Agenda Item 3.iii

Report to:	**Trust Board of Directors**	**Date: 05 September 2024**
Report from:	**Sarah Powell, Clinical Governance Manager Dr David Meek, Associate Medical Director for Clinical Governance**	
Principal Objective/ Strategy and Title:	**Learning from Deaths Annual Report – 2023/24**	
For:	**Information**	

Background

Learning from deaths can help Hospitals improve the quality of the care they provide to patients and their families and identify where they could improve patient safety and care. The *Learning from Deaths* framework has been in place at Royal Papworth Hospital (RPH) since April 2017. In 2019 the Medical Examiner allocated to RPH commenced and further to this RPH host the two additional Medical Examiner Officer posts that support our independent scrutiny of deaths and the community wide program of work. The medical examiner's office provides an additional level of scrutiny for our inpatient deaths.

Review of inpatient deaths

All inpatient deaths are required to be discussed at a specialty Mortality and Morbidity Meeting. In addition, there are now several processes which work in parallel to comprehensively review all deaths at Royal Papworth to identify issues and improve quality and safety for patients. These processes include:

- All deaths in the previous week are presented at the weekly Safety Incident Executive Review Panel (SIERP)
- Medical Examiner (ME) Scrutiny Review
- Retrospective Case Record Review (RCR)
- Morbidity & Mortality Meeting (M&M) case discussion
- Incident Investigation (grading and investigation response agreed at SIERP)

Learning from Deaths Report by quarter

From 1 April to 31st March 2024, 194 inpatient deaths at Royal Papworth Hospital. Table 1 below sets out the number of deaths reviewed by Medical Examiner Scrutiny Review, Retrospective Case Record Review, Morbidity & Mortality Meeting case discussion and Serious Incident investigation. The table also includes the number of deaths considered 'more than 50% likely to have been potentially avoidable' as required by the Learning from Deaths framework.

Royal Papworth Hospital: Learning from Deaths Annual 2023/24					
	Q1 Number (%)	Q2 Number (%)	Q3 Number (%)	Q4 Number (%)	Annual 2023/24
Total number of adult inpatient deaths	47	48	46	53	194
Number of deaths which had ME Scrutiny	47	48	46	53	194 (100%)
Number of deaths requested for RCR Review	9	13	8	8	38
Number of deaths reviewed by RCR Review	3 (33%)	8 (61%)	2 (25%)	5 (63%)	18 (47%)
Number of deaths discussed at M&M meeting	46 (98%)	47 (98%)	43 (93%)	47 (89%)	183 (94%)
Total number of deaths investigated by Serious Incident / PSI investigation	0	0	0	1	1
Total number of deaths considered more than 50% likely to have been potentially avoidable	0	1 (2%)	0	1 (2%)	2

Table 1: Learning from Deaths 2023/24 Data Collection & Reporting (source Central Excel sheets/manual count)

Summary of Annual activity:

Retrospective Case Note Reviews (RCR)

The RCR's are requested by the Medical Examiners or SIERP. There may then be further discussion of the value of individual requests.

Within the year 2023/24, 38 rapid case note reviews were requested, this is 20% of the total in hospital deaths at Royal Papworth Hospital. Of the 38 requested, 18 (47%) were completed. **In addition, there were three RCR requests which were not completed as they were already reported on Datix and under investigation (WEB48827, WEB49939 and SUI-WEB49875). If these were included in the figures, the RCR completion figure would be 55% (21/38)**

Of the 20 RCR's not received, all have been discussed at at least one mortality and morbidity meeting. The internal M&M escalation process is for any concerns raised to be reported through the incident and risk system. A review of all 20 patients has not shown any concerns raised by this process. In addition, all patient families are asked if they would like to meet with the clinical teams to discuss any questions relating to the care and treatment provided.

Consultant clinicians have fed back that industrial action has impacted on time to undertake Retrospective Case Note Reviews within the all the data periods of Q1/Q2/Q3/Q4. The has resulted in the completion of RCRs being generally poor in Q1 and with an area of focused improvement including more details on why the request is being made and any areas requiring specific focus. It has also been noted that historically there has been limited learning opportunities across Divisions as in some areas these are undertaken by one clinician. As an improvement project we are reviewing the specificity of RCR requests to ensure they are definitely needed and not a repetition of other processes.

Learning from RCRs completed:

- There are two cases which has been categorised as patient's death COULD POSSIBLY have been avoided (more than 50% likely).

  1. Summary
  Patient had been seen by a cardiac surgeon one year earlier for potential redo AVR with MVR, CABG and aortic surgery. Very high risk of death quoted (EuroSCORE II > 10%), and it was noted that the patient's comorbidities included infected skin lesions for which they were receiving long term antibiotic therapy. The outpatient letter summarises that neither the surgeon nor patient were keen to proceed to surgery and given minimal symptoms, agreed a watch and wait process and monitoring via local Cardiology team. One year later, the patient was admitted to local hospital and transferred from local Intensive Care Unit to the Royal Papworth Hospital Critical Care – at this point there had been a significant deterioration with no opportunity for in-patient surgery. The patient subsequently died at Royal Papworth Hospital.

  The surgeon undertaking the RCR felt that although elective surgery would have been high risk, in retrospect, this may have extended the patient's life, and the risk of undertaking surgery would have been lower than in the deteriorating condition after transfer.

  2. Summary
  Patient admitted to DGH with decompensated aortic stenosis to and referred as an in house for consideration of TAVI procedure, patient deteriorated at referring hospital and transferred as an emergency to RPH where they had TAVI and subsequently died.

  The Cardiologist undertaking the RCR has identified potential delays in the referral/treatment pathway and a gap analysis is being completed to identify timeframes.

- There is one RCR review which identified potential learning and was reported as an incident WEB48860- Patient in end stage heart failure with deterioration despite active management.

Findings suggested that although clinical management was appropriate, discussions with the patient should have been made clearer that the patient was dying, and the end-of-life care pathway considered earlier.

Morbidity & Mortality Meetings

All in hospital deaths must be discussed at a Morbidity & Mortality Meeting. In 2023/24 there were 194 in hospital deaths, 180 patient deaths have been discussed in at least one speciality mortality and morbidity meeting. There are 14 patients who have yet to be discussed, the planned actions for these patients are described below:

- 5 patients under the care of the RSSC service have not been discussed at an M&M meeting. These will be discussed 24/05/2024
- 5 patients under the care of the Transplant Continuing Care Service. The Associate Medical Director for Clinical Governance has is planning meeting to discuss this with lead clinician for the Transplant M&M, in light of Trust's procedure for discussing all in patient deaths
- 1 patient under the Transplant Service experienced catastrophic reaction to antibiotic in theatres (WEB51112).
- 1 patient under the care of the thoracic surgery team who was not fit enough for surgery
- 1 patient under the care of the TAVI service and Cardiology team have been requested to discuss patient's care at their M&M meeting.
- 1 patient under the care of cardiac surgery team who was readmitted for wound debridement and died at their dialysis appointment at CUH (WEB51162). The patient was fit for transfer for their outpatient appointment and the cardiac surgery team have been requested to discuss all care at surgical M&M

There have been no escalations following discussion at Surgical, Cardiology, Thoracic or Transplant Mortality and Morbidity Meetings via the incident and risk system (Datix).

The Critical Care M&M meeting has retrospectively raised potential learning opportunities for other teams. The Clinical Governance team are currently reviewing a process which captures and ensures further discussion in the appropriate forums, to ensure incidents are not duplicated, and are reviewed in line with the Patient Safety Incident Response Framework (PSIRF) process.

The Pulmonary Endarterectomy (PEA) M&M has discussed one patient who experienced hypoxic brain injury post-surgery. The M&M could not identify any intraoperative concerns or events. The national shortage of mannitol medication was noted, however this could not account for what was seen and unfortunately the reason for the hypoxic brain injury remains unexplained.

Incident Investigations

All deaths and any associated incidents are reviewed at the weekly Safety Incident Executive Review Panel (SIERP) meeting. In 2023/24, there were 9 incident investigations into potential safety concerns. *(1 serious incident, 5 moderate harm and 3 clinical reviews).*
Furthermore, an update is provided below from an incident that was reported in the Q4 report, and this investigation has now concluded. The outcome of the incident investigations is provided in appendix one:

Mortality monitoring data

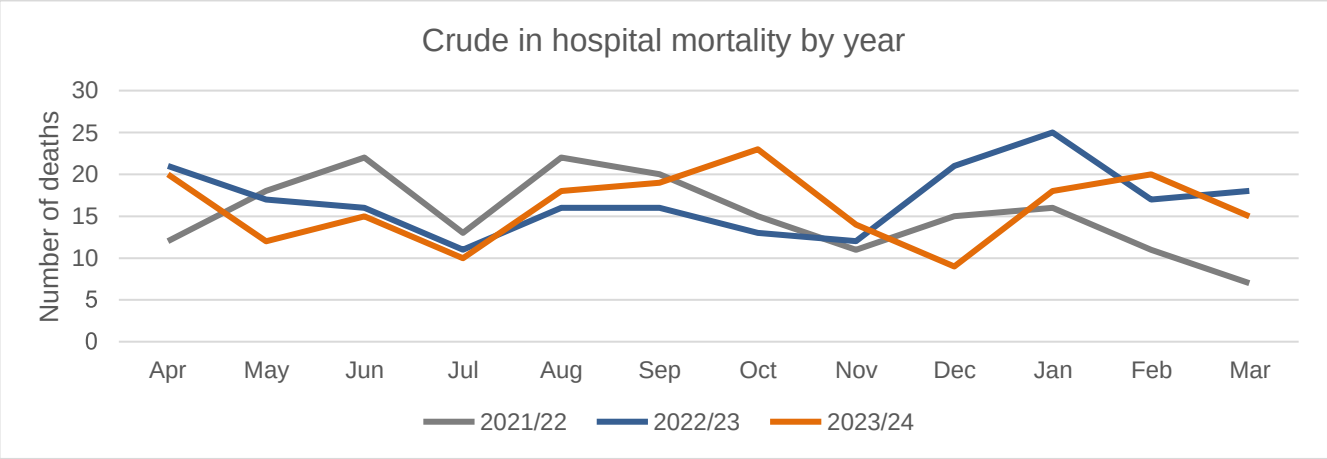
The Summary Hospital-level Mortality Indicator (SHMI) is not applicable to Royal Papworth Hospital, therefore crude mortality is monitored and the quarterly and rolling annual figure is presented below by speciality, in Table 2.

Specialty	2023/24 Total Discharges	2023/24 Total Deaths	2023/24 Annual crude mortality	Q1 23/24 crude mortality	Q2 23/24 crude mortality	Q3 23/24 crude mortality	Q4 23/24 crude mortality
Cardiac Surgery	1789	41	2.29%	2.22%	2.71%	1.63%	2.66%
Cardiology	8340	88	1.06%	0.78%	1.16%	1.22%	1.05%
Cystic Fibrosis	767	2	0.26%	0.49%	0.00%	0.53%	0.00%
ECMO	37	11	29.73%	45.45%	14.29%	0.00%	38.46%
Lung Defence	1601	3	0.19%	0.27%	0.00%	0.44%	0.00%
Oncology	801	0	0.00%	0.00%	0.00%	0.00%	0.00%
PTE	147	4	2.72%	0.00%	0.00%	4.26%	5.88%
PVDU	1499	0	0.00%	0.00%	0.00%	0.00%	0.00%
Respiratory Medicine (inc ILD)	1302	3	0.23%	0.46%	0.29%	0.00%	0.25%
RSSC	6625	8	0.12%	0.18%	0.06%	0.13%	0.13%
Thoracic Surgery	789	8	1.01%	1.19%	1.59%	0.96%	0.45%
Transplant	519	25	4.82%	6.20%	4.63%	3.08%	5.26%
Outpatient (oncology)		1*					
Grand Total	**24216**	**194**	**0.80%**	**0.79%**	**0.77%**	**0.76%**	**0.86%**

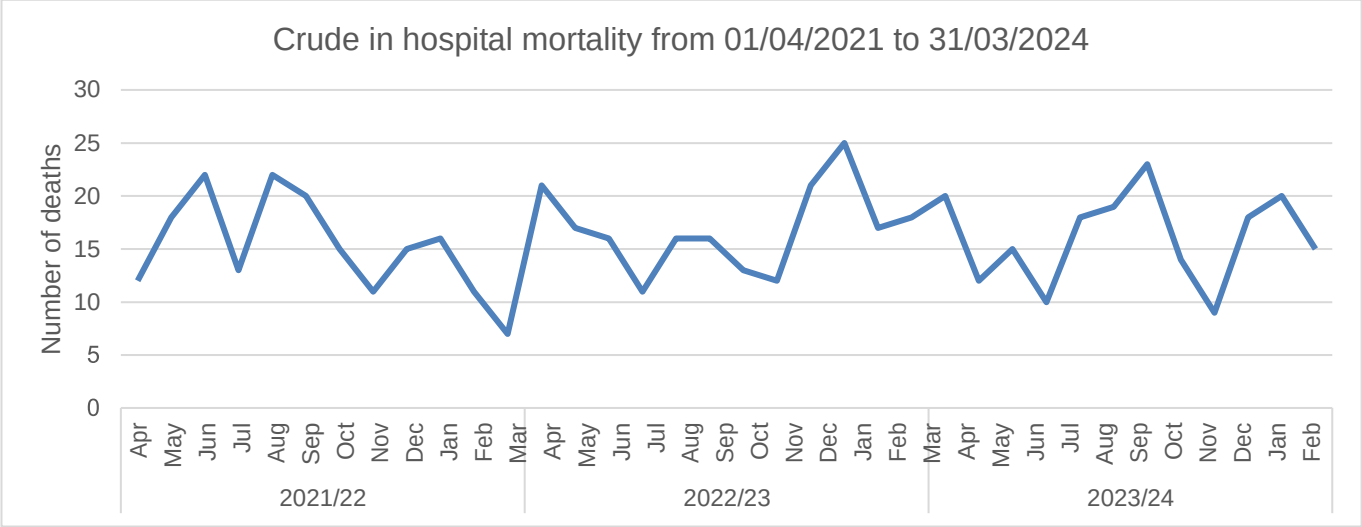
Table 2: Source: Hospital coding data (ICD and OPCS codes) which relies on speciality being correctly coded.
**Outpatient oncology patient not included in specialty annual figures (WEB47507 - Clinical Review -unexpected death)*

The below graphs (1&2) are a new addition to this report to demonstrate longitudinal crude in-hospital mortality data over the last three years. Given the relatively small number of deaths at Royal Papworth Hospital, it is felt that the use of charts in this format will help identify trends or outliers.

In graph one, this data is presented by year and month, this demonstrates we have similar peaks and troughs in certain months. In graph 2, this represents consecutive monthly mortality over a three-year period. We are currently developing these graphs into SPCC charts for further reporting.



Graph 1: Crude Hospital Mortality for last 3 years by year and month. Source: Lorenzo



Graph 2: Crude Hospital Mortality for last 3 years as rolling months. Source: Lorenzo

Summary of Actions/Improvement planned

1. Review of Mortality Case Record Procedure

- Improvement work is underway, to review how to increase compliance and train further medical colleagues to be able to support the required RCR completions.
- In conjunction with the Associate Medical Director for Clinical Governance, Medical Examiner and Clinical Governance Manager, the Trust Medical Examiner Scrutiny Procedure (DN792) has been merged with Mortality Case Record Procedure (DN682).
- All other procedures which relate to in patient deaths are being reviewed and collated to further merge with DN682 to create a single trust Learning from Death Policy.
- As part of the completion of the Learning from Deaths Policy, we will plan an increased medical awareness campaign around the statutory requirements and internal learning opportunities from the review of all inpatient deaths.

2. The Patient Safety Incident Response Framework (PSIRF)

- PSIRF was introduced at Royal Papworth Hospital from January 2024. This will be a system-based approach to learning. A learning response will no longer be defined by the incident grading alone following a patient safety incident. A summary of learning response outcomes for patients who have died will still be summarised in the LFD report with associated continuous improvement as required.

3. Use of M&M meetings

- Allows improved scrutiny of incidents and deaths with review and discussion completed by whole team rather than a nominated individual
- M&M meetings give access to learning across whole teams / division with the opportunity for immediate, disseminated learning across the whole team. Allows team ownership of learning with opportunity to set outcomes, learning points and plans across the involved team.
- Supports local monitoring and review of incidents including monitoring of any themes.
- In 2023/24, there has been a drop in the number of patients discussed at a speciality M&M meeting. A review of these deaths has demonstrated they are often deaths on the ward for patients who are not suitable for any further intervention and for which an end-of-life pathway has been initiated. The Associate Medical Director will review and discuss with the clinical Divisions, ReSPECT and End of Life Steering Groups, to identify how these patients can be reviewed to provide assurance all care was in place and to identify any potential learning opportunities for future patients.

4. Mortality monitoring data

- The Trust participates in a number of national clinical audits which monitor and benchmark the Trust's outcome data on an annual basis. These national audits include cardiac surgery, transplant surgery and PPCI which account for approximately 65% of RPH in hospital deaths. The Trust in 2024/25 will continue to develop a methodology of displaying mortality each month and over time using SPCC charts.

5. Coroner's Process

- The outcome of inquests RPH has participated in is summarised in the monthly clinical governance report to the Quality and Risk Management Group and escalated to the Quality and Risk Committee. In 2023/24 the Trust did not receive any Prevention of Future Death (PFD) Reports

End of report

Appendix One

Incident Investigations in 2023/34

1) WEB46719 – moderate harm
Central venous line inadvertently placed into the carotid artery rather than the internal jugular vein. Patient died for reasons unrelated to incident.

Learning:
- Left-sided central lines are performed less commonly than right-sided lines and are therefore more difficult, particularly for right-handed operators.
- When multiple lines are present in the same vessel, this will obscure the wire placement in artery and make it difficult to locate the wire on ultrasound scanning.

2). WEB47908 – moderate harm
Patient with combined emphysema and usual interstitial pneumonia (UIP) had thoracic surgery to resect a lung carcinoma. The patient suffered an unexpected deterioration post-operatively and patient died.

Findings
The patient was a high-risk patient for thoracic surgery due to their underlying lung conditions, and these risks were explained and documented in advance. Incident downgraded from moderate harm to death unrelated to the incident following completion of clinical review - no acts or omissions identified.

Learning
- Potential learning opportunities for future cases in relation to utilising different strategies to optimise peri-operative care for high-risk patients.

3). WEB48045 – moderate harm
Patient with chronic heart failure readmitted to critical care (CCA) within 24 hours of discharge to ward.

Findings:
Considering the timeframe of events and the progress of the clinical symptoms of the patient, the overall management was appropriate, and investigation concluded that even if the transplant or the critical care team were informed sooner, the outcome would not be different.
On completion of investigation- this was re-graded to Death unrelated to this incident (management of escalation to CCA)

Learning
- Highlights the challenge of early warning scores for complex patients with “chronically” abnormal physiology.
- Demonstrates the importance of timely and up-to-date documentation in CCA.

4). WEB47507 - **Clinical Review (unexpected death)**:
Patient suffered cardiac arrest on CT table during scanning - death unrelated to incident.

Findings:
Patient with very severe COPD, interstitial lung disease and ischaemic heart disease, on long term oxygen therapy. Outpatient CT scan required for monitoring of a lung nodule – suspected lung carcinoma. The scan request was appropriate, and the patient appropriately triaged for scan. Patient suffered acute deterioration due to underlying medical conditions and minimal cardiac and respiratory reserve. The team responding to the cardiac arrest appropriately felt that escalation of care would not be appropriate or in the patient’s best interest.

5). WEB48827 – moderate Harm
During an insertion of temporary left sided central venous catheter (vascath) the left carotid artery of the patient was cannulated instead of the left internal jugular vein.

Findings:
A recognised complication that can occur when central venous vascular access is inserted. The risk of this occurring was compounded by the complex condition of the patient and the number of vascular accesses they had in situ and had undergone in succession.
The complexity of the procedure was noted X-ray requested to check the position of the catheter. The check x-ray was viewed and interpreted as being correctly positioned. The images have been reviewed in retrospect and it is noted that the catheter was in the artery but due to the positioning and anatomy this was not obviously misplaced.

Learning
- Consideration of escalation to consultant if first attempt at left sided approach is unsuccessful.
- Close working with radiology and importance of communication of a procedure where there may have been greater difficulties.
- Improving knowledge and tools to identify possible arterial cannulation for nurses in critical care.

6). SUI-WEB49875 – Serious Incident
Delays in thoracic cancer pathway

Findings:
Patient had an aggressive cancer with adverse prognostic features at resection. There had been a rapid progression from initial imaging to surgery. The progression seen was much more rapid than is usually seen within the reviewer's experience. There were delays within cancer pathway but there is evidence to show that RPH staff tried to undertake investigations and management in a timely manner balanced with the patient's difficulties in travelling to and from RPH. Patient factors meant that appointments and treatment reviews could not be expedited or undertaken more quickly on several occasions.

Learning
- Patient difficulties attending the hospital for review and investigations. Indications for hospital transport have been tightened in recent years with less support available and a higher number of patients requiring some form of support. It is noted that RPH has a "hardship fund" which can be considered to try and help support patients in challenging circumstances.
- A review of radiology was undertaken by the managing surgeon prior to operating. It is noted that this is undertaken through a surgeon's perspective of resectability. There may be an opportunity available to clarify certain areas (e.g. lymph node changes) at this review.

7). **WEB49939 – Moderate Harm (unexpected deterioration) –** ***Downgraded to unexpected deterioration following completion of gap analysis.***
Potential missed opportunities for escalation of care following deterioration on the ward.

Findings:
Review by Alert, Matron and Consultant Surgeon established unexpected patient deterioration with appropriate escalation. Cause of death not clear and postmortem results awaited. It was not appropriate to scoop and run to theatres as no tamponade on ECHO.

8). WEB51162 – Clinical Review (unexpected death)
In patient receiving dialysis as outpatient at Addenbrookes three times a week, died at dialysis appointment.

Findings:
Review undertaken in conjunction with Addenbrookes Hospital Structured Judgement Review (SJR). Patient was safe for transfer.

Learning
Use of correct early warning scale on ward highlighted and to be part of deteriorating patient workstream.

9). WEB51112 – Clinical Review (unexpected death)
Patient experienced catastrophic reaction to antibiotic in theatres.

Findings:
The anaesthetic observation chart shows the temporal relationship between administration of Penicillin and the subsequent cardiovascular collapse. No omissions of care in managing the anaphylaxis and review of RPH and GP records established no known allergy to Penicillin or other beta lactams.

Update from Q4 22/23 - Potentially avoidable death– investigation completed in Q1 23/24
One death in Q4 22/23 was considered more that 50% likely to have been potentially avoidable. This was graded as a Serious Incident (SUI-WEB46547).

The incident investigation was completed in Q1 23/24, and the root causes were:

- The patient suffered a peri-operative myocardial infarction, which is a difficult diagnosis to make.
- This was confirmed by the Postmortem examination.
- The patient was clinically frail, with a prolonged pre-surgical hospital stay and complicated recovery.

Selected actions/learning – cross divisional application for Trust

- A Quality Improvement project has been launched focusing on deteriorating patients.
- The Trust's five themes incorporated into the Patient Safety Incident Response Plan (PIRSP) has been reviewed and recognition, management and escalation of deteriorating patients has been incorporated into the *recognised, but unintended outcome of treatment or procedure - with adverse consequences* category.
- The actions are being monitored by the Quality and Risk Management Group.