

Avoidable Repeat Rate for March 2023 for Newborn Blood Spot Screening - Manchester Laboratory

The avoidable repeat rate for samples received during March 2023 is displayed by Trust in Figure 1. 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).

Acceptable: Avoidable repeat rate is $\leq 2.0\%$

Achievable: Avoidable repeat rate is $\leq 1.0\%$

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-R0A	MANCHESTER UNIVERSITY NHS FOUNDATION TRUST – NORTH MANCHESTER
OL-RW6	NORTHERN CARE ALLIANCE
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

Figure 1 - Avoidable repeats by Trust

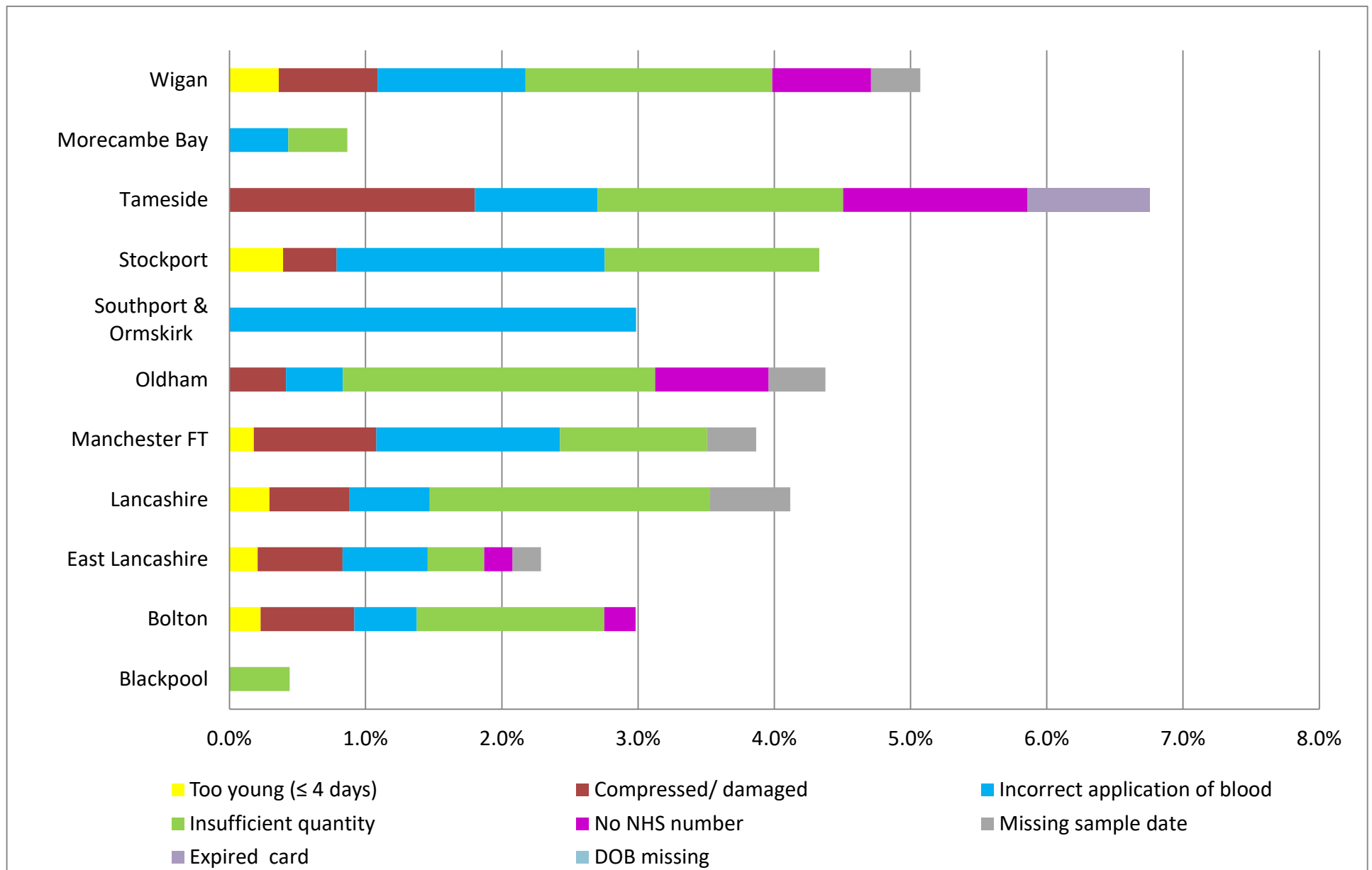


Table 2 – Avoidable repeats by Trust for March 2023

Maternity Unit	Number of first samples received/ babies tested	Too soon after transfusion (<72 hours)*	Too young for reliable screening (≤ 4 days)	Blood spot 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	226	0	0	0	0	0	0	1	0	0	0	0	0	1	0.4%
Bolton NHS FT	436	0	1	0	3	0	2	6	0	1	0	0	0	13	3.0%
East Lancashire Hospitals NHS Trust	481	4	1	0	3	0	3	2	0	1	0	1	0	11	2.3%
Health Visitor	104	0	0	0	0	0	4	3	0	2	0	0	1	10	9.6%
Lancashire Teaching Hospitals NHS FT	340	0	1	0	2	0	2	7	0	0	0	2	0	14	4.1%
Manchester University NHS FT - SMH, RMCH, WH, NMGH	1112	2	2	0	10	0	15	12	0	0	0	4	0	43	3.9%
Not stated	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Oldham (NCA)	480	0	0	0	2	0	2	11	0	4	0	2	0	21	4.4%
Southport & Ormskirk Hospital NHS Trust	67	0	0	0	0	0	2	0	0	0	0	0	0	2	3.0%
Stockport NHS FT	254	0	1	0	1	0	5	4	0	0	0	0	0	11	4.3%
Tameside And Glossop Integrated Care NHS FT	222	1	0	0	4	2	2	4	0	3	0	0	0	15	6.8%
University Hospitals of Morecambe Bay NHS FT	231	1	0	0	0	0	1	1	0	0	0	0	0	2	0.9%
Wrightington, Wigan and Leigh NHS FT	276	0	1	0	2	0	3	5	0	2	0	1	0	14	5.1%
Grand Total	4230	8	7	0	27	2	41	56	0	13	0	10	1	157	3.7%

*Not included in calculation of avoidable repeats

Table 3 – Avoidable repeats by current hospital (in-patients) for March 2023

Current Hospital	Number of first samples received/ babies tested	Too soon after transfusion (<72 hours)*	Too young for reliable screening (≤ 4 days)	Blood spot 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
Burnley General Hospital	52	4	0	0	2	0	3	2	0	0	0	0	0	7	13.5%
Royal Bolton Hospital	47	0	1	0	0	0	2	0	0	0	0	0	0	3	6.4%
Blackpool Victoria Hospital	20	0	0	0	0	0	0	1	0	0	0	0	0	1	5.0%
Furness General Hospital	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
North Manchester General Hospital	29	0	0	0	3	0	2	1	0	0	0	0	0	6	20.7%
Not in hospital	3753	0	2	0	21	2	18	42	0	12	0	6	1	104	2.8%
Ormskirk & District General	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Royal Albert Edward Infirmary	22	0	1	0	0	0	1	0	0	1	0	1	0	4	18.2%
Royal Blackburn Hospital	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Royal Lancaster Infirmary	19	0	0	0	0	0	0	1	0	0	0	0	0	1	5.3%
Royal Manchester Childrens Hospital	4	0	0	0	0	0	1	0	0	0	0	0	0	1	25.0%
Royal Oldham Hospital	59	0	0	0	1	0	0	2	0	0	0	1	0	4	6.8%
Royal Preston Hospital	34	0	0	0	0	0	2	2	0	0	0	2	0	6	17.6%
Stepping Hill Hospital	22	0	1	0	0	0	3	3	0	0	0	0	0	7	31.8%
St Mary's Hospital, Manchester	102	2	2	0	0	0	6	1	0	0	0	0	0	9	8.8%
Tameside General Hospital	21	1	0	0	0	0	2	1	0	0	0	0	0	3	14.3%
Wythenshawe Hospital	39	0	0	0	0	0	1	0	0	0	0	0	0	1	2.6%
Grand Total	4230	8	7	0	27	2	41	56	0	13	0	10	1	157	3.7%

*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 March was 3.7% which is higher than February (3.5%). The most common reason for rejection of samples was insufficient blood, followed by incorrect application of blood (multi-spotting). Only two Maternity Units met the achievable standard.