

Meeting / Committee:	Board of Directors	Meeting Date:	31 March 2015
-----------------------------	--------------------	----------------------	---------------

This paper is for: (Only 1 column to be marked with x as appropriate)	Action/Decision	Assurance	Information
	x		

Title:	South Tees Hospitals NHS Foundation Trust Mortality Report: data to end of Quarter 3 2014/2015
---------------	--

Purpose:	This report provides assurance on the overall quality of care, as measured by hospital mortality, delivered by the organisation.
-----------------	--

Summary:	<p>The paper provides information on:</p> <ul style="list-style-type: none"> Unadjusted mortality, risk adjusted mortality (SHMI and HSMR), mortality in elective admissions. A&E figures for deaths prior to admission are also reported. There were 1,935 deaths in 151,535 spells in the 12 months January 2014 - December 2014 which equates to around 161 deaths each month in South Tees (at James Cook and Friarage Hospitals and including Community Hospitals) giving an unadjusted mortality rate of 1.28% compared to a peer rate of 1.42%. The Trust performs within the expected range for the Summary Hospital-level Mortality Indicator (SHMI) for July 2013 – June 2014 (101). For the period October 2013 – September 2014 HSMR is 110, the Trust is 'higher than expected' on this measure, although the HSMR has fallen and on latest data is 'as expected'. Weekly mortality review continues with over a thousand completed since October 2013 (230 in Q3). 87.8% of deaths reviewed were graded as 'Expected', and 97.4% were judged on the Hogan scale to be 'definitely not preventable' with 2.6% showing some evidence of preventability. 81.7% of deaths had a NCEPOD grade of 1 (good practice). 6.1% were graded as showing room for improvement in clinical care. Quality of care was judged to be Excellent or Good in 87.4% of cases. 		
-----------------	--	--	--

Prepared by:	Jo Raine, Data Analyst Clinical Effectiveness and Tony Roberts, Deputy Director (Clinical Effectiveness)	Presented By:	Mr Richard Wight, Medical Director and Tony Roberts, Deputy Director (Clinical Effectiveness)
---------------------	---	----------------------	---

Recommendation:	The Trust should continue to develop work relevant to patients at high risk of dying in its care. This includes work in deteriorating patients, sepsis, community-acquired pneumonia and acute kidney injury. Better data collection and linkage is needed in line with the national CQUIN requirements published in March 2015.				
------------------------	--	--	--	--	--

Implications (mark with x in appropriate column(s))	Legal	Financial	Clinical	Strategic	Risk & Assurance
					x

Contents

1	Executive Summary	4
2	Recommendations for improvement of mortality.....	4
3	Background to Report	5
4	Methods.....	5
5	Report from the Mortality Group	5
	Table 1: Lessons Learned: Mortality Reviews Q3 2014/15	6
6	Mortality Measures: Summary Hospital Level Mortality Indicator (SHMI) and Hospital Standardised Mortality Ratio (HSMR).....	7
	Table 2: SHMI, total discharges, observed and expected deaths, % aged 75+ and banding by Acute Trust for July 2013 – June 2014.	7
	Figure 1: SHMI with banding using 99% Control Limits and over-dispersion adjustment.....	7
	Table 3: HSMR, total discharges, observed and expected deaths, HSMR with and without palliative care adjustment for October 2013 – September 2014.	8
	Figure 2: HSMR by Acute Trust for October 2013 – September 2014	8
	Figure 3: SHMI and Unadjusted Mortality Rate for South Tees.....	9
	Figure 4: HSMR and Palliative Care Coding for South Tees.....	9
7	Mean-Centred HSMR and SHMI.....	10
	Figure 5: Mean Centred displays for SHMI and HSMR: South Tees.....	10
8	Unadjusted Mortality: Trust Overview	11
	Table 4: Crude Mortality: number of deaths, mortality rate and peer data to Centre level January 2014 - December 2014.	11
	Figure 6: Crude Mortality Rate April 2005 – December 2014 including Rolling 12 month averages.	11
	Figure 7: SHMI Defined Mortality Rates: Trust, North East Region and National July 2011 – October 2014.	12
	Figure 8: SPC Chart of Deaths April 2006 – December 2014.	12
	Figure 9: Deaths per month per Division and Centre January 2011 – September 2014.	13
	<i>Table 5: Deaths in South Tees Acute and Community Hospitals January 2014 - December 2014.....</i>	<i>13</i>
	Figure 10: Observed and Predicted all-cause death registrations England & Wales. Excess mortality in 65+ year olds by week of death, England.....	14
	Figure 11: Daily percentage of all attendances recorded as pneumonia attendances across the EDSSS network.	14

Trust Mortality Report for Board of Directors data to end of Q3 2014/15

	Figure 12: South Tees: Number of deaths per week to February 2015.....	15
9	Intelligent Monitoring Report and Dr Foster Intelligence: Quarterly Mortality Data Release	15
10	Use of Z515 and Z518 Palliative Care Coding.....	16
	Figure 13: Palliative Care Coding (Z515/Z518) all spells January 2012 – December 2014.	16
	Figure 14: Palliative Care Coding (Z515/Z518) for patients who died in hospital January 2012 – December 2014	17
	Figure 15: Patients who Died January 2012 – December 2014: Palliative Care Status	17
11	Mortality in A&E Department – Dead on Arrival or Died in Department	18
	Figure 16: Dead on Arrival or Died in Department April 2005 – December 2014.	18
	Table 6: Initial Diagnosis on arrival at A&E: Dead on Arrival / Died in Department.	18
12	Conclusion	19
13	Recommendations for improvement of mortality.....	19

1 Executive Summary

- 1.1 This report shows that the Trust performs within the expected range for the Summary Hospital-level Mortality Indicator (SHMI) for July 2013 to June 2013 (101).
- 1.2 The HSMR for October 2013 to September 2014 is 110 which is “higher than expected”. The latest available HSMR for January 2014 to November 2014 is 108 which is “as expected”.
- 1.3 The number of deaths and the unadjusted mortality rates to February 2015 show the Trust has experienced a winter peak in deaths. Figures for December 2014 and February 2015 are above average but not unusual for winter months, whilst January 2015 was exceptionally high. This pattern reflects national and regional trends and is consistent with the national figures for pneumonia attendances.
- 1.4 The Mortality Group continues to perform weekly mortality reviews. This places the Trust in a strong position to respond to the national requirement to carry out clinical mortality reviews announced by the Secretary of State during March.

2 Recommendations for improvement of mortality

- 2.1 The Trust should continue to develop work relevant to patients at high risk of dying in its care. This includes work in deteriorating patients, sepsis, community-acquired pneumonia and acute kidney injury. Better data collection and linkage is needed in line with the national CQUIN requirements published in March 2015.

3 Background to Report

- 3.1 This is the 23rd quarterly report on mortality to be presented to Trust Board. The importance of reporting mortality statistics at Board level, a process which is embedded in South Tees, was highlighted in the Francis Report into the failures at the Mid-Staffordshire Trust (February 2010).
- 3.2 The report takes account of changes to mortality reporting instigated by the restructuring of the NHS, the Keogh Report into Trusts with high mortality, the Francis Public Inquiry into Mid Staffs and the government's response.

4 Methods

- 4.1 The Trust has used the CHKS Signpost system for many years and this system has been the mainstay for mortality reporting. This system is used to provide timely numbers of deaths and the unadjusted mortality rate (i.e. number of deaths/number of spells). The system also allows the measure to be benchmarked against the England average or selected peers as appropriate. The system will remain available to the Trust until June 2015.
- 4.2 Since April 2014 the Trust gained access to the Health Evaluation Data (HED) system supplied by the University Hospitals Birmingham NHS Foundation Trust (UHB). This system provides Summary Hospital-level Mortality Indicator (SHMI) and Hospital Standardised Mortality Ratio (HSMR) data. The Trust will use this system in parallel with the CHKS system until June 2015 allowing a phased transition to the new reporting regime.
- 4.3 The Health and Social Care Information Centre (HSCIC) is releasing patient-level data for the SHMI and NEQOS are able to produce Variable Life Adjusted Display (VLAD) charts from this data. These are a form of Cusum control chart which provide very sensitive analysis of the changes to mortality risk through time in diagnosis groups and therefore allow a more sophisticated approach to the data.

5 Report from the Mortality Group

- 5.1 The Mortality Group was established in January 2012, chaired by Dr Diane Monkhouse, Consultant in Anaesthesia and Critical Care to coordinate mortality reporting on a trust wide basis. The review of deaths began in October 2013 and has continued on a weekly basis. The reports covering reviews carried out to September 2014 will be circulated shortly to Clinical Directors, Mortality Leads and other interested parties. The last meeting of the Mortality Group was 15th January 2015, the next meeting will be 23 April 2015.
- 5.2 In the third quarter of 2014/15 a total of 230 reviews were carried out. 87.8% of deaths reviewed were graded as 'Expected', and 97.4% were judged on the Hogan scale to be 'definitely not preventable' with a further 0.9% showing slight evidence of preventability. Only 1 death were judged to have a higher degree of preventability. 81.7% of deaths had a NCEPOD grade of 1 (good practice). 6.1% were graded as showing room for improvement in clinical care, 10.0% as showing room for improvement in organisational care and 1.3% room for improvement in both clinical and organisational care. No deaths were given the lowest grade – less than satisfactory. Quality of care was judged to be Excellent or Good in 87.4% of cases. 51 (22.2%) reviews cited Lessons Learned. Some reviews

elucidated more than one 'lesson'. The specific lesson may not be the reason for the overall grading

Lesson	Hogan 1	Hogan >1	NCEPOD 1	NCEPOD >1	Expe cted	Total
Inappropriate admission from community care	7		1	6	7	7
Delayed or inadequate clerking	4	1	1	4	5	5
Lack of or delays in investigations / reporting	2			2	2	2
Poor coordination of clinical care / lack of senior input / advanced decision making	10	1	1	10	10	11
Delayed procedures or diagnosis	1		1		1	1
Poor quality of documentation	10	1	2	9	11	11
Poor communication with family or with GP	2		1	1	2	2
Medication error	1		1		1	1
Inadequate physiological observation or failure to recognise deterioration		1		1	1	1
Patient not wearing an ID bracelet	1			1	1	1
Complex medical patients being treated on surgical wards	2			2	2	2
Difficulties in managing a complex case being moved between ICUs for non-clinical reasons/ Lack of ICU bed	4			4	2	4
Inappropriate transfers between JCUH/Friarage or community hospitals or another Trust	3	1	1	3	3	4
Delay in DNACPR decision or issues around documentation or communication	8		1	7	7	8
Delay in palliation/EOLCP/CPLDL or issues around administration/documentation	10		6	4	10	10
Delays in community care package leading to readmission or extended stay	1			1	1	1
Total	66	5	16	55	66	71

Table 1: Lessons Learned: Mortality Reviews Q3 2014/15

Source: South Tees Hospitals NHS Foundation Trust. Mortality Reviews Database.

- 5.3 Issues around senior input in clinical care and advanced decision making and poor quality of documentation were themes this quarter as were issues around DNACPR and EOLCP/CPLDL. Lessons learnt are being fed back to the Trust in educational and M&M meetings.
- 5.4 From November 2014 the team moved towards reviewing a randomly selection of one quarter of the deaths for reporting of preventability and quality of care. Other groups of patients such as those with a learning disability or those whose care record indicates a complication or misadventure in their last spell of care are also reviewed as are any cases brought to the group by consultants.
- 5.5 The Secretary of State for Health announced in March that clinical mortality reviews will be compulsory in all Trusts. Further details are expected in due course.

Trust Mortality Report for Board of Directors data to end of Q3 2014/15

6 Mortality Measures: Summary Hospital Level Mortality Indicator (SHMI) and Hospital Standardised Mortality Ratio (HSMR)

- 6.1 The Summary Hospital-level Mortality Indicator (SHMI) calculates the risk adjusted mortality following hospital admission using Hospital Episode Statistics (HES) linked death certificates. The data is drawn from the NEQOS NHS North East Hospital Mortality Monitoring Report 23 with data from July 2013 to June 2014.¹
- 6.2 SHMI reports all deaths in hospital and all deaths that occur within 30 days of discharge from hospital across the NHS in England, comparing the observed number of deaths for each hospital with the number expected from a statistical model accounting for patients' age, sex, method of admission and comorbidities.
- 6.3 The Summary Hospital-level Mortality Indicator (SHMI) was "as expected" for all trusts in the NE with the exception of North Tees and Hartlepool, South Tyneside and Sunderland which are high outliers in this release of data. This is the fifth consecutive quarter in which North Tees and Hartlepool has been a SHMI outlier, with a value of 116.

Provider	Discharges	Observed	% aged 75+	Expected	SHMI	Category
County Durham and Darlington NHS FT	83903	2870	67.8	2801	102.5	as expected
North Tees and Hartlepool NHS FT	46329	1801	66.2	1549	116.2	Higher than expected
South Tees Hospitals NHS FT	91858	2589	62.6	2567	100.9	as expected
Gateshead Health NHS FT	34723	1373	68.5	1397	98.3	as expected
South Tyneside NHS FT	22719	1092	65.1	948	115.1	Higher than expected
City Hospitals Sunderland NHS FT	58836	2020	68.6	1771	114.1	Higher than expected
The Newcastle Upon Tyne Hospitals NHS FT	106368	2511	54.9	2651	94.7	as expected
Northumbria Healthcare NHS FT	60643	2849	70.9	2653	107.4	as expected
North Cumbria University Hospitals NHS Trust	47823	1673	67.5	1705	98.1	as expected

Table 2: SHMI, total discharges, observed and expected deaths, % aged 75+ and banding by Acute Trust for July 2013 – June 2014.

Source: SHMI Data Release HSCIC Jan 2015.

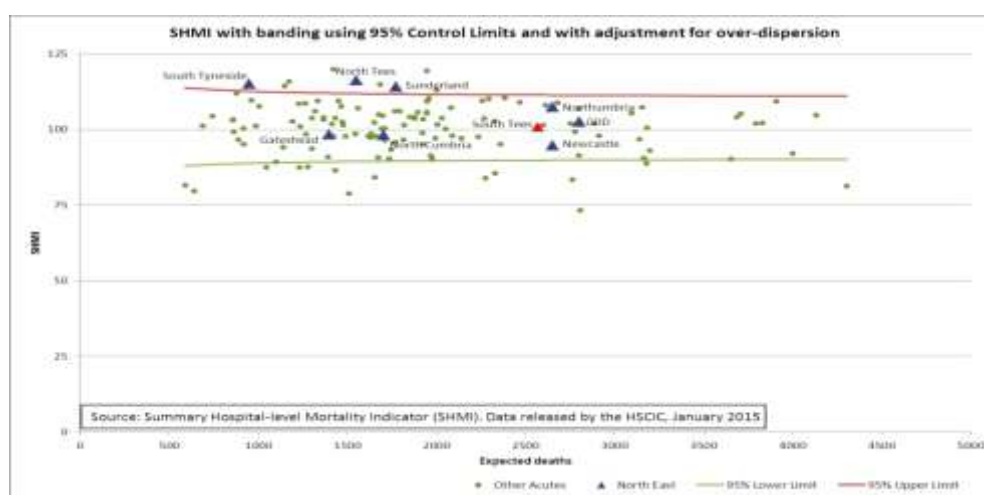


Figure 1: SHMI with banding using 99% Control Limits and over-dispersion adjustment

Source: SHMI Data Release HSCIC Jan 2015.

¹ NEQOS Hospital Mortality Monitoring Report 23: July 2013 - June 2014

Trust Mortality Report for Board of Directors data to end of Q3 2014/15

Provider	Oct 2013 - Sep 2014					
	No. Discharges	Observed Deaths	Expected Deaths	HSMR	HSMR (without palliative care adjustment)	Category
City Hospitals Sunderland NHS Foundation Trust	33200	1314	1249.2	105.2	109.1	As Expected
County Durham and Darlington NHS Foundation Trust	42746	1784	1701.6	104.8	101.5	As Expected
Gateshead Health NHS Foundation Trust	24379	926	882.6	104.9	97.2	As Expected
North Tees and Hartlepool NHS Foundation Trust	33872	1210	964.9	125.4	121.4	Higher than Expected
Northumbria Healthcare NHS Foundation Trust	41412	2008	1872.6	107.2	112.4	Higher than Expected
South Tees Hospitals NHS Foundation Trust	51450	1720	1572.0	109.4	105.3	Higher than Expected
South Tyneside NHS Foundation Trust	14970	755	595.8	126.7	120.9	Higher than Expected
The Newcastle Upon Tyne Hospitals NHS Foundation Trust	66870	1532	1651.0	92.8	90.8	As Expected
North Cumbria University Hospitals NHS Trust	37853	1115	1109.2	100.5	96.9	As Expected

Table 3: HSMR, total discharges, observed and expected deaths, HSMR with and without palliative care adjustment for October 2013 – September 2014.

Source: HED March 2015.

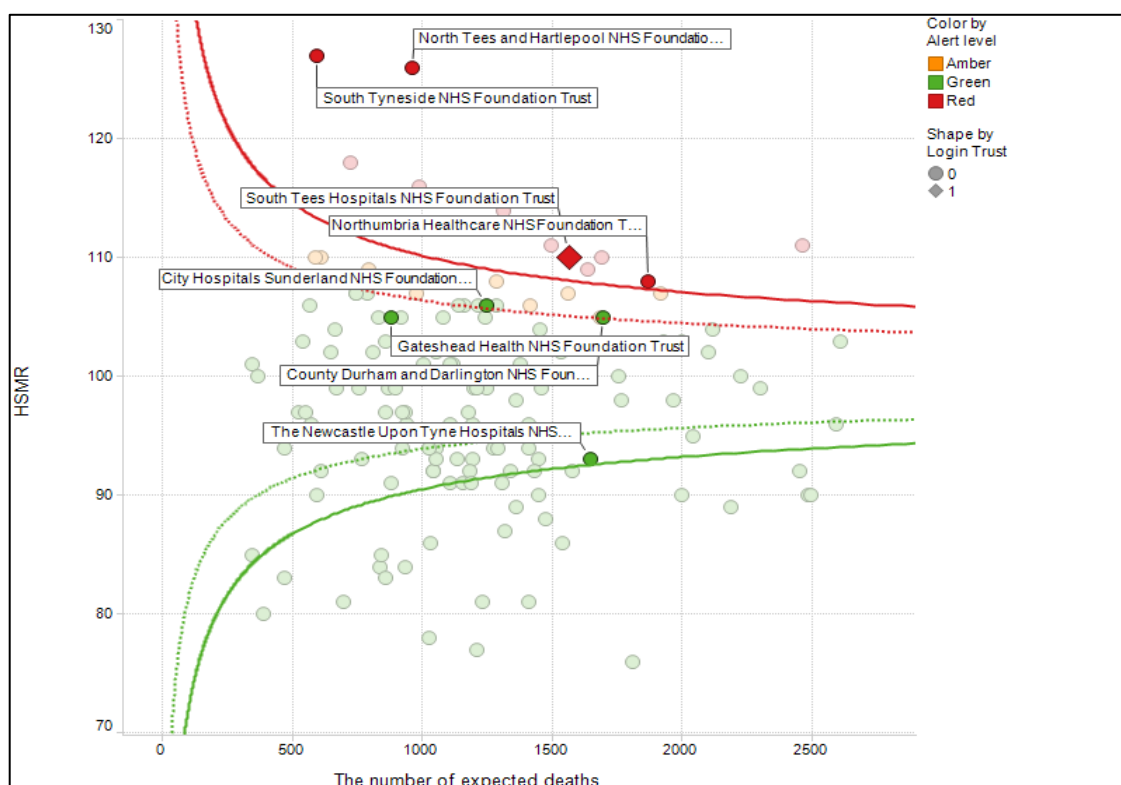


Figure 2: HSMR by Acute Trust for October 2013 – September 2014

Source: HED (Mar 2015).

6.4 HSMR for the trust in the period October 2013 – September 2014 is 109.4 giving the Trust a rating of 'Higher than Expected'. However, in the latest available figures for the period January 2014 – December 2014 (provisional) the figures is 108.2 which would give a rating of 'As Expected'.

Trust Mortality Report for Board of Directors data to end of Q3 2014/15



Figure 3: SHMI and Unadjusted Mortality Rate for South Tees.

Source: NEQOS Hospital Mortality Monitoring Report 23. Data extracted from HED Jan 2015.

6.5 The estimate for the impact of specialist palliative care coding on HSMR is 4 points.

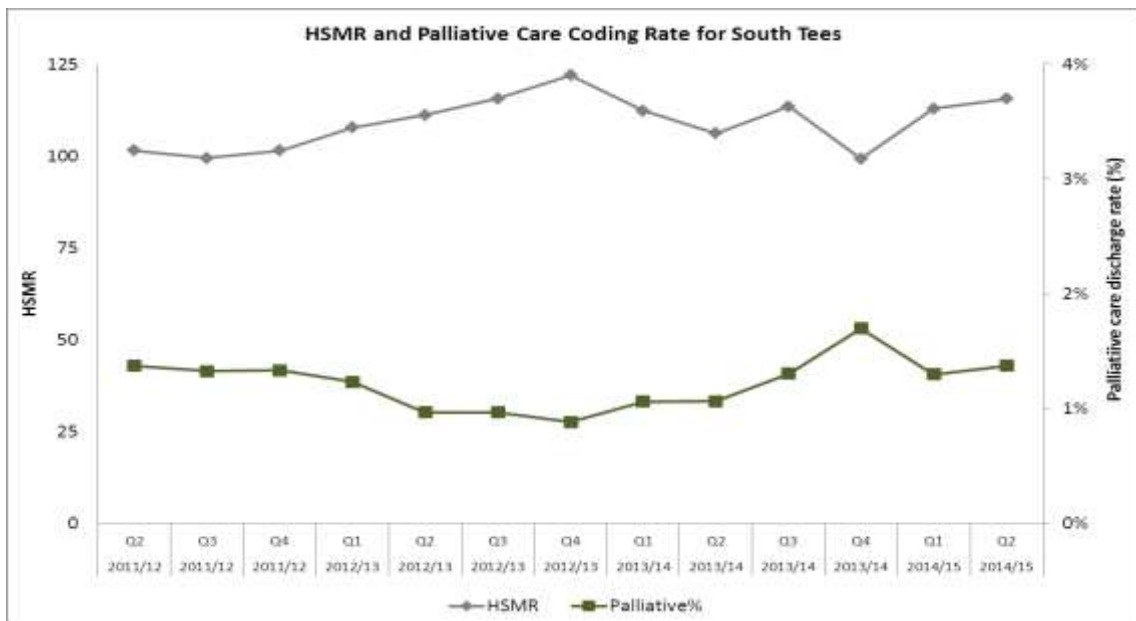


Figure 4: HSMR and Palliative Care Coding for South Tees.

Source: NEQOS Hospital Mortality Monitoring Report 23. Data extracted from HED Jan 2015.

7 Mean-Centred HSMR and SHMI

7.1 NEQOS have developed a new approach for trusts to understand their SHMI and HSMR based on a recent paper², this will be distributed through the Regional Mortality Group. Mean-centred displays show trends for the mortality indicator, observed, expected and discharges.

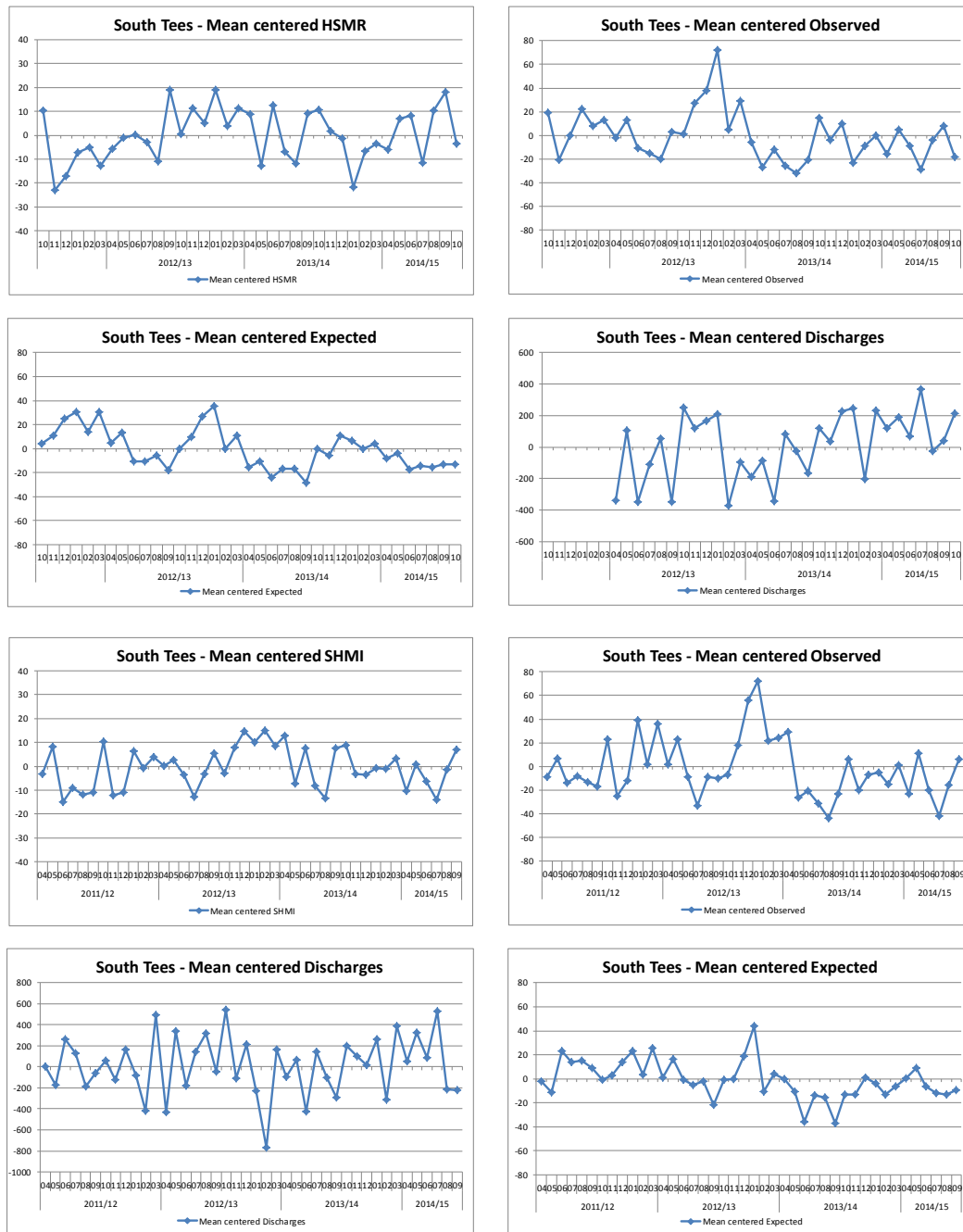


Figure 5: Mean Centred displays for SHMI and HSMR: South Tees.

Source: HED Jan 2015.

² Mohammed MA, Stephens AJ. A Simple Insightful Approach to Investigating a Hospital Standardised Mortality Ratio: An Illustrative Case-Study paper. *PLoS ONE* 2013;8(3): e57845.

8 Unadjusted Mortality: Trust Overview

Centre	Jan 2014 - Dec 2014		Deaths as a Percentage of Spells		Excess Deaths
	Deaths	Spells	Trust	Peer	
Total	1935	151535	1.28%	1.42%	-218
Clinical and Diagnostic Services	18	1381	1.30%	1.03%	4
Integrated Medical Care	1281	30415	4.21%	5.35%	-347
Specialty Medicine	211	32180	0.66%	0.71%	-17
Surgical Services	170	38538	0.44%	0.44%	2
Tertiary Services	186	10917	1.70%	1.36%	37
Trauma Orthopaedics Theatres	50	11406	0.44%	0.52%	-9
Women & Children	19	26698	0.07%	0.07%	-1

Table 4: Crude Mortality: number of deaths, mortality rate and peer data to Centre level January 2014 - December 2014.

Source: CHKS Signpost.

8.1 There were 1,935 deaths in 151,535 spells in the 12 months January 2014 - December 2014 which equates to around 161 deaths each month in South Tees (at James Cook and Friarage Hospitals and including Community Hospitals) giving an unadjusted mortality rate of 1.28% compared to a peer rate of 1.42%. Clinical and Diagnostic Services had 18 deaths Tertiary Services (which incorporates Cardiothoracic Services and Neurosciences) had a greater number of deaths than expected and a mortality rate greater than peer (1.70% compared to 1.36%); probably because patients remain in the Trust for rehabilitation.

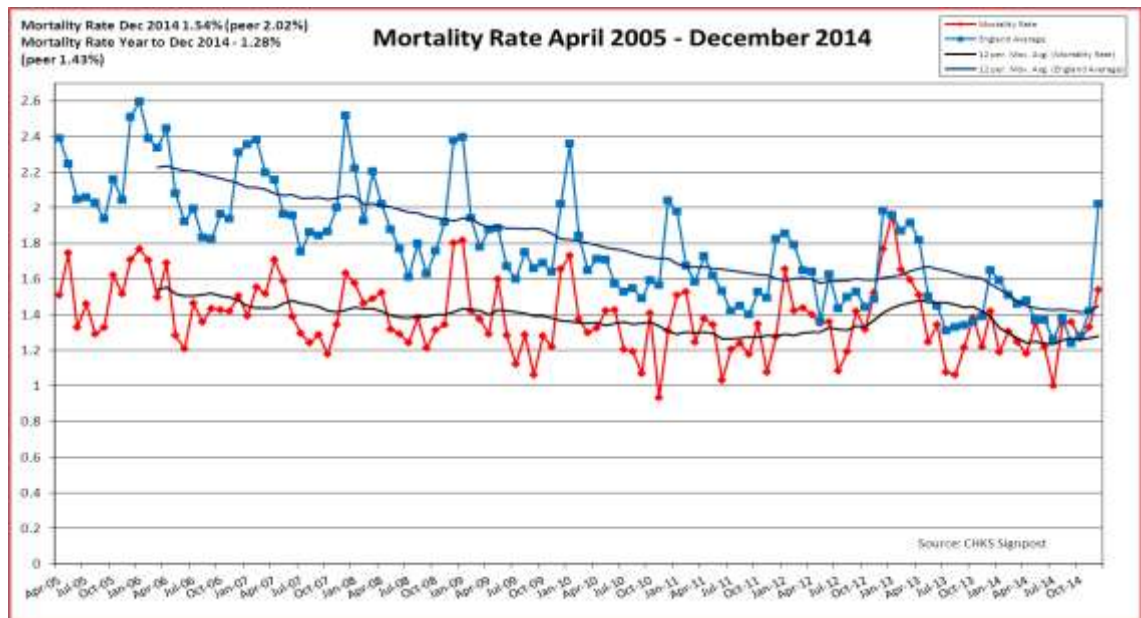


Figure 6: Crude Mortality Rate April 2005 – December 2014 including Rolling 12 month averages.

Source: CHKS Signpost.

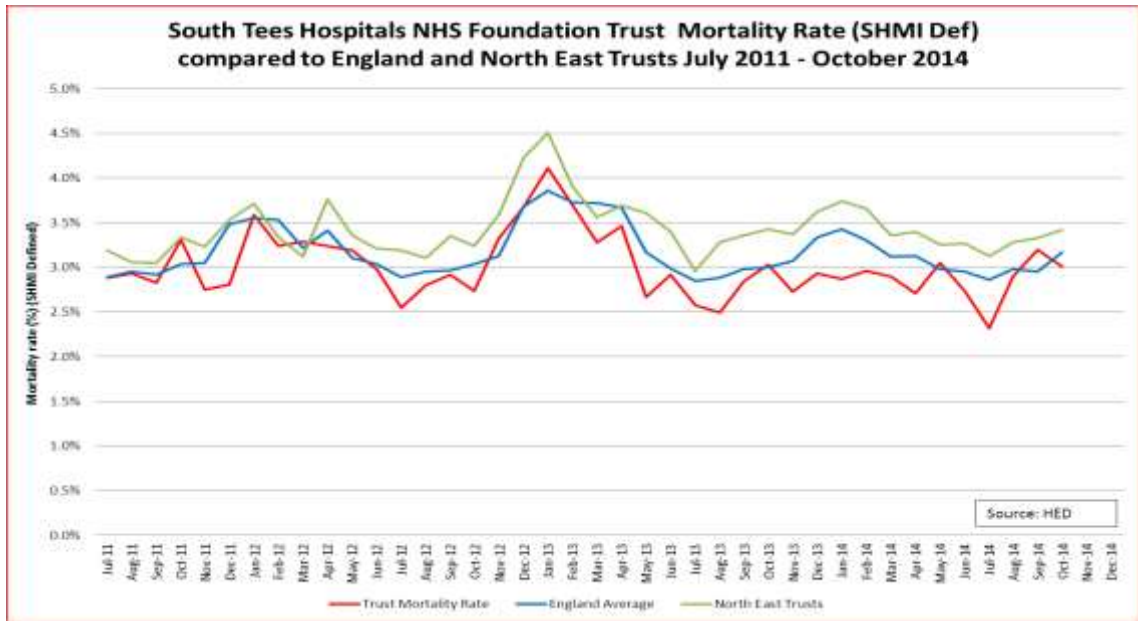


Figure 7: SHMI Defined Mortality Rates: Trust, North East Region and National July 2011 – October 2014.

Source: HED.

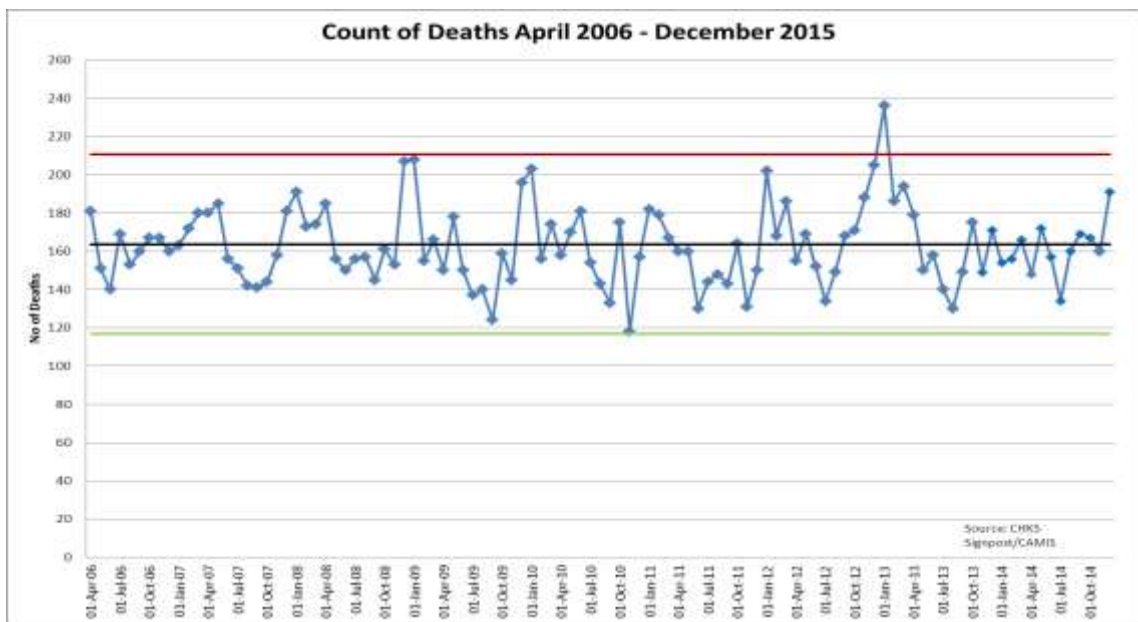


Figure 8: SPC Chart of Deaths April 2006 – December 2014.

Source: CHKS Signpost.

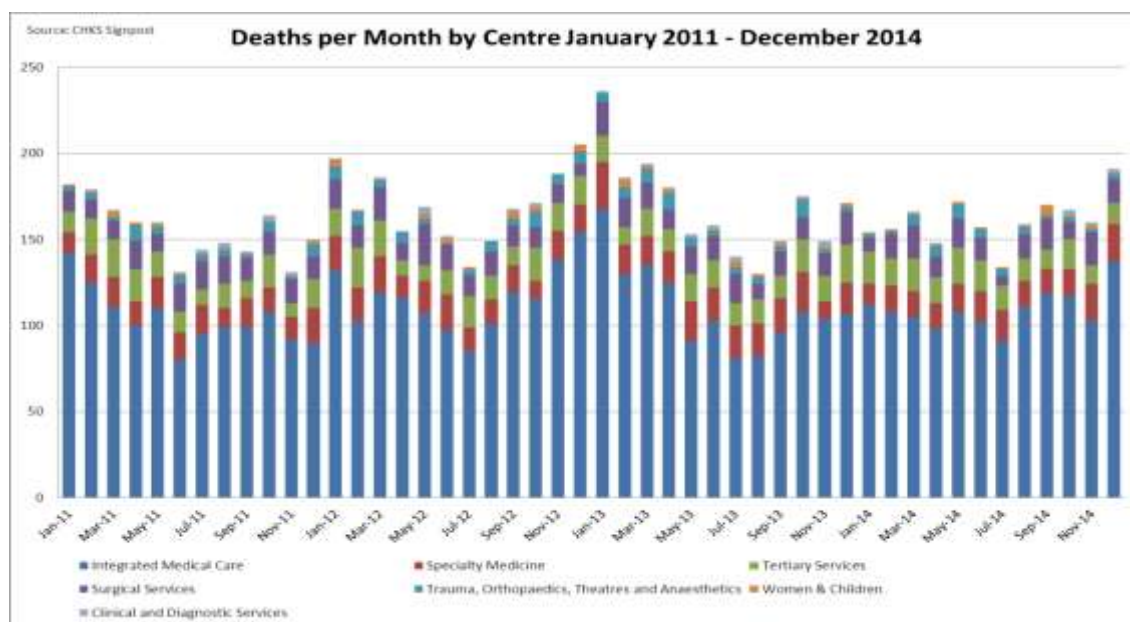


Figure 9: Deaths per month per Division and Centre January 2011 – September 2014.

Source: CHKS Signpost.

- 8.2 From April 2011 South Tees Hospitals NHS Foundation Trust assumed responsibility for the Community Services Division of Middlesbrough, Redcar & Cleveland and North Yorkshire (Hambleton & Richmondshire), particularly the Carter Bequest East Cleveland, Guisborough and Redcar Primary Care Hospitals.
- 8.3 Over the past year, records have gradually been included in with the Acute Hospital's statistics. Of the 275 deaths recorded in Community Hospitals, 174 (63.3%) have appeared in Acute Hospital statistics. Of those that were not included it is presumed that these were deaths in GP beds and the Trust had no other input into their care.

Hospital	No. of Deaths Acute Trust	No. of Deaths Community	Total Deaths
JAMES COOK UNIVERSITY HOSPITAL	1494		1494
FRIARAGE HOSPITAL	267		267
REDCAR PRIMARY CARE HOSPITAL	50	17	67
CARTER BEQUEST PRIMARY CARE HOSPITAL	36	13	49
ECH - EAST CLEVELAND HOSPITAL	31	11	42
FRIARY HOSPITAL	23	23	46
LAMBERT MEMORIAL COMMUNITY HOSPITAL	14	12	26
GUISBOROUGH GENERAL HOSPITAL	11	1	12
RUTSON	9	24	33
Grand Total	1935	101	2036

Table 5: Deaths in South Tees Acute and Community Hospitals January 2014 - December 2014.

Source: South Tees Hospitals NHS Foundation Trust.

8.4 The Office for National Statistics released figures showing that the current death rate in England and Wales is running about one-third higher than its normal rate for this time of year with the driving force being recurrent cold snaps and influenza as this winter's prevalent strain particularly hits the elderly and the flu vaccination this year was largely ineffective against it.³

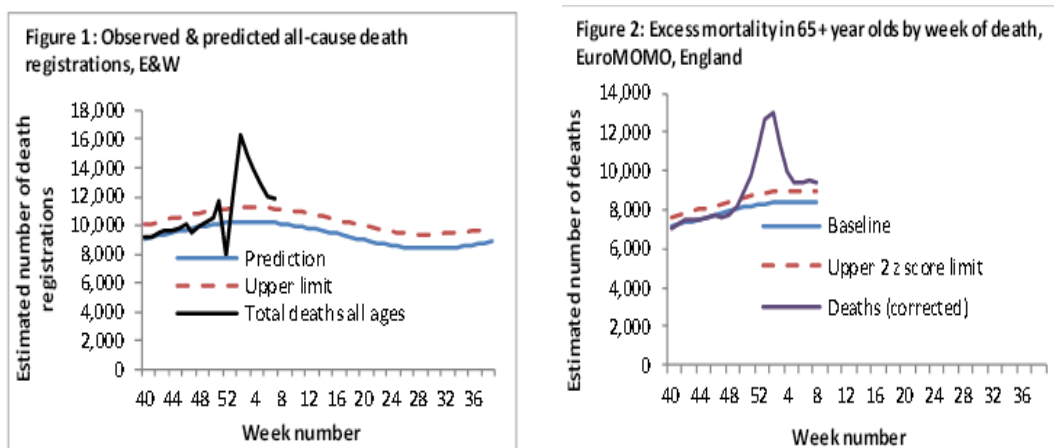


Figure 10: Observed and Predicted all-cause death registrations England & Wales. Excess mortality in 65+ year olds by week of death, England

Source: Public Health England. Weekly All Cause Mortality Surveillance Week 9 Report.⁴

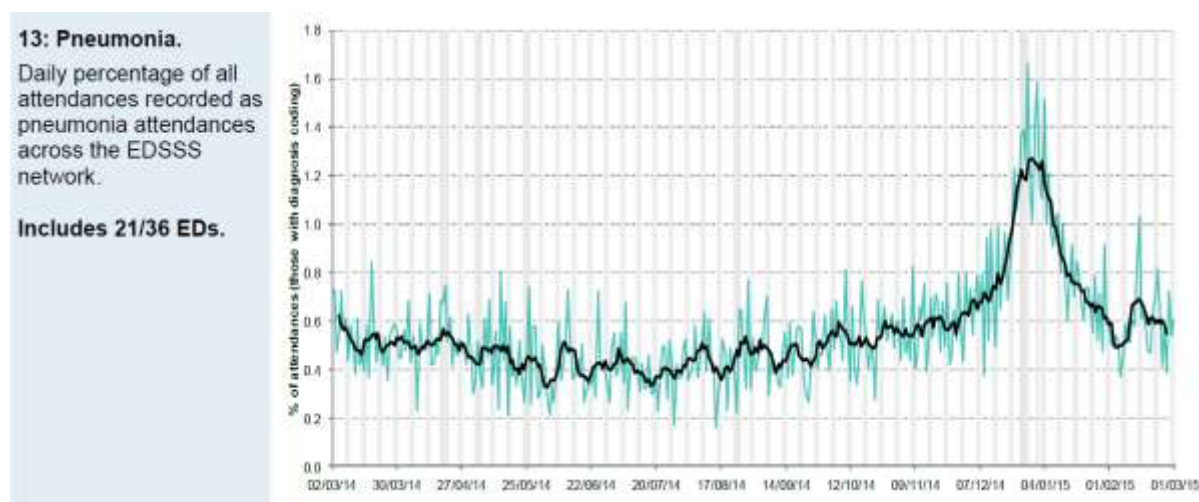


Figure 11: Daily percentage of all attendances recorded as pneumonia attendances across the EDSSS network.

Source: Public Health England Emergency department bulletin: 5 March 2015 week 9⁵

³https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407912/Weekly_report_mortality_week_9_26February2015_updated.pdf.

⁴https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/409624/EDSSSBulletin2015_wk09.pdf

⁵ <https://www.gov.uk/government/publications/emergency-department-bulletin> .

Trust Mortality Report for Board of Directors data to end of Q3 2014/15

- 8.5 Nationally, excess deaths particularly in the over 65s have occurred since week 50 2014 (mid December). Trust mortality follows a similar pattern. Internal figures show that 86.9% of deaths in December 2014 were in the aged 65 and over age group (rising to 90.2% in January 2015).
- 8.6 Of the 1,935 deaths in the trust in the period January – December 2014, 1,615 occurred in patients aged 65 and over – 83.5%. 398 of those deaths were in the condition group for respiratory illness (24.6%) and 61.8% of those deaths were attributable to pneumonia. Additionally 40.6% of deaths in the 65+ age group not primarily due to a respiratory condition had a secondary diagnosis in that category.

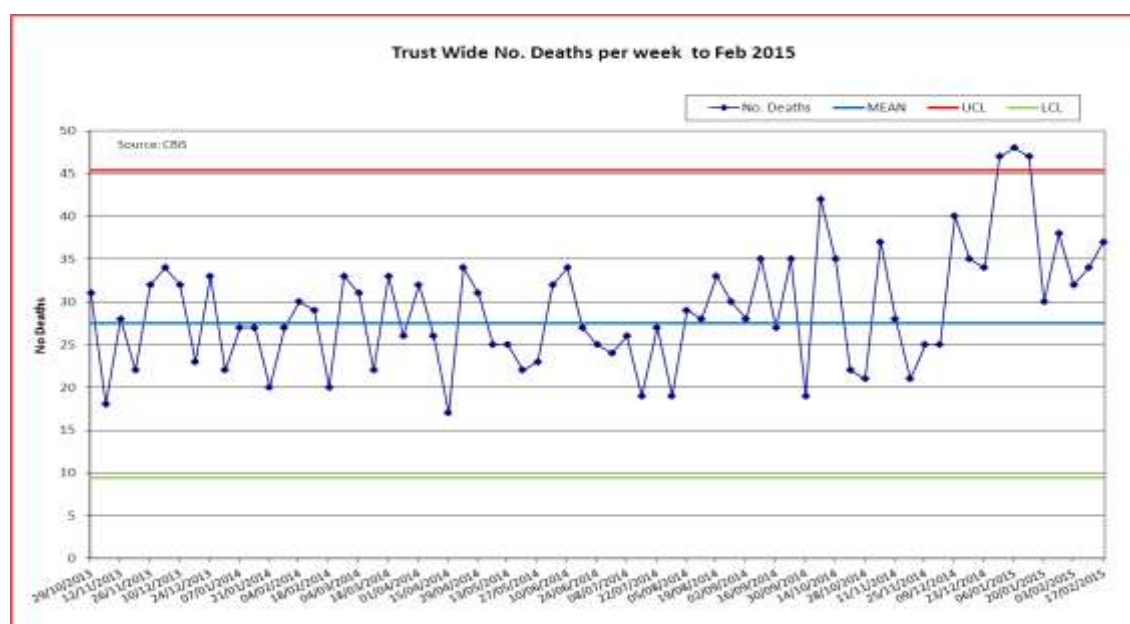


Figure 12: South Tees: Number of deaths per week to February 2015.

Source: CBIS

9 Intelligent Monitoring Report and Dr Foster Intelligence: Quarterly Mortality Data Release

- 9.1 Neither the CQC IMR nor the Dr Foster measures have been updated since the last board report.
- 9.2 Dr Foster release data on four mortality metrics on a quarterly basis:⁶
- Hospital Standardised Mortality Ratio (HSMR)
 - Emergency Hospital Standardised Mortality Ratio (Weekday)
 - Emergency Hospital Standardised Mortality Ratio (Weekend)
 - Deaths in low risk diagnosis groups.

⁶ <https://my.drfooster.co.uk/Updates/mortality-data-for-english-nhs-acute-trusts-april-2013-march-2014>

10 Use of Z515 and Z518 Palliative Care Coding

- 10.1 Following the reduction in the use of the specialist palliative care code (Z515) during 2013 (as discussed in previous Board reports), all coding has been reviewed. This has led to a tightening of the process so that all patients who receive specialist palliative care have this included in the data uploaded to the Secondary Uses Service (SUS). This resulted in an increase in the numbers of patients coded as receiving palliative care in the final quarter of 2013/14 but this increase has not been sustained.
- 10.2 The Trust is also instituting changes to documentation, sharing of lists of patients who have had contact with the specialist palliative care team with the coding department and emphasising to ward staff the importance of filing the documentation in the correct place in the medical records (as we know from audit work that this is a problem in some areas).

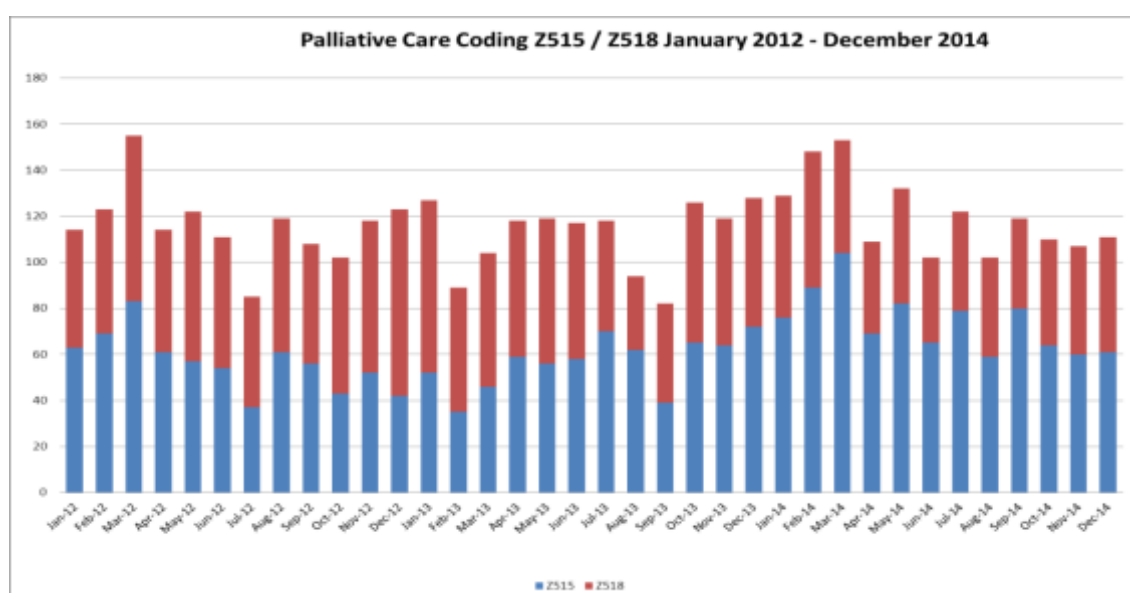


Figure 13: Palliative Care Coding (Z515/Z518) all spells January 2012 – December 2014.

Source: CHKS Signpost.

- 10.3 The Z515 Palliative Care code has been used in 2,244 cases since January 2012 and Z518 (Other specified medical care) in 1,935 cases (76 cases had both codes). Coding to Z518 indicated that the patient is on the Care Pathway for the Last Days of Life (CPLDL) - in line with national guidance released June 2010. This has now been replaced by Care of the Dying Patient.
- 10.4 Of the 4,179 patients 2,444 (58.5%) have to date subsequently died in hospital. 89.6% of those were on the Z518 Care of the Dying Patient.

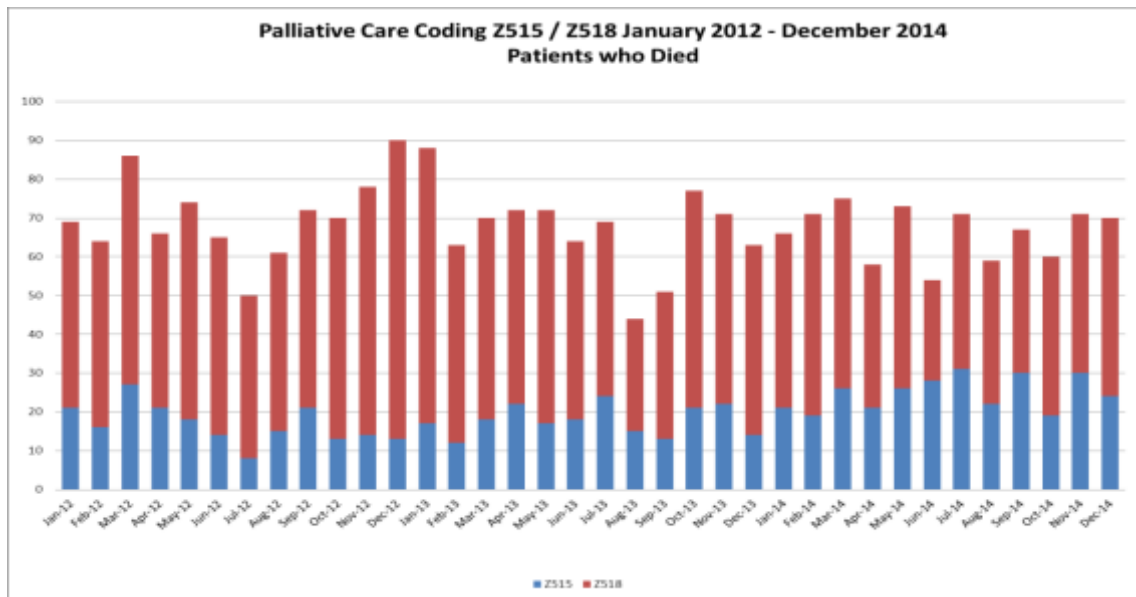


Figure 14: Palliative Care Coding (Z515/Z518) for patients who died in hospital January 2012 – December 2014

Source: CHKS Signpost.

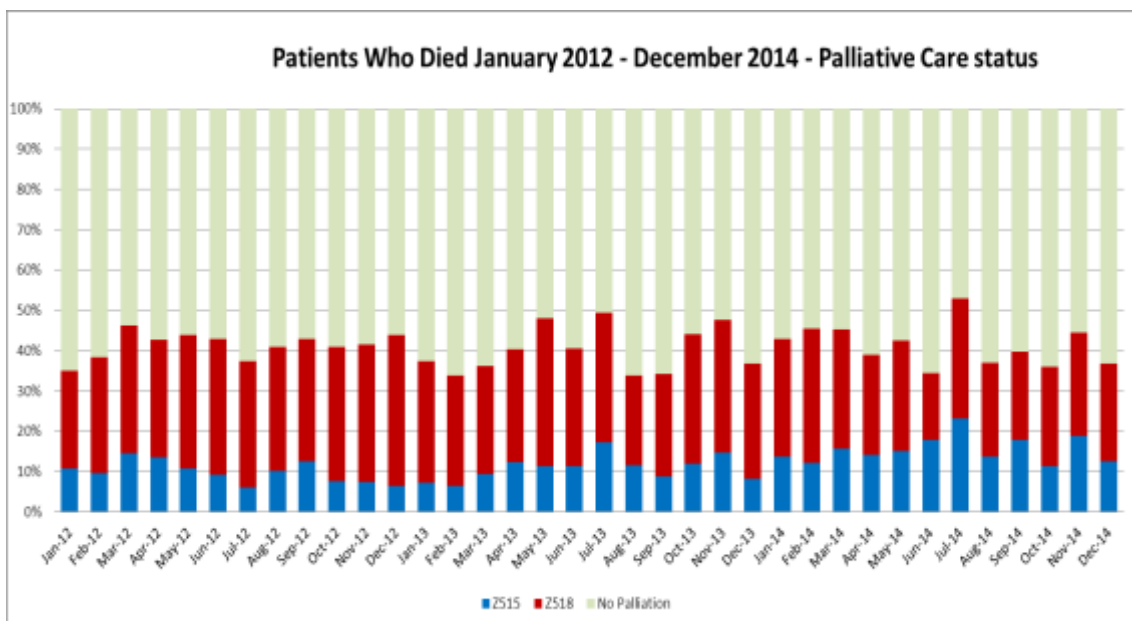


Figure 15: Patients who Died January 2012 – December 2014: Palliative Care Status

Source: CHKS Signpost.

10.5 58.9% of all patients who died in the Trust from January 2012 – December 2014 did not have a palliative care code.

11 Mortality in A&E Department – Dead on Arrival or Died in Department

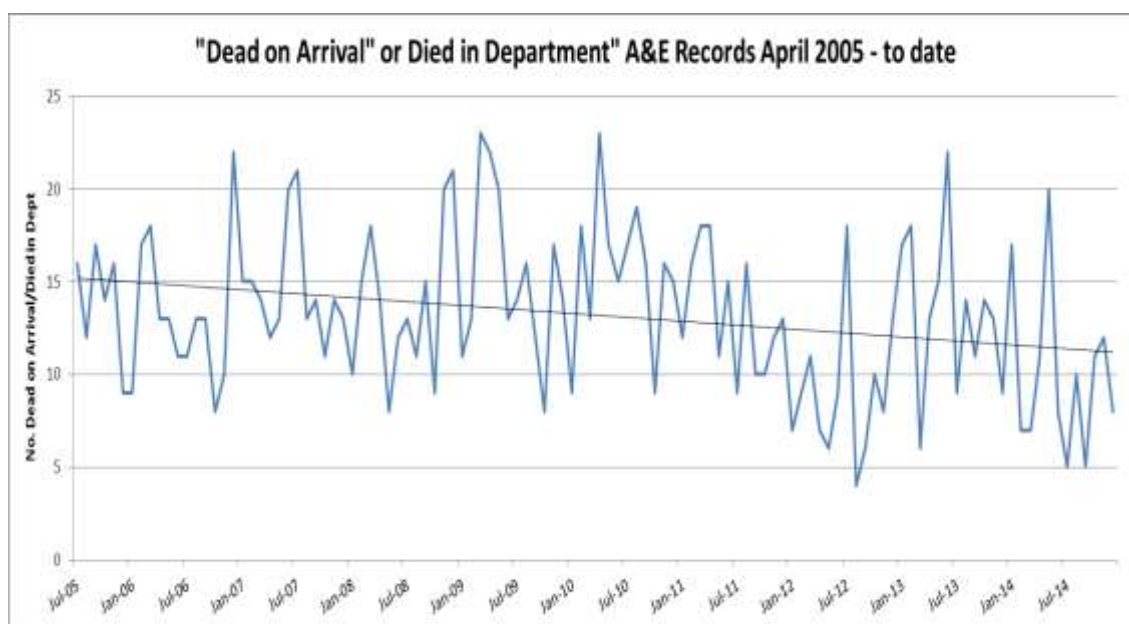


Figure 16: Dead on Arrival or Died in Department April 2005 – December 2014.

Source: South Tees Hospitals NHS Foundation Trust

- 11.1 An average of 13 people per month arrive at the Trust's A&E Department and are either declared dead on arrival or die soon afterwards without progressing further through the hospital system. They do not generally appear on CHKS mortality statistics.
- 11.2 In the last year, 63.5% had suffered a cardiac arrest prior to death and a further 8.7% had suffered respiratory arrest prior to death.

Initial Diagnosis on Arrival at A&E	No. Cases	% All Cases
CARDIAC ARREST	80	63.5%
RESPIRATORY ARREST	11	8.7%
CVA	8	6.3%
COLLAPSED	6	4.8%
BREATHING DIFFICULTIES	4	3.2%
(blank)	3	2.4%
HAEMORRHAGE	2	1.6%
CHEST INFECTION	2	1.6%
AAA	2	1.6%

Table 6: Initial Diagnosis on arrival at A&E: Dead on Arrival / Died in Department.

Source: South Tees Hospitals NHS Foundation Trust

- 11.3 46.0% were in the 66–85 age group, 20.6% aged over 85. 94.4% of cases were brought into the department by emergency services and a further 4.8% were walk-ins i.e. self-referring. 56.3% arrived between 9am – 5pm, and 43.7% arrived 'out of hours'.

Trust Mortality Report for Board of Directors data to end of Q3 2014/15

- 11.4 All deaths in the ED are screened by a Consultant and notable cases are discussed at a multi-disciplinary team meeting. To date, in the current year, this process has not identified any avoidable mortality cases.

12 Conclusion

- 12.1 This report shows that the Trust performs within the expected range for the Summary Hospital-level Mortality Indicator (SHMI) for July 2013 to June 2013 (101).
- 12.2 The HSMR for October 2013 to September 2014 is 110 which is "higher than expected". The latest available HSMR for January 2014 to December 2014 is 108 which is "as expected".
- 12.3 The number of deaths and the unadjusted mortality rates to February 2015 show the Trust has experienced a winter peak in deaths. Figures for December 2014 and February 2015 are above average but not unusual for winter months, whilst January 2015 was exceptionally high. This pattern reflects national and regional trends and is consistent with the national figures for pneumonia attendances.
- 12.4 The Mortality Group continues to perform weekly mortality reviews. This places the Trust in a strong position to respond to the national requirement to carry out clinical mortality reviews announced by the Secretary of State during March.

13 Recommendations for improvement of mortality

- 13.1 The Trust should continue to develop work relevant to patients at high risk of dying in its care. This includes work in deteriorating patients, sepsis, community-acquired pneumonia and acute kidney injury. Better data collection and linkage is needed in line with the national CQUIN requirements published in March 2015.