Meeting Title:	Board of Directors, Part 1
Date of Meeting:	25th May 2022
Document Title:	**Mortality Report: Learning from deaths Qtr 4 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	11th May 2022	None specific
Quality Committee	17th May 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 Q4 (5 months in arrears - rolling years to Sep, Oct and Nov 2021) remained relatively stable at around 1.14 throughout this quarter. This figure 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. DCH is about to take on the ME function for community deaths, and has recruited 5 additional MEs for this work, with NHSE funding.
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 contain patient data

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 and elective tariff incentivisation targets have 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 4 Report

Structured Judgement Review Results: The Division had 59 deaths in quarter 4, of which 47 require SJR's to be completed. Of these 12 have had an SJR completed. Between January to March, an additional 35 SJR's have also been completed from previous months.

SJR Backlog: The outstanding SJR's for the Division as at 25/04/2022 is 52:

May	July	October	November	December	January	February	March
2	2	4	7	6	7	6	18

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

	Admission & Initial Management	Ongoing Care	Care during a procedure	Perioperative Care	End of Life Care	Overall Assessment Score
N/A or Blank	0	9	26	32	2	0
1 Very Poor	0	0	0	0	0	0
2 Poor	0	2	0	0	0	2
3 Adequate	12	5	6	4	9	6
4 Good	20	22	9	7	27	27
5 Excellent	15	9	6	4	9	12

Overall Quality of Patient Record:

Blank	Score 1 Very poor	Score 2 Poor	Score 3 Adequate	Score 4 Good	Score 5 Excellent
1	0	3	4	28	11

- Generally excellent documentation. 1 entry from ITU Consultant very difficult to read.
- Notes all loose in file and some in wrong order.
- Generally good documentation, especially by palliative care team. Case notes not all in correct order.
- Scanned to DPR so very difficult to navigate but documentation otherwise OK.
- Some entries not timed and/or illegible.

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	1	0	8	38

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

1.2 Division of Urgent & Integrated Care Q4 Report

Structured Judgement Reviews

Quarter 4: 170 deaths, 33 SJR's were requested and 16 were completed.

Year to date (01/04/2021 – 31/03/2022): 622 deaths, 156 SJR'S requested and 96 have been completed.

Phase Score	Admission & Initial Management	Ongoing Care	Care during a procedure	Perioperative Care	End of Life Care	Overall Assessment Score
N/A or Blank	0	2	15	16	3	0
1 Very Poor	0	0	0	0	0	0
2 Poor	0	3	0	0	0	2
3 Adequate	2	3	0	0	2	4
4 Good	12	7	1	0	6	8
5 Excellent	2	1	0	0	5	2

Overall Quality of Patient Record

Blank	Score 1 Very Poor	Score 2 Poor	Score 3 Adequate	Score 4 Good	Score 5 Excellent
0	0	1	6	9	0

Avoidability of Death Judgement Score

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
0	0	0	2	2	12

SJR Backlog

The outstanding SJR's for the Division as at 07/04/2022 is 59, 24 of which have been allocated but not yet completed.

January	February	March
10	11	12

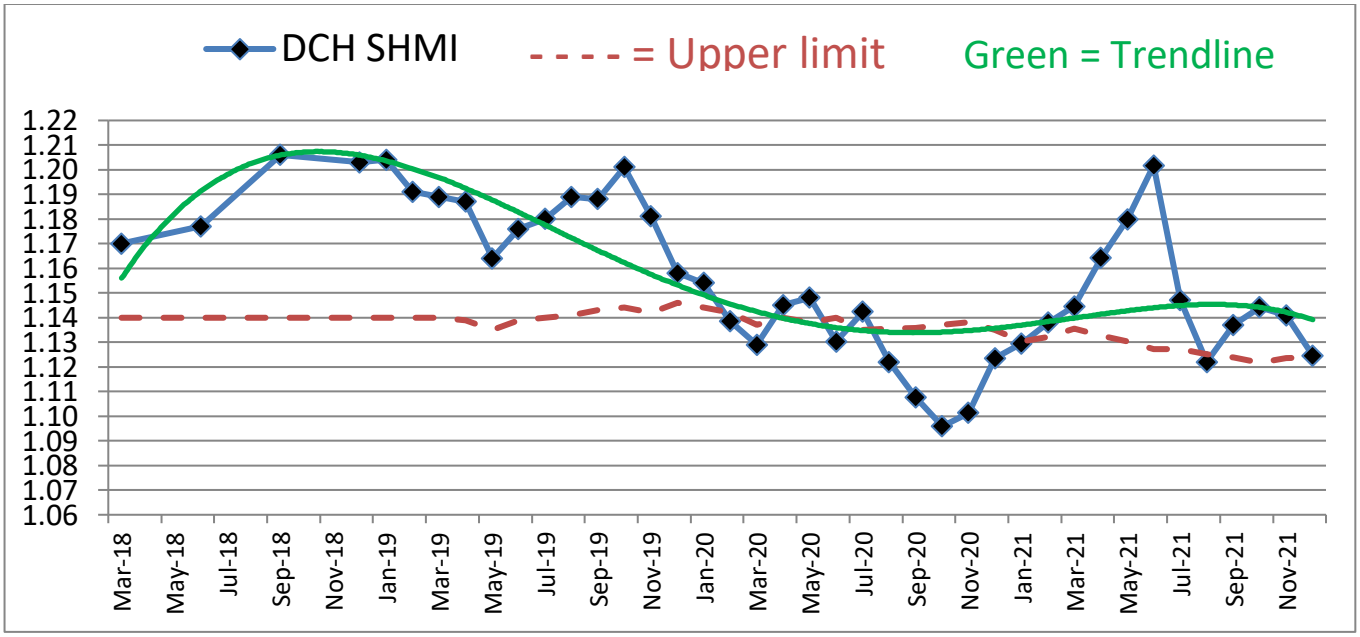
7 Nosocomial COVID 19 deaths required review.

Report completed by:
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 deaths occurring within 30 days of discharge. The SHMI for the rolling years from October 2020 to June 2021 showed a clear reversal of the previous trend to improvement, but the latest data has stabilised around a SHMI of 1.14 or less and we know that this has been adversely influenced by difficulties in the Coding Department – see below. Staff absences and continued working from home using scanned records suggest that timeliness of coding was poor during Sep/Oct/Nov 2021 (latest published data). A coding action plan has been produced and enacted by Sue Eve-Jones and Stephen Slough which is on course to correct the data prior to the validation deadline of 19/05/2022.



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 2022 report published on the DCHFT internet site.

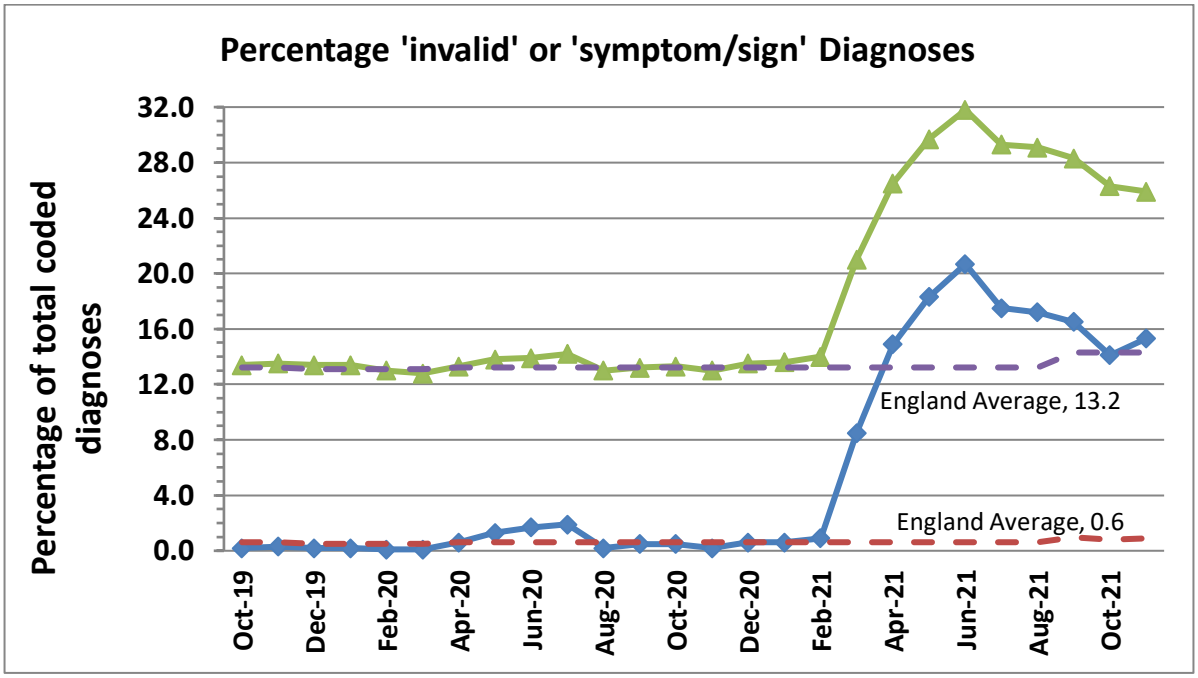
2.2 Percentage of provider spells with a primary diagnosis which is a symptom or sign: NHS Digital states "*This indicator presents the percentage of finished provider spells with a primary diagnosis which is a symptom or sign (identified by ICD-10 codes beginning with the letter 'R'). A high percentage 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 recently had a very high but reducing number of spells with a primary diagnosis which is a symptom or sign – for example either no entry at all (uncoded), or 'chest pain' rather than 'myocardial infarction' – at 31.8% for June 2021 but improving progressively since then to a latest figure of 25.9% for November 2021. The England average is around 13%, and the increase seen in DCH data is largely due to uncoded cases which therefore have no recorded diagnosis. Such uncoded in-patient 'spells' are attributed a very 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 and hence increases the SHMI value.

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*

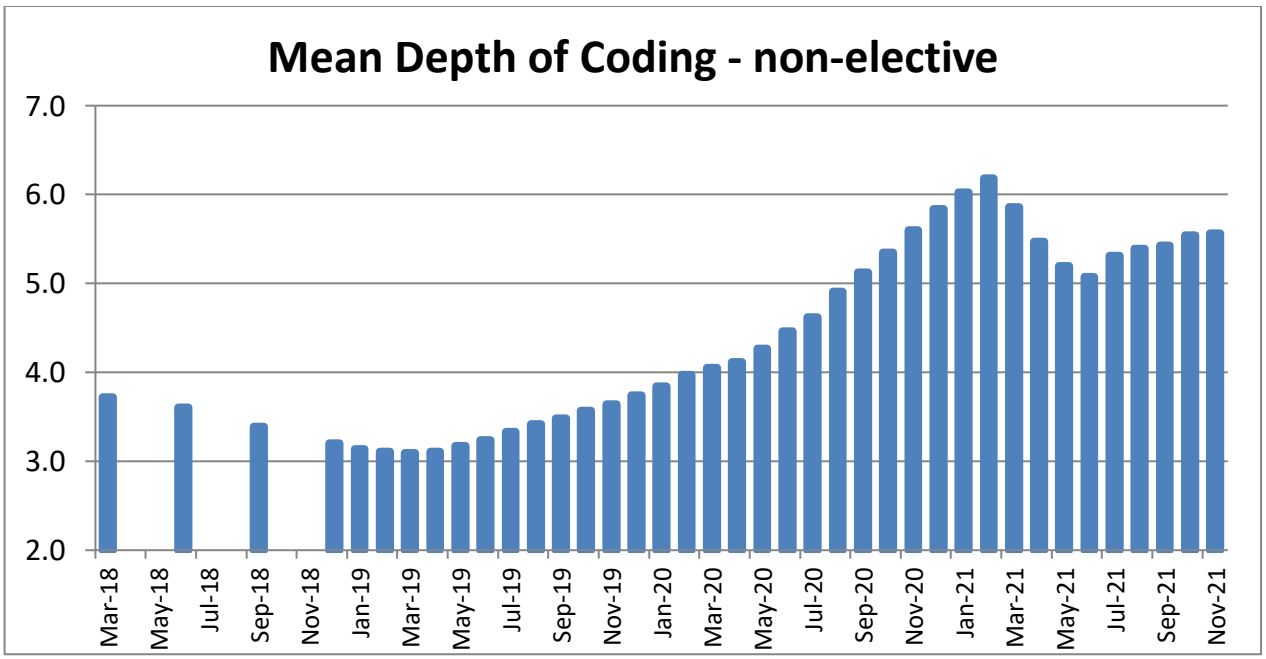
(identified as those spells where the primary diagnosis is given by the ICD-10 code R69X). A high percentage of provider spells with an invalid primary diagnosis code compared to other trusts may indicate a data quality problem."

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:



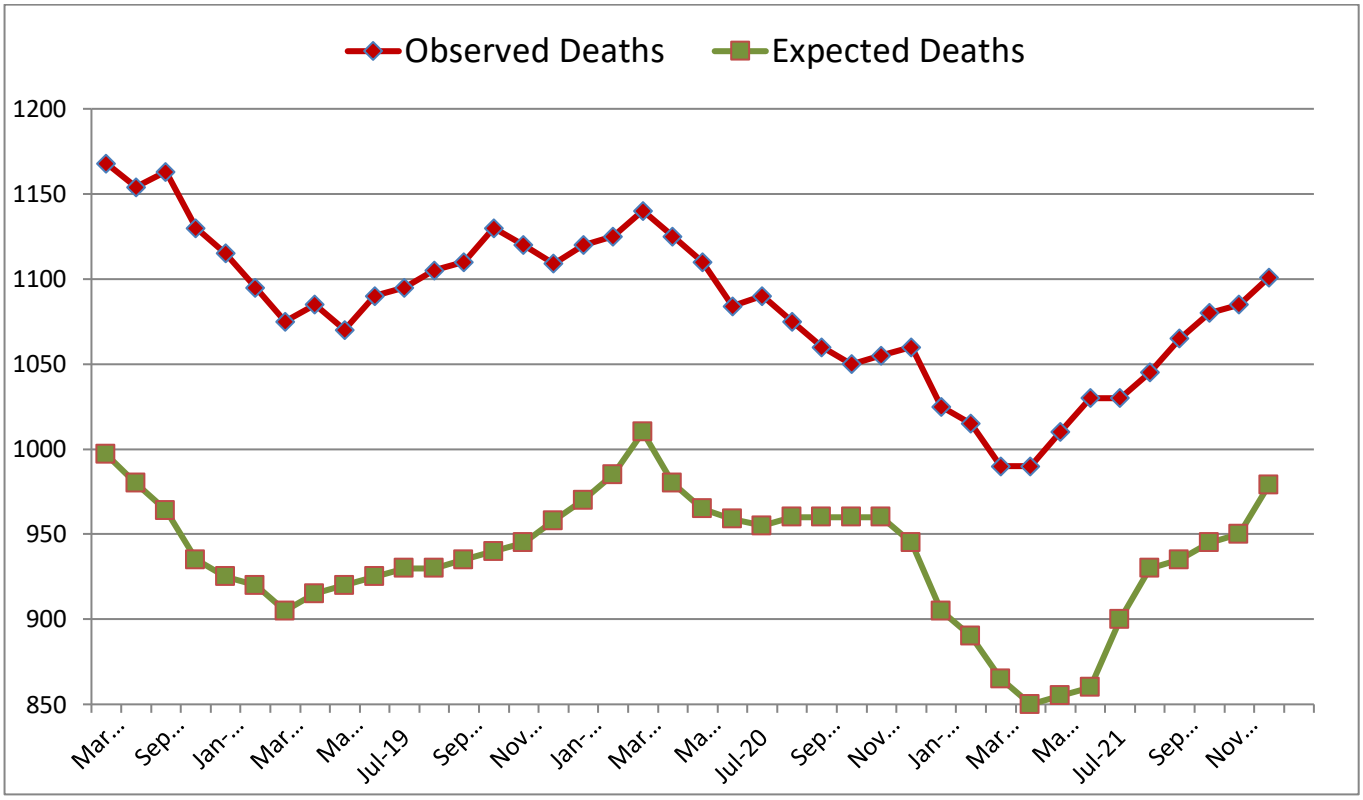
2.4 Depth of coding: NHS Digital states "*As well as information on the main condition the patient is in hospital for (the primary diagnosis), the SHMI data contain up to 19 secondary diagnosis codes for other conditions the patient is suffering from. This information is used to calculate the expected 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), the fell but is now improving 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 December 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 Alastair,
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

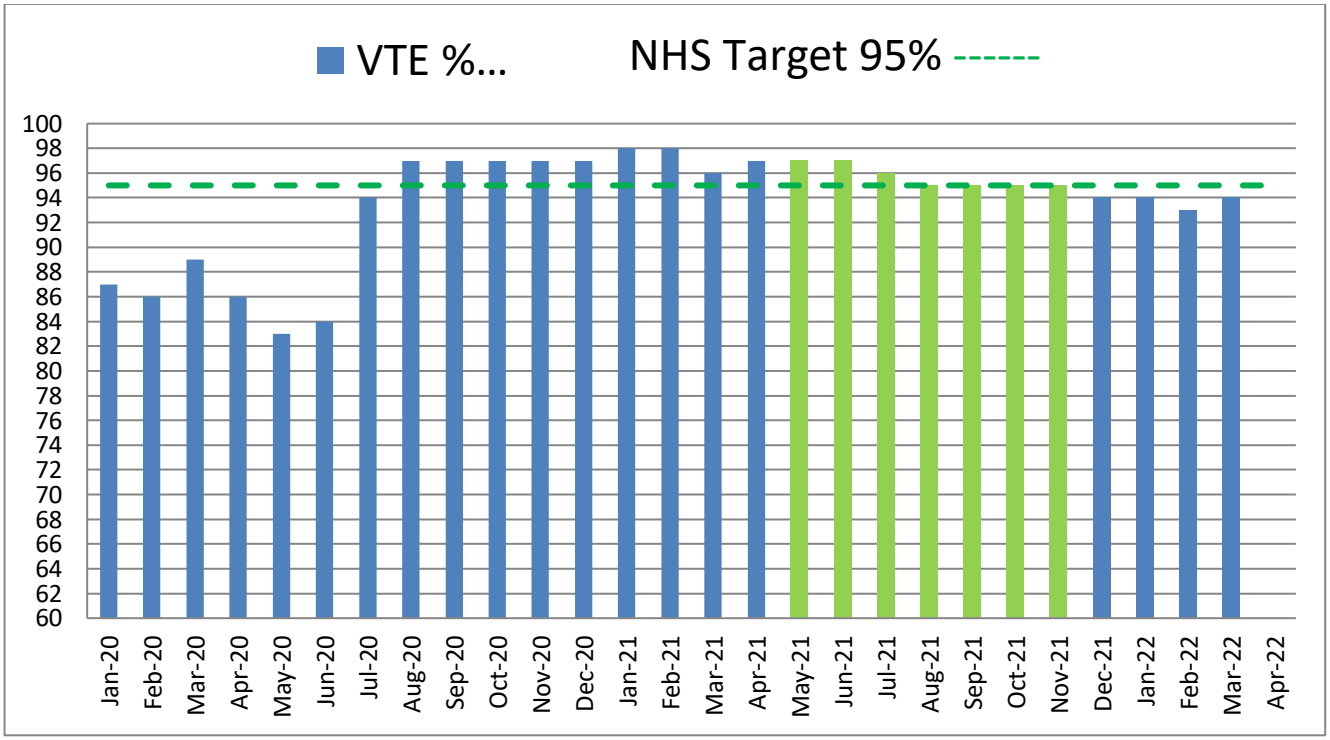
NHS Digital

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 continued to meet on a monthly basis throughout the COVID-19 crisis. The following sections report data available from various national bodies which report on Trusts' individual performance. However much of this data has also been interrupted by covid-19 and has not yet caught up again.

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.

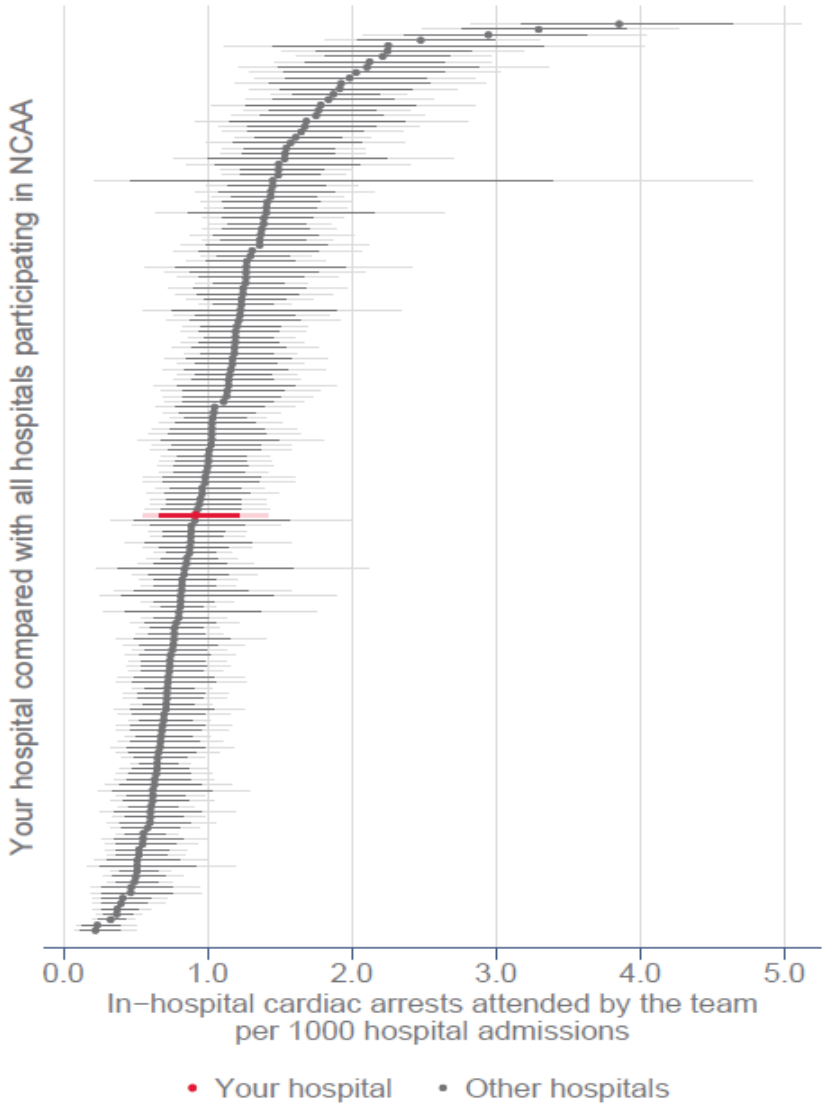
DCH VTE risk assessment recording reached 97% in August 2020 with the introduction of a more accurate reporting system, but in the last 4 months has reduced to 94%. This graph has been circulated to all junior staff and ward nursing teams. Dr Aruna Arjunan has taken over as chair of the VTE Group and is auditing compliance with the VTE prophylaxis policy which has been recently revised.



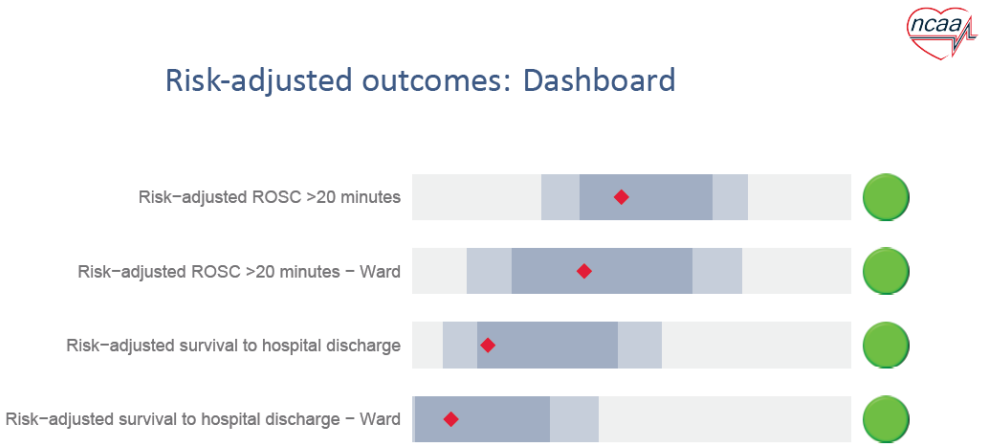
3.1 NCAA Cardiac Arrest data

The national Cardiac Arrest audit for DCH April 2021 to December 2021 was published on 12/04/2021. A total of 46 cardiac arrest calls were recorded for this period. The format and reporting period for this report (Q1+Q2+Q3) 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 Dr. 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
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 9 month period (Q1 to Q3 2021/22).

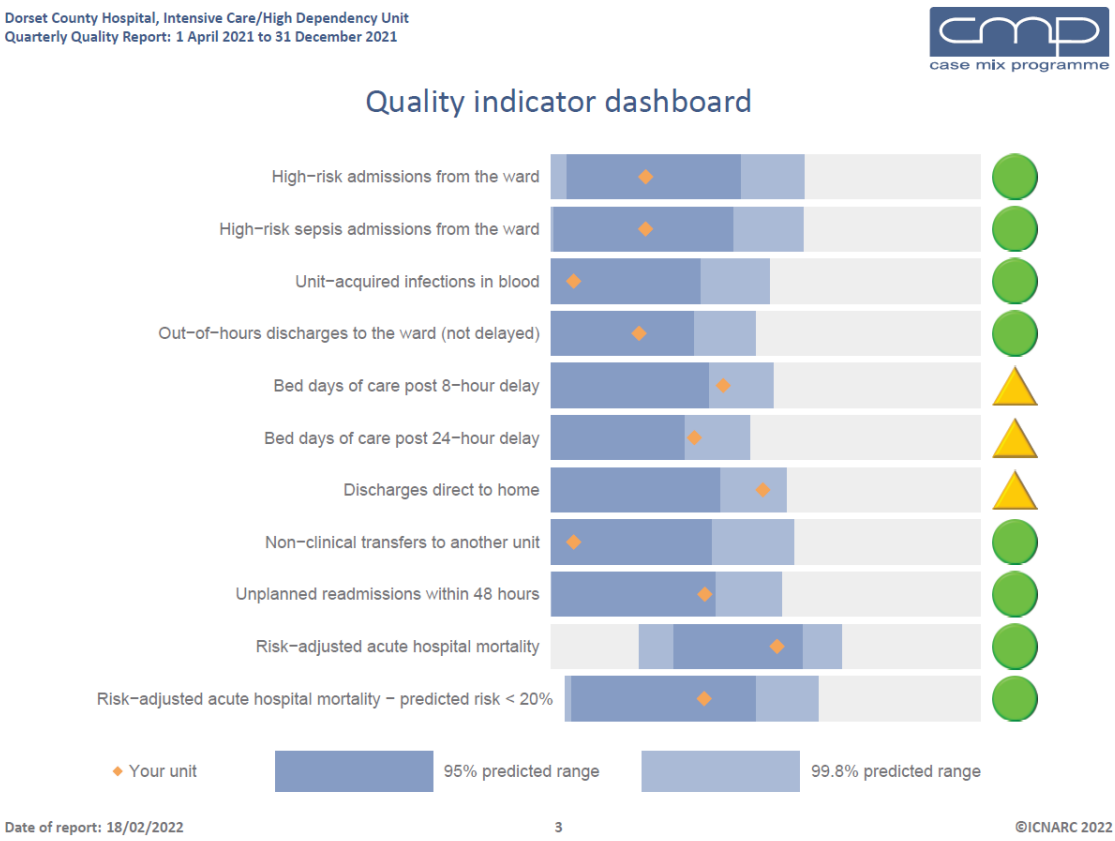


3.2 National Adult Community Acquired Pneumonia Audit latest data – last published Nov 2019 (see below), and not undertaken for either 2019/20 or 2020/21. However it has been announced that data collection will restart in Spring 2022 for publication in Summer 2023.

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 18 February 2022; n = 480 patients.
The amber triangle 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. This is an indicator of DCH bed pressures.

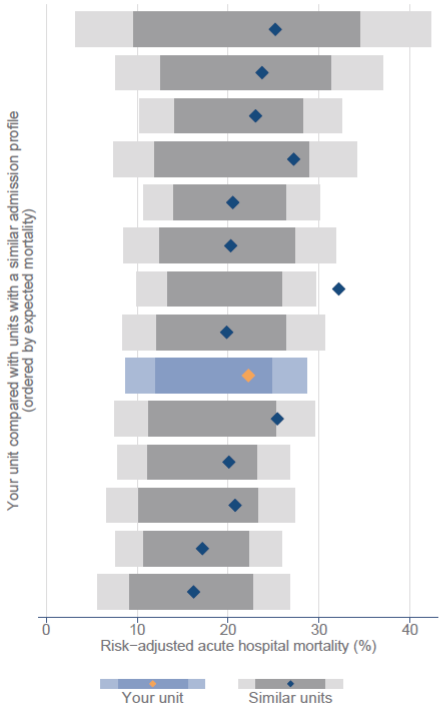


The charts below show the “risk adjusted acute hospital mortality” following admission to the DCH Critical Care Unit, Q1 to Q3. They compare observed and expected death rates in a similar fashion to SHMI.

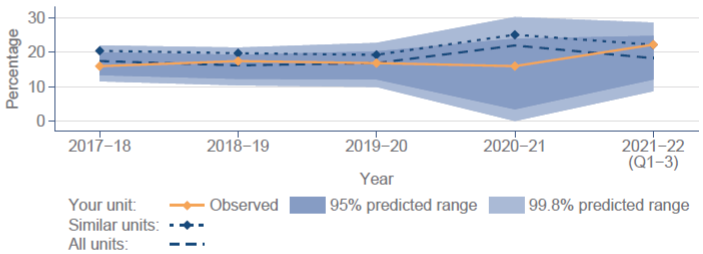
Dorset County Hospital, Intensive Care/High Dependency Unit
Quarterly Quality Report: 1 April 2021 to 31 December 2021

case mix programme

Risk-adjusted acute hospital mortality



	N	Eligible	Observed percentage	Expected percentage	95% predicted range	99.8% predicted range	
Quarter 1	145	136	14.7	15.5	(9.3, 21.5)	(6.3, 25.4)	
Quarter 2	157	153	24.8	18.8	(7.5, 29.7)	(1.8, 36.7)	
Quarter 3	178	161	26.1	20.7	(9.2, 31.7)	(3.4, 38.7)	
Quarter 4							
Year to date	480	450	22.2	18.5	(12.1, 24.7)	(8.7, 28.6)	



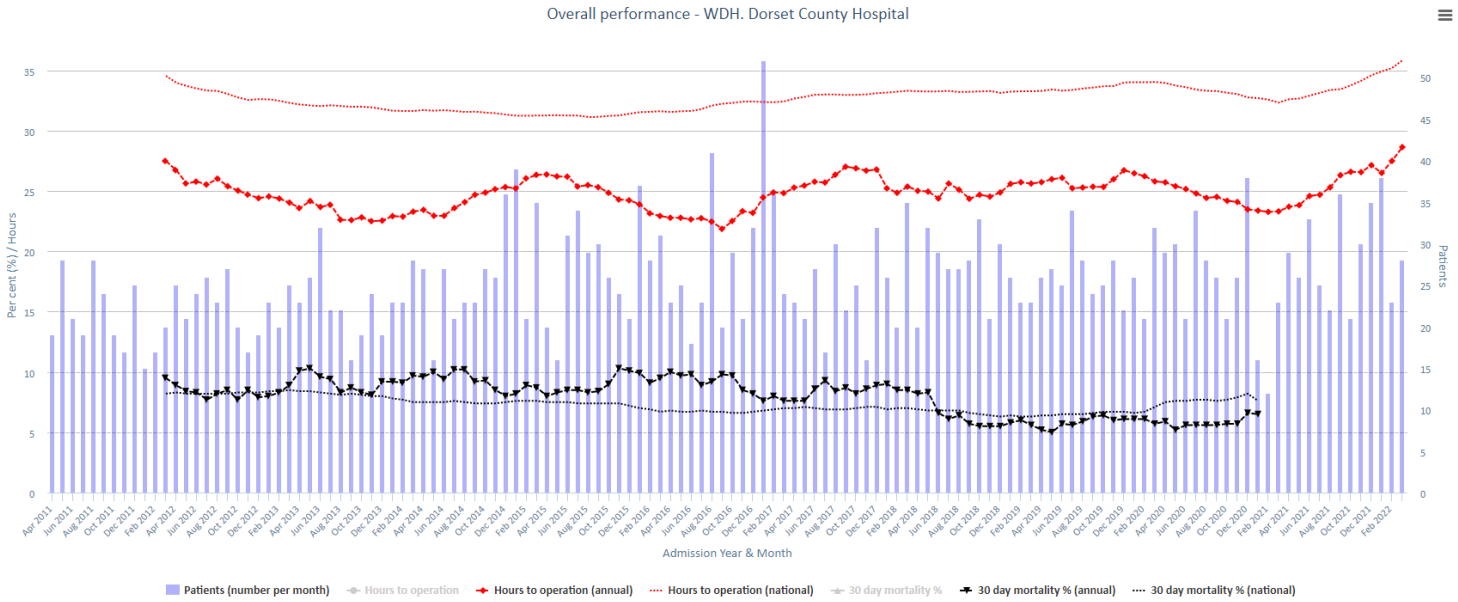
Definition

- Eligible: All critical care unit admissions, excluding readmissions, patients dead on admission and those admitted to facilitate organ donation
- Observed percentage: The percentage of eligible admissions that died before ultimate discharge from acute hospital
- Expected percentage: The expected percentage of acute hospital deaths among eligible admissions, calculated as the mean predicted risk of death from the ICNARC$_{H-2018}$ model for eligible admissions to your unit
- Predicted range: We expect a unit's observed percentage to lie within the 95% predicted range 19 times out of 20 and within the 99.8% predicted range 998 times out of 1000

Date of report: 18/02/2022 13 ©ICNARC 2022

These results are within the expected range, but somewhat higher than last quarter.

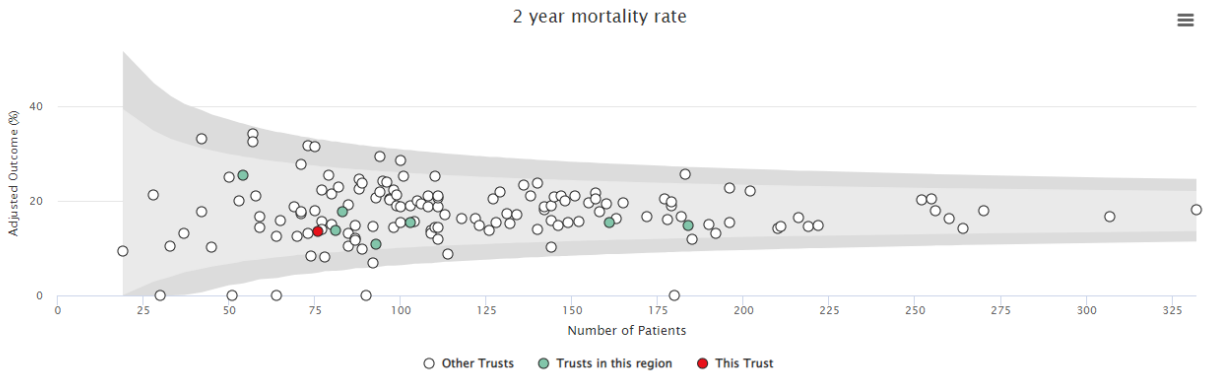
3.5 National Hip Fracture database to December 2021. Mortality data has apparently been delayed by contract negotiations with NHS Digital, and is therefore unchanged from the previous report.



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). Hours to operation remains significantly better than the national average for Q3 (28.6 vs 36 hours).

3.6 National Bowel Cancer Annual audit

New data has been published for the year 2019/20. The graph below shows latest available 2 year survival data for patients admitted in financial year 2019/20, compared to all other NHS Trusts, with other Wessex Trusts in green.



Trust	Number	Adjusted	Observed
Dorset County Hospital NHS Foundation Trust	76	13.5%	15.9%
Other trusts within the region: Wessex			
Hampshire Hospitals NHS Foundation Trust - Basingstoke and North Hampshire Hospital	83	17.7%	14.2%
Hampshire Hospitals NHS Foundation Trust - Royal Hampshire County Hospital	81	13.7%	11.6%
Isle of Wight NHS Trust	54	25.5%	20.8%
Portsmouth Hospitals NHS Trust	184	14.7%	11.6%
University Hospital Southampton NHS Foundation Trust	161	15.4%	14.9%
Poole Hospital NHS Foundation Trust	93	10.8%	13.8%

3.7 Getting it Right First Time; reviews in Q4

One virtual GIRFT review was undertaken at DCH during this quarter relating to recovery of waiting lists post-covid-19. The full report is available on request. No other visits took place during Q4, and the next one is not scheduled until August 2022. 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.

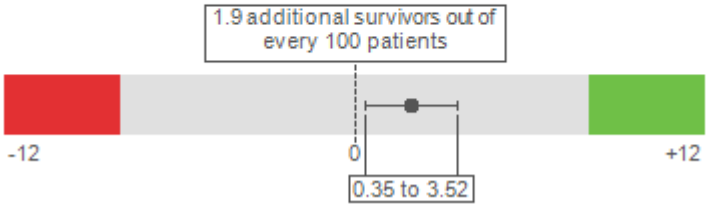
GIRFT have recently requested that all Trusts add a section to their quarterly Learning from Deaths report that explains learning from medico-legal claims and inquests - as DCH has done every 6 months for some years. Sections 6.0 and 7.0 of this report have been expanded to cover this request.

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. Cumulative data recently published for the 36 months from 1/1/19 to 31/12/21 is shown below, but data specific to Q1, Q2 or Q3 is not available at present:

Rate of Survival at this Hospital

Between January 1st 2019 and December 31st 2021



Rate of Survival Breakdown at this Hospital

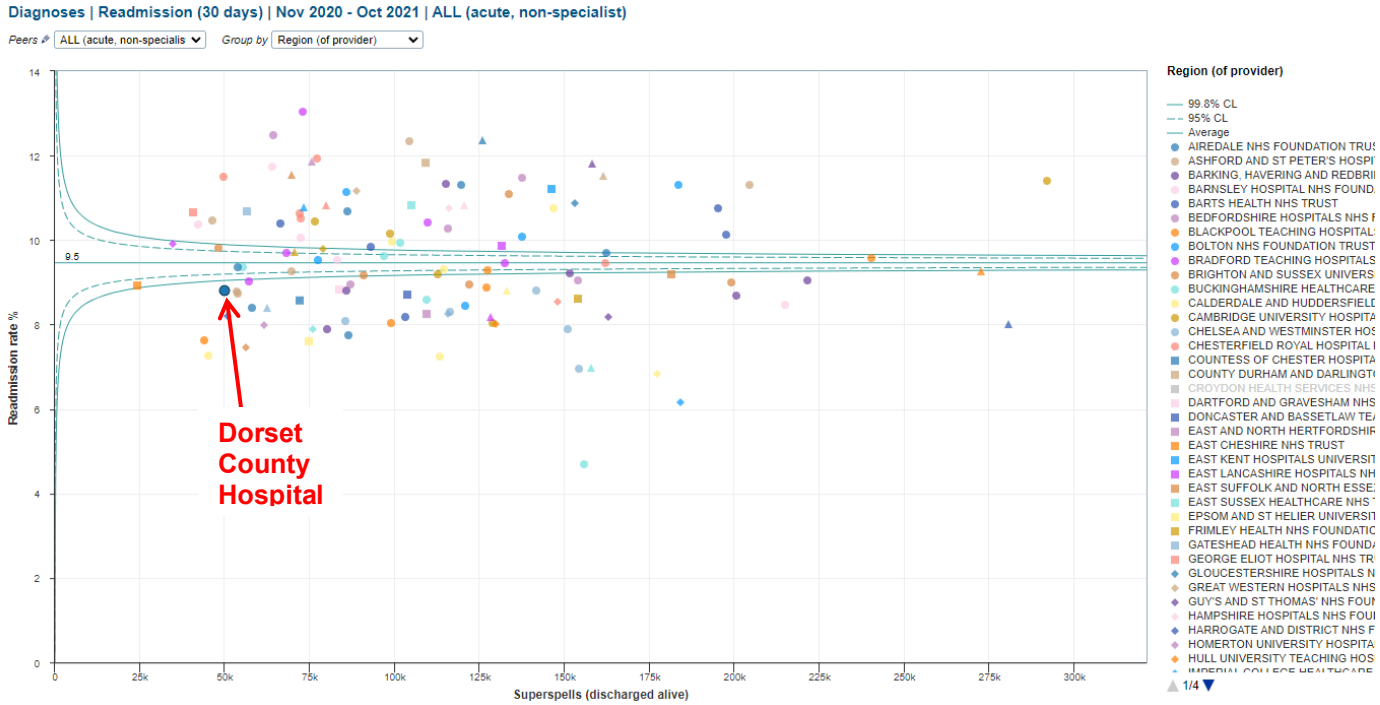
Survival band %	Number in group	Expected survivors	Actual survivors	Difference*	Adjusted difference**
95 - 100	518	508	514	1.1	0.8
90 - 95	190	176	177	0.4	0.1
80 - 90	112	95	102	5.4	0.5
65 - 80	46	34	33	-2.2	-0.1
45 - 65	15	8	14	34.3	0.8
25 - 45	4	1	2	10.4	0.2
0 - 25	4	0	0	-12.9	-0.2
Total	**889**	**825**	**842**	**1.9**	**1.9**

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 17 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 readmission rate continues to be significantly 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.

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. The introduction of the 'AGYLE' electronic patient record software occurred at the end of Q4 and as this is rolled out across the Trust it will be fully auditable and replace written records.

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	Jan	Feb	Mar	April	May	Jun
Cardiology	Helen Dell,	18/01/22		01/03/22			
Renal	Kathleen O'Neill	12/01/22					
Vascular	James Metcalfe						
Diabetes			16/02/22				
Oncology	Abi Orchard	14/01/22		18/03/22		20/05/22	17/06/22
Haematology	Sarah Attfield, Jill McCormack						
ED &Acute Medicine	Andy Brett & James Ewer						
Respiratory	Marianne Docherty	25/01/22 (CG)	15/02/22 (CG)	29/03/22 (M+M)			
Elderly Care & Stroke	James Richards Harald Proschel		09/02/22	X			

Specialty	October	November	December	January	February	March
Anaesthetics	01/10/21	26/11/21	Scheduled 24/12/21 cancelled due to apologies	21/01/22	18/02/22	18/03/22
Breast Surgery	01/10/21 (hosted by YDH)	26/11/21 (hosted by YDH)	24/12/21 – cancelled due to lack of staff	21/01/22 (hosted by YDH)	18/02/22	Scheduled 18/03/22 cancelled due to Trust pressures
Gastroenterology	06/10/21	03/11/21	01/12/21	05/01/22	Scheduled 02/02/22 but no cases	Scheduled 02/03/22 but other priorities discussed
General Surgery + Colorectal	01/10/21	26/11/21	Scheduled 24/12/21 cancelled due to apologies	21/01/22	18/02/22	Scheduled 18/03/22 cancelled due to Trust pressures
Orthopaedics	08/10/21	Scheduled 05/11/21 no cases to discuss	03/12/21	28/01/22	25/02/22	Scheduled 25/03/22 cancelled due to Trust pressures
Perinatal	27/10/21	24/11/21	22/12/21	26/01/22	23/02/22	23/03/22
Urology	01/10/21	26/11/21	Scheduled 24/12/21 cancelled due to apologies	21/01/22	Scheduled 18/02/22 cancelled due to apologies	Scheduled 18/03/22 cancelled due to Trust pressures

6.0 LEARNING FROM CORONER'S INQUESTS Q4

DCH has been notified of 16 new Coroner's inquests being opened in the period Jan 2022 – March 2022.

10 inquests were held during Quarter 4. 7 inquests were heard as Documentary hearings, not requiring DCH attendance. 0 required the clinician to attend Court in person. 3 required attendance remotely from the DCH 'virtual courtroom' (in THQ) using Microsoft Teams.

We currently have 50 open Inquests. The Coroner has reviewed all outstanding cases to decide whether any can be heard as documentary hearings. 3 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. The coroner has requested from May 2022 that witnesses attend the court room at the Town Hall, Bournemouth in person. Authority will be required, if we wish the clinician to attend remotely.

7.0 LEARNING FROM CLAIMS Q4

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	9
Disclosed patient records	7
Formal claims	4 clinical negligence, 1 employee claim
Settled claims	4 clinical negligence, x employee claim
Closed - no damages	2 clinical negligence, 1 employee claim

8.0 SUMMARY

SHMI is expected to improve in the coming months since the backlog of uncoded notes has been cleared, and updated HES data for 2021/22 will be submitted to NHS Digital by the deadline of 19th May 2022. However this will not change previously published figures which will remain on record although they are known to be inaccurate. The 5 month SHMI publishing delay means that the DCH SHMI will not accurately reflect in-patient activity until early autumn 2022.

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 mortality reports are themselves having difficulty in producing timely data. In particular TARN, ICNARC and NCAA data continue to be reassuring since unexpected deaths would be likely to show up here, at least in part.

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.