

Avoidable Repeat Rate for December 2020 for Newborn Blood Spot Screening - Manchester Laboratory

The avoidable repeat rate for samples received during December 2020 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).

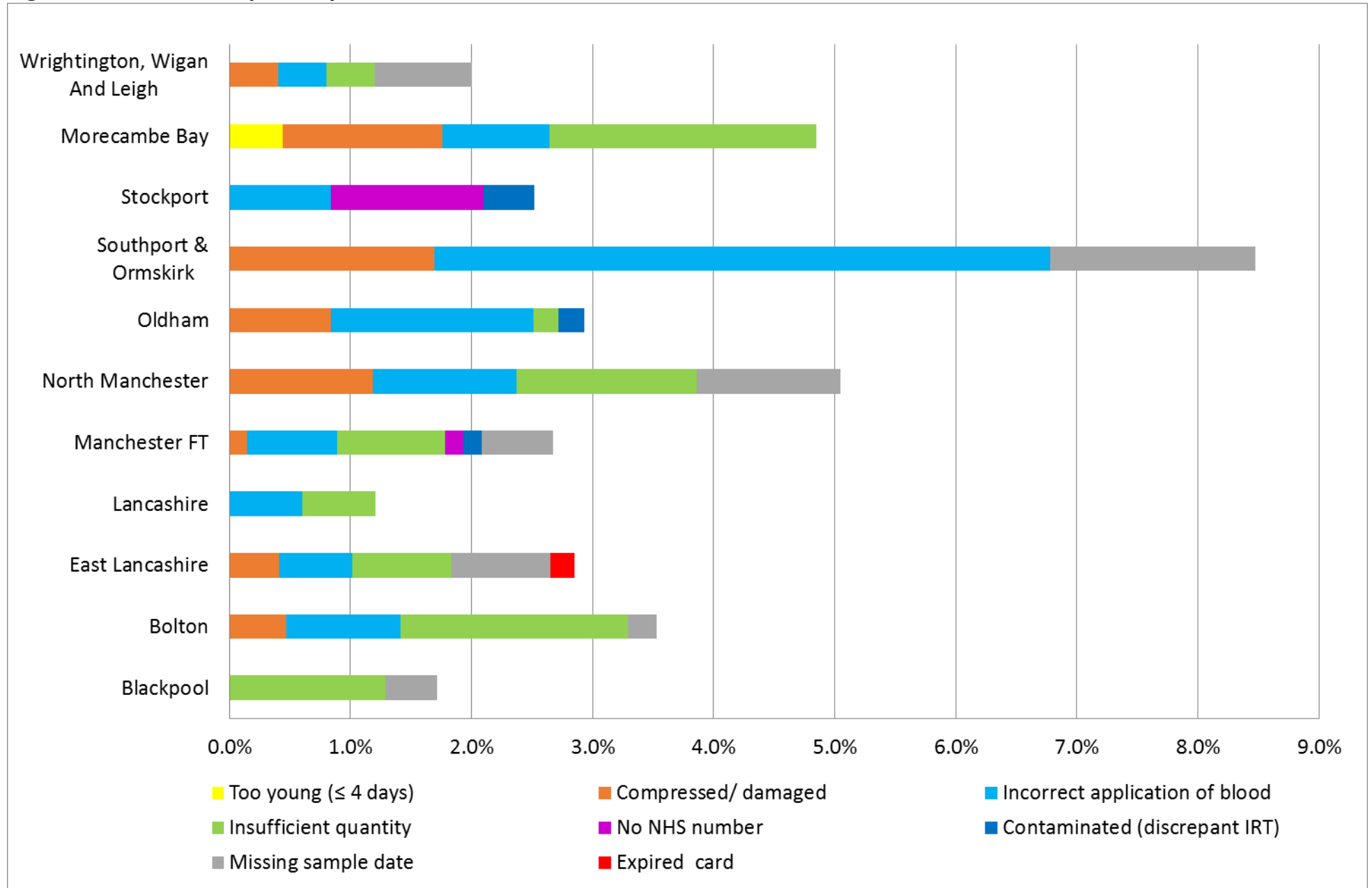
10 samples (first samples and repeats) received in December had no Trust code (0.3%). Please write the Trust code for your maternity unit/ neonatal unit in the PCT field (old style card) or the 'Trust of sample taker' field (new style card) to improve the accuracy of the figures. A list of trust codes is provided in Table 1. Alternatively maternity units could stamp cards with the code prior to issuing to midwives/neonatal units, depending on local arrangements. It would also be helpful if health visitors could write 'HV' in the PCT field (old style card) or 'Trust of sample taker' field (new style card) so that we can provide data specific to health visitors.

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-RW6 | PENNINE ACUTE HOSPITALS NHS 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 |

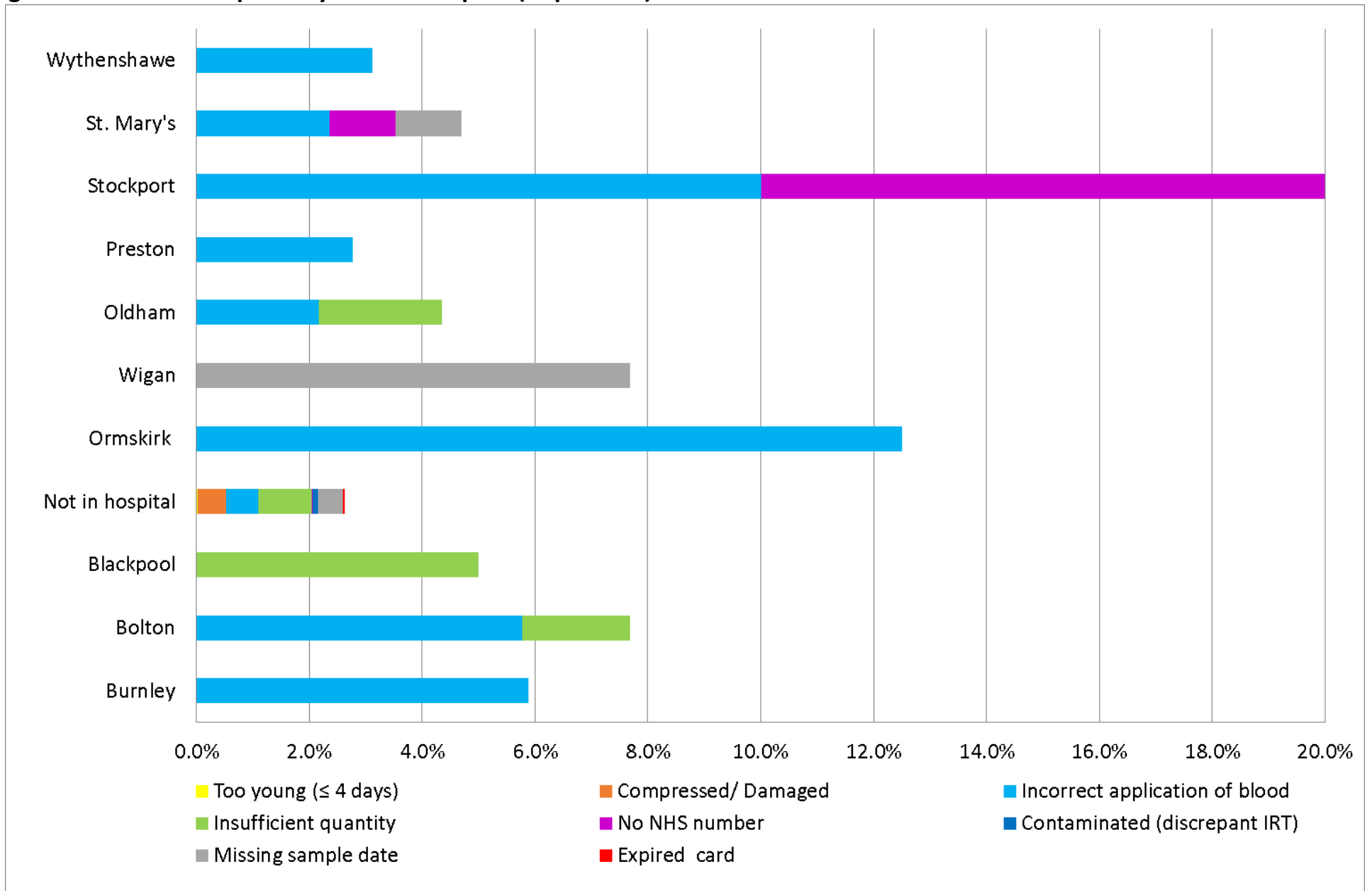
In this document North Manchester and Oldham will be referred to as separate maternity units, although they are currently part of the same Trust.

Figure 1 - Avoidable repeats by Trust



There were no avoidable repeats for Tameside.

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



There were no avoidable repeats for Furness, NMGH, Lancaster, RMCH and Tameside.

Table 2 – Avoidable repeats by Trust for December 2020

| Trust | 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 | 233 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 4 | 1.7% |
| Bolton NHS FT | 425 | 0 | 0 | 0 | 2 | 0 | 4 | 8 | 0 | 0 | 0 | 1 | 0 | 15 | 3.5% |
| East Lancashire Hospitals NHS Trust | 491 | 4 | 0 | 0 | 2 | 1 | 3 | 4 | 0 | 0 | 0 | 4 | 0 | 14 | 2.9% |
| Lancashire Teaching Hospitals NHS FT | 331 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 1.2% |
| Manchester University NHS FT | 673 | 0 | 0 | 0 | 1 | 0 | 5 | 6 | 0 | 1 | 1 | 4 | 0 | 18 | 2.7% |
| North Manchester (Pennine Acute Hospitals NHS Trust) | 337 | 0 | 0 | 0 | 4 | 0 | 4 | 5 | 0 | 0 | 0 | 4 | 0 | 17 | 5.0% |
| Not Stated | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% |
| Health Visitor | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 3 | 9.1% |
| Oldham (Pennine Acute Hospitals NHS Trust) | 478 | 0 | 0 | 0 | 4 | 0 | 8 | 1 | 0 | 0 | 1 | 0 | 0 | 14 | 2.9% |
| Southport & Ormskirk Hospital NHS Trust | 59 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 5 | 8.5% |
| Stockport NHS FT | 238 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 1 | 0 | 0 | 6 | 2.5% |
| Tameside And Glossop Integrated Care NHS FT | 217 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% |
| University Hospitals of Morecambe Bay NHS FT | 227 | 0 | 1 | 0 | 3 | 0 | 2 | 5 | 0 | 0 | 0 | 0 | 0 | 11 | 4.8% |
| Wrightington, Wigan and Leigh NHS FT | 250 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 5 | 2.0% |
| Grand Total | 4002 | 4 | 1 | 0 | 18 | 1 | 34 | 37 | 0 | 4 | 3 | 18 | 0 | 116 | 2.9% |

*Not included in calculation of avoidable repeats

Table 3 – Avoidable repeats by current hospital (in-patients) for December 2020

| 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 | 51 | 4 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 5.9% |
| Royal Bolton Hospital | 52 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 7.7% |
| Blackpool Victoria Hospital | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 5.0% |
| Furness General Hospital | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% |
| North Manchester General Hospital | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% |
| Not in hospital | 3582 | 0 | 1 | 0 | 18 | 1 | 20 | 34 | 0 | 1 | 3 | 16 | 0 | 94 | 2.6% |
| Ormskirk & District General | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 12.5% |
| Royal Albert Edward Infirmary | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 7.7% |
| Royal Lancaster Infirmary | 13 | 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 | 46 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 4.3% |
| Royal Preston Hospital | 36 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2.8% |
| Stepping Hill Hospital | 20 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 20.0% |
| St Mary's Hospital, Manchester | 85 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 4 | 4.7% |
| Tameside General Hospital | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0% |
| Wythenshawe Hospital | 32 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3.1% |
| Grand Total | 4002 | 4 | 1 | 0 | 18 | 1 | 34 | 37 | 0 | 4 | 3 | 18 | 0 | 116 | 2.9% |

*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 December was 2.9% which was slightly higher than November (2.7%). The most common reason for rejection was insufficient blood followed by incorrect application of blood (multi-spotting) and missing sample date. This month however, there was a significant increase in the number of compressed samples. 4 out of 12 maternity units met the acceptable threshold for standard 6, including Tameside who had no samples rejected out of 217 first samples.