Meeting Title:	Board of Directors, Part 1
Date of Meeting:	25 May 2022
Document Title:	**Mortality Report: Learning from deaths Qtr 3 2021/22**
Responsible Director:	Prof. Alastair Hutchison, Medical Director
Author:	Prof. Alastair Hutchison, Medical Director

Confidentiality:	Public
Publishable under FOI?	Yes

Prior Discussion		
Job Title or Meeting Title	**Date**	**Recommendations/Comments**
Hospital Mortality Group	16th Feb 2022	None specific
Quality Committee	19th April 2022	

Purpose of the Paper	To inform the Quality Committee of the learning that has occurred as a result of deaths being reported, investigated and appropriate findings disseminated throughout the Trust.
Summary of Key Issues	The Trust's SHMI reported during Q3 (5 months in arrears - rolling years to Jun, Jul and Aug 2021) rose initially to a peak of 1.20 in June but then fell rapidly to 1.15 and back into the normal range at 1.12 in August. This continues to be influenced by delays in coding (reasons for this are explained in the previous Q2 report)). No other local or national indicators suggest that excess unexpected deaths are occurring at DCH. Structured Judgement Reviews are being used to examine the care of an appropriate sample of people who died whilst in-patients, and to learn from any lapses in care that are identified. The DCH Medical Examiners review every death and highlight any obvious causes for concern.
Action recommended	The Quality Committee is recommended to: 1. **NOTE** the report 2. **APPROVE** the report for publication on the DCH internet website 3. **Not publish** appendices 1 and 2 which are for internal discussion only

Governance and Compliance Obligations

Legal / Regulatory	Y	Learning from the care provided to patients who die is a key part of clinical governance and quality improvement work (CQC 2016). Publication on a quarterly basis is a regulatory requirement.
Financial	Y	Failure to learn from deaths could have financial implications in terms of the Trust's claim management and CNST status.
Impacts Strategic Objectives?	Y	Learning from the care provided to patients who die is a key part of clinical governance and quality improvement work (CQC 2016). Ensuring that an elevated SHMI is not a result of lapses in care requires regular scrutiny of a variety of data and careful explanation to staff and the public. An elevated SHMI can have a negative impact on the Trust's reputation both locally and nationally.
Risk?	Y	• Reputational risk due to higher than expected SHMI • Poor data quality can result in poor engagement from clinicians, impairing the Trust's ability to undertake quality improvement • Clinical coding data quality is improving, but previously adversely affected the Trust's ability to assess quality of care • Clinical safety issues may be reported erroneously or go unnoticed if data quality is poor

Decision to be made?	N	
Impacts CQC Standards?	Y	An elevated SHMI will raise concerns with NHS E&I and the CQC. NHS-I undertook a review in March 2019 and produced a report which has resulted in an action plan. This plan was presented to Trust Board in July 2019 and is complete, but work continues. The previous reduction in SHMI and improvements in coding are acknowledged, but Covid-19 has adversely influenced coding and therefore recent SHMI figures are inaccurate.
Impacts Social Value ambitions?	N	
Equality Impact Assessment?	N	
Quality Impact Assessment?	N	

CONTENTS

1.0 DIVISIONAL LEARNING FROM DEATHS REPORTS

Each Division is asked to submit a report outlining the number of in-patient deaths, the number subjected to SJR, and the outcomes in terms of assessment and learning. See appendix 1 and 2 for full reports.

1.1 Family Services and Surgical Division Report - Quarter 3 Report

Structured Judgement Review Results:

The Family Services & Surgical Division had 70 deaths in quarter 3, of which 60 required SJR's to be completed. Of these 13 have had an SJR completed. Between October to December, an additional 22 SJR's have also been completed from previous months.

SJR Backlog:

The outstanding SJR's for the Division as at 11/01/2022 is 57:

May	July	August	September	October	November	December
3	3	3	1	13	12	22

The available notes have been allocated to Clinical staff to ensure these are completed.

Feedback from SJR's completed in quarter 3:

Phase Score	Admission & Initial Management	Ongoing Care	Care during a procedure	Perioperative Care	End of Life Care	Overall Assessment Score
N/A or Blank	1	6	10	24	3	0
1 Very Poor	0	0	0	0	0	0
2 Poor	2	0	0	0	0	1
3 Adequate	8	4	7	2	7	8
4 Good	14	15	10	7	16	16
5 Excellent	10	10	8	2	9	10

Overall Quality of Patient Record:

Blank	Score 1 Very poor	Score 2 Poor	Score 3 Adequate	Score 4 Good	Score 5 Excellent
1	0	2	7	17	8

Avoidability of Death Judgement Score:

Score 1 Definitely avoidable	Score 2 Strong evidence of avoidability	Score 3 Probably avoidable (more than 50:50)	Score 4 Possibly avoidable but not very likely (less than 50:50)	Score 5 Slight evidence of avoidability	Score 6 Definitely not avoidable
0	0	2	1	4	28

Report completed by:
Richard Jee – Divisional Mortality Lead
Laura Symes – Quality Manager

1.2 Division of Urgent & Integrated Care Q3 Report

Structured Judgement Review Results:

The Urgent and Integrated Care Division had 224 deaths in quarter 3, 61 SJR's were requested and 39 were completed. Year to date (01/04/2021 – 31/12/2021) 75 SJR's have been completed.

*Due to an influx of SJR's requested July – November, it was agreed at Hospital Mortality Group (15/12/2021) that 1/3 of the back log could be returned incomplete and so 16 SJR's were returned at the end of December.

Phase Score	Admission & Initial Management	Ongoing Care	Care during a procedure	Perioperative Care	End of Life Care	Overall Assessment Score
N/A or Blank	13	16	36	38	15	14
1 Very Poor	0	0	0	0	0	0
2 Poor	0	1	0	0	0	0
3 Adequate	2	2	0	0	3	4
4 Good	19	19	0	0	12	18
5 Excellent	5	1	3	1	9	3

Overall Quality of Patient Record

Blank	Score 1 Very Poor	Score 2 Poor	Score 3 Adequate	Score 4 Good	Score 5 Excellent
13	0	0	5	18	3

Avoidability of Death Judgement Score

Blank	Score 1 Definitely avoidable	Score 2 Strong evidence of avoidability	Score 3 Probably avoidable (> 50:50)	Score 4 Possibly avoidable but not very likely (<50:50)	Score 5 Slight evidence of avoidability	Score 6 Definitely not avoidable
*10	1	2	2	2	2	20

SJR Backlog

The outstanding SJR's for the Division as at 26/01/2022: 41

October	November	December
38	19	4

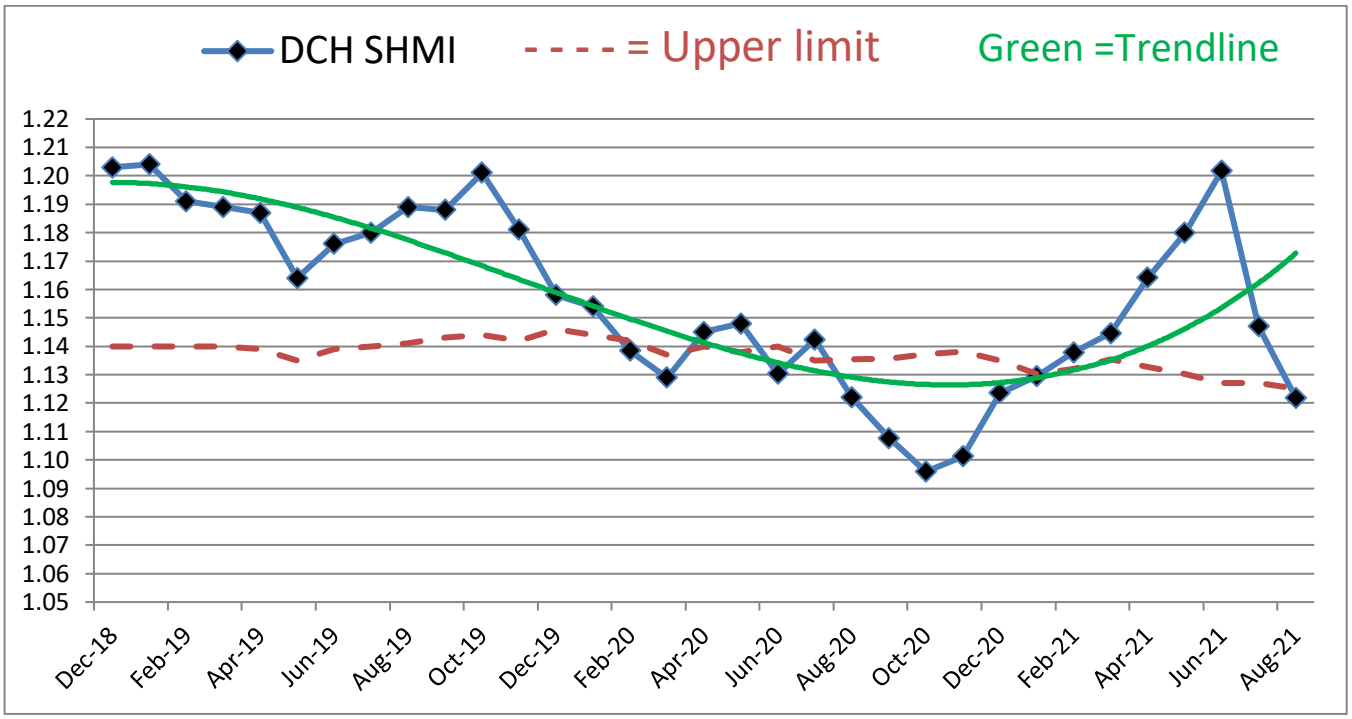
8 Nosocomial COVID 19 deaths required review.

Jemma Newman, Quality Manager
Sonia Gamblen, Divisional Head of Nursing & Quality
James Metcalfe, Divisional Director

2.0 NATIONAL MORTALITY METRICS AND CODING ISSUES

2.1 Summary Hospital-level Mortality Indicator (SHMI)

SHMI is published by NHS Digital for a 12 month rolling period, and 5 months in arrears. It takes into account all diagnostic groups, in-hospital deaths, and those occurring within 30 days of discharge. The SHMI for the rolling years from October 2020 to June 2021 shows a clear reversal of the previous trend to improvement, but data for July and August has improved again as result of additional input to coding. However, staff absences and continued working from home using scanned records suggest that timeliness of coding remains uncertain. A coding action plan has been produced and enacted by Sue Eve-Jones and Stephen Slough.



SHMI is calculated by comparing the number of observed (actual) deaths in a rolling 12 month period to the expected deaths (predicted from coding of all admissions). From October 2019 onwards there had been a steady improvement in DCH's SHMI as a result of investment in the coding department which resulted in more accurate and timely coding returns to NHS Digital.

For a full explanation of recent coding difficulties please see the previous Q2 report published on the DCHFT intranet site.

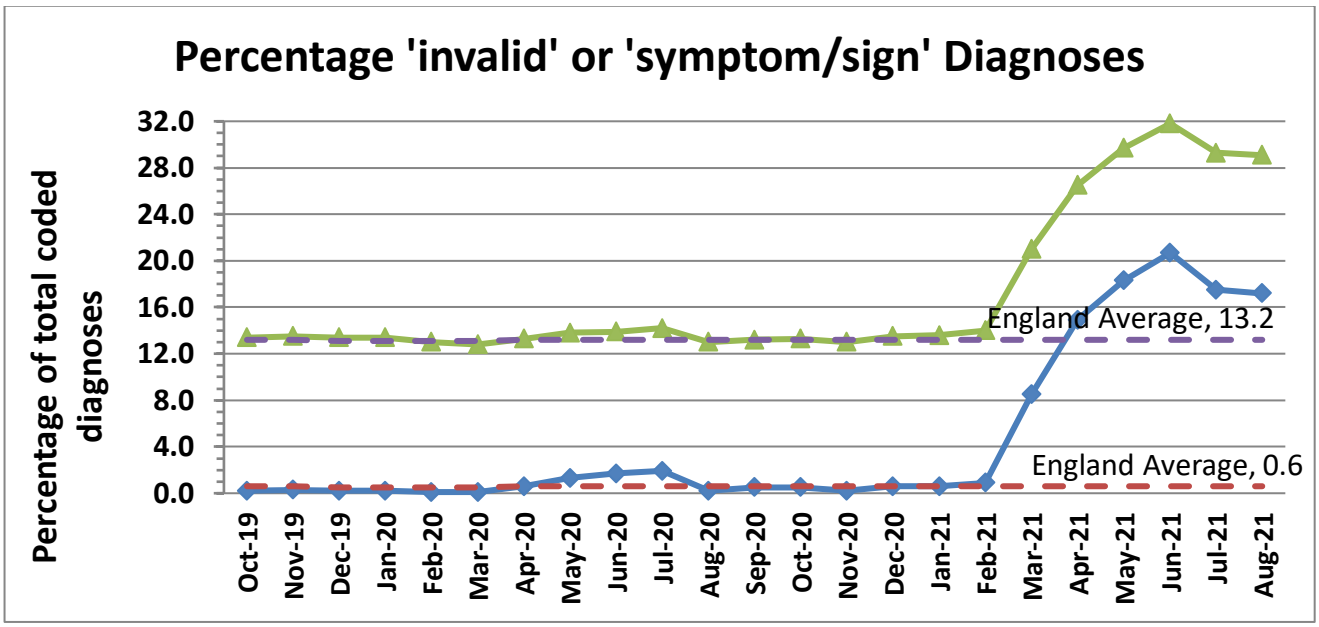
2.2 Percentage of provider spells with a primary diagnosis which is a symptom or sign: NHS Digital states "*This indicator presents the percentage of finished provider spells with a primary diagnosis which is a symptom or sign (identified by ICD-10 codes beginning with the letter 'R'). A high percentage of provider spells with a primary diagnosis which is a symptom or sign compared to other similar trusts may indicate problems with data quality or timely diagnosis of patients*".

DCH has a very high, but reducing number of spells with a primary diagnosis which is a symptom or sign – for example 'chest pain' rather than 'myocardial infarction' – at 29.3% of 25,770 admissions in Aug 2021 versus 13.3% Oct 2020. This percentage is from 25,770 admissions. Such uncoded spells are attributed a low risk of death since a symptom or sign only, does not suggest a life-threatening illness. This significantly reduces our expected number of deaths.

2.3 Percentage of provider spells with an invalid primary diagnosis code: NHS Digital states "*This indicator presents the percentage of finished provider spells with an invalid primary diagnosis code (identified as those spells where the primary diagnosis is given by the ICD-10 code R69X). A high*

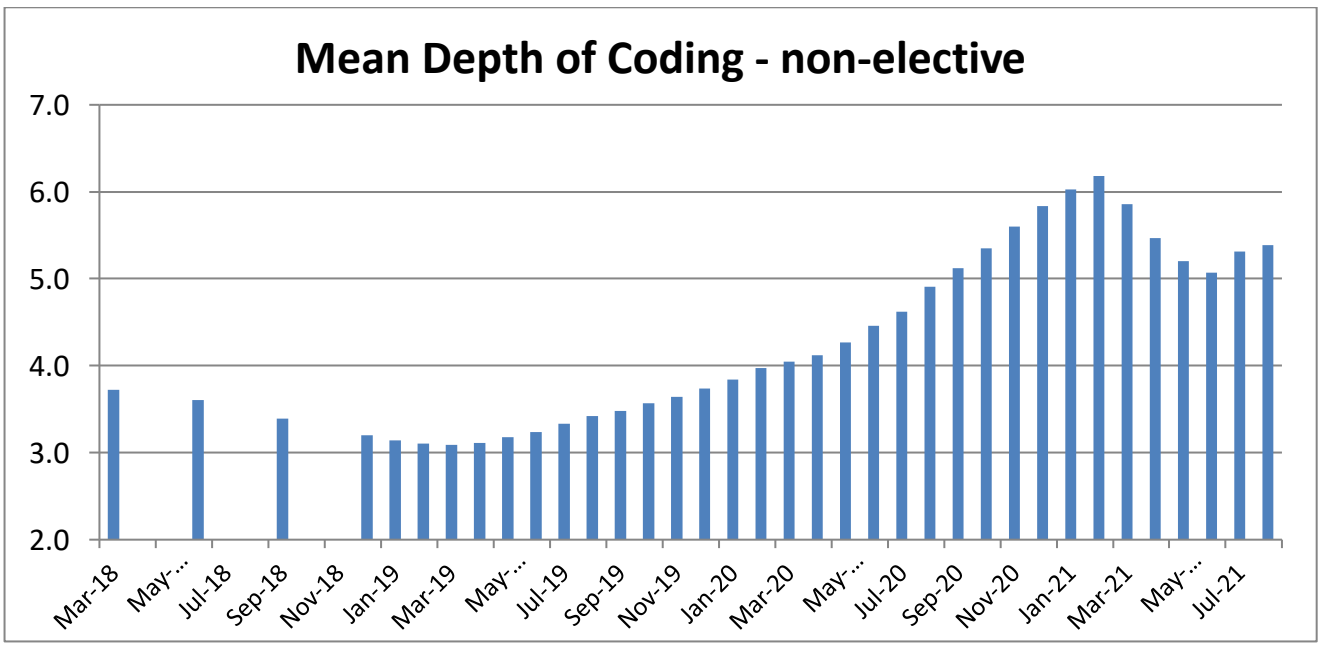
percentage of provider spells with an invalid primary diagnosis code compared to other trusts may indicate a data quality problem."

This metric is a subgroup of 2.2 above. A 'spell' is a continuous period of in-patient care. The graph below shows the change in these two metrics of coding accuracy over the past 30 months:



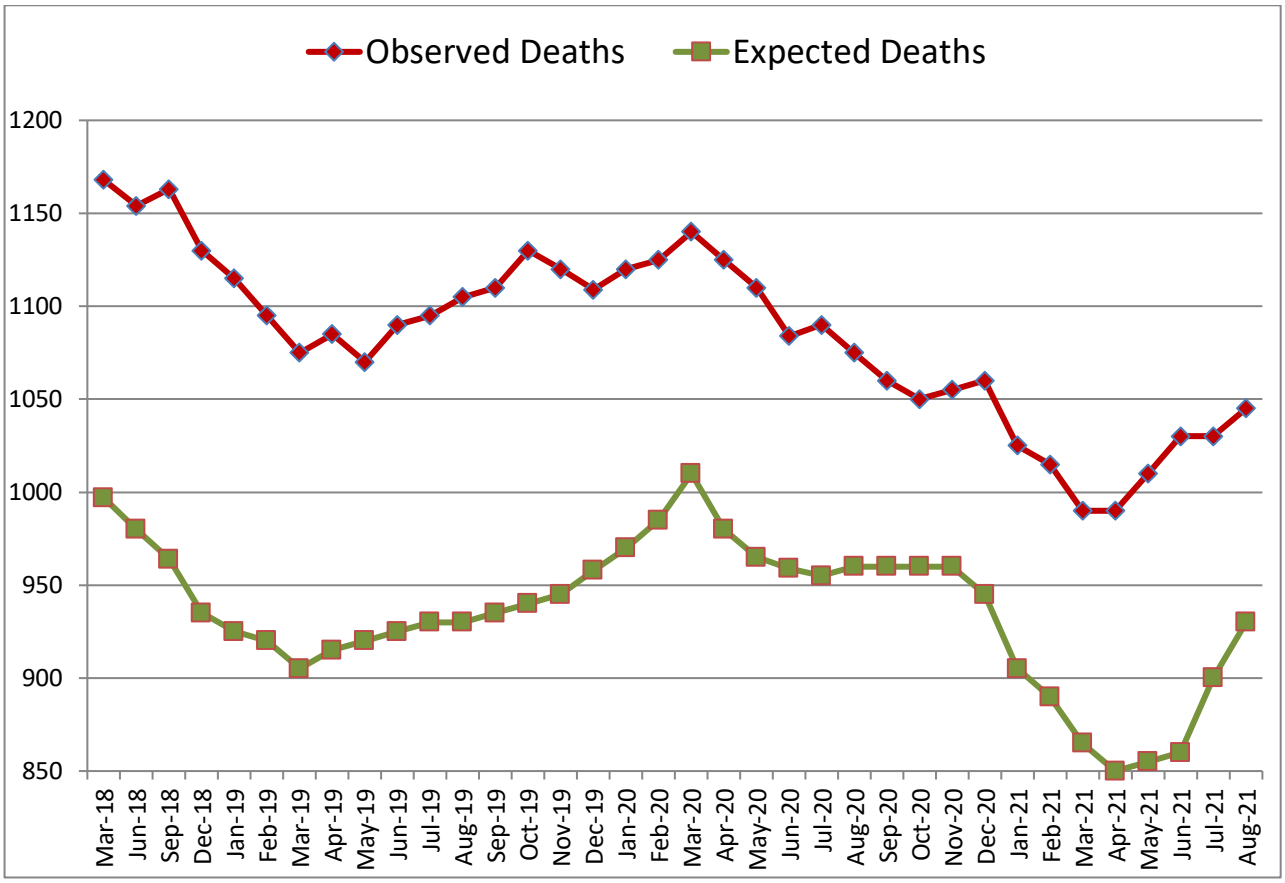
2.4 Depth of coding: NHS Digital states "*As well as information on the main condition the patient is in hospital for (the primary diagnosis), the SHMI data contain up to 19 secondary diagnosis codes for other conditions the patient is suffering from. This information is used to calculate the expected number of deaths. A higher mean depth of coding may indicate a higher proportion of patients with multiple conditions and/or comorbidities, but may also be due to differences in coding practices between trusts*."

DCH's depth of coding had been improving steadily up to February 2021 (see graph below), but is now fluctuating and this almost certainly reflects the same backlog problem in the coding department.



2.5 Expected Deaths (based on diagnoses across all admissions per rolling 12 months):

The chart below shows observed and expected deaths over the past 3 years (rolling years from March 18 to April 21), and whilst both observed (actual) and expected deaths have increased (as total number of in-patients increases post-covid-19), the expected deaths have increased faster as a result of partial recovery of coding practice, thereby improving the SHMI ratio.



2.6 Communication with NHS Digital:

From: "CLINICAL INDICATORS, Hscic (NHS DIGITAL)" <clinical.indicators@nhs.net>
Date: 27 January 2022 at 08:11:32 GMT
To: "Hutchison, Alastair" <Alastair.Hutchison@dchft.nhs.uk>

Hi Alistair,
Thank you for raising the issue of Dorset County Hospital Trust's high percentage of invalid diagnosis codes with us. We can see that the percentage of invalid codes is about 16% and that you have a "higher than expected" SHMI which may be a result of this. It is good to get some context for this from the trust and it sounds as though you are taking the correct steps with HES to amend this problem before the 2021/22 APC data is finalised.
Please get back to us if you need any further information.
Kind Regards,

David Keighley (he/him)
Senior Information Analyst, Analytical Services Team
Pronouns: he/him
d.keighley@nhs.net
07592 399251

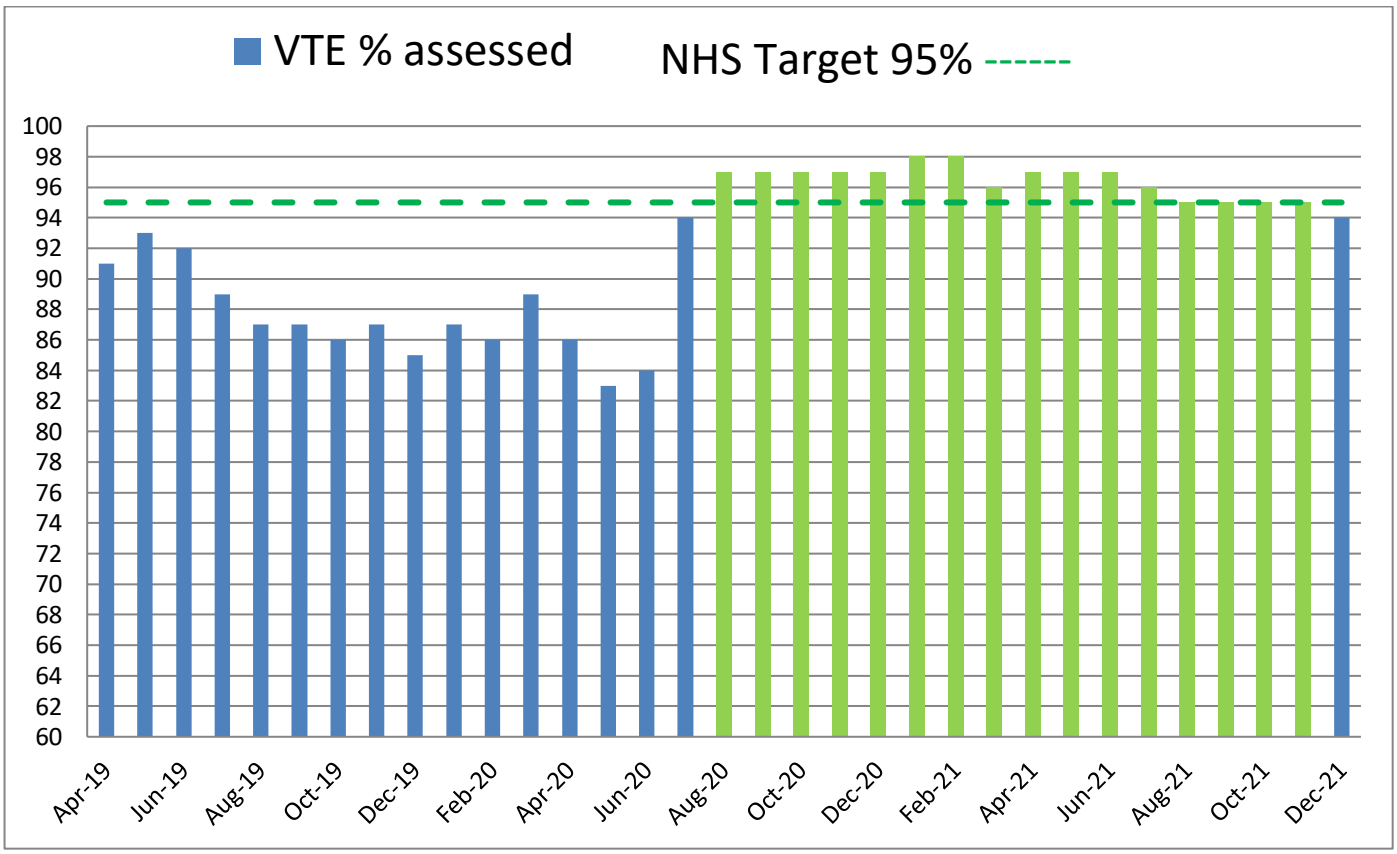
NHS Digital

3.0 OTHER NATIONAL AUDITS/INDICATORS OF CARE

The DCH Learning from Deaths Mortality Group regularly examines any other data which might indicate changes in standards of care, and has continued to meet on a monthly basis throughout the COVID-19 crisis. The following sections report data available from various national bodies who report on individual Trusts' performance.

For other metrics of care including complaints responses, sepsis data (on screening and 1 hour for antibiotic administration), AKI, patient deterioration and DNACPR data, please see the Quality Report presented on a monthly basis to Quality Committee by the Director of Nursing.

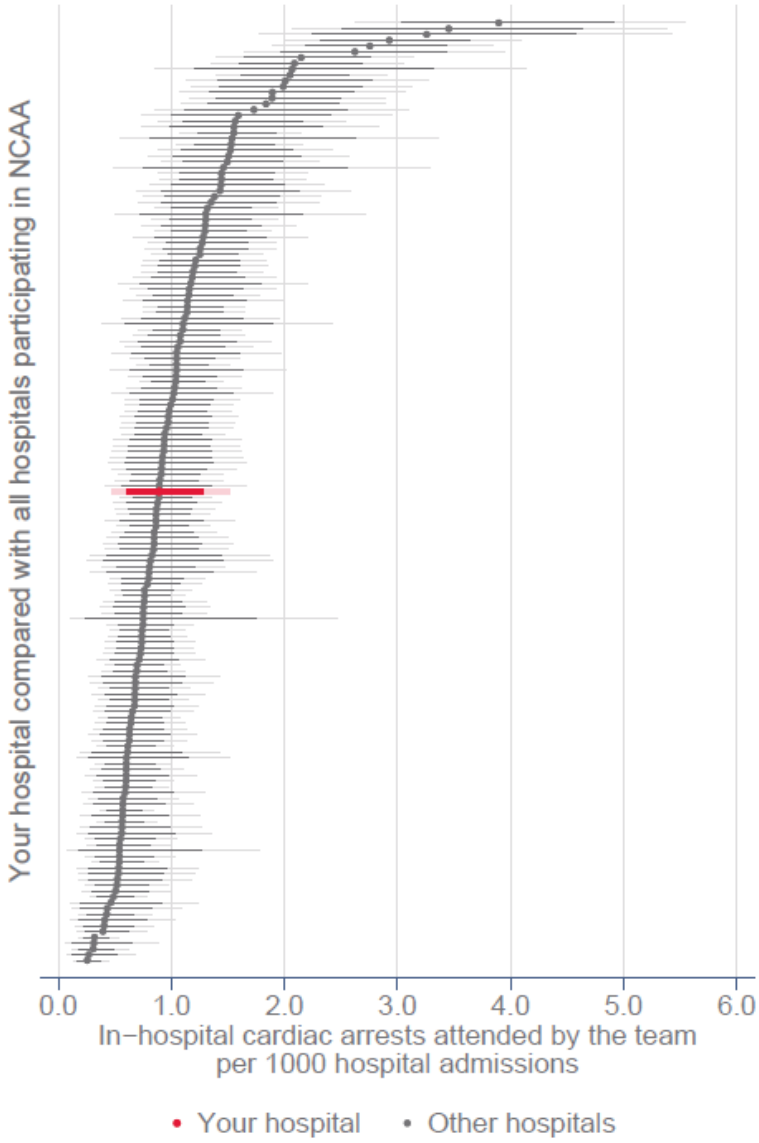
DCH VTE risk assessments reached 97% in August 2020 with the introduction of a more accurate reporting system, and have attained the 95% target for every month except December 2021 (94%). This graph has been circulated to all junior staff.



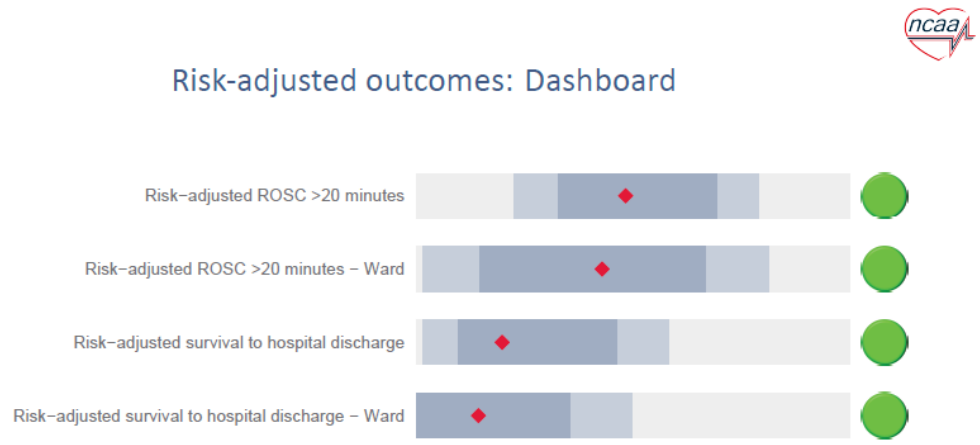
3.1 NCAA Cardiac Arrest data

The national Cardiac Arrest audit for DCH April 2021 to September 2021 was published on 3/12/2021. A total of 33 cardiac arrest calls were recorded for this time period. The format and reporting period for this report (Q1 + Q2) has changed from previous editions so that some of the graphs are not directly comparable to previous versions. The report was also published alongside a more detailed summary of the previous year's results - 2020/21. This is available on request from Richard Jee

The graph below represents the number of in-hospital cardiac arrests attended by the team per 1,000 admissions for all adult, acute care hospitals in the NCA Audit. DCH is indicated in red, and lower is better.


Your hospital compared with all hospitals participating in NCAA
0.0
1.0
2.0
3.0
4.0
5.0
6.0
In−hospital cardiac arrests attended by the team
per 1000 hospital admissions
Your hospital
Other hospitals

The graph below shows two outcome measures:
a) Return of Spontaneous Circulation and b) Survival to Discharge. These and all other measures in the report get a 'green' indicator for the 6 month period (Q1 and Q2 2021/22).



3.2 National Adult Community Acquired Pneumonia Audit latest data – last published Nov 2019, and not undertaken for either 2019/20 or 2020/21

Results Summary		Dorset County Hospital	National results
Patient Characteristics and Diagnosis		**n = 88**	**n = 10174**
Gender	Male Female	43% 57%	48% 52%
Age	Median (IQR)	78 (61-84)	75 (61-85)
Cohort Severity (CURB65 score)	0-1 2 3-5	42% 31% 27%	47% 29% 24%
Inpatient mortality	Proportion deceased	7%	10%
Length of stay (discharged patients)	Median in days	3	5
Critical care admission	Yes - proportion	2%	5%
Readmission	Yes - proportion	8%	13%

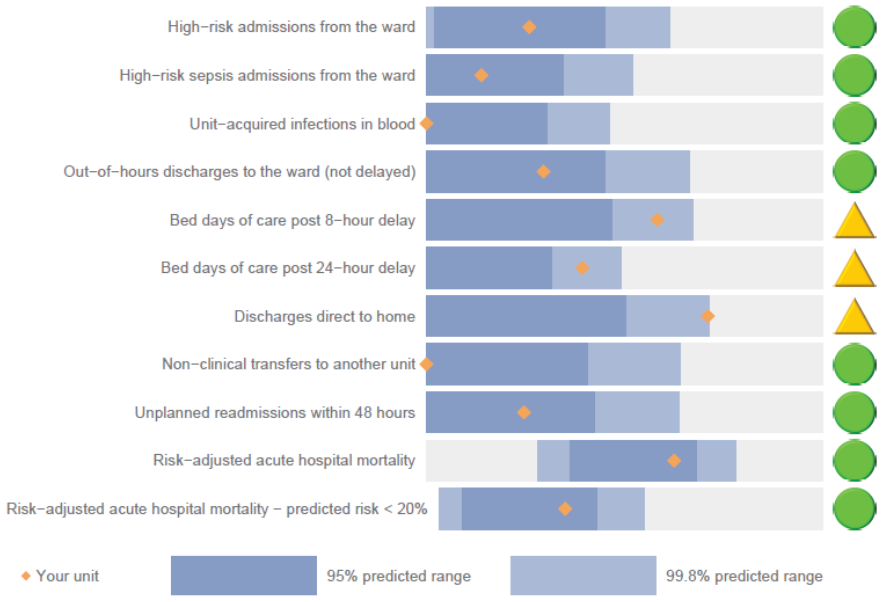
The results suggest that patients admitted to DCH 2018/19 tended to be more ill than the national average, but had a lower death rate and shorter length of stay, with fewer readmissions.

3.3 ICNARC Intensive Care survival latest data published 10 August 2021
The amber indicators in the chart below indicate delays in being able to discharge patients from ICU, with some delays being long enough that the patient was discharged direct to home

Dorset County Hospital, Intensive Care/High Dependency Unit
Quarterly Quality Report: 1 April 2021 to 30 September 2021

case mix programme

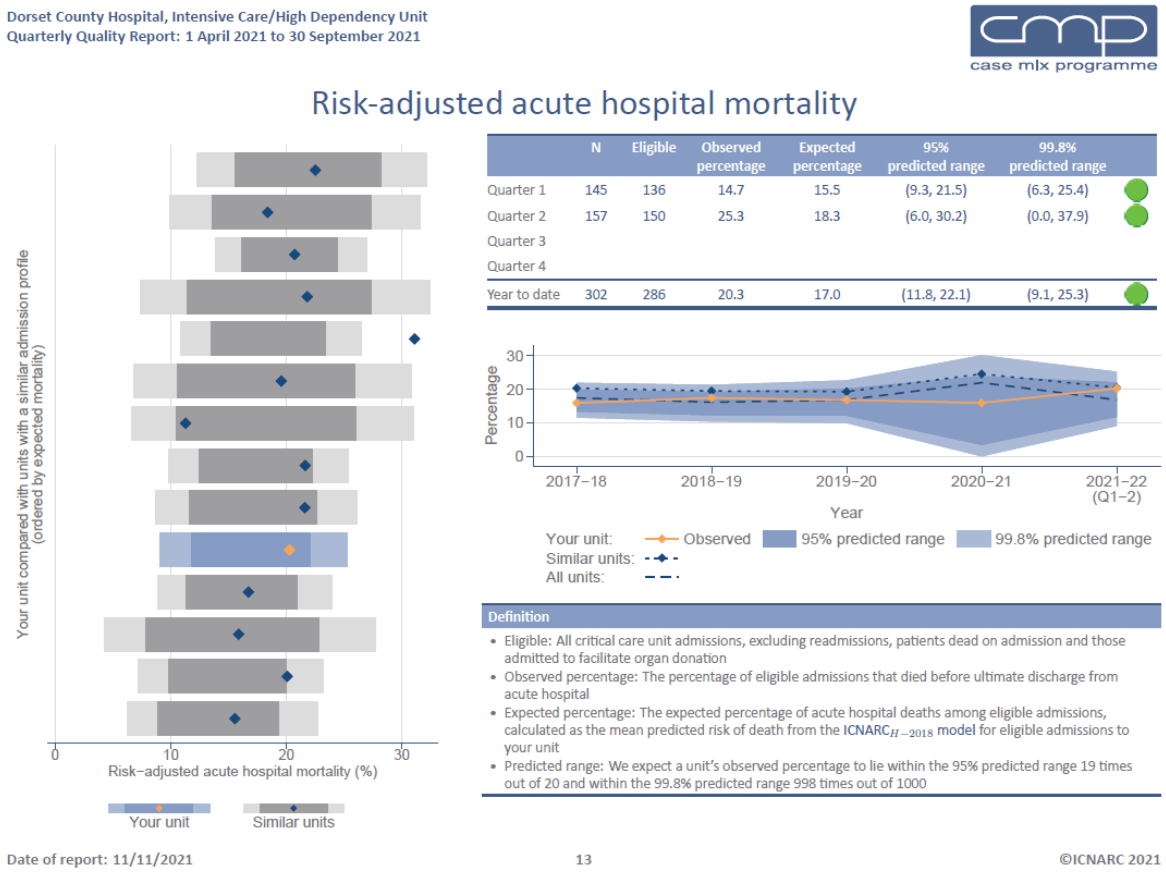
Quality indicator dashboard



Date of report: 11/11/2021

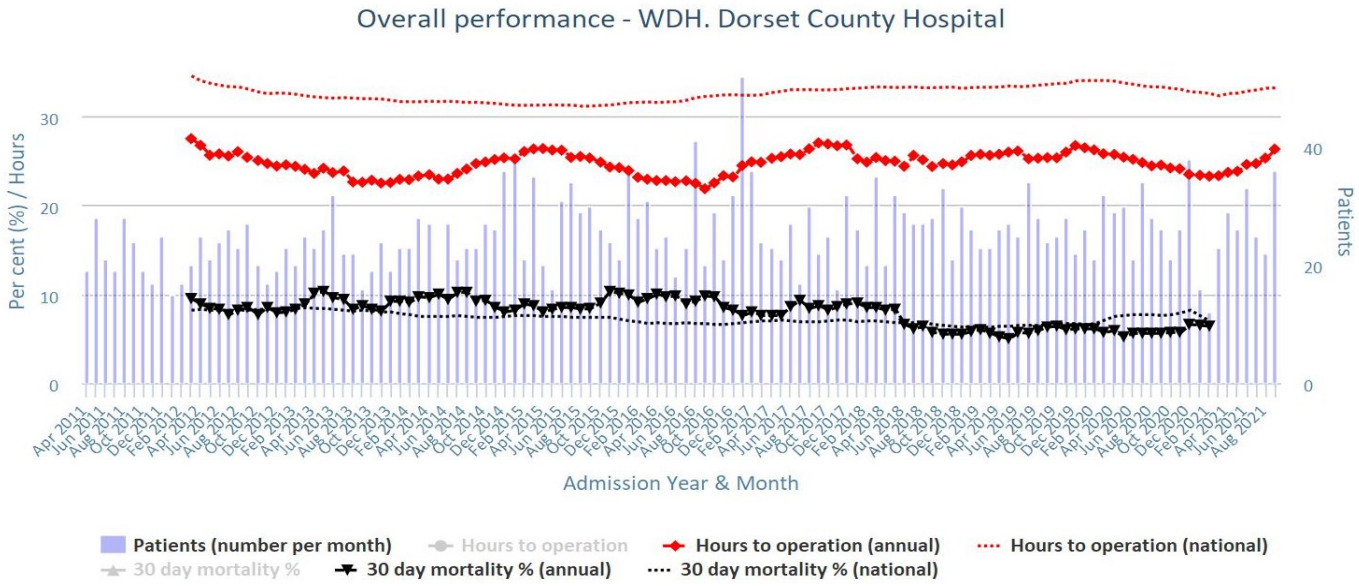
3

The charts below show the "risk adjusted acute hospital mortality" following admission to the DCH Critical Care Unit. They compare observed and expected death rates in a similar fashion to SHMI.



These results are comfortably within the expected range.

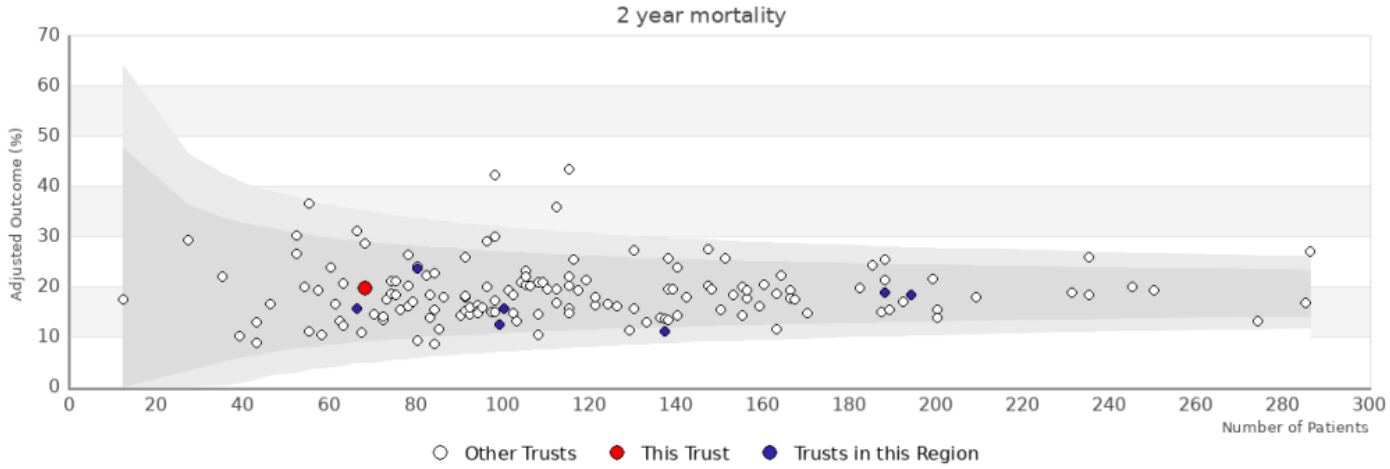
3.5 National Hip Fracture database to December 2021. Mortality data has apparently been delayed by contract negotiations with NHS Digital, and it therefore unchanged from the previous report.



The latest national average annualised mortality for hip fracture is 7.0%, with DCH's annualised mortality at 6.4% to February 2021 (latest available data).

3.6 National Bowel Cancer Annual audit

No new data as yet this year - graph below shows latest available 2 year survival data for patients admitted in financial year 2018/19, compared to all other NHS Trusts, with other Wessex Trusts in dark blue.



Trust	Number	Adjusted	Observed
Dorset County Hospital NHS Foundation Trust	68	19.7%	19.3%

3.7 Getting it Right First Time; reviews in Q3

No GIRFT reviews have taken place during this quarter.

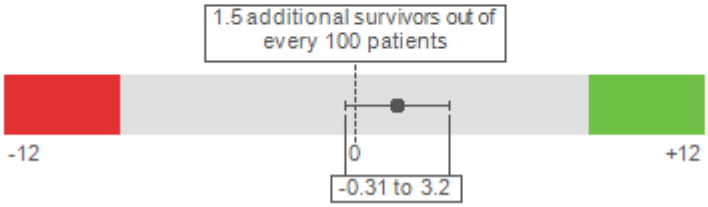
Full reports from all previous GIRFT visits are available, and feedback from each review has generally been very positive. Action plans have been developed and are being worked through at present.

3.8 Trauma Audit and Research Network

DCH is a designated Trauma Unit (TU) providing care for most injured patients, and has an active, effective trauma Quality Improvement programme. It submits data on a regular basis to TARN which then enables comparison with other TUs. Data for the period 1/1/18 to 31/5/21 is shown below, but data specific to Q1, Q2 or Q3 s not available at present:

Rate of Survival at this Hospital

Between January 1st 2018 and May 31st 2021



Rate of Survival Breakdown at this Hospital

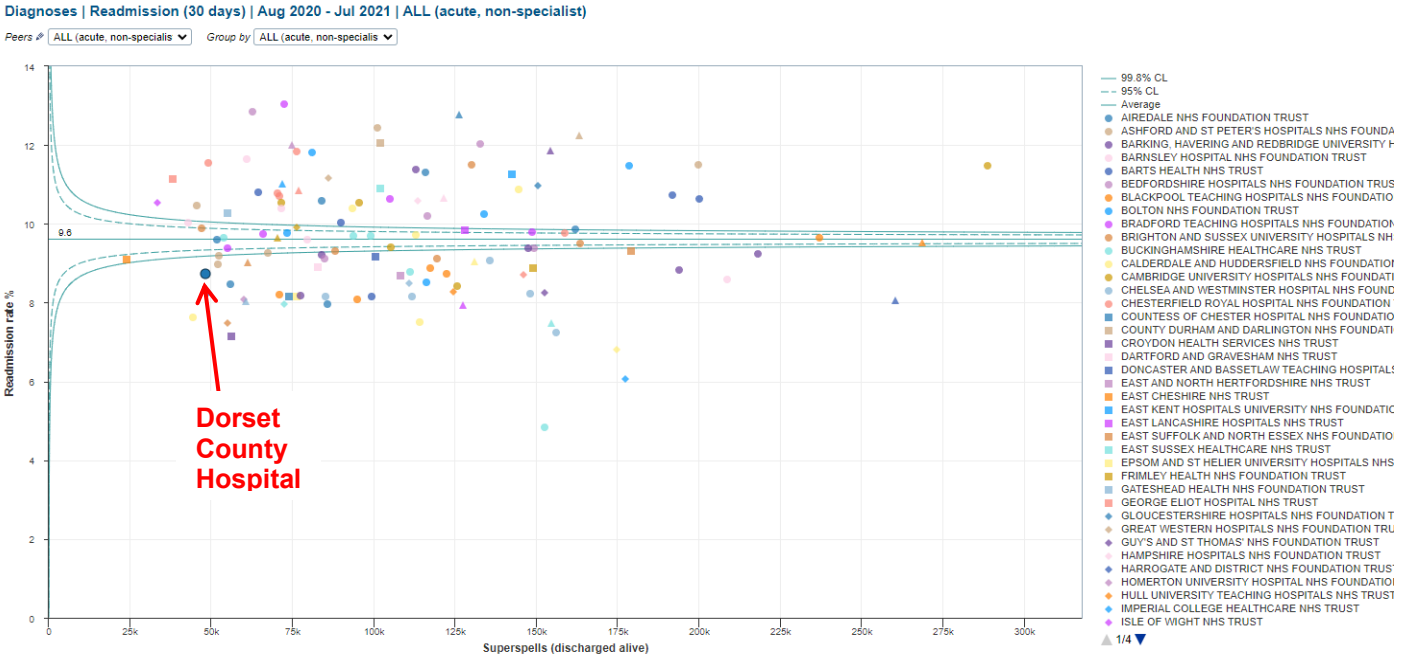
Survival band %	Number in group	Expected survivors	Actual survivors	Difference*	Adjusted difference**
95 - 100	429	420	425	1.0	0.6
90 - 95	155	144	142	-1.3	-0.2
80 - 90	95	81	85	3.8	0.3
65 - 80	34	25	23	-6.3	-0.2
45 - 65	13	7	12	33.1	0.7
25 - 45	3	1	2	28.7	0.5
0 - 25	3	0	0	-16.0	-0.2
Total	**732**	**680**	**689**	**1.1**	**1.5**

Unexpected deaths in minor/moderate injury
Usually due to poor management of co-morbidity and/or complications

Unexpected survivors with more serious injury
Usually indicates good initial resusitation and the treatment of head injury in Neurological Centres

The first column categorises patients by percentage likelihood of survival, followed by the total number of patients seen at DCH, the calculated likely number of survivors and then the actual number of survivors. In this data there were 9 more survivors than expected.

3.9 Readmission to hospital within 30 days, latest available data (Dr Foster); lower is better



A readmission to hospital within 30 days suggests either inadequate initial treatment or a poorly planned discharge process. However DCH's latest readmission rate is lower than the majority of other acute Trusts.

3.10 Dr Foster Safety Dashboard

This dashboard has been temporarily withdrawn by Dr. Foster, but will apparently be reinstated later this year. Below is last published version – now 12 months out of date.

Patient Safety Indicators

Period: 12 months (Feb 20 to Jan 21) | Data lag: No lag

Indicator	Volume	Observed	Expected	Obs rate/k	Exp rate/k	Relative risk	Compare
Accidental puncture or laceration	28524	53	45.3	1.9	1.6	116.9	
Deaths after surgery	195	9	14.7	46.2	75.2	61.3	
Deaths in low-risk diagnosis groups	12626	24	44.2	1.9	3.5	54.3	
Decubitus ulcer	3785	264	225.9	69.7	59.7	116.9	
Infections associated with central line	5431	0	0.3	0	0.1	0.0	
Obstetric trauma - caesarean delivery	383	2	1.7	5.2	4.5	115.4	
Obstetric trauma - vaginal delivery with instrument	108	8	7.3	74.1	67.9	109.0	
Obstetric trauma - vaginal delivery without instrument	678	21	19.9	31.0	29.3	105.7	
Postoperative haemorrhage or haematoma	10920	4	4.1	0.4	0.4	98.1	
Postoperative physiologic and metabolic derangement	9377	0	1.7	0	0.2	0.0	
Postoperative pulmonary embolism or deep vein thrombosis	11005	33	30.3	3.0	2.8	109.0	
Postoperative respiratory failure	8572	5	8.8	0.6	1.0	56.6	
Postoperative sepsis	110	1	1.7	9.1	15.6	58.2	
Postoperative wound dehiscence	375	0	0.3	0	0.8	0.0	

4.0 QUALITY IMPROVEMENT ARISING FROM SJRs

The following themes have been previously identified from SJRs and are being translated into quality improvement projects:
a) Poor quality of some admission clerking notes, particularly in surgery
- The hospital clerking proforma has been revised, and the continuation note paper has had reminder watermarks added to remind staff to date, time, print name/GMC no.

b) Morbidity and Mortality meetings - standardization and governance (see next item)

5.0 MORBIDITY and MORTALITY MEETINGS

Morbidity and mortality meetings are continuing across the Trust, with minutes collated by Divisional Quality Managers.

Specialty	Contact	April	May	June	July	August
Cardiology	Helen Dell,	13.04.21	11.5.21	8.06.21	13.07.21	10.08.21
Renal	Kathleen O'Neill	05.05.21	02.06.21	30.06.21	28.07.21	28.08.21
Vascular	James Metcalfe	Weekly	Weekly	Weekly	Weekly	Weekly
Oncology	Abi Orchard				16.07.21	tbc
ED &Acute Medicine	Tamsin Ribbons & James Ewer	15.04.21	----------	Cancelled	----------	19.08.21
Respiratory	Marianne Docherty	27.4.21	25.5.21	Cancelled	27.07.21	24.08.21
Elderly Care & Stroke	James Richards Harold Proeschel	21.04.21	----------	----------	21.07.21	----------

6.0 LEARNING FROM CORONER'S INQUESTS Q3

DCH has been notified of 21 new Coroner's inquests being opened in the period October 2021 – December 2021.

12 inquests were held during Quarter 3. 3 inquests were heard as Documentary hearings, not requiring DCH attendance. 0 required the clinician to attend Court in person. 9 required attendance remotely from the DCH 'virtual courtroom' (in THQ) using Microsoft Teams.

We currently have 70 open Inquests. The Coroner has reviewed all outstanding cases to decide whether any can be heard as documentary hearings. 6 pre-inquest reviews were listed during this period.

We continue to work with the Coroner's office, and will continue to support staff at these hearings, a significant number of which will be attended virtually. The virtual court room set up within Trust Headquarters is working well, and Ms Mandy Ford (DCH) liaises with the coroner's officer to improve the technology and its use.

7.0 LEARNING FROM CLAIMS Q3

Legal claims are dealt with by NHS Resolution, who also produce a scorecard of each Trust's claims pattern and costs.

Claims pattern this Quarter:

New potential claims	14
Disclosed patient records	15
Formal claims	9 clinical negligence, 1 employee claim
Settled claims	7 clinical negligence, 0 employee claim
Closed - no damages	0

8.0 SUMMARY

SHMI has improved to within the expected range over the past few months. However difficulties remain within the coding department as evidenced by the increased uncoded 'Primary Diagnoses' at 29%. No other metrics of in-patient care suggest that excess mortality is occurring at DCH, and much of the national data suggests better than average mortality, although several previously regular national reports are themselves having difficulty in producing timely data. This appears to be related to recent data quality problems experienced with NHS Digital's HES M04 release.

Nevertheless, the Hospital Mortality Group remains vigilant and will continue to scrutinise and interrogate all available data to confirm or refute this statement on a month by month basis. At the same time internal processes around the completion and recording of SJRs, M&M meetings and Learning from Deaths are now well embedded and working effectively within the Divisional and Care Group Teams.