Oxford University Hospitals
NHS Foundation Trust

Cover Sheet

Trust Board in Public: Wednesday 09 September 2020

TB2020.78

Title:	**Learning from deaths annual report 2019/20**

Status:	**For Information**
History:	

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

Executive Summary

1. The Summary Hospital- Level Mortality Indicator (SHMI) for 2019/20 is 0.91. This is rated ‘as expected.’
2. The Hospital Standardised Mortality Ratio (HSMR) for 2019/20 is 86. This is rated as ‘lower than expected.’
3. During 2019/20 there were 2724 inpatient deaths reported at OUH. There were 2455 (90.1%) of cases reviewed within 8 weeks. Of these reviews, there were 1152 (42.3%) comprehensive Level 2 reviews and 65 (2.4%) structured mortality reviews which include 20 structured reviews for patients with learning disabilities. There were 2 deaths judged more likely than not to have been due to problems in the care provided.
4. There were 205 inpatient deaths reported at OUH involving COVID-19 between 16 March 2020 and 11 August 2020.
5. Implementation of the Medical Examiner system in 2019/20 was suspended to support the COVID-19 response.
6. Key actions and learning points identified in mortality reviews completed during 2019/20 are presented for the Board.

Recommendations

7. The Trust Board is asked to receive this report for information.

Contents

Learning from deaths annual report 2019/20

1. Purpose

1.1. This paper summarises the key learning identified in the mortality reviews completed for 2019/20.

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.

3. Mortality reviews 2019/20

3.1. During 2019/20 there were 2724 inpatient deaths reported at OUH. The number of mortality reviews completed is presented in Table 1. There were 2455 (90.1%) of cases reviewed within 8 weeks. Of these reviews, there were 1152 (42.3%) comprehensive Level 2 reviews and 65 (2.4%) structured mortality reviews.

Number of mortality reviews 2019/20

Total deaths	2742
Level 1 Reviews	1238 (45.4%)
Level 2 Reviews	1152 (42.3%)
Structured Reviews	65 (2.4%)
Deaths not reviewed within 8 weeks	269 (9.9%)

3.2. The deaths which were not reviewed within 8 weeks have since had a Level 1 screening review.

3.3. The triggers for the structured reviews are listed in paragraph 3.4. There were 20 structured reviews for patients with learning disabilities and 21 structured reviews prompted by concerns from staff.

Criteria for structured mortality reviews for 2019/20

3.4. The following list details the triggers for structured reviews and the number of structure reviews completed:

- Learning disabilities (20)
- Concern from staff (21)
- Concern from family (7)
- Concern from family and staff (2)
- Serious Incident Requiring Investigation (SIRI) (2)
- Concern from staff and Coroner's Inquest (5)
- Severe mental illness (6)

3.5. 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. 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.

Deaths due to problems in the care provided

3.6. During 2019/20, there were two patient deaths judged more likely than not to have been due to problems in the care provided.

3.6.1. The first case related to a patient who had a ruptured aortic aneurysm. The following actions have been agreed by the Complex Aortic Surgery Multi-disciplinary Team:

3.6.1.1. Complex aortic surgery should be offered within 18 weeks of referral. Patients should expect to wait no more than 3 months for aneurysm surgery where the risk of rupture is high and once all investigations have been completed.

3.6.1.2. The complex aortic pathway will be coordinated and waiting times monitored by the Elective Access Surgery Coordinator.

3.6.2. The second case related to a patient who had an aortic valve replacement and coronary artery bypass graft. The learning points identified were as follows:

3.6.2.1. Patients should be seen and assessed preoperatively by the consultant in charge of surgery. There should be documentation of the operative plan.

3.6.2.2. Intracardiac air during open heart surgery is monitored using Transoesophageal Echocardiogram (TOE). It is vital that there is good communication between the TOE operator and the surgeon to ensure that de-airing is adequately performed. De-airing measures should be continued until all air has been cleared.

3.6.2.3. Intracardiac air embolism causes myocardial ischaemia. It may be necessary to allow a period of supportive bypass to clear air from the coronary circulation. Where cardiac function is adversely affected by ischaemia, the use of an intra-aortic balloon pump should be considered to support cardiac function.

3.6.2.4. This case has been discussed at the Cardiac Surgery mortality meeting and at the Trust Mortality Review Group (MRG). The case is also the subject of an external review.

4. Medical Examiner System

4.1. Four Medical Examiners (0.4 full-time equivalent) were appointed in December 2019. The Medical Examiners are supported by the existing Bereavement Officers who have taken on the role of Medical Examiner Officers. Implementation of the Medical Examiner System was suspended to support the COVID-19 response.

5. Learning and actions from mortality reviews 2019/20

Facilities

5.1. The Respiratory Medicine Unit have reported that the Respiratory Inpatient Ward (Osler Chest Ward/7E at the John Radcliffe Hospital) did not have sufficient higher level care beds to accommodate all patients admitted to the Trust needing non-invasive ventilation support prior to the COVID-19 pandemic. This will remain extant over the foreseeable future as the Unit is accommodating all patients requiring this level of support on a Respiratory High Dependency Unit (HDU) in a different location and which will include both COVID-19 and non COVID-19 patients. The future plans for Respiratory HDU provision is currently under discussion at the Trust.

5.2. The provision of HDU beds was also identified in reviews completed by the Surgery and Critical Care teams which highlighted that if there was access to an HDU bed there could have been increased monitoring of the patients and in other settings the patients would have being ‘stepped down’ to a HDU bed following their stay in Critical Care.

Review of practice, pathways and procedures

5.3. The John Radcliffe Hospital was identified as a national outlier for 30 day mortality in hip fracture patients. 'Time to ward' and 'time to theatre' were highlighted as areas of concern. More recent data for 2019 depicts that there has been a significant improvement in 'time to theatre' and 30 day mortality approaching national averages. The following actions had been implemented to address the areas of concern:

5.3.1. The John Radcliffe Emergency Department (JR-ED) pathway for patients with hip fractures has been modified and simplified. This includes criteria to identify the 'Fast Track' patient who is likely to be suitable for direct transfer to the operating theatre for early surgery.

5.3.2. The JR-ED has also simplified the guidance concerning early analgesia including local anaesthetic nerve block.

5.3.3. The provision of ring-fenced beds in JR Trauma wards for hip fracture admissions to be fast-tracked to the ward and prioritised for surgery.

5.3.4. The 'time to theatre' and outcomes of surgery are reported on a monthly dashboard to enable continuous monitoring by the Trauma team.

5.3.5. A Standard Operating Procedure (SOP) has been agreed with South Central Ambulance Service (SCAS) for hip fracture patients to be transported directly to the Horton General Hospital (HGH) if they are from the north of the county, and for the transfer of patients from the JR-ED to HGH for surgery if there is no immediate capacity at the JR.

5.4. Following the investigation of a patient who deteriorated post laparoscopic cholecystectomy; the Surgery team have introduced the practice for a specific question to be asked about whether there were "any problems," allowing any member of the team to raise concerns prior to the full morning handover. Twice daily senior reviews are to be undertaken for patients who are recently post-surgery.

5.5. The Adult Intensive Care Unit (AICU) and JR-ED have agreed that patients in the JR-ED Resuscitation Room will be under the ownership of JR-ED while AICU will expedite their admission and that the time from decision to admit to admission should not exceed 60 minutes. An audit has commenced of time to admission from JR-ED to AICU to assess compliance with the process.

5.6. Following the investigation of a misplaced nasogastric tube (NGT); an 'At a Glance' of the 'Insertion, use and care of fine bore nasogastric feeding tubes in infants and children' policy and procedure was produced and a copy made available at each bed/cot side. The investigation found that the patient's death was not related to the misplaced NGT.

5.7. Advice on fluid management is to be included in the Medicines Information Leaflet (MIL) for glycaemic management during enteral feeding for inpatients with diabetes.

5.8. The Maternity Unit adapted the Antenatal Modified Early Obstetric Warning Score (MEOWs) chart to include colour of liquor so that any change is clearly and uniformly denoted.

5.9. The Infectious Diseases and Haematology Units reminded the clinical teams that only professional interpreters should be being used for clinical discussions with patients and that family members should not be used.

5.10. The Urology Clinical Governance Lead presented the 'Malignant Upper Urinary Tract Obstruction Pathway' to the Oncology Department at the annual 'Acute Oncology Update and Audit' meeting. The presentation was prompted by a review which highlighted that the use of the pathway may have led to an earlier resolution of the patient's management plan.

5.11. The Critical Care Unit has initiated a quality improvement programme with active participation of trainees and fellows. The projects include a review of readmissions to intensive care within 48 hours over the last 12 months with the aim of identifying commonalities and possible avenues of preventability. The Unit will also review delayed admissions to intensive care.

Medication administration and prescribing

5.12. The neurosurgical team have implemented a practice of administering a dose of low molecular weight heparin (blood thinner) in the morning to patients who have had their planned surgery cancelled thereby ensuring that patients receive chemical venous thromboembolism (VTE) prophylaxis on every calendar day.

5.13. The Palliative Medicine Unit identified as an area of Trust wide learning that physical agitation at the end of life should be treated with midazolam and delirium with haloperidol unless there is evidence of pain, when opioids can be used. The Unit are authoring a Weekly Safety Message about using opioids appropriately at the end of life.

5.14. The Geratology team discussed the importance of appropriate analgesia for patients with fractures and the careful titration of analgesia, especially in patients with advanced age, frailty or chronic kidney disease. The case findings were fed back to the medical team who initiated the analgesia. The learning points are to be included in the Trust training for the use of opioids.

Training and education

5.15. The investigation of a patient who had a post endoscopic retrograde cholangio-pancreatography sphincterotomy (ERCP) bleed identified aspects of the case which were used as the basis for education of medical and nursing teams in the identification of the sick/deteriorating patient and in the management of gastrointestinal bleeding, particularly in the post-procedure setting. This included a lunchtime Acute General Medicine teaching class, a presentation to the Gastroenterology departmental meeting on the “pitfalls and practicalities” of direct oral anti-coagulants, and the inclusion of gastro-intestinal bleed management in the foundation year, core medical trainee and registrar training programs.

5.16. The Cardiology Unit have included a session on syncope in the regional training for specialist registrars specifically addressing the management of red flag cases. This will be part of a wider program to address common clinical presentations in Cardiology.

5.17. The Haematology Unit are supporting all of the ward nursing staff to complete the ‘Recognising the Acutely Ill and Deteriorating Patient’ (RAID) training programme. The RAID programme aims to ensure nursing staff caring for patients are competent in the monitoring, measurement, interpretation of vital signs and escalation of concerns. All specialist registrars rotating through the Haematology Ward will be trained in using the ‘System for Electronic Notification and Documentation’ (SEND) for monitoring patients’ vital signs.

Supporting patients and their families

5.18. The Oncology and Haematology Directorate acquired funding from the ‘Enhanced Supportive Care’ project to offer a more holistic package of care to patients through collaboration between the Oncology and Palliative Care teams. This initiative stemmed from recognition of the benefits of removing barriers to the involvement of palliative care expertise earlier in the cancer pathway. The benefits include access to a range of expertise: pain management, interventional radiology, complementary therapy, psycho-oncology and spiritual care, physiotherapy, dietetics and occupational therapy. This approach enables increased patient involvement in decision making about treatment and quality of life.

5.19. A review by the Renal Service of complaints relating to end of life care has led to work within the team to improve advanced care planning, symptom management (particularly agitation), communication and documentation of management plans and discussions with the patient’s family.

Documentation and the Electronic Patient Record (EPR)

5.20. The investigation of a Thoracic Surgery case found clear defects in documentation; in particular the cognitive assessment and the documentation of the diaphragmatic breach and the two emergency chest drain procedures. The resultant actions are that staff who complete consent forms must tick the relevant box for patients who have documented dementia or previously documented low cognitive scores. The team were reminded that unexpected injuries during operations should be documented in the operation notes and not only verbally handed over. The Unit are to produce a simple template for the ward team to make it easier to document when a chest drain is inserted, including a section to identify the urgency with which a chest drain was inserted.

5.21. The investigation of a chemotherapy patient who had unrecognised renal failure highlighted that for patients who have a specific monitoring requirement it is imperative that this is clearly communicated on EPR and Aria (electronic prescribing platform for chemotherapy), so that any clinician treating the patient will have sight of their individual needs. The EPR team are reviewing whether the current mechanism for acute kidney injury (AKI) alerts activating against inpatient encounters can be extended to day case/ambulatory encounters.

5.22. The Horton Medicine Unit have developed an electronic on call patient handover list on EPR which all doctors have access to and review at handover meetings.

6. Serious Incident Requiring Investigations (SIRIs) with a related death

6.1. All SIRI related deaths are presented to MRG by the Lead Investigator.

6.2. During 2019/20, there were 14 SIRIs involving patients who died. In 12 cases the impact of the incident was the death of the patient. There were 2 cases where the patient died but the incident which was the subject of the investigation may not have impacted on the eventual outcome.

6.3. Of these 14 SIRIs there are 9 cases related to unexpected patient deterioration or suboptimal care of the deteriorating patient, 1 accident (not falls), 1 operative incident, 1 infection control, 1 maternity event and 1 related to devices, equipment or resources.

6.4. Cases of SIRIs involving a death also have a structured mortality review in accordance with national guidance. The learning points and actions are included in section 5 above.

7. Deaths involving COVID-19

7.1. There were 205 inpatient deaths reported at OUH involving COVID-19 between 16 March 2020 and 11 August 2020. The term 'involving COVID-19' refers to deaths that had COVID-19 mentioned anywhere on the death certificate, whether as an underlying cause or not.

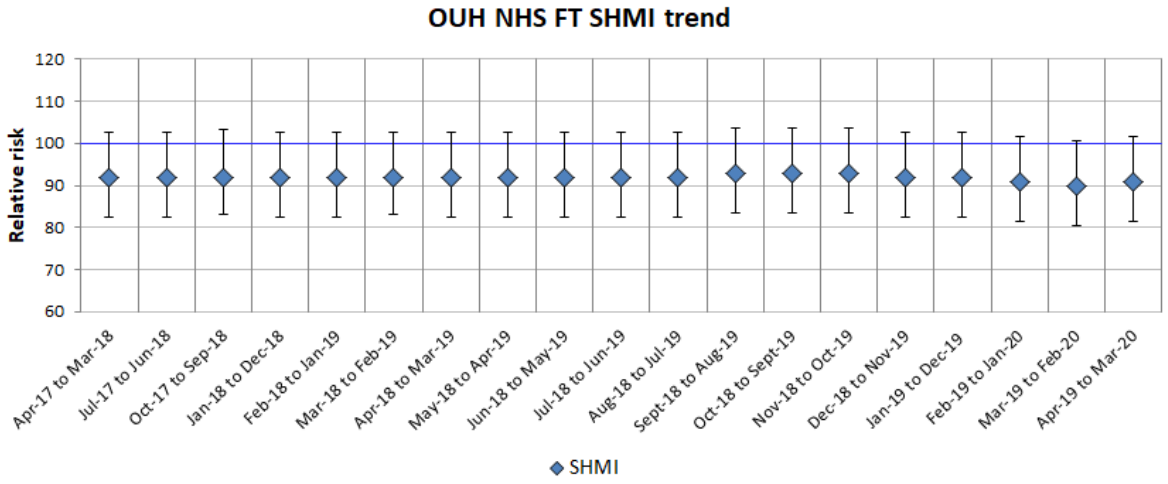
7.2. The COVID-19 survival rate was 77% and the COVID-19 mortality rate was 23%.

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

8.1. There has been no mortality outliers reported for OUH from the CQC or the Dr Foster Unit at Imperial College during 2019/20.

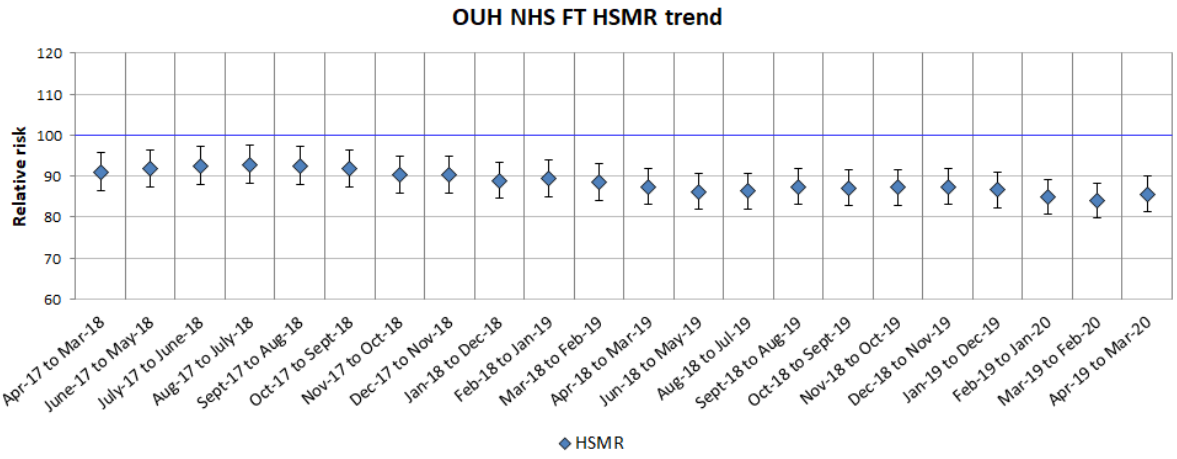
8.2. The SHMI for the data period 2019/20 is 0.91. This is rated 'as expected.' Chart 1 depicts the SHMI trend. The SHMI has remained rated 'as expected.'

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



8.3. The HSMR is 86 for 2019/20. This is rated as 'lower than expected.' Chart 2 depicts the HSMR trend. The HSMR has remained rated 'lower than expected.'

Chart 2: HSMR trend



9. Crude Mortality

9.1. Crude mortality gives a contemporaneous but not risk-adjusted view of mortality across OUH. Chart 3 presents the crude mortality for OUH. There was an increase in mortality in March 2020. There was a decrease in finished consultant episodes (FCEs) during March 2020 relating to the preparation for the COVID-19 response. These factors have contributed to the increase in the crude mortality rate by FCEs for March 2020 which is depicted in Chart 4.

Chart 3: Crude Mortality

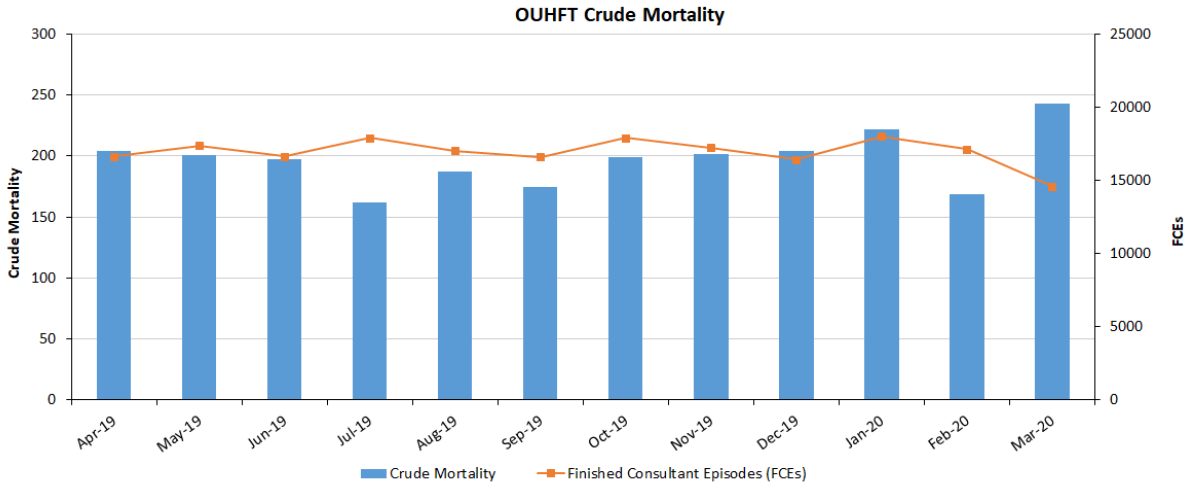
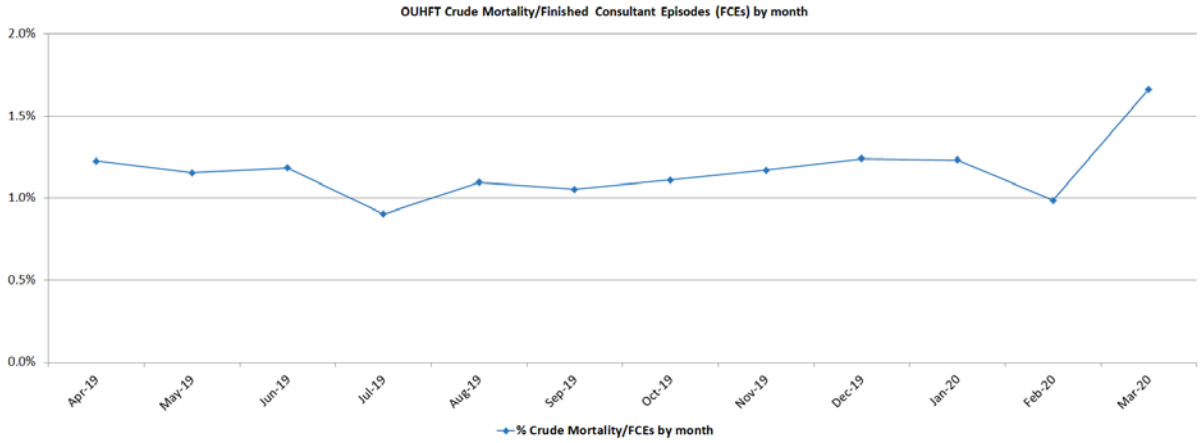


Chart 4: Crude Mortality rate by Finished Consultant Episodes (FCEs)



9.2. During 2019/20:

9.2.1. Neurosciences, Orthopaedics, Trauma, Specialist Surgery, Children's and Neonatology Division reported that 246 patients died from a total of 58,761 discharges.

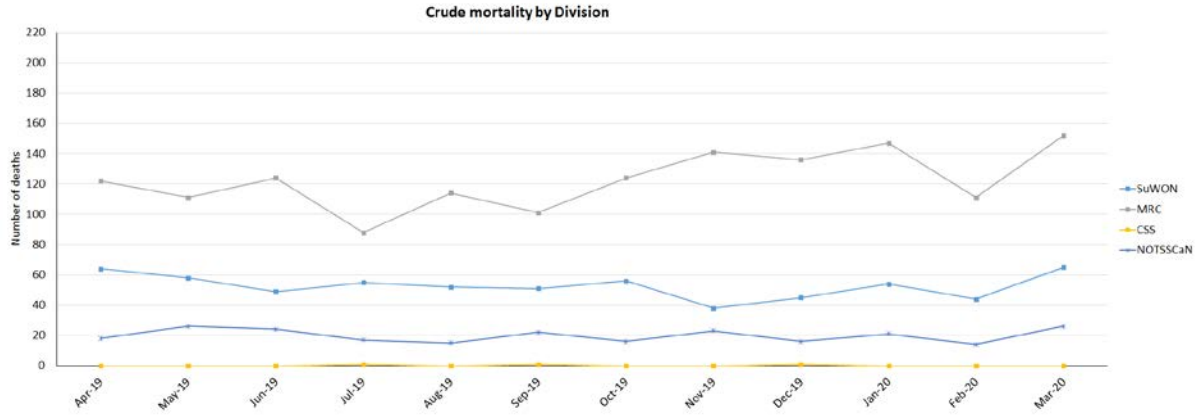
9.2.2. Medical Rehabilitation and Cardiac Division reported that 1691 patients died from a total of 63,498 discharges.

9.2.3. Surgery, Women's and Oncology Division reported that 637 patients died from a total of 81,828 discharges.

9.2.4. Clinical Support Services Division reported 150 deaths in the Critical Care Units from a total of 1,517 discharges.

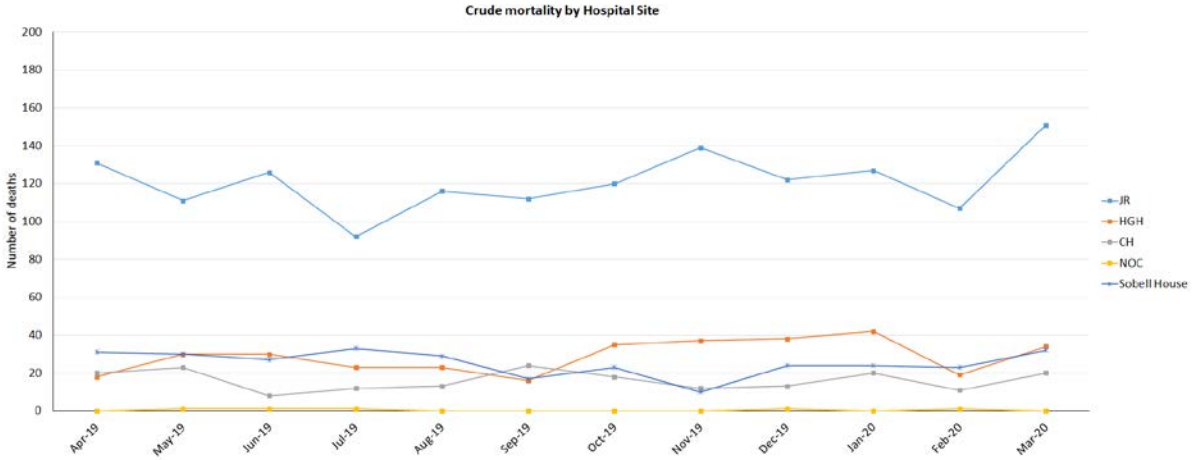
9.2.5. Chart 5 presents the crude mortality by Division.

Chart 5: Crude Mortality by Division



9.3. Chart 6 depicts the crude mortality by hospital site. Most deaths occur at the John Radcliffe Hospital which has the highest activity.

Chart 6: Crude Mortality by Site



10. Conclusion

10.1. In accordance with national mortality guidance, the Trust has implemented a revised mortality review policy and structured mortality reviews since quarter three of 2017/18. This paper summarises the learning identified in the mortality reviews completed during 2019/20.

11. Recommendations

11.1. The Trust Board is asked to receive this report for information.

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19 August 2020