8.5. A small group of consultants has been identified to reintroduce percutaneous tracheostomy in adult ICU.

8.6. Education for ED staff about the latest guidelines for intravenous thrombolysis in acute stroke, with a reminder that bolus times must be accurately reported on EPR.

8.7. The radiology clinical governance lead will discuss radiology report addenda that are not being actioned.

8.8. The default ventilation mode for babies with hypoxic ischaemic encephalopathy will be changed to synchronised intermittent mandatory ventilation to avoid hypocarbia.

8.9. A concern will be raised with the Coroner about post-mortem results for babies reaching families without a professional to guide them through the results.

- 8.10. Paediatric Oncology will review their SOP for referral to Psychological Medicine where there are concerns about parental mental health to cover all family members.
- 8.11. Special attention should be paid when using weight estimates to prescribe and administer medications.
- 8.12. The Oxford Kidney Unit has identified patients who may benefit from renal supportive care through application of a renal supportive care register and associated toolkit. Some end-of-life patients may choose to stop dialysis and it is important to establish their wishes regarding future care.

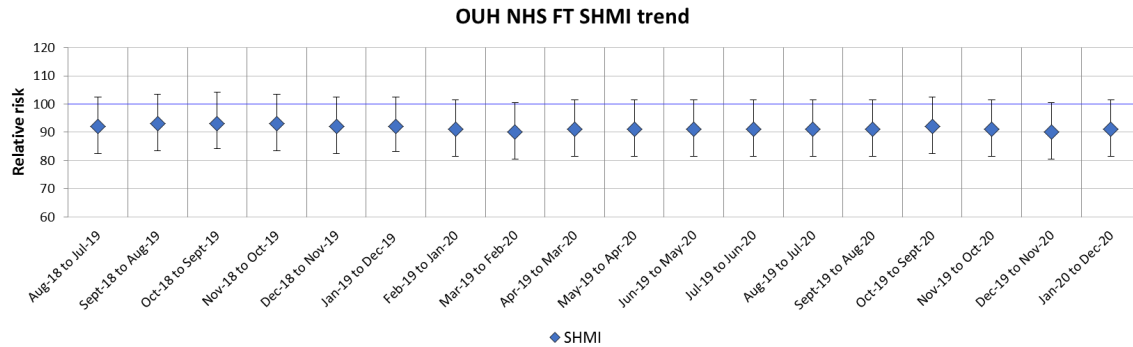
## **9. Medical Examiner system**

- 9.1. 242 Quarter 4 deaths have been reviewed by the medical examiners (ME). This is 29% of the 825 deaths reported.
- 9.2. 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.
- 9.3. The opportunity for families to discuss the care their relative received with an ME has been positively received. To quote one relative, the ME communication was an 'excellent adjunct' to the care provided.
- 9.4. In line with the Department of Health and Social Care directive; the Lead Medical Examiner is reviewing the deaths of members of staff involving COVID-19.

## **10. Summary Hospital-level Mortality Indicator (SHMI) and Hospital Standardised Mortality Ratio (HSMR)**

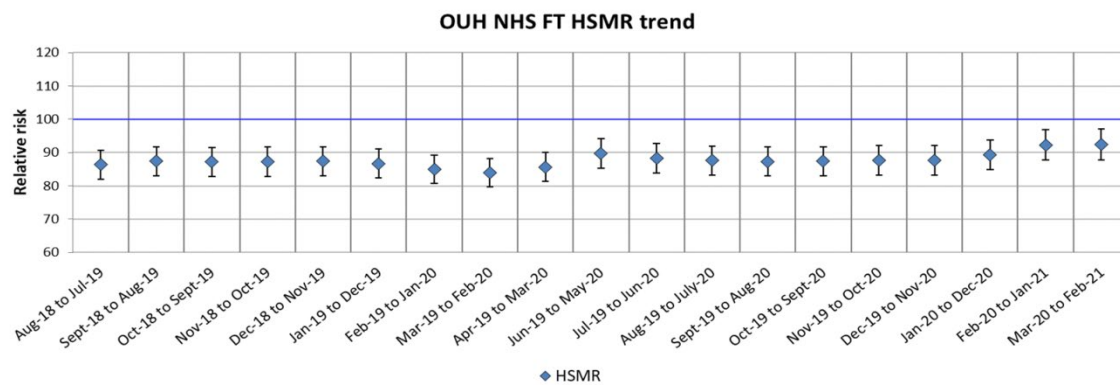
- 10.1. There have been no mortality outliers reported for OUH from the CQC or the Dr Foster Unit at Imperial College.
- 10.2. The SHMI for the data period January to December 2020 is 0.91. This is rated 'as expected.' Chart 12 depicts the SHMI trend. The SHMI has remained rated 'as expected.'

**Chart 12: SHMI trend** (Presented with a baseline of 100 to enable comparison to the HSMR)



10.3. The HSMR is 92 for the data period March 2020 to February 2021. Chart 13 depicts the HSMR trend. The HSMR has remained rated 'lower than expected.'

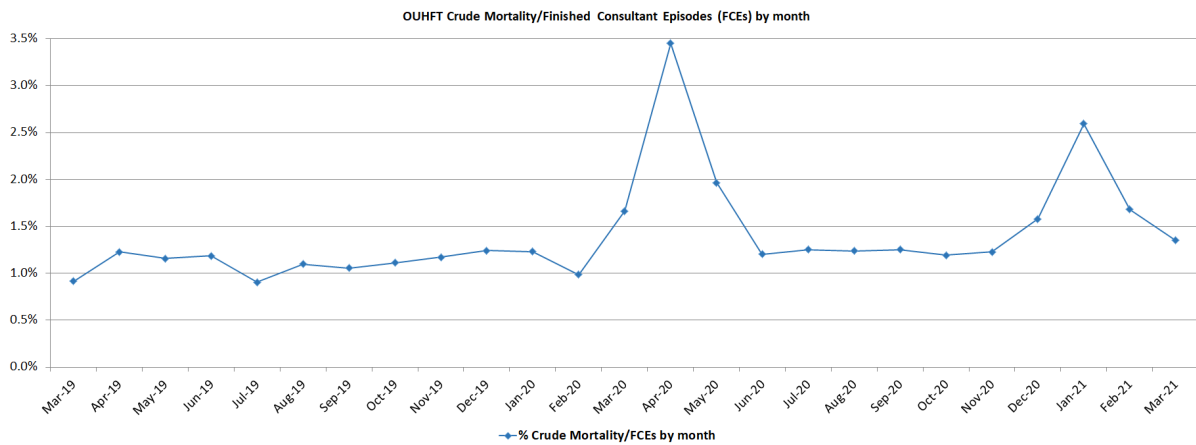
**Chart 13: HSMR trend**



## 11. Crude Mortality

11.1. Crude mortality gives a contemporaneous but not risk-adjusted view of mortality across OUH. 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 is 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 14 depicts the crude mortality rate by Finished Consultant Episodes (FCEs).

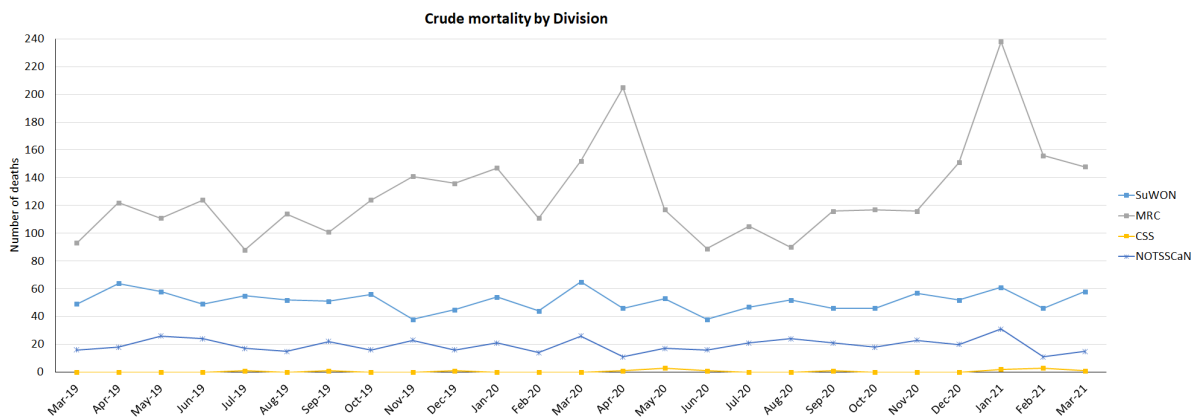
**Chart 14: Crude mortality rate by Finished Consultant Episodes (FCEs)**



11.2. During Quarter 4 of 2020/21:

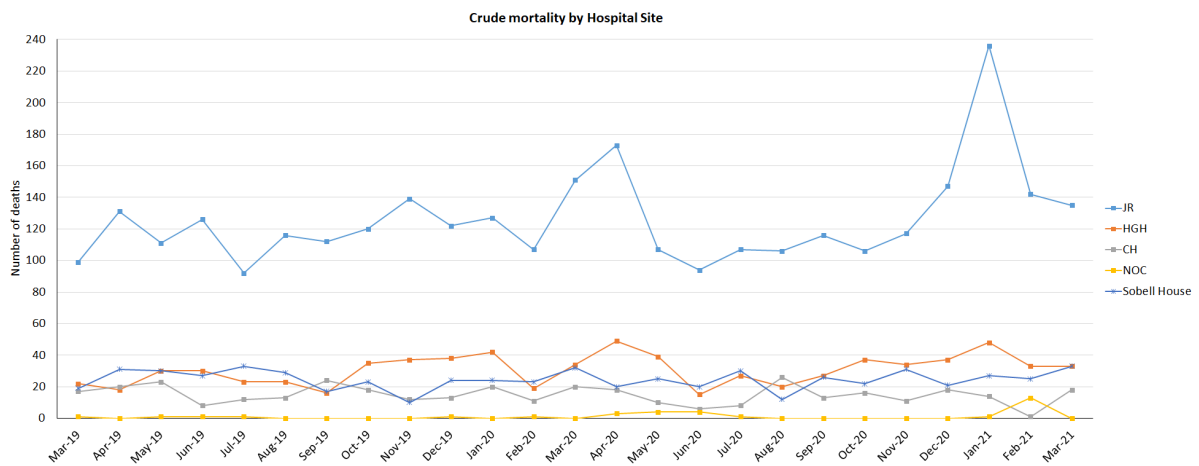
- 11.2.1. Neurosciences, Orthopaedics, Trauma, Specialist Surgery, Children’s and Neonatology Division reported that 60 patients died from a total of 14, 566 discharges.
- 11.2.2. Medical Rehabilitation and Cardiac Division reported that 415 patients died from a total of 14, 912 discharges.
- 11.2.3. Surgery, Women’s and Oncology Division reported that 157 patients died from a total of 16, 685 discharges.
- 11.2.4. Clinical Support Services Division reported 29 deaths in the Critical Care Units from a total of 360 discharges.
- 11.2.5. Chart 15 presents the crude mortality by Division.

**Chart 15: Crude mortality by Division**



11.3. Chart 16 depicts the crude mortality by hospital site. Most deaths occur at the John Radcliffe Hospital which has the highest activity.

**Chart 16: Crude mortality by Site**



## 12. Recommendations

12.1. The Public Trust Board is asked to receive the report and note that learning identified from mortality reviews is discussed at Clinical Governance Committee and in Divisions and Directorates.