NHS
Birmingham Women's and Children's
NHS Foundation Trust

Mortality Review extract from Quality Report January 2019

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Safe – Key Measures
Mortality Review Process at BWC

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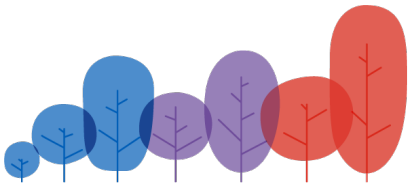
1. Identify cases for review, using criteria listed below
2. Undertake mortality review using relevant structured tool
3. Involve parents, family or carers in the process
4. Link with the Serious Incident process, if applicable
5. Report outcome of review to Mortality Review Group
6. Monitor internal and external trends
7. Identify and share learning across the Trust

BWC is committed to learning from deaths, and reducing our mortality rates as much as possible. Due to the unique and specialist nature of our organisation, benchmarking BWC mortality rates nationally, and with other similar providers, is difficult. The main value is in monitoring the overall trends, as individual rates cannot be adjusted accurately enough to be meaningful. Therefore, BWC has an extensive inclusion criteria for cases that will be subject to a detailed mortality review, to ensure we are learning lessons and identifying areas for improvement.

BWC will review all deaths meeting the following criteria:

- 100% child deaths
- All perinatal deaths >22 weeks, >500g, excluding termination of pregnancy (unless it is a live birth)
- 100% maternal deaths
- All unexpected adult deaths and expected adult deaths in where concerns are raised
- 100% deaths of patients with a learning disability
- All deaths where bereaved families and carers, or staff, have raised a significant concern about the quality of care provision.



Safe – Key Measures
Mortality Rates at BWC

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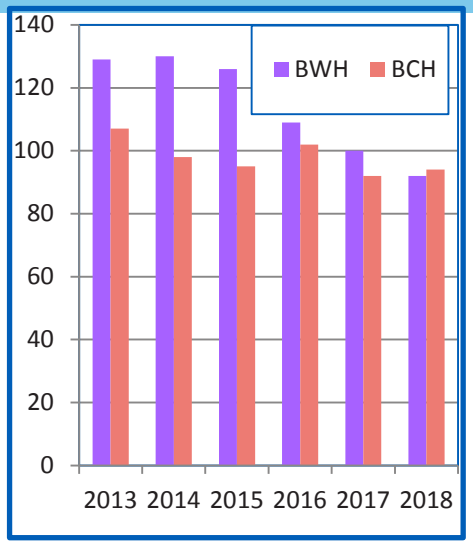
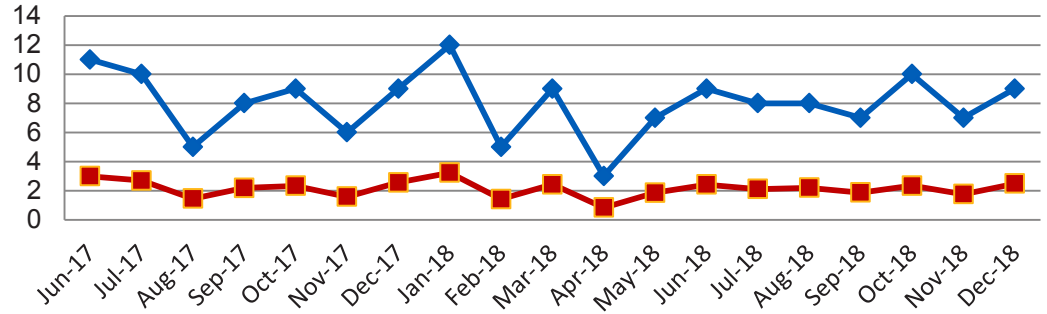
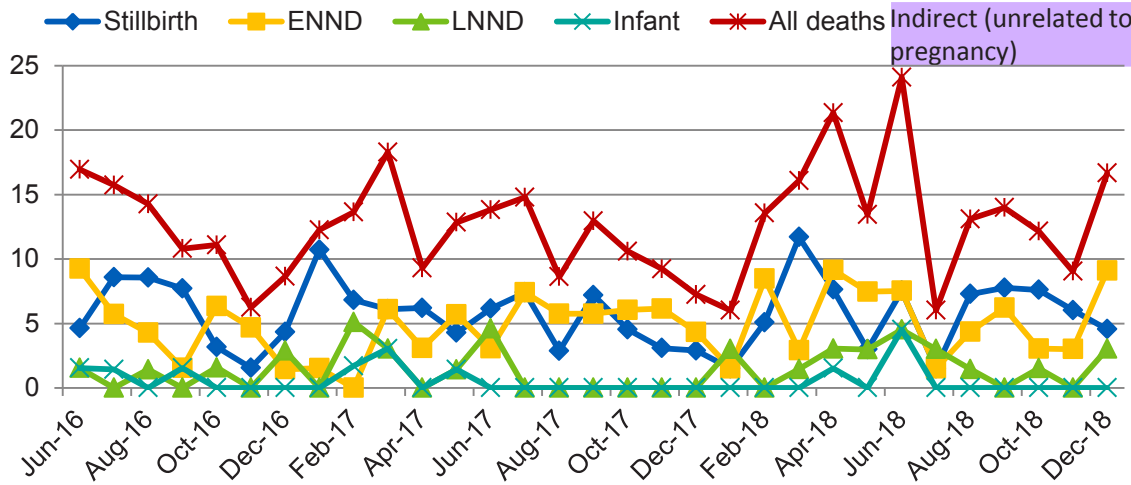


BCH inpatient deaths



	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
Deaths	11	10	5	8	9	6	9	12	5	9	3	7	9	8	8	7	10	7	9
Deaths per 1000 Admissions	2.99	2.69	1.45	2.18	2.33	1.58	2.56	3.23	1.42	2.43	0.83	1.85	2.42	2.11	2.2	1.87	2.34	1.75	2.48

Death rates per 1000 deliveries



Maternal Deaths by year	12	13	14	15	16	17	18
Direct (resulting from pregnancy or related issues)	0	0	2	1	2	1	1
Indirect (unrelated to the pregnancy)	1	1	1	0	1	0	2

The investigation concluded that there were no gaps in care.

Definitions

- **Late foetal loss** - baby delivered between 22+0 and 23+6 weeks gestational age showing no signs of life, irrespective of when the death occurred.
- **Stillbirth** - baby born after 24 weeks with no signs of life
- **Early Neonatal Death** -baby of any gestation born with signs of life dying before 7 days
- **Late Neonatal Death** - baby of any gestation born with signs of life dying between 7-28 days
- **Infant Death** – baby dying between 28 days-1 year

Safe – Key Measures
Monthly Mortality at BWC

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Number of deaths in December 2018	
	BWH: *There were 13 deaths in December. 1 ToP with signs of life, 3 stillbirths, 8 neonatal deaths and 1 infant death*
	BCH:. *There were 10 deaths in December. 9 inpatient deaths and 1 out of hospital arrest.*
	FTB: *There have been no reported deaths of service users in December.*

One of the neonatal deaths has been classed as a SIRI. This involved a baby being born in poor condition after an emergency caesarean section. The baby was resuscitated and transferred to the NICU, but passed away later.

Where the BCH mortality review process identified cases where care was substandard and this may have impacted on the outcome these cases have been included in previous versions of this report. We will now also include such cases for BWH. The classification system used at BCH and BWH is comparable, but not identical. The table below describes the classifications.

BCH		BWH	
1.	The care provided was less than adequate; and different management would reasonably be expected to have altered the outcome.	**3**	Suboptimal care – different management would reasonably be expected to have made a difference to outcome
2.	The care provided was less than adequate; and different management may have altered the outcome.	**2**	Suboptimal care – different management might have made a difference to outcome
3.	The care provided was less than adequate; and different management would not reasonably be expected to have altered the outcome.	**1**	Suboptimal care – different management would have made no difference to outcome
4a	Adequate or better than adequate care provided	**0**	No suboptimal care
4b	Adequate or better than adequate care was provided; different management may have altered the outcome	**-**	-
U.	The case cannot be classified without significant further investigation (please note that this classification is only used at stage 1 and 2)	**-**	-

Safe – Key Measures
Mortality Outcomes - External Trends/ Benchmarking

Birmingham Women's and Children's NHS Foundation Trust

External Trust-wide monitoring: SPMI	• The Standardised Paediatric Morality Index (SPMI), is relatively high compared to our usual rates and our peers. Our figure for September (the latest figure available) is 213. While this is a decrease from 252 in August, the SPMI is significantly higher than usual. • The second threshold seen on the funnel plot indicates a potential concern with an organisation's outcomes. We have not crossed that threshold. • We and Manchester are both at the first threshold. • .The Mortality Review Committee will review what has caused the increase in our SPMI and will report back.
External specialty specific monitoring: PICU CUSUM, Cardiac VLAD, Liver CUSUM	• All of these data sets are carefully validated by an external source and so we have a high degree of confidence that the information is valid. • Neither the PICU CUSUM or the Cardiac surgery VLAD chart indicate that there is any concern with the clinical outcomes in these specialties. • The liver CUSUM highlighted that we had a series of cases with poor outcomes. The threshold to trigger concern has been crossed and so we expect to carry out a further review. We are awaiting direction from NHS Blood and Transplant.
Mortality and clinical outcome alerts	• Alerts called "Signals" can be located in the HED mortality modules. These alerts are not sent directly to the Trust, instead when the monthly monitoring data is extracted a check is done in the system to establish if there are any current alerts. **No signals have been received in the last quarter.** • The CQC will at times also issue us with an alert. We will typically receive one for maternity mortality on an annual basis. This is because the nature of our services means that we will typically be an outlier when compared to lower risk maternity units. We have not confirmed that there are any current CQC alerts.

Mortality and clinical outcome alerts
Safe – Key Measures
Mortality Outcomes - External Trends/Benchmarking (continued)

Birmingham Women's and Children's NHS Foundation Trust

The data that is available to us through HED includes all of our paediatric activity, both from BCH and BWH. Maternity data is not available on the HED system, for our organisation or any other maternity hospitals. The number of gynaecology deaths at BWH are too low to support statistical analysis. The HED Signals are provided for our information and there is currently no specified response required. The Mortality Review Committee are advised of all alerts.

Alerts are provided at 3 levels. Red, amber and green. Only red alerts indicate that the mortality rate within a specific disease group is higher than would be expected in a time period. Details of all red alerts received from the system will be included in the table below. There have been no recent red alerts.

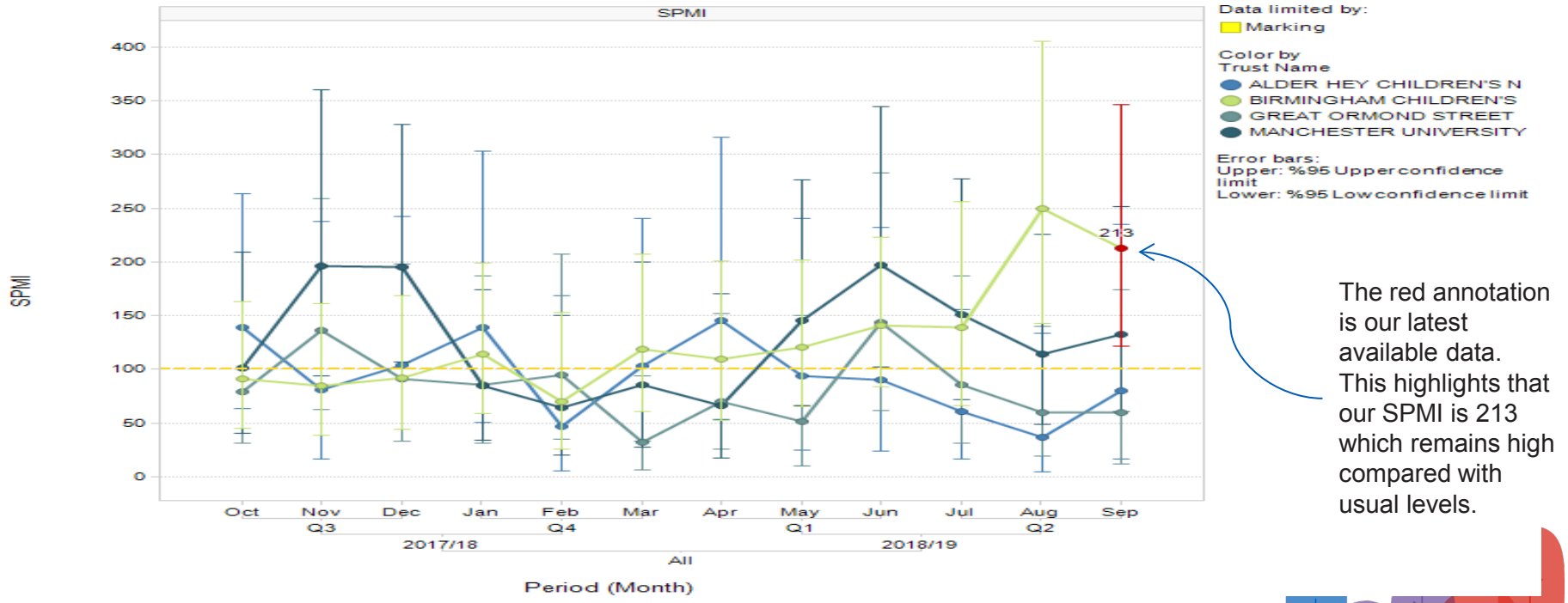
Maternity alerts are informed by the data that is provided through the PNMRT (Perinatal Mortality Review Tool). When the Trust is an outlier an alert is sent to us by the CQC. We typically received one of these each year. No alert has been received in 2018/19.

Date identified / received	Type of alert (e,g, HED, CQC, other)	Detail of alert (precisely what does it say, what time period and what we are expected to do in response to the alert)	Current status / activity of review process in response to alert	Expected date of completion / closure	Final outcome from review
N/A	N/A	N/A	N/A	N/A	N/A

Mortality and external benchmarking information

Birmingham Women's and Children's NHS Foundation Trust

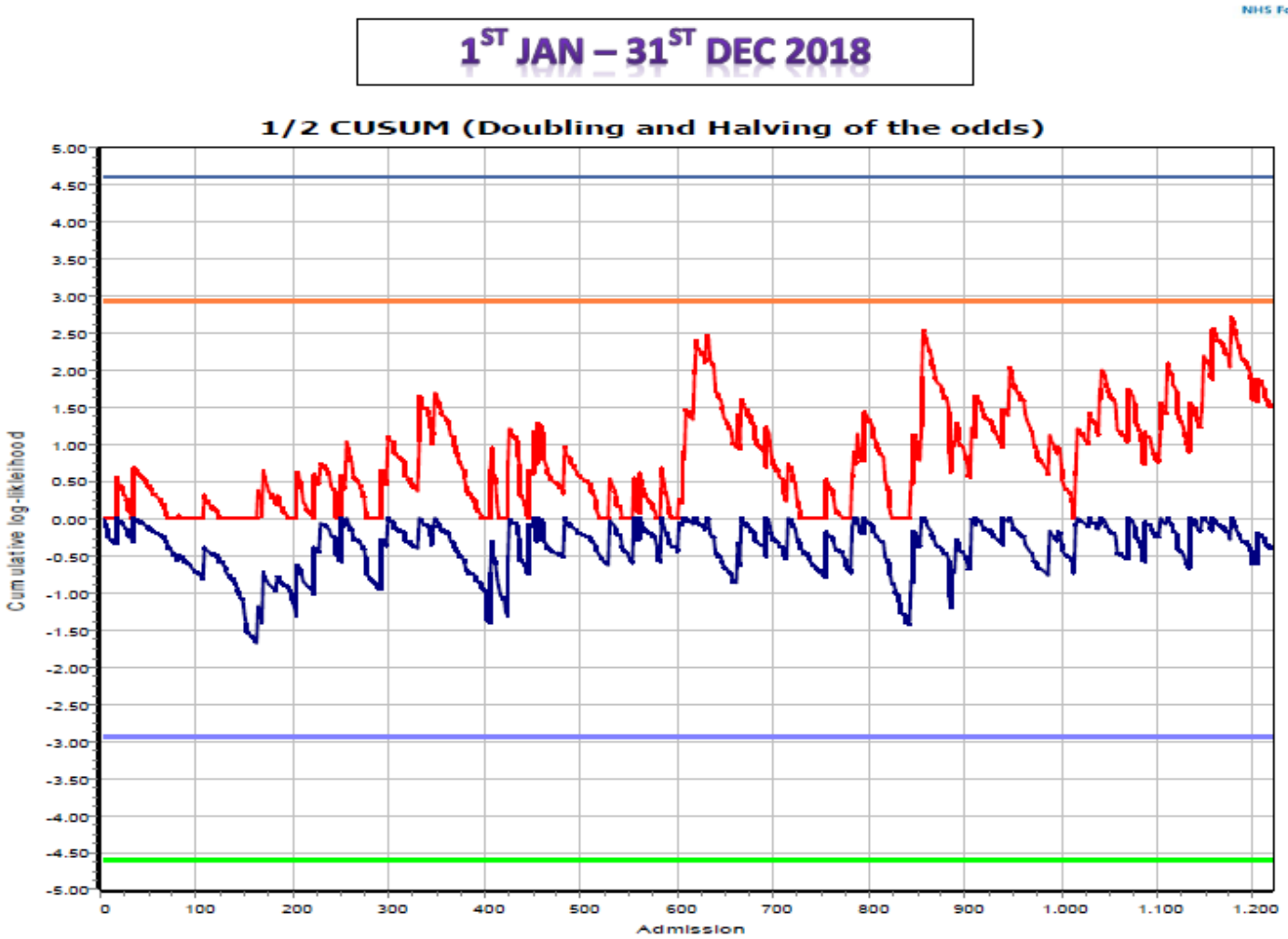
The data that is provided below and on the following slide is provided from the HED system. This is nationally available data but this is poorly risk adjusted in paediatrics and therefore only useful for monitoring overall patterns. We cannot use the specific standardised figures as an indication that we should be concerned about our services. We had been using the RRM measure for several years, however, we have also been working with the HED providers to develop a paediatric system. This is also likely to suffer from some challenges with risk adjustment, but we anticipate that the figure will be more meaningful than the standard RRM. The RRM tool is no longer available to us and so the data provided is from the Standardised Paediatric Mortality Index (SPMI) that we have been developing with HED.



The red annotation is our latest available data. This highlights that our SPMI is 213 which remains high compared with usual levels.

Mortality and external benchmarking information (continued)

Birmingham Women's and Children's NHS Foundation Trust



This chart represents the clinical outcome for patients cared for on the PICU. Movement towards the top of the chart indicates that the patient's outcome was better than expected and movement towards the bottom indicates that the patient's outcome was worse than expected. The chart does not highlight any cause for concern.

Mortality and external benchmarking information (continued)

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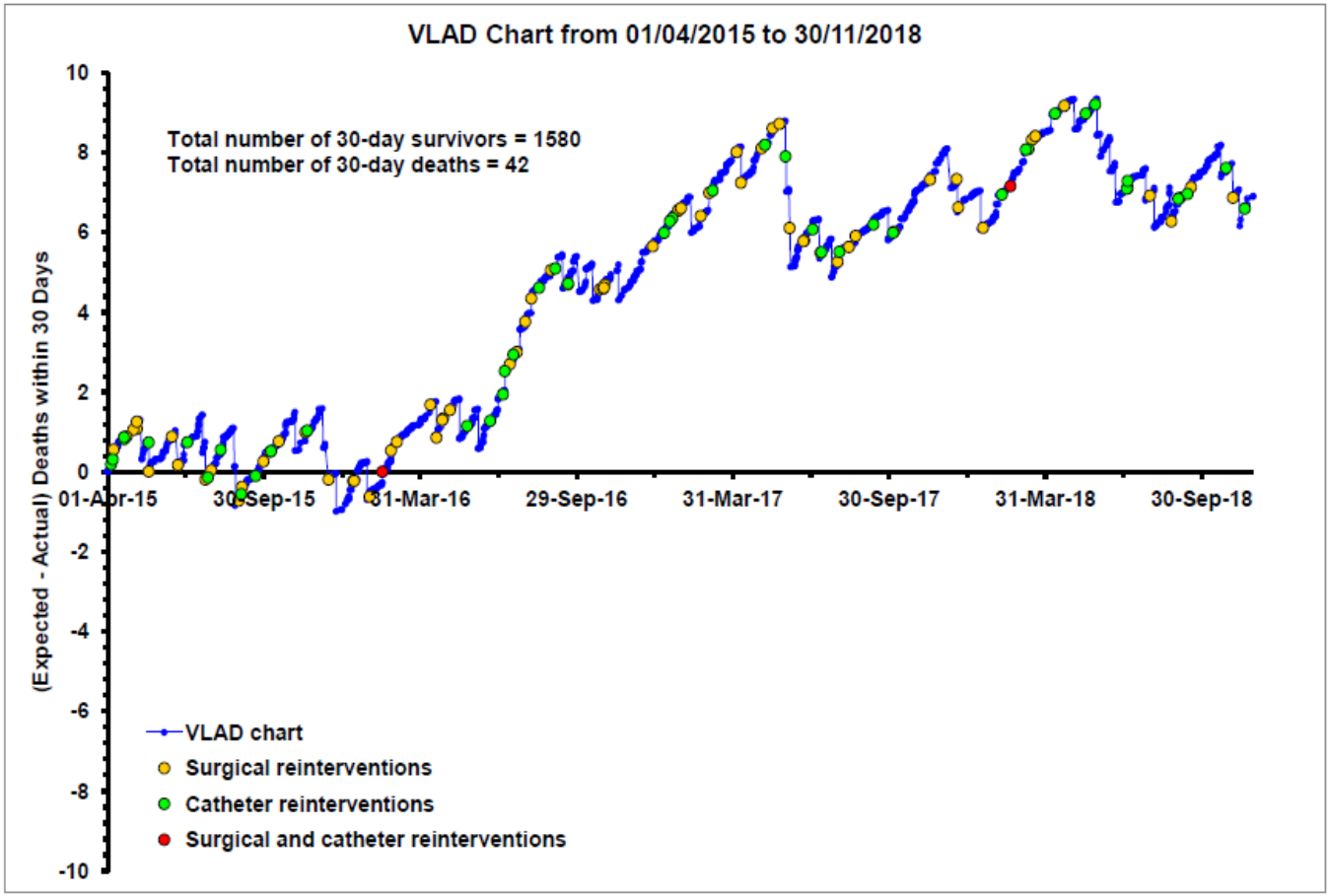
Cardiac VLAD



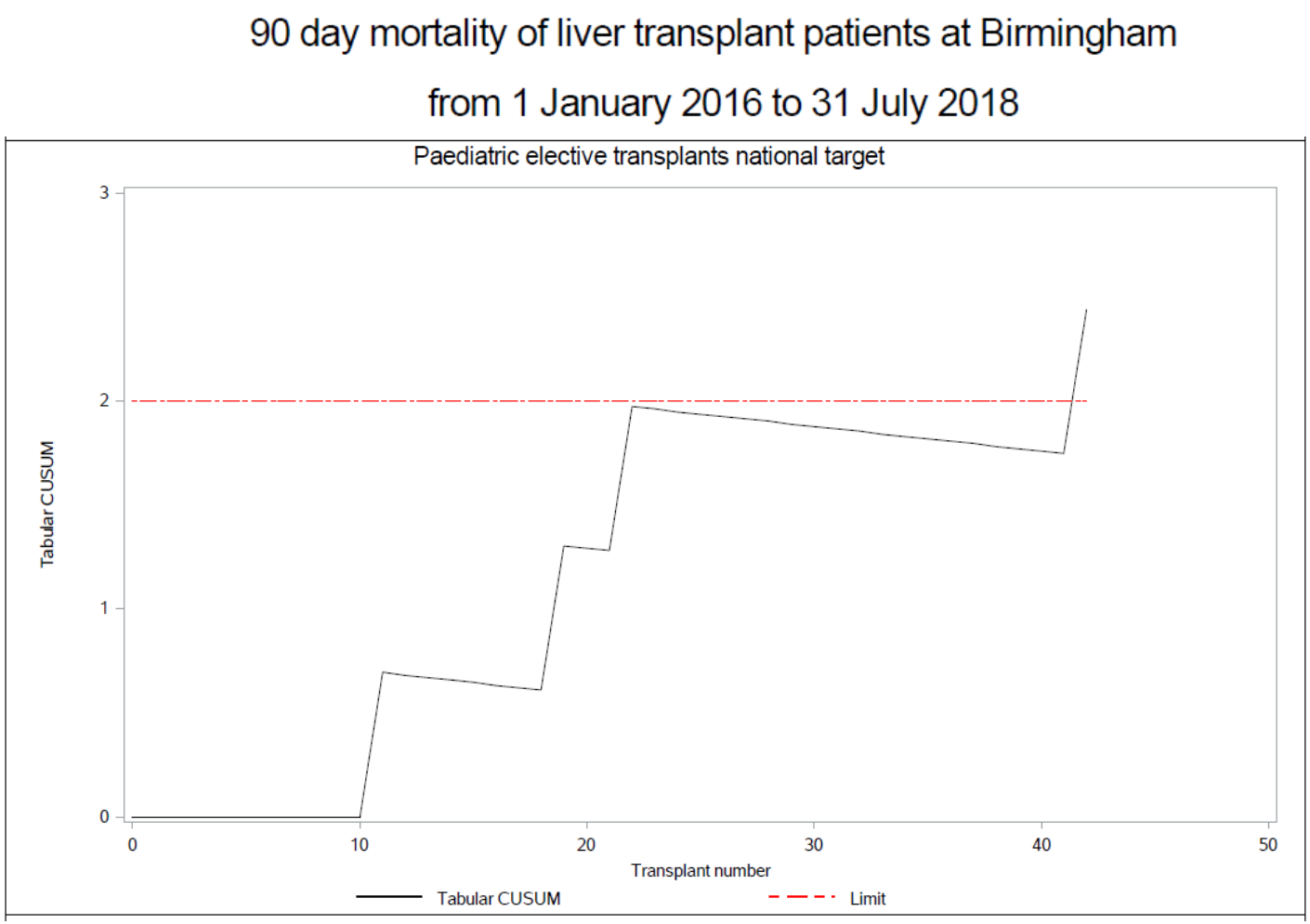
This chart represents the clinical outcome for patients who have undergone cardiac surgery. Each data point represents an operation, with the yellow, green and red ones representing when a re-intervention was needed.

A move towards the top of the chart represents a clinical outcome that was better than expected, and a move towards the bottom represents an outcome that was worse than expected. The chart shows that overall the outcomes are better than expected and this chart does not highlight any cause for concern.

Mortality and external benchmarking information (continued)

Birmingham Women's and Children's NHS Foundation Trust

Liver transplant CUSUM

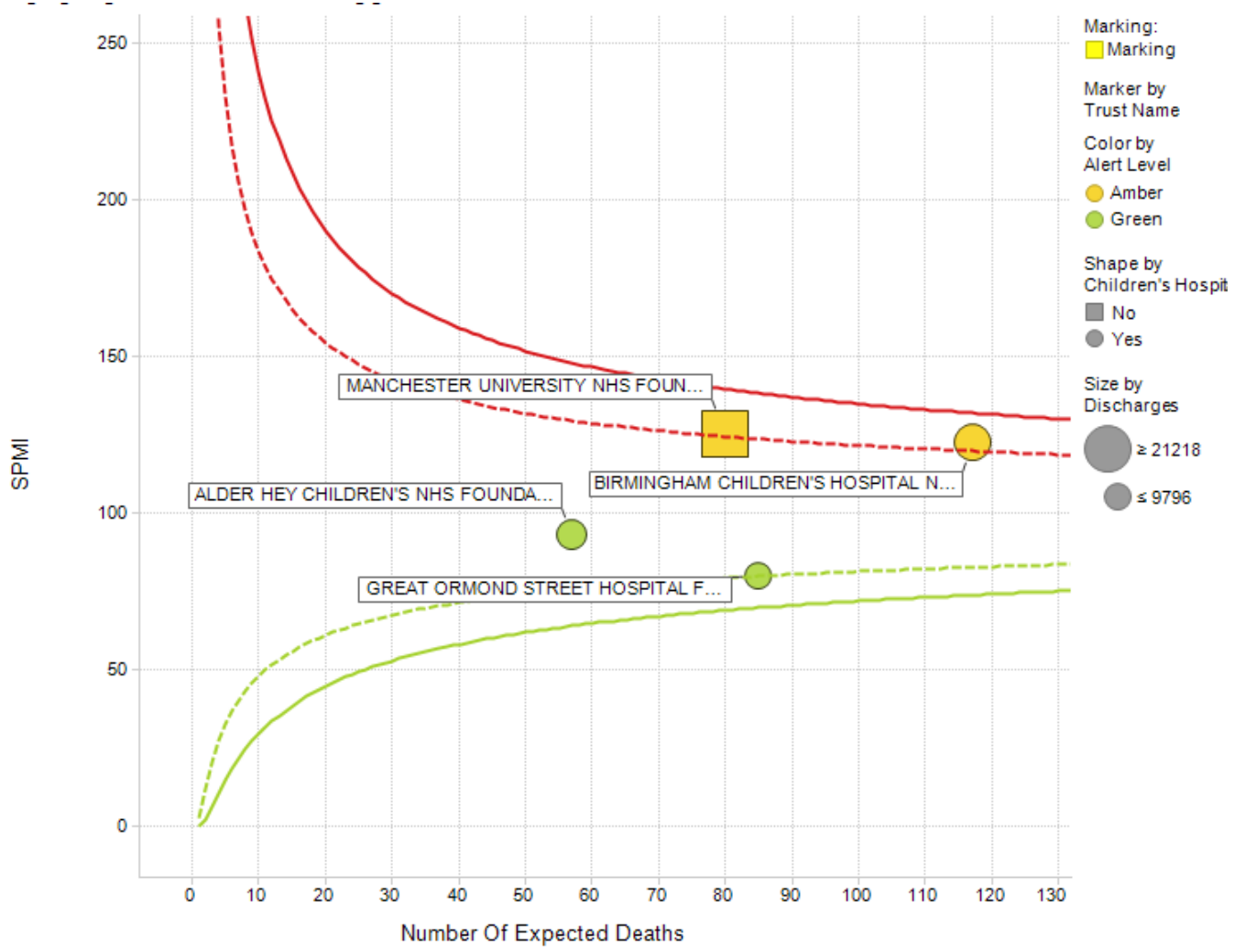


This chart represents the clinical outcome for patients who have undergone a liver transplant. We have crossed the threshold indicating a potential concern. This indicates that the actual number of actual deaths, exceeded the expected number of deaths. We have not had concerns flagged through our case by case mortality review process, however we expect to carry out a further review. We are currently awaiting instruction from the NHS Blood and Transplant Service with details of what review is required.

In 2018 we approached the threshold and carried out an additional review which did not identify any concerns with care. This was shared with NHS Blood and Transplant, who were satisfied with our conclusions.

Mortality and external benchmarking information (continued)

Birmingham Women's and Children's NHS Foundation Trust



The funnel plot to the left is produced using the paediatric standardised mortality rate data set from the HED system. As mentioned above there are also some concerns with the validity of this data and the tool has not yet been validated. This has however been developed by HED in conjunction with BCH colleagues to improve the validity of data available to us. The RRM measure that we have previously monitored is no longer available.

The funnel plot demonstrates we and Manchester are at the first confidence limit. This indicates that an organisation cannot currently take assurance from this data, but does not indicate that there is a concern (indicated by crossing the second limit). Our validated specialty specific data has highlighted a potential concern for liver transplant patients. However, the PICU and cardiac surgery data does provided assurance that our outcomes are good.

The Mortality Review Committee will review why our SPMI has increased and provide an update via this report.