

Avoidable Repeat Rate for January 2022 for Newborn Blood Spot Screening - Manchester Laboratory

The avoidable repeat rate for samples received during January 2022 is displayed by Trust in Figure 1 and by current hospital (for in-patients) in Figure 2. The raw data is provided in Tables 2 and 3. The avoidable repeat rate is calculated by dividing the total number of avoidable repeats by the number of babies tested (i.e. first samples).

There was one sample received in January without a Trust code. A list of trust codes is provided in Table 1.

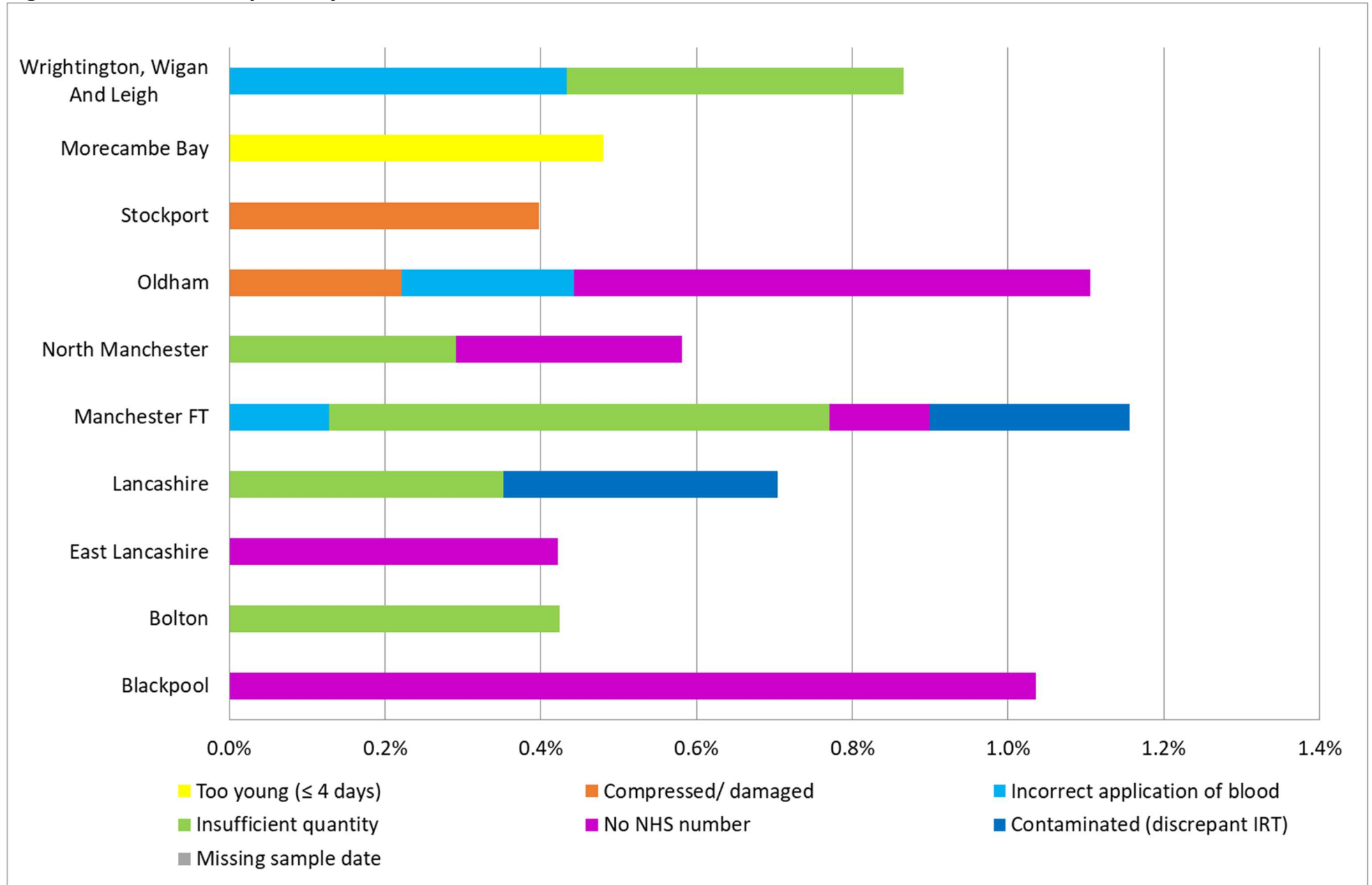
Table 1

Code	Trust Name
RXL	BLACKPOOL TEACHING HOSPITALS NHS FOUNDATION TRUST
RMC	BOLTON NHS FOUNDATION TRUST
RXR	EAST LANCASHIRE HOSPITALS NHS TRUST
RXN	LANCASHIRE TEACHING HOSPITALS NHS FOUNDATION TRUST
RW3	MANCHESTER UNIVERSITY NHS FOUNDATION TRUST – ST. MARY’S & RMCH
RM2	MANCHESTER UNIVERSITY NHS FOUNDATION TRUST – WYTHENSHAW
NM-ROA	MANCHESTER UNIVERSITY NHS FOUNDATION TRUST – NORTH MANCHESTER
OL-RW6	PENNINE ACUTE HOSPITALS NHS TRUST – OLDHAM
RVY	SOUTHPORT AND ORMSKIRK HOSPITAL NHS TRUST
RWJ	STOCKPORT NHS FOUNDATION TRUST
RMP	TAMESIDE HOSPITAL NHS FOUNDATION TRUST
RTX	UNIVERSITY HOSPITALS OF MORECAMBE BAY NHS FOUNDATION TRUST
RRF	WRIGHTINGTON, WIGAN AND LEIGH NHS FOUNDATION TRUST

Please note, following advice from the National Screening Programme from Monday 20th December 2021 until Friday 28th January 2022 we were using different sample acceptance criteria (see below). This was to try to mitigate the potential impact of Omicron variant.

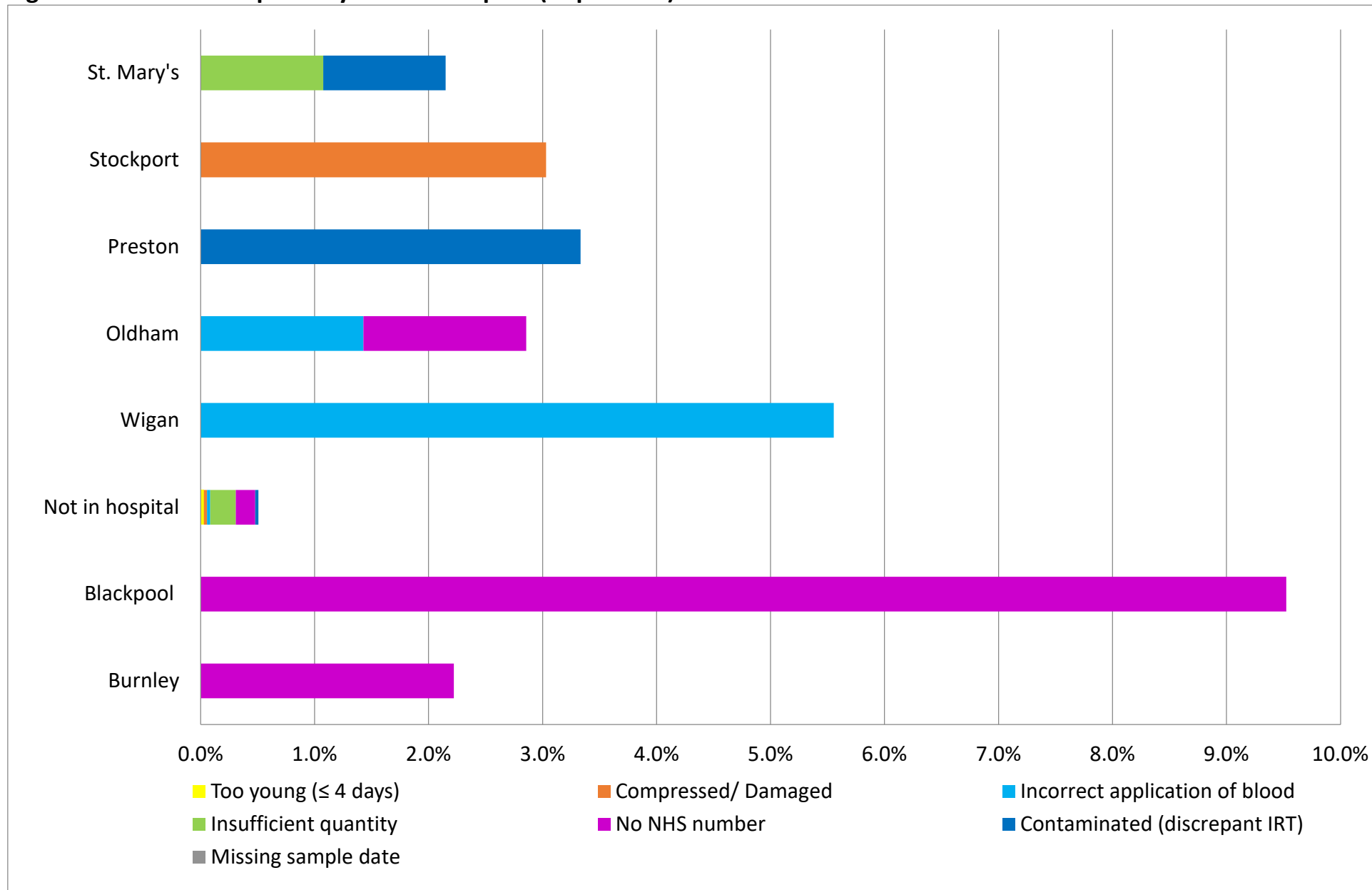
- Day 4 samples were accepted
- Samples with a missing date were accepted if the date could be obtained verbally from the person who collected the sample.
- Unsuitable/insufficient samples were accepted where possible
- Maximum transit time was extended from 14 days to one month

Figure 1 - Avoidable repeats by Trust



There were no avoidable repeats for Southport & Ormskirk and Tameside and Glossop.

Figure 2 - Avoidable repeats by current hospital (in-patients)



There were no avoidable repeats for Bolton, FUR, NMGH, ODGH, RLI, RMCH, TGH and WH. The avoidable repeat rate for Royal Blackburn Hospital was 50% (1 out of 2 samples) so was not included in the graph.

Table 2 – Avoidable repeats by Trust for January 2022

Row Labels	Number of first samples received/ babies tested	Too soon after transfusion (<72 hours)*	Too young for reliable screening (≤ 4 days)	Bloodspot card damaged in transit	Bloodspot compressed/damaged	Expired bloodspot card	Incorrect application of blood on card	Insufficient quantity	>14 days in transit	No NHS number	Contaminated (discrepant IRT)	Missing sample date	DOB missing	Number of Avoidable Repeat Requests	Avoidable Repeat Requests Rate
Blackpool Teaching Hospitals NHS FT	193	0	0	0	0	0	0	0	0	2	0	0	0	2	1.0%
Bolton NHS FT	471	1	0	0	0	0	0	2	0	0	0	0	0	2	0.4%
East Lancashire Hospitals NHS Trust	474	2	0	0	0	0	0	0	0	2	0	0	0	2	0.4%
Lancashire Teaching Hospitals NHS FT	284	0	0	0	0	0	0	1	0	0	1	0	0	2	0.7%
Manchester University NHS FT - SMH, RMCH, WH	777	0	0	0	0	0	1	5	0	1	2	0	0	9	1.2%
North Manchester (MFT)	344	0	0	0	0	0	0	1	0	1	0	0	0	2	0.6%
Health Visitor	43	0	0	0	0	0	0	0	0	1	0	0	0	1	2.3%
Oldham (Pennine Acute Hospitals NHS Trust)	452	2	0	0	1	0	1	0	0	3	0	0	0	5	1.1%
Southport & Ormskirk Hospital NHS Trust	77	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Stockport NHS FT	252	0	0	0	1	0	0	0	0	0	0	0	0	1	0.4%
Tameside And Glossop Integrated Care NHS FT	218	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
University Hospitals of Morecambe Bay NHS FT	208	0	1	0	0	0	0	0	0	0	0	0	0	1	0.5%
Wrightington, Wigan and Leigh NHS FT	231	0	0	0	0	0	1	1	0	0	0	0	0	2	0.9%
Grand Total	4024	5	1	0	2	0	3	10	0	10	3	0	0	29	0.7%
	4024	5	1	0	2	0	3	10	0	10	3	0	0	29	

*Not included in calculation of avoidable repeats

Table 3 – Avoidable repeats by current hospital (in-patients) for January 2022

Current Hospital	Number of first samples received/ babies tested	Too soon after transfusion (<72 hours)*	Too young (≤ 4 days)	Damaged in transit	Compressed/ Damaged	Expired card	Incorrect application of blood	Insufficient quantity	>14 days in transit	No NHS number	Contaminated (discrepant IRT)	Missing sample date	DOB Missing	Number of Avoidable Repeat Requests	Avoidable Repeat Requests Rate
Burnley General Hospital	45	1	0	0	0	0	0	0	0	1	0	0	0	1	2.2%
Royal Bolton Hospital	52	1	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Blackpool Victoria Hospital	21	0	0	0	0	0	0	0	0	2	0	0	0	2	9.5%
Furness General Hospital	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
North Manchester General Hospital	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Not in hospital	3549	1	1	0	1	0	1	8	0	6	1	0	0	18	0.5%
Ormskirk & District General	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Royal Albert Edward Infirmary	18	0	0	0	0	0	1	0	0	0	0	0	0	1	5.6%
Royal Blackburn Hospital	2	0	0	0	0	0	0	1	0	0	0	0	0	1	50.0%
Royal Lancaster Infirmary	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Royal Manchester Childrens Hospital	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Royal Oldham Hospital	70	2	0	0	0	0	1	0	0	1	0	0	0	2	2.9%
Royal Preston Hospital	30	0	0	0	0	0	0	0	0	0	1	0	0	1	3.3%
Stepping Hill Hospital	33	0	0	0	1	0	0	0	0	0	0	0	0	1	3.0%
St Mary's Hospital, Manchester	93	0	0	0	0	0	0	1	0	0	1	0	0	2	2.2%
Tameside General Hospital	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Wythenshawe Hospital	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Grand Total	4024	5	1	0	2	0	3	10	0	10	3	0	0	29	0.7%

*Not included in calculation of avoidable repeats

Tips to help avoid rejection of samples:

- Collect sample on day 5 (date of birth is day 0)
- Check the expiry date on the card
- Wash the baby's heel with water to reduce the risk of a contaminated IRT result
- Ensure that blood spots are the size of the guide circles on the card
- Allow the blood to drop onto the card rather than touching the filter paper to the baby's heel
- Some brands of lancet device are more effective than others
- Extra blood spots, in addition to the 4 indicated by the guide circles, can be collected elsewhere on the card
- Repeat the test at the same visit if the spots are too small or have not soaked through to the back of the card
- Make sure there is a valid NHS number on the card

Conclusion

The avoidable repeat rate for January was 0.7%, which is considerably lower than December (2.1%). The most common reason for rejection of samples was incorrect application of blood (multi-spotting), followed by insufficient blood. All Maternity Units met the standard and 10 out of the 12 met the achievable threshold. The reduction in the avoidable repeat rate is likely to be due to the amended sample acceptance criteria in use from 20th December. The number of additional (88) samples that would have been rejected using the normal criteria are stated below:

Insufficient/ Incorrect application/ Compressed/ damaged	Missing sample date	>14 days	Incorrect NHS number	Expired Card
65	19	0	3	1