



Oxford University Hospitals
NHS Foundation Trust

Trust Board Meeting in Public: Wednesday 11 September 2019

TB2019.90

Title	Mortality Annual Report 2018/19
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Status	For information
History	This is an annual paper to the Trust Board.

Board Lead	Professor Meghana Pandit, Chief Medical Officer			
Key purpose	Strategy	Assurance	Policy	Performance

Executive Summary

<p>1. In March 2017 the National Quality Board published guidance based on the recommendations from the Care Quality Commission (CQC) report '<i>Learning, candour and accountability: A review of the way NHS Trusts review and investigate the deaths of patients in England.</i>' This was embedded in a revised OUH mortality review policy ratified by the Board in September 2017.</p>
<p>2. During 2018/19 there were 2674 inpatient deaths reported at OUH. There were 2366 (89%) cases reviewed within 8 weeks. Of these reviews, there were 1304 (49%) comprehensive Level 2 reviews and 82 (3%) structured mortality reviews which include 33 structured reviews for patients with learning disabilities. The deaths which were not reviewed within 8 weeks did have a subsequent Level 1 screening review. There were 2 deaths judged more likely than not to have been due to problems in the care provided.</p>
<p>3. OUH are implementing the Medical Examiner system. Medical examiners are expected to be in place by April 2020. Medical Examiners will scrutinise the circumstances and causes of deaths in acute Trusts. They will also be a point of contact and source of advice for relatives of deceased patients, healthcare professionals and coroner and registration services.</p>
<p>4. Key actions and learning points identified in mortality reviews completed during 2018/19 are presented for the Board.</p>
<p>5. Recommendation The Board is asked to receive and discuss the learning identified from mortality reviews.</p>

Learning from deaths

1. Purpose

1.1. This paper summarises the key learning identified in the mortality reviews completed for 2018/19.

2. Mortality reviews

2.1. The Trust Standardised Mortality Review policy requires that all inpatient deaths need to be reviewed within 8 weeks of the death occurring. All deaths have a Level 1 review by the responsible consultant. 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. During 2018/19 there were 2674 inpatient deaths reported at OUH. The number of mortality reviews completed is presented in Table 1.

Table 1: Number of mortality reviews 2018/19

Total number of deaths	Number of deaths with Level 1 reviews	Number of deaths with Level 2 reviews	Number of deaths with Structured reviews	Number of deaths not reviewed within 8 weeks of death
2674	980 (37%)	1304 (49%)	82 (3%)	308 (11%)

2.2. The deaths which were not reviewed within 8 weeks did have a subsequent Level 1 screening review.

2.3. The triggers for the structured reviews are listed in Table 2:

Table 2: Criteria for structured mortality reviews for 2018/19

Criteria for structured review	Number of reviews
Learning disabilities	33
Concern from staff	16
Concern from family	5
Concern from family and from staff	1
Serious Incident Requiring Investigation (SIRI)	3
SIRI and Coroner's Inquest	3
Concern from family and Coroner's Inquest	1
Concern from staff and Coroner's Inquest	10
Coroner's Inquest	8
Severe mental illness	2

2.4. 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.

- 2.5. During 2018/19, there were two patient deaths judged more likely than not to have been due to problems in the care provided.
 - 2.5.1. A patient died after presenting with a stroke and developing a hyperosmolar hyperglycaemic state. This case was investigated as a Serious Incident Requiring Investigation (SIRI). The learning points and actions were as follows:
 - 2.5.1.1. Multiple professional groups did not recognise that the patient was becoming dehydrated and was developing a hyperosmolar hyperglycaemic state. The findings of the review and investigation have been shared with the teams at local Clinical Governance meetings.
 - 2.5.1.2. The need to pay attention to hypernatraemia when the patient was hyperglycaemic has been highlighted to teams.
 - 2.5.1.3. Advice on fluid management is to be included in the Medicines Information Leaflet (MIL) for glycaemic management during enteral feeding for inpatients with diabetes.
 - 2.5.2. The second case related to a patient with learning disabilities. The review found that the delay in recognising the complication following the insertion of a nasogastric (NG) tube is likely to have directly contributed to death. The case is being investigated as a SIRI. The immediate learning points and actions from the structured mortality review were as follows:
 - 2.5.2.1. Improve staff awareness of the Deprivation of Liberty Safeguards (DoLS) process by presentation of the case at the Clinical Governance meetings and Sisters and Charge Nurses meetings.
 - 2.5.2.2. Improve staff understanding of complications of NG tube insertion by presentation of the case at Clinical Governance meetings and Sisters and Charge Nurses meetings.
 - 2.5.2.3. Need for improved documentation on ward rounds and during discussions with the patient's family.
 - 2.5.2.4. Need for improved communication between the Radiology and General Medicine teams.
- 2.6. A prevention of future death notice was issued to the Trust on 11th September 2018. The SIRI investigation of this case was completed after the patient's death in April 2018. The learning points and actions included the following:
 - 2.6.1. The Trauma Service completed an audit of the care of outlying patients in August 2018 to ensure that the same standard of care is delivered to patients regardless of their ward location. The results from this audit have led to the Clinical Nurse Specialist (CNS) reviewing outlying patients on a daily basis to check that appropriate venous thromboembolism (VTE) prophylaxis is being prescribed to all relevant patients who are not based on the Trauma wards. The CNS runs a report

from the Electronic Patient Record (EPR) each morning and reviews outliers. During weekends the bleep holder assumes this responsibility.

- 2.6.2. The Trauma Service now record confirmation of VTE prophylaxis prescription and first dose timing in consultant 'Hot Round' letters.
- 2.6.3. The admitting team are now conducting both VTE assessment and prescribing when the patient is admitted to the Emergency Department (ED).
- 2.6.4. EPR 'soft' pop up alerts for VTE risk assessments, which could be clicked through, have been changed to 'hard' pop up alerts which cannot be by-passed without users completing the required action.
- 2.6.5. The Unit continue to ensure that all Trauma nurses are completing the mandatory VTE prophylaxis training.

3. Development of the Medical Examiner role

- 3.1. OUH are implementing the Medical Examiner system. The Business Case is under review by the OUH Business Planning team.
- 3.2. Medical examiners are expected to be in place by April 2020.
- 3.3. Medical examiners will scrutinise the circumstances and causes of deaths in acute Trusts. They will also be a point of contact and source of advice for relatives of deceased patients, healthcare professionals and coroner and registration services.
- 3.4. At OUH it is envisaged that there will be one whole time equivalent (from a rota) Medical Examiner supported by Medical Examiner Officers.

4. Learning and actions from mortality reviews 2018/19

New protocols and pathways

- 4.1. The Emergency Department (ED) has improved therapist multidisciplinary team (MDT) working. In particular, physiotherapist rotas will be available to the ED coordinator, physiotherapists will be trained to review X-rays to the same level as the Emergency Nurse Practitioners (ENPs) and the physiotherapist case mix will be reviewed.
- 4.2. A standard operating procedure (SOP) for time critical implementation of renal replacement therapy has been developed and implemented.
- 4.3. An airway proforma has been implemented to support communication from theatres to the Intensive Care Unit (ICU) about difficult airway patients.
- 4.4. A pathway for patients requiring a colonic stent has been developed with all services (Acute Surgery, Colorectal and Endoscopy) involved in scheduling the procedure.
- 4.5. EPR discharge summaries have been re-configured to include a section to record incidental findings from investigations and plans for follow-up.

- 4.6. The review of VTE risk assessments is included on board rounds which are attended by the ward MDT. The ward pharmacist is allowed time on the board round to raise any medication concerns with the ward MDT.
- 4.7. The Critical Care and Interventional Radiology teams are developing a specific pathway for the management of massive and sub-massive pulmonary emboli.
- 4.8. The Neonatal team are to be included in the completion of the WHO Surgical Safety Checklist with the Obstetric team for caesarean sections.
- 4.9. The Oncology team have introduced a protocol for all capecitabine prescribed patients to have mandatory testing for DPD (dihydropyrimidine dehydrogenase) enzyme variants and for the capecitabine doses to be adjusted accordingly. DPD is an enzyme made by the liver that helps the body break down the chemotherapy drug capecitabine.
- 4.10. The Cardiology Unit have implemented a change in the timing and positioning of defibrillator pads during insertion of cardiac stimulation procedures to shorten the time to defibrillation should this be required.

Updates to guidance and checklists

- 4.11. The OUH MIL on warfarin reversal has been updated to include an isolated Haemoglobin drop < 20g/L in the definition of a major bleed.
- 4.12. The 'Electronic Foetal Monitoring Antenatal Guideline' has been updated with improved clarity on the interpretation of cardiotocograms (CTG) and the actions for the team to take. This includes the urgency with which midwives should request obstetric reviews and obstetricians should advise delivery.
- 4.13. The Neonatal Intensive Care Unit is updating the Patent Ductus Arteriosus (PDA) guideline and ibuprofen drug monograph to include the requirement for a daily renal function test while the patient is on ibuprofen.

Training and education

- 4.14. Staff members in the Upper Gastrointestinal team have completed Human Factors training focusing on the Track and Trigger Escalation Pathway.
- 4.15. The 'Standard Operating Procedure (SOP) for Peri-operative Management of Pacemakers and Implantable Cardio-defibrillators' will be provided to the Anaesthetics and Surgery teams. The SOP will be enabled under the search function in the guidelines section of the OUH intranet.
- 4.16. The Neonatal Unit has disseminated information to the Thames Valley Neonatal Network to raise awareness of patients with duct-dependent congenital anomalies and the need for referral to the Newborn Care Unit with communication between local, Cardiology and Neonatal teams.
- 4.17. The Practice Education team have worked with staff on the Haematology and Transplant wards to improve the completion of falls risk assessments.

Engagement and support for bereaved families

- 4.18. The Paediatric Intensive Care and Organ Donation teams arranged for the heart of a teenage patient, who complied with adult criteria, to be accepted for an adult recipient. The organ donation took approximately 18 hours to organise. The patient's heart was donated to a 30 year old recipient. This case has prompted a change in processes which it is envisaged would provide comfort to future donor families and save the lives of more patients waiting for a heart transplant.
- 4.19. The Perinatal Mortality Review Group have updated bereavement letters with information about the mortality review process and inviting parents to inform the team of any concerns or feedback. The bereavement checklists have been updated to prompt midwives to discuss the mortality review process with parents.
- 4.20. The Maternity Unit are reviewing the bereavement care guidelines and a bereavement partogram is being developed.

Support for staff

- 4.21. The Critical Care team has appointed a nurse lead for wellbeing to provide staff with support. The Critical Care team are holding reflective rounds as part of a suite of interventions to enhance the wellbeing of staff.

Equipment

- 4.22. The Neonatal Intensive Care Unit has introduced new, softer nasogastric tubes following a case of oesophageal perforation.
- 4.23. The Maternity Unit is currently in the process of obtaining funding for the provision of carbon monoxide monitors for every community midwife. The availability of the monitors will facilitate compliance with the National Institute for Health and Care Excellence (NICE) guidance recommendation that all mothers have a carbon monoxide test.
- 4.24. Thrombolysis kits are now available in the Adult Intensive Care Units to provide rapid access to treatment when required.

5. SIRIs with a related death

- 5.1. All SIRI related deaths are presented to MRG by the Lead Investigator.
- 5.2. During 2018/19, there were 14 SIRIs involving patients who died. In 6 cases the impact of the incident was the death of the patient. There were 8 cases where the patient died but the incident which was the subject of the investigation may not have impacted on the eventual outcome.
- 5.3. Of the 14 SIRIs involving patients who died; there are 6 cases related to diagnosis or treatment, 4 cases of unexpected patient deterioration or suboptimal care of the deteriorating patient, 2 cases of hospital acquired thrombosis, 1 fall and 1 intrauterine death.

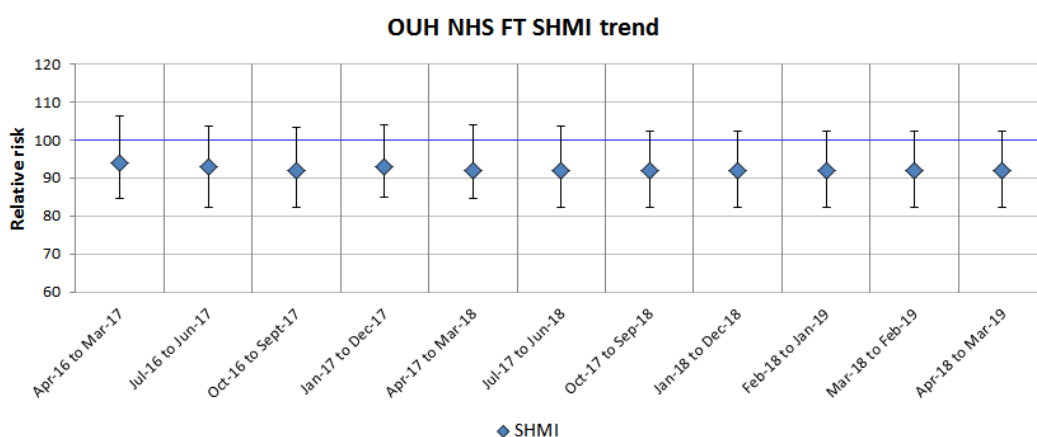
5.4. Cases of SIRIs involving a death also have a structured mortality review in accordance with national guidance. The learning points and actions are included in section 4 above.

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

6.1. There have been no mortality outliers reported for OUH from the CQC or the Dr Foster Unit at Imperial College during 2018/19.

6.2. The SHMI for the data period 2018/19 is 0.92. This is rated ‘as expected.’

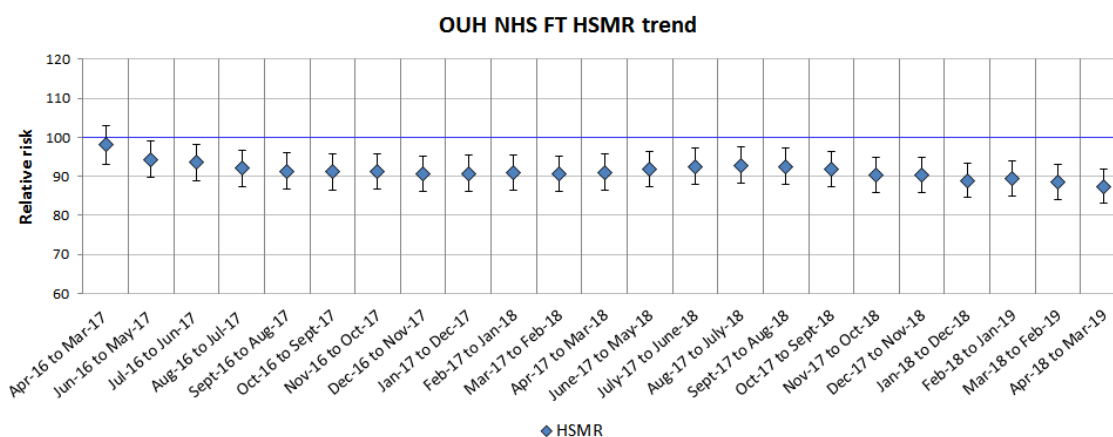
Chart 1: SHMI trend analysis*



*Represented with a baseline of 100 to enable comparison to the HSMR

6.3. The HSMR is 87 for 2018/19. This is rated as ‘lower than expected.’

Chart 2: HSMR trend analysis



7. Crude Mortality

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

7.2. During 2018/19:

- 7.2.1. Neurosciences, Orthopaedics, Trauma, Specialist Surgery, Children’s and Neonatology Division reported that 267 patients died from a total of 61017 discharges.
- 7.2.2. Medical Rehabilitation and Cardiac Division reported that 1672 patients died from a total of 62448 discharges.
- 7.2.3. Surgery, Women’s and Oncology Division reported that 592 patients died from a total of 80971 discharges.
- 7.2.4. Clinical Support Services Division reported 143 deaths from a total of 201 discharges.

Chart 3: Crude Mortality

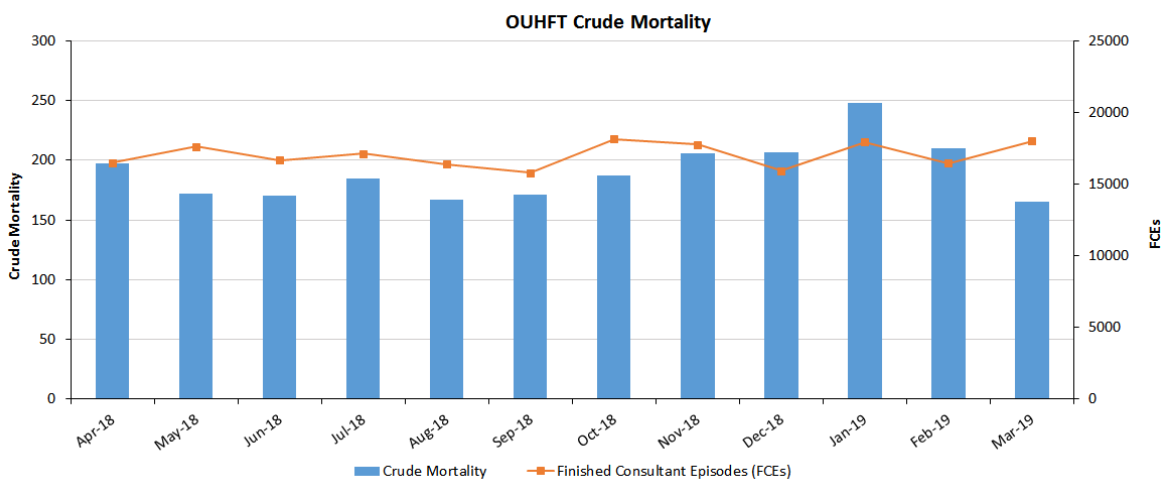


Chart 4: Crude Mortality rate by Finished Consultant Episodes (FCEs)

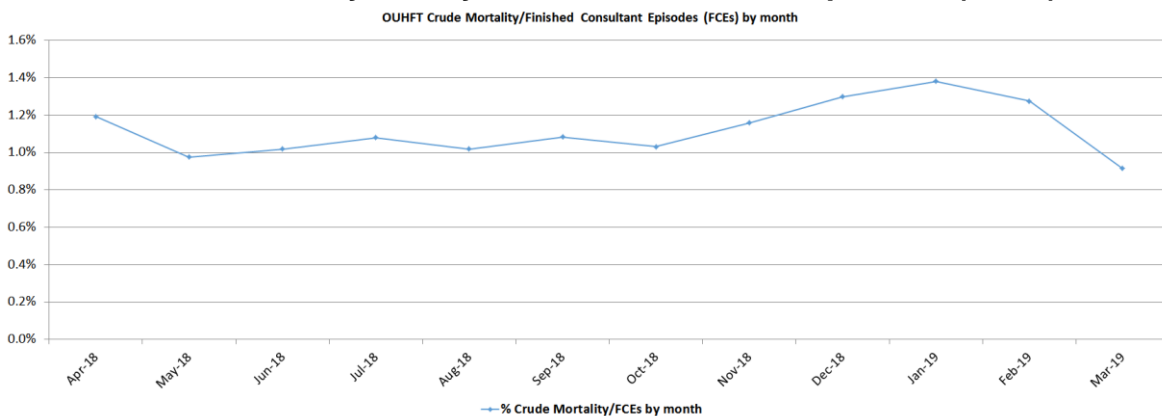


Chart 5: Crude Mortality by Division

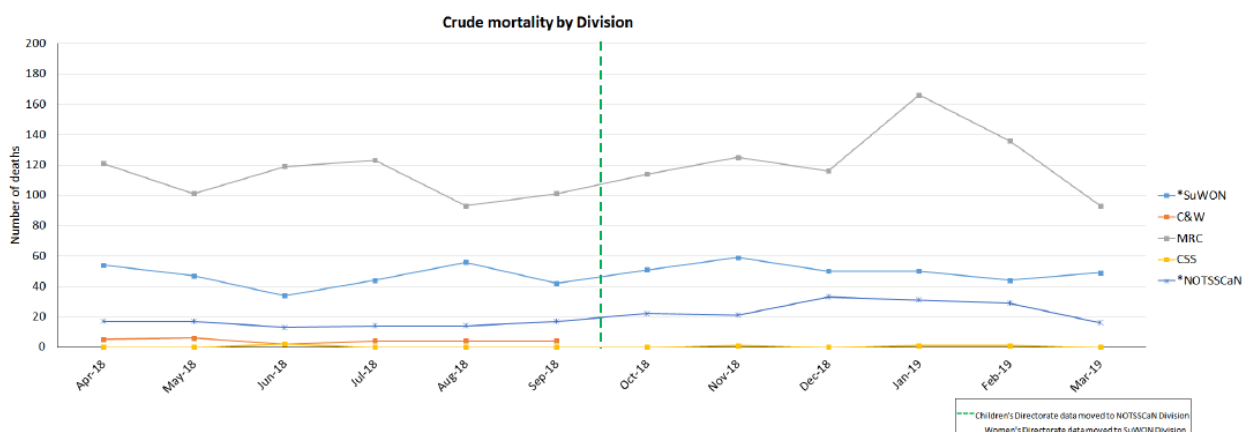
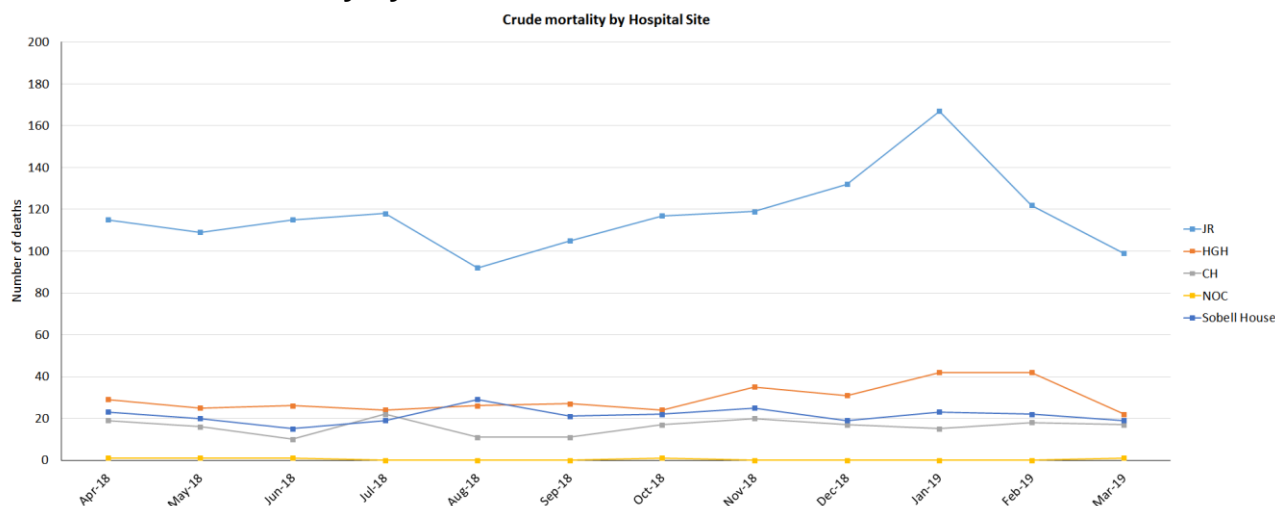


Chart 6: Crude Mortality by Site



8. Conclusion

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 2018/19.

9. Recommendation

The Board is asked to receive and discuss the learning identified from mortality reviews.

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