

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

The avoidable repeat rate for samples received during June 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

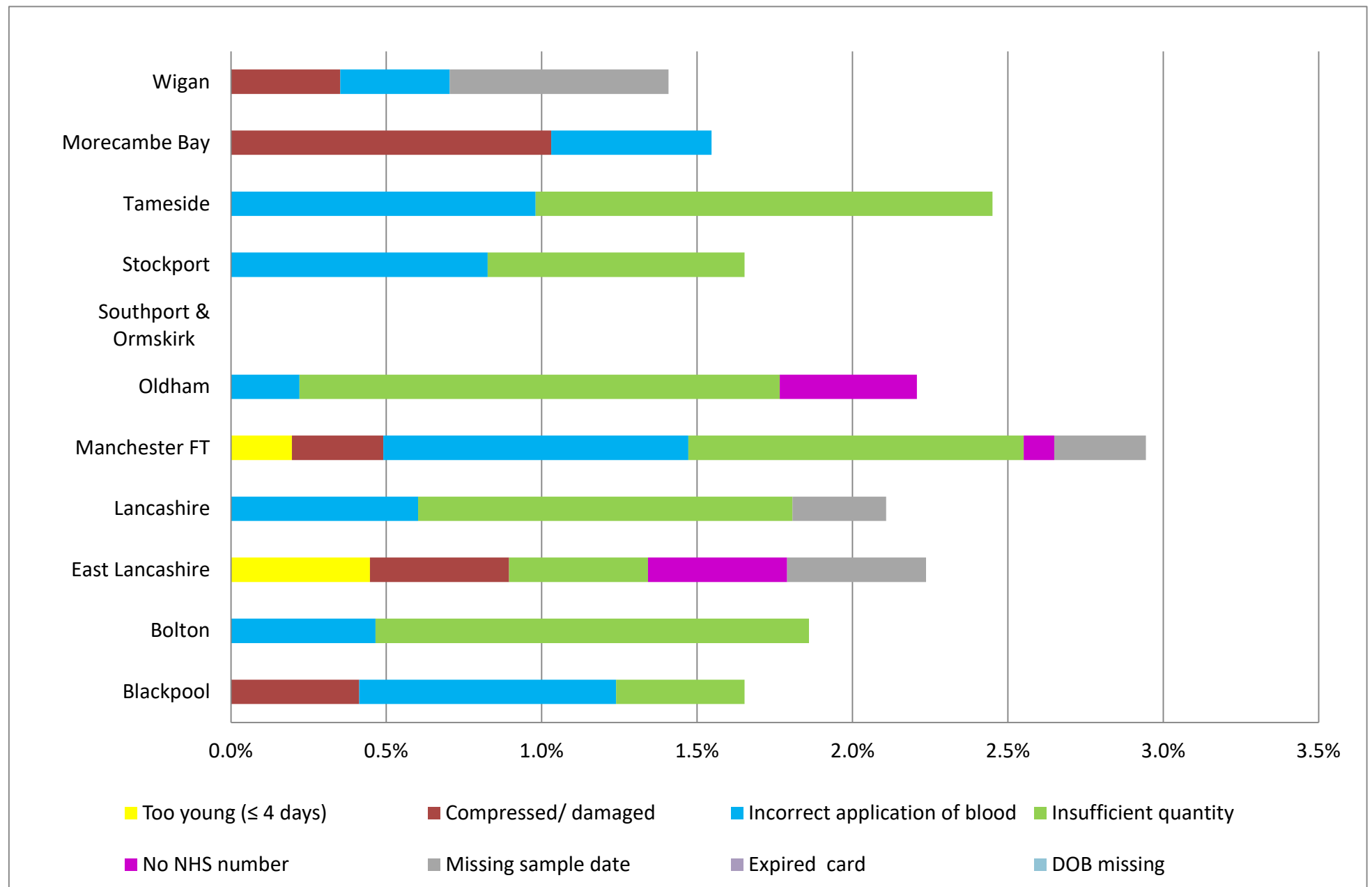


Table 2 – Avoidable repeats by Trust for June 2023

| 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 | 242 | 0 | 0 | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 1.7% |
| Bolton NHS FT | 430 | 0 | 0 | 0 | 0 | 0 | 2 | 6 | 0 | 0 | 0 | 0 | 0 | 8 | 1.9% |
| East Lancashire Hospitals NHS Trust | 447 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 10 | 2.2% |
| Health Visitor | 70 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 1 | 0 | 0 | 0 | 5 | 7.1% |
| Lancashire Teaching Hospitals NHS FT | 332 | 1 | 0 | 0 | 0 | 0 | 2 | 4 | 0 | 0 | 0 | 1 | 0 | 7 | 2.1% |
| Manchester University NHS FT - SMH, RMCH, WH, NMGH | 1019 | 2 | 2 | 0 | 3 | 0 | 10 | 11 | 0 | 1 | 0 | 3 | 0 | 30 | 2.9% |
| Not stated | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% |
| Oldham (NCA) | 453 | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 0 | 2 | 0 | 0 | 0 | 10 | 2.2% |
| Southport & Ormskirk Hospital NHS Trust | 78 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% |
| Stockport NHS FT | 242 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 1.7% |
| Tameside And Glossop Integrated Care NHS FT | 204 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 5 | 2.5% |
| University Hospitals of Morecambe Bay NHS FT | 194 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1.5% |
| Wrightington, Wigan and Leigh NHS FT | 284 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 4 | 1.4% |
| Grand Total | 3999 | 3 | 4 | 0 | 9 | 0 | 24 | 39 | 0 | 6 | 0 | 8 | 0 | 90 | 2.3% |

*Not included in calculation of avoidable repeats

Table 3 – Avoidable repeats by current hospital (in-patients) for June 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 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 5.8% |
| Royal Bolton Hospital | 46 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 4.3% |
| Blackpool Victoria Hospital | 33 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 6.1% |
| Furness General Hospital | 3 | 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 | 5 | 3 | 0 | 0 | 0 | 0 | 0 | 8 | 29.6% |
| Not in hospital | 3570 | 0 | 4 | 0 | 6 | 0 | 9 | 25 | 0 | 6 | 0 | 5 | 0 | 55 | 1.5% |
| Ormskirk & District General | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% |
| Royal Albert Edward Infirmary | 21 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4.8% |
| Royal Blackburn Hospital | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% |
| Royal Lancaster Infirmary | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% |
| Royal Manchester Childrens Hospital | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% |
| Royal Oldham Hospital | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2.9% |
| Royal Preston Hospital | 31 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 6.5% |
| Stepping Hill Hospital | 21 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 14.3% |
| St Mary's Hospital, Manchester | 87 | 1 | 0 | 0 | 0 | 0 | 5 | 3 | 0 | 0 | 0 | 1 | 0 | 9 | 10.3% |
| Tameside General Hospital | 15 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 13.3% |
| Wythenshawe Hospital | 35 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 5.7% |
| Grand Total | 3999 | 3 | 4 | 0 | 9 | 0 | 24 | 39 | 0 | 6 | 0 | 8 | 0 | 90 | 2.3% |

*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 June was 2.3% which is lower than May (3.1%). The most common reason for rejection of samples was insufficient blood, followed by incorrect application. Five Maternity Units met the acceptable standard, and one met the achievable standard.