

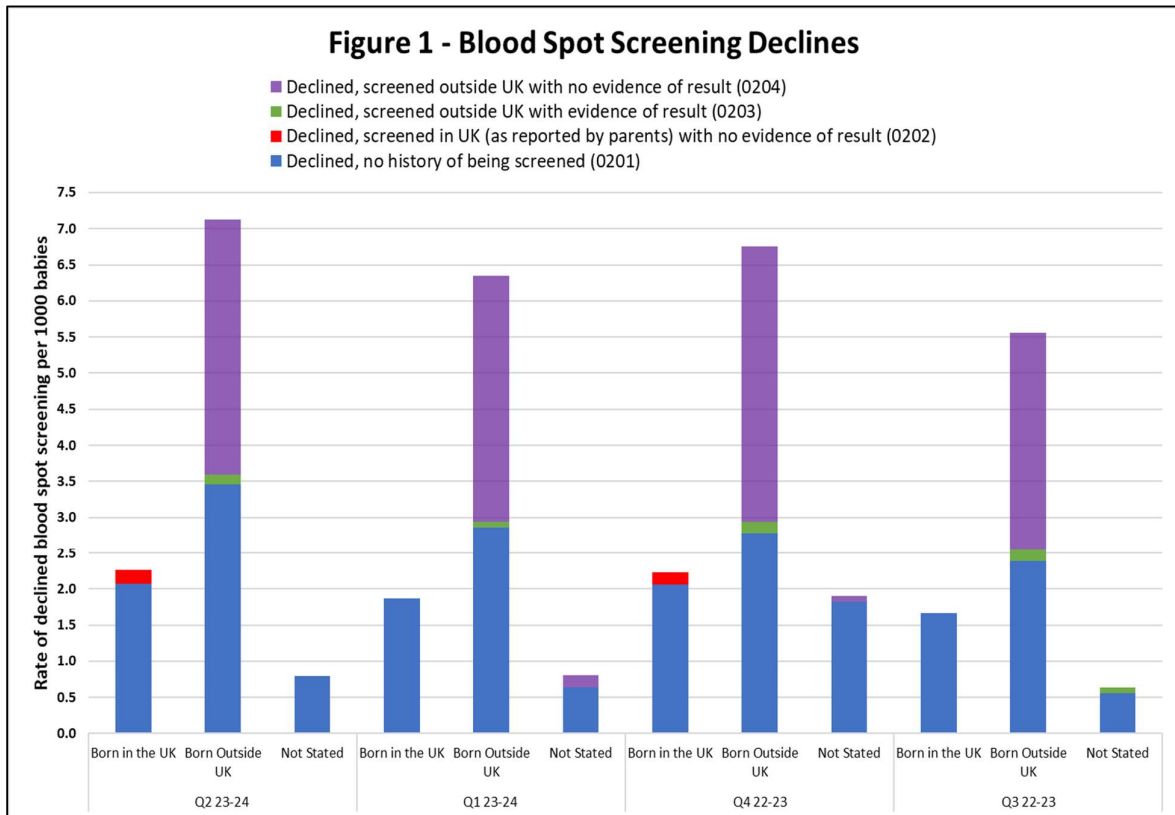
Manchester Newborn Screening Laboratory Quarterly Blood Spot Screening Report: Quarter 2 2023-24

Manchester Newborn Screening Laboratory, which serves babies born in Greater Manchester, Lancashire and South Cumbria, received 13,310 blood spot samples between 1st July and 30th September 2023. This report describes performance against the NHS Newborn Blood Spot Screening Programme Standards. Full details of the standards including definitions and exclusions can be found at <https://www.gov.uk/government/publications/standards-for-nhs-newborn-blood-spot-screening>. The appendix of this document contains the data for standards 3-7 in table form.

The data for the laboratory reportable standards is presented by maternity unit/NHS trust of the sample taker. For accurate figures, please ensure the trust code is written/stamped on the blood spot card.

Declines

In Quarter 2 the laboratory received 153 notifications of declined blood spot screening. Figure 1 shows the trends in declined screens over the past year, by place of birth (born in UK or born outside of UK). The laboratory should be notified of all declines, including those for babies screened elsewhere, rather than directly notifying Child Health.



Key to colour coding

Met achievable threshold
Met acceptable threshold
Within 10% of acceptable threshold
More than 10% below acceptable threshold

Standard 3 – The proportion of blood spot cards received by the laboratory with the baby’s NHS number on a barcoded label

Acceptable: ≥ 90.0% of blood spot cards are received by the laboratory with the baby’s NHS number on a barcoded label.

Achievable: ≥ 95.0% of blood spot cards are received by the laboratory with the baby’s NHS number on a barcoded label.

Figure 2 displays performance against standard 3.

Overall, 82.6% of samples received in quarter 2 of 2023/24 had a barcoded NHS number label, which is lower than the previous quarter (83.2%). Of the 11 maternity units, 2 met the acceptable standard and 2 met the achievable threshold.

Standard 4 - The proportion of first blood spot samples taken on day 5

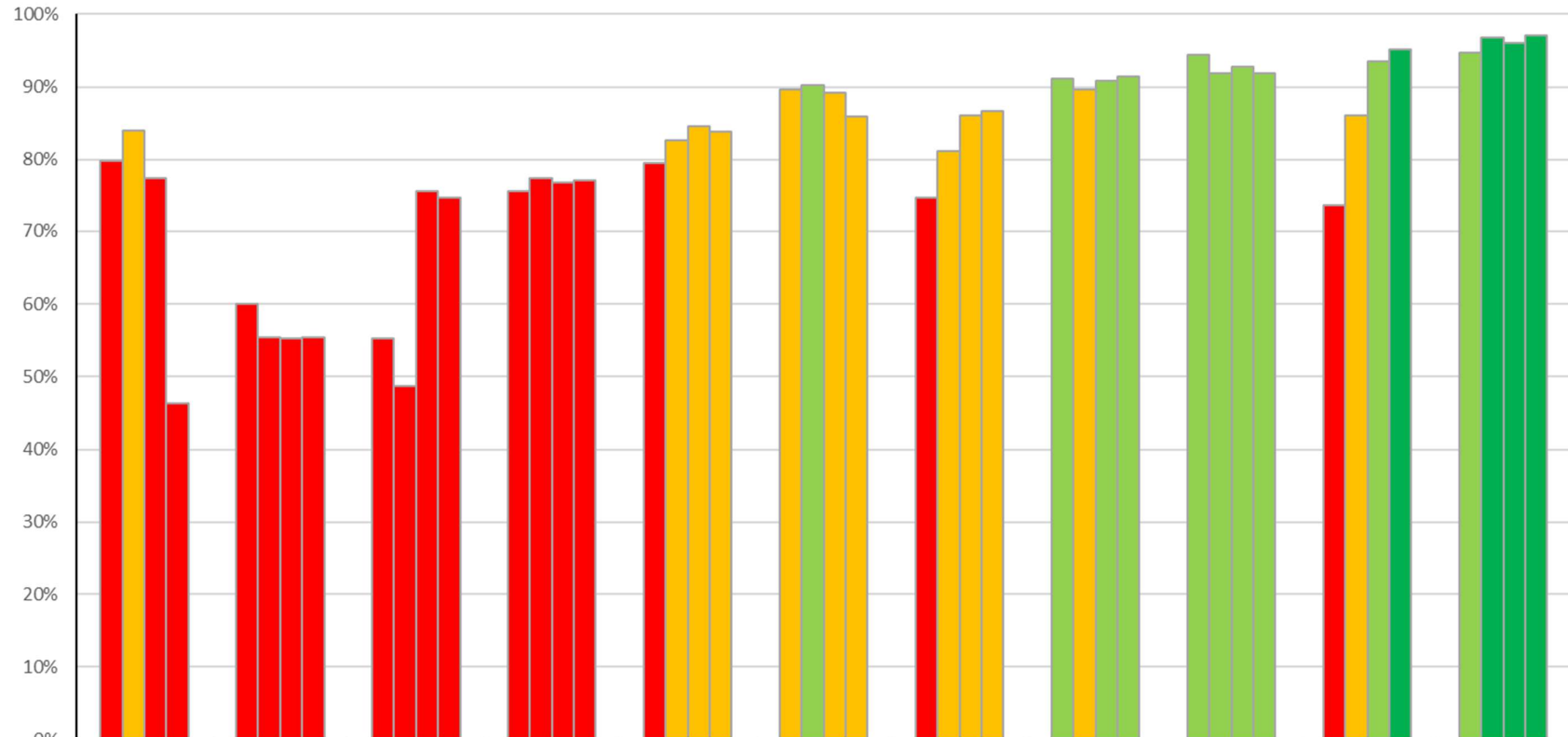
Acceptable: ≥ 90.0% of first blood spot samples are taken on day 5.

Achievable: ≥ 95.0% of first blood spot samples are taken on day 5.

Figure 3 displays performance against standard 4. Overall, 91.3% of samples received in quarter 2 of 2023/24 were collected on day 5, which is lower than the previous quarter (91.8%). 9 out of the 11 maternity units met standard 4, and 2 of these met the achievable threshold.

Figure 2: Standard 3 - The proportion of blood spot cards received by the laboratory with the baby's NHS number on a barcoded label

Most recent quarter on right-hand side



	Southport & Ormskirk	W, Wigan & Leigh	Oldham (NCA)	Bolton	Tameside & Glossop	East Lancashire	Stockport	Lancashire Teaching	Morecambe Bay	Manchester	Blackpool
Q3 22-23	79.9%	60.0%	55.3%	75.6%	79.5%	89.7%	74.8%	91.1%	94.4%	73.7%	94.7%
Q4 22-23	84.0%	55.5%	48.8%	77.5%	82.6%	90.2%	81.2%	89.6%	91.9%	86.0%	96.8%
Q1 23-24	77.4%	55.2%	75.7%	76.9%	84.6%	89.2%	86.1%	90.8%	92.8%	93.5%	96.0%
Q2 23-24	46.4%	55.5%	74.7%	77.1%	83.8%	85.9%	86.7%	91.4%	91.9%	95.1%	97.1%

Figure 3: Standard 4 - The proportion of first blood spot samples taken on day 5

Most recent quarter on right-hand side



Standard 5 - The proportion of blood spot samples received less than or equal to 3 working days of sample collection

Acceptable: $\geq 95.0\%$ of all samples received less than or equal to 3 working days of sample collection.

Achievable: $\geq 99.0\%$ of all samples received less than or equal to 3 working days of sample collection.

Figure 4 displays performance against standard 5.

Overall, 97.5% samples were received within 3 working days. 10 Trusts met the standard, with 2 of these reaching the achievable threshold. Performance was similar to the previous quarter (97.9% samples received within 3 working days).

Standard 6 - The proportion of first blood spot samples that require repeating due to an avoidable failure in the sampling process

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

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

The avoidable repeat rate for quarter 2 was 3.1%, which has increased slightly compared to quarter 1 (2.8%). The main reason for an avoidable repeat was insufficient blood, followed by incorrect application of blood. The performance for each trust is displayed in figure 5. Four Trusts met the standard. Figure 6 compares the avoidable repeat rate for samples collected from in-patients with samples collected from babies at home/in the community. The rate was 2.5% for babies at home (2.2% in quarter 1) and 7.6% for samples collected from in-patients (7.6% in quarter 1).

Figure 4: Standard 5 - The proportion of blood spot samples received less than or equal to 3 working days of sample collection
 Most recent quarter on right-hand side



Figure 5: Standard 6 - The proportion of first blood spot samples that require repeating due to an avoidable failure in the sampling process by Trust

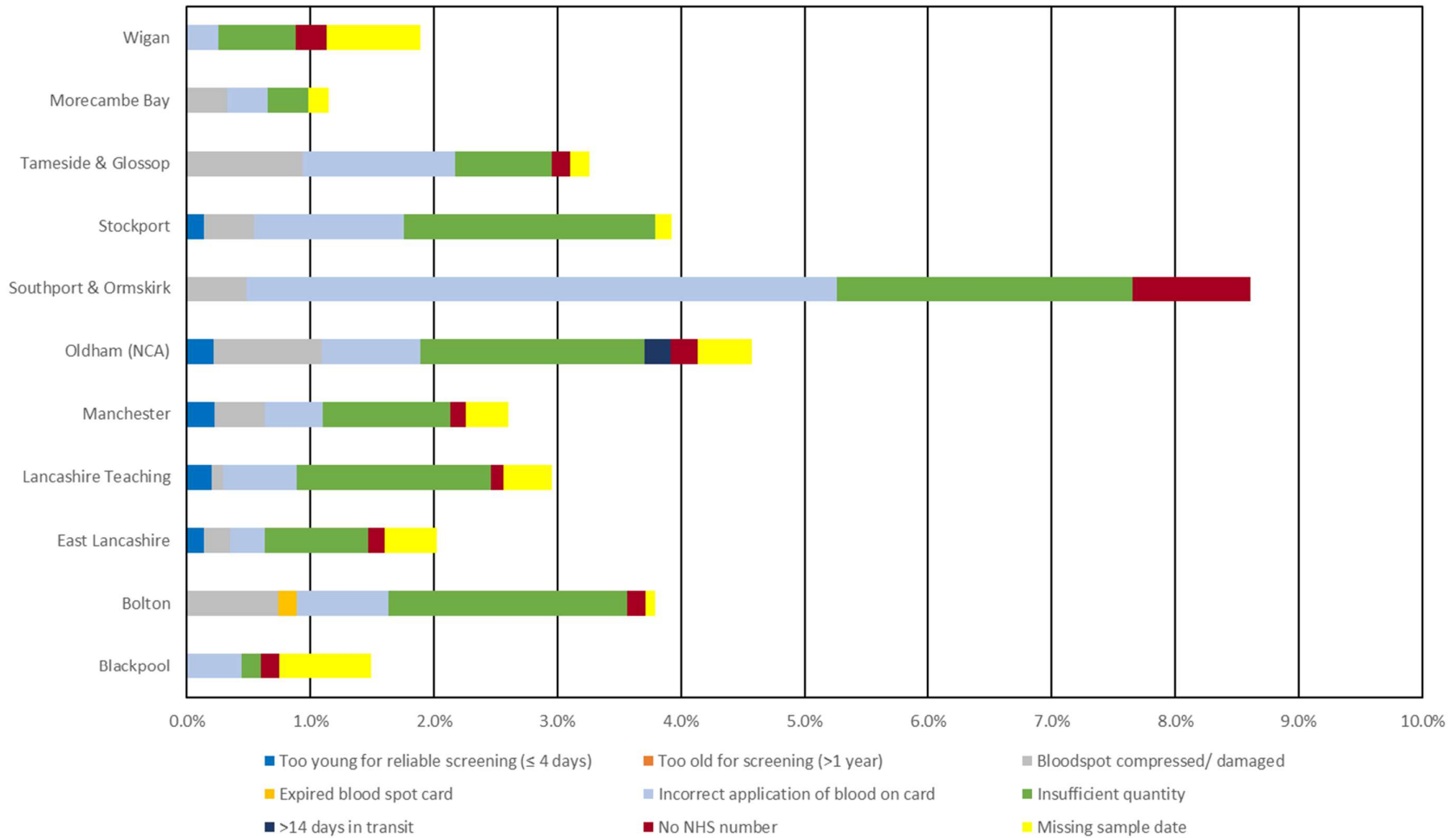
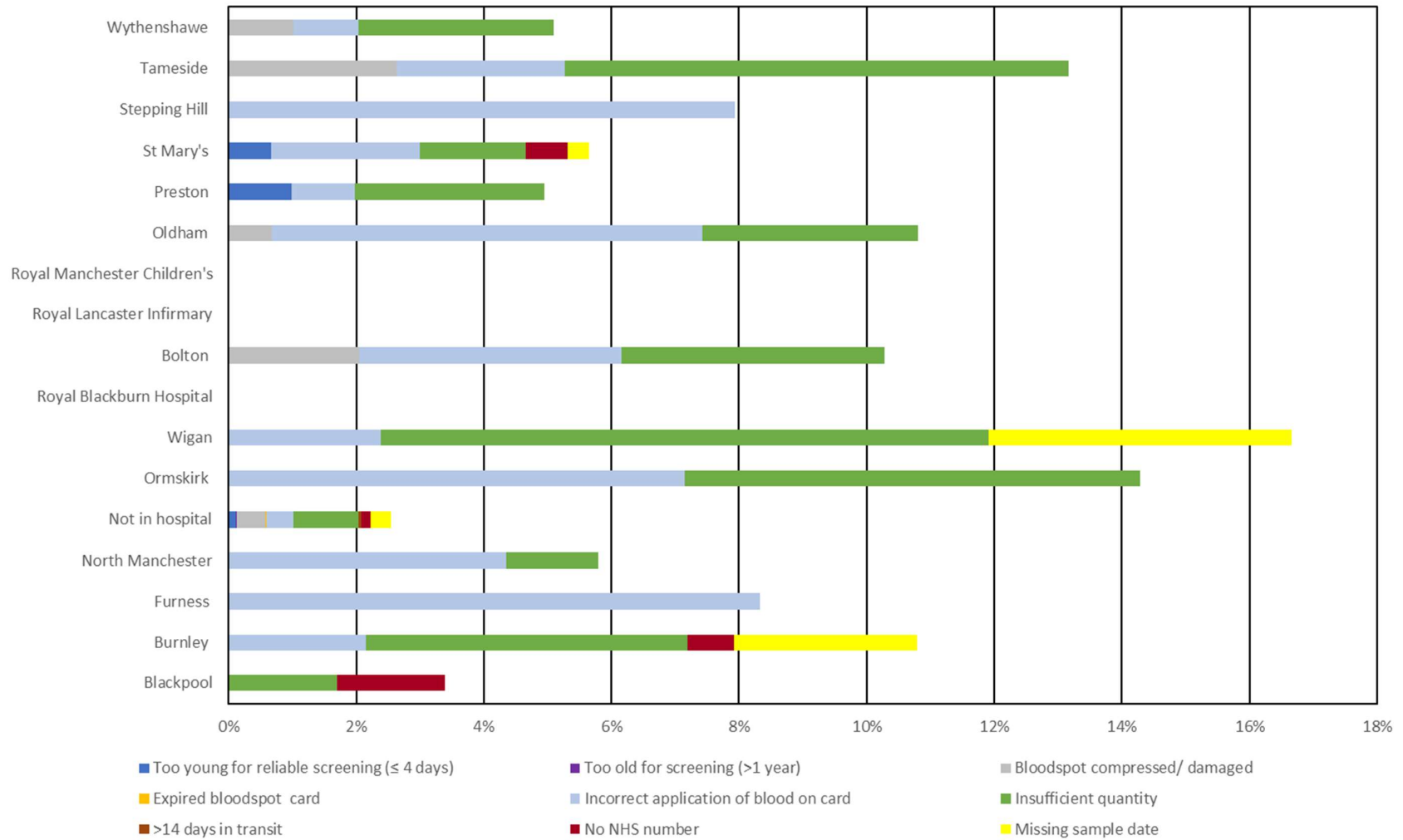


Figure 6: Standard 6 - Avoidable repeats for in-patients vs community



Q2 23-24 Table 1 - Summary of performance				
Trust	Standard 3	Standard 4	Standard 5	Standard 6
Blackpool Teaching Hospitals NHS FT	97.1%	93.9%	98.5%	1.5%
Bolton NHS FT	77.1%	93.4%	97.8%	3.8%
East Lancashire Hospitals NHS Trust	85.9%	89.2%	99.5%	2.0%
Lancashire Teaching Hospitals NHS FT	91.4%	93.4%	98.8%	3.0%
Manchester University NHS FT - SMH, RMCH, WH & NMGH	95.1%	95.0%	98.6%	2.6%
Oldham (NCA)	74.7%	89.1%	96.2%	4.6%
Southport & Ormskirk Hospital NHS Trust	46.4%	92.9%	95.3%	8.6%
Stockport NHS FT	86.7%	94.6%	98.1%	3.9%
Tameside And Glossop Integrated Care NHS FT	83.8%	93.0%	99.4%	3.3%
University Hospitals of Morecambe Bay NHS FT	91.9%	97.2%	91.9%	1.1%
Wrightington, Wigan and Leigh NHS FT	55.5%	94.3%	95.3%	1.9%

Standard 7a - The proportion of second blood spots for raised IRT taken on day 21 to day 24

Acceptable: ≥ 80% of second blood spot samples taken on day 21 to day 24

Achievable: ≥ 90% of second blood spot samples taken on day 21 to day 24

During quarter 2 there were 4 repeats for raised IRT (CF inconclusive). Of these, 75% were collected on day 21-24. CF inconclusive repeats are performed by Screening Link Health Visitors. The data is presented by Maternity Unit in table 2.

Q2 23-24 Table 2 - Standard 7a				
Maternity Unit	Age at collection of CF repeat		Total	% collected day 21-24
	17	21		
Lancashire Teaching Hospitals NHS FT	0	2	2	100%
Manchester University NHS FT - SMH, RMCH, WH & NMGH	0	1	1	100%
Southport & Ormskirk Hospital NHS Trust	1	0	1	0%
Total	1	3	4	75%

Standard 7b - The proportion of second blood spot samples for borderline TSH taken between 7 and 10 calendar days after the initial borderline sample

Acceptable: ≥ 80.0% of repeat blood spot samples taken as defined

Achievable: ≥ 90.0% of repeat blood spot samples taken as defined

During quarter 2 there were 17 repeats for borderline TSH (CHT). Of these, 100% were collected 7-10 days after the original sample. Table 3 displays the information by Trust.

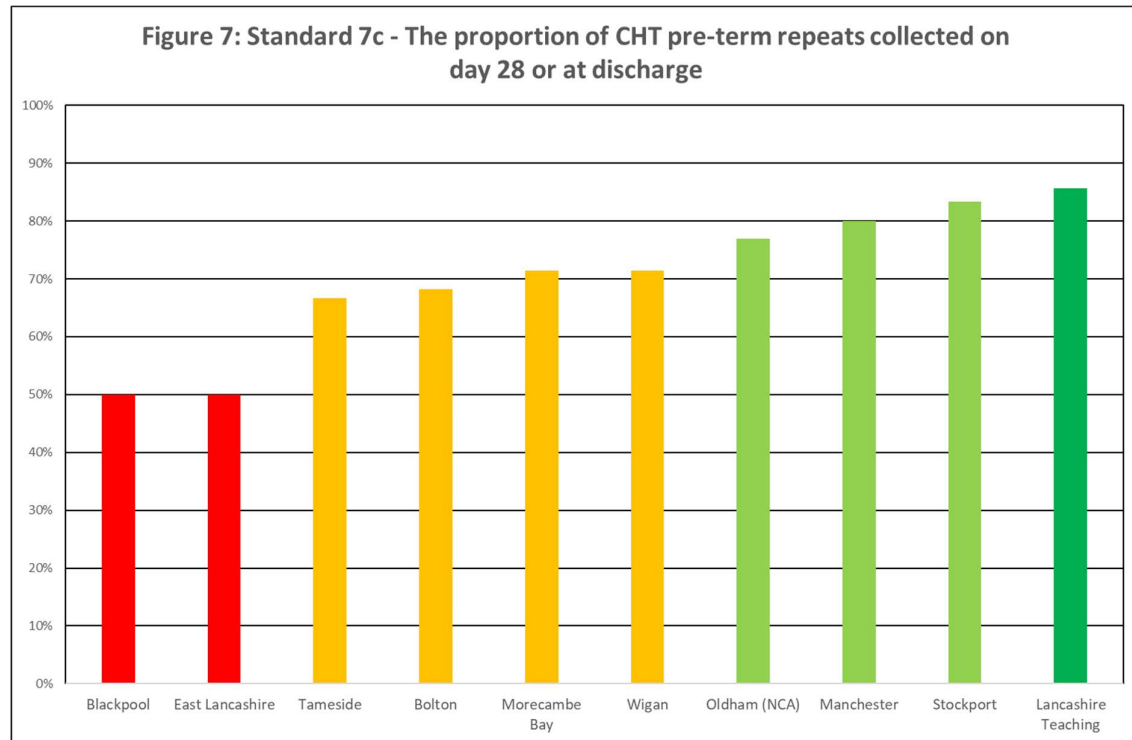
Q2 Table 3: Standard 7b						
Trust	Number of days				Total	% collected
	7	8	9	10		
East Lancashire Hospitals NHS Trust			1		1	100%
Health Visitor	1				1	100%
Lancashire Teaching Hospitals NHS FT	1				1	100%
Manchester University NHS FT - SMH, RMCH, WH & NMGH	0	2	3	1	6	100%
Oldham (NCA)		1			1	100%
Stockport NHS FT			2		2	100%
Tameside And Glossop Integrated Care NHS FT			1		1	100%
University Hospitals of Morecambe Bay NHS FT		1			1	100%
Wrightington, Wigan and Leigh NHS FT	1		2		3	100%
Grand Total	3	4	9	1	17	100%

Standard 7c - The proportion of CHT pre-term repeats collected on day 28 or at discharge

Acceptable: ≥ 75.0% of repeat blood spot samples taken as defined

Achievable: ≥ 85.0% of repeat blood spot samples taken as defined

During quarter 2, 137 CHT pre-term repeats were received (avoidable repeats and duplicates excluded). Performance by trust is displayed in figure 7. 73% were collected on day 28 or at discharge, 20% were collected after day 28.



Quarter 2 2023-24: Standard 7c					
Trust	Number of Pre-term CHT			Total	% Prem repeats
	EARLY	ON-TIME	LATE		
Blackpool Teaching Hospitals NHS FT	0	2	2	4	50%
Bolton NHS FT	1	15	6	22	68%
East Lancashire Hospitals NHS Trust	1	8	7	16	50%
Lancashire Teaching Hospitals NHS FT	1	12	1	14	86%
Manchester University NHS FT - SMH, RMCH, WH & NMGH	3	36	6	45	80%
Oldham (NCA)	0	10	3	13	77%
Stockport NHS FT	1	5	0	6	83%
Tameside And Glossop Integrated Care NHS FT	1	2	0	3	67%
University Hospitals of Morecambe Bay NHS FT	2	5	0	7	71%
Wrightington, Wigan and Leigh NHS FT	0	5	2	7	71%
Grand Total	10	100	27	137	73%

Standard 9 - Timely processing of CHT and IMD (excluding HCU) screen positive samples

Acceptable: 100% of babies with a positive screening result (excluding HCU) have a clinical referral initiated within 3 working days of sample receipt

There were 9 screen positive samples for CHT and 4 for IMD in quarter 2. All were referred within 3 working days of sample receipt.

Standard 11 - Timely entry into clinical care

Data for standard 11 is displayed in table 5.

Table 5: Standard 11						
Condition	Criteria	Thresholds	Number of babies seen by specialist services by condition specific standard	Number of babies referred	Percentage seen by specialist services by condition specific standard	Comments
IMDs (excluding HCU)	Attend first clinical appointment by 14 days of age	Acceptable: 100%	4	4	100%	1 x PKU, 1x PKU other, 2 x MCAD
CHT (suspected on first sample)	Attend first clinical appointment by 14 days of age	Acceptable: 100%	7	7	100%	
CHT (suspected on repeat following borderline TSH)	Attend first clinical appointment by 21 days of age	Acceptable: 100%	2	2	100%	
CF (2 CFTR mutations detected)	Attend first clinical appointment by 28 days of age	Acceptable: ≥ 95.0% Achievable: 100%	2	2	100%	
HCU	Attend first clinical appointment by 28 days of age	Acceptable: ≥ 95.0% Achievable: 100%	-	-	-	
CF (1 or no CFTR mutation detected)	Attend first clinical appointment by 35 days of age	Attend first clinical appointment by 35 days of age	2	2	100%	
SCD	Attend first clinical appointment by 90 days of age	Attend first clinical appointment by 90 days of age	3	5	60%	2 babies excluded as they were positive by DNA and need a repeat sample but are having multiple transfusions. 1 other baby excluded as they were screened at 9 months of age.

Incidents

Details of incidents at level 3 or above, either detected by the laboratory or occurred at MFT

Incident Number	Incident Date	Incident Severity	Incident Harm	Summary of incident	Further details	MFT or external	Lab/ Ward/ Maternity Unit	Local Area Team	QA informed
2414150	09/08/23	3 - moderate	1 - no harm	Blood spot labelling error: handwritten NHS number belonging to another baby (other demographic details correct)		External	East Lancs Maternity Unit	Lancashire	Yes
2416051	21/08/23	3 - moderate	1 - no harm	Blood spot collection error: delay/ failure to collect screening sample	Repeat sample not collected	External	Bolton Health Visitors	Greater Manchester	Yes
2416875	14/08/23	3 - moderate	1 - no harm	Blood spot labelling error: another baby's bar-coded demographic sticker, detected prior to reporting		External	Morecambe Bay Maternity Unit	Lancashire	Yes

Appendix

Quarter 2 2023-24: Standard 3							
Trust	Number of all samples (including repeats)	Number of blood spot cards including baby's NHS number	Number of blood spot cards including ISB label barcoded baby's NHS number	Unreadable Barcodes	Percentage of all blood spot cards including babies' NHS number	Percentage of all blood spot cards including ISB bar-coded babies' NHS number	Percentage of all Unreadable Barcodes
Blackpool Teaching Hospitals NHS FT	692	691	672	3	99.9%	97.1%	0.4%
Bolton NHS FT	1552	1549	1197	83	99.8%	77.1%	5.3%
East Lancashire Hospitals NHS Trust	1556	1554	1337	34	99.9%	85.9%	2.2%
Health Visitor	329	321	8	1	97.6%	2.4%	0.3%
Lancashire Teaching Hospitals NHS FT	1068	1067	976	11	99.9%	91.4%	1.0%
Manchester University NHS FT - SMH & RMCH & WH & NMGH	3455	3451	3285	35	99.9%	95.1%	1.0%
Not Stated	11	11	5	1	100.0%	45.5%	9.1%
Oldham (NCA)	1499	1496	1120	14	99.8%	74.7%	0.9%
Southport & Ormskirk Hospital NHS Trust	233	231	108	45	99.1%	46.4%	19.3%
Stockport NHS FT	781	781	677	34	100.0%	86.7%	4.4%
Tameside And Glossop Integrated Care NHS FT	681	680	571	39	99.9%	83.8%	5.7%
University Hospitals of Morecambe Bay NHS FT	631	630	580	13	99.8%	91.9%	2.1%
Wrightington, Wigan and Leigh NHS FT	822	820	456	226	99.8%	55.5%	27.5%
Grand Total	13310	13282	10992	539	99.8%	82.6%	4.0%

Quarter 2 2023-24: Standard 4												
Trust	Number of first samples taken on or before day 4	5	6	7	8	9+	4 or earlier	5	6	7	8	9 or later
Blackpool Teaching Hospitals NHS FT	0	629	28	4	2	7	0.0%	93.9%	4.2%	0.6%	0.3%	1.0%
Bolton NHS FT	2	1261	64	9	4	10	0.1%	93.4%	4.7%	0.7%	0.3%	0.7%
East Lancashire Hospitals NHS Trust	2	1275	114	11	6	22	0.1%	89.2%	8.0%	0.8%	0.4%	1.5%
Health Visitor	0	2	1	1	0	235	0.0%	0.8%	0.4%	0.4%	0.0%	98.3%
Lancashire Teaching Hospitals NHS FT	2	948	45	6	3	11	0.2%	93.4%	4.4%	0.6%	0.3%	1.1%
Manchester University NHS FT - SMH, RMCH, WH & NMG	6	3013	105	11	14	23	0.2%	95.0%	3.3%	0.3%	0.4%	0.7%
Not Stated	0	4	1	0	0	0	0.0%	80.0%	20.0%	0.0%	0.0%	0.0%
Oldham (NCA)	3	1228	106	14	6	22	0.2%	89.1%	7.7%	1.0%	0.4%	1.6%
Southport & Ormskirk Hospital NHS Trust	0	197	11	2	0	2	0.0%	92.9%	5.2%	0.9%	0.0%	0.9%
Stockport NHS FT	0	697	30	4	1	5	0.0%	94.6%	4.1%	0.5%	0.1%	0.7%
Tameside And Glossop Integrated Care NHS FT	0	599	29	7	3	6	0.0%	93.0%	4.5%	1.1%	0.5%	0.9%
University Hospitals of Morecambe Bay NHS FT	0	596	12	0	0	5	0.0%	97.2%	2.0%	0.0%	0.0%	0.8%
Wrightington, Wigan and Leigh NHS FT	0	743	33	2	1	9	0.0%	94.3%	4.2%	0.3%	0.1%	1.1%
Grand Total	15	11192	579	71	40	357	0.1%	91.3%	4.7%	0.6%	0.3%	2.9%

Quarter 2 2023-24: Standard 5							
Trust	Number of samples received in 3 or fewer working days of sample being taken	Number of samples received in 4 or fewer working days of sample being taken	Number of samples received in 5 or more working days of sample being taken	Total number of samples received	Percentage of samples received by laboratories in 3 or fewer working days of sample being taken	Percentage of samples received by laboratories in 4 or fewer working days of sample being taken	Percentage of samples received by laboratories on or after 5 working days of sample being taken
Blackpool Teaching Hospitals NHS FT	677	681	6	687	98.5%	99.1%	0.87%
Bolton NHS FT	1409	1430	10	1440	97.8%	99.3%	0.69%
East Lancashire Hospitals NHS Trust	1486	1492	2	1494	99.5%	99.9%	0.13%
Health Visitor	233	240	22	262	88.9%	91.6%	8.40%
Lancashire Teaching Hospitals NHS FT	1050	1055	8	1063	98.8%	99.2%	0.75%
Manchester University NHS FT - SMH, RMCH, WH & NMGH	3279	3315	11	3326	98.6%	99.7%	0.33%
Not Stated	6	7	2	9	66.7%	77.8%	22.22%
Oldham (NCA)	1409	1449	16	1465	96.2%	98.9%	1.09%
Southport & Ormskirk Hospital NHS Trust	222	225	8	233	95.3%	96.6%	3.43%
Stockport NHS FT	763	774	4	778	98.1%	99.5%	0.51%
Tameside And Glossop Integrated Care NHS FT	673	676	1	677	99.4%	99.9%	0.15%
University Hospitals of Morecambe Bay NHS FT	578	628	1	629	91.9%	99.8%	0.16%
Wrightington, Wigan and Leigh NHS FT	778	803	13	816	95.3%	98.4%	1.59%
Grand Total	12563	12775	104	12879	97.5%	99.2%	0.81%

Quarter 2 2023-24: Standard 6 by Trust														
Status code and description of avoidable repeat	Blackpool Teaching Hospitals NHS FT	Bolton NHS FT	East Lancashire Hospitals NHS Trust	Health Visitor	Lancashire Teaching Hospitals NHS FT	Manchester University NHS FT - SMH & RMCH & WH & NMGH	Not Stated	Oldham (NCA)	Southport & Ormskirk Hospital NHS Trust	Stockport NHS FT	Tameside And Glossop Integrated Care NHS FT	University Hospitals of Morecambe Bay NHS FT	Wrightington, Wigan and Leigh NHS FT	Grand Total
0301: too young for reliable screening (≤ 4 days)	0	0	2	0	2	7	1	3	0	1	0	0	0	16
0302: too soon after transfusion (<72 hours)	1	4	9	0	1	8	0	5	0	0	0	1	0	29
0303: insufficient sample	1	26	12	5	16	33	1	25	5	15	5	2	5	151
0304: unsuitable sample (blood quality): incorrect blood application	3	10	4	6	6	15	0	11	10	9	8	2	2	86
0305: unsuitable sample (blood quality): compressed/damaged	0	10	3	4	1	13	0	12	1	3	6	2	0	55
0306: Unsuitable sample: day 0 and day 5 on same card	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0307: unsuitable sample for CF: possible faecal contamination	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0308: unsuitable sample: NHS number missing/not accurately recorded	1	2	2	1	1	4	0	3	2	0	1	0	2	19
0309: unsuitable sample: date of sample missing/not accurately recorded	5	1	6	1	4	11	0	6	0	1	1	1	6	43
0310: unsuitable sample: date of birth not accurately matched	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0311: unsuitable sample: expired card used	0	2	0	0	0	0	0	0	0	0	0	0	0	2
0312: unsuitable sample: >14 days in transit, too old for analysis	0	0	0	2	0	0	0	3	0	0	0	0	0	5
0313: unsuitable sample: damaged in transit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0902: Baby >1 year. Too old for screening.	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Number of Avoidable Repeat Requests	10	51	29	20	30	83	2	63	18	29	21	7	15	378
Number of first samples received/ babies tested	672	1346	1434	177	1016	3186	5	1378	209	739	644	611	795	12212
Avoidable Repeat Requests Rate	1.5%	3.8%	2.0%	11.3%	3.0%	2.6%	40.0%	4.6%	8.6%	3.9%	3.3%	1.1%	1.9%	3.1%

Transfusion Repeats are not included in the Avoidable Repeat calculation

Quarter 2 2023-24: Standard 6 by Current Hospital																		
Status code and description of avoidable repeat	Blackpool Victoria Hospital	Burnley General Hospital	Furness General Hospital	North Manchester General Hospital	Not in hospital	Ormskirk & District General	Royal Albert Edward Infirmary	Royal Blackburn Hospital	Royal Bolton Hospital	Royal Lancaster Infirmary	Royal Manchester Childrens Hospital	Royal Oldham Hospital	Royal Preston Hospital	St Mary's Hospital	Stepping Hill Hospital	Tameside General Hospital	Wythenshawe Hospital	Grand Total
0301: too young for reliable screening (≤ 4 days)	0	0	0	0	13	0	0	0	0	0	0	0	1	2	0	0	0	16
0302: too soon after transfusion (<72 hours)	1	9	0	0	0	0	0	0	4	1	0	5	1	8	0	0	0	29
0303: insufficient sample	1	7	0	1	112	1	4	0	6	0	0	5	3	5	0	3	3	151
0304: unsuitable sample (blood quality): incorrect blood application	0	3	1	3	46	1	1	0	6	0	0	10	1	7	5	1	1	86
0305: unsuitable sample (blood quality): compressed/damaged	0	0	0	0	49	0	0	0	3	0	0	1	0	0	0	1	1	55
0306: Unsuitable sample: day 0 and day 5 on same card	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0307: unsuitable sample for CF: possible faecal contamination	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0308: unsuitable sample: NHS number missing/not accurately recorded	1	1	0	0	15	0	0	0	0	0	0	0	0	2	0	0	0	19
0309: unsuitable sample: date of sample missing/not accurately recorded	0	4	0	0	36	0	2	0	0	0	0	0	0	1	0	0	0	43
0310: unsuitable sample: date of birth not accurately matched	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0311: unsuitable sample: expired card used	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
0312: unsuitable sample: >14 days in transit, too old for analysis	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
0313: unsuitable sample: damaged in transit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0902: Baby >1 year. Too old for screening.	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Number of Avoidable Repeat Requests	2	15	1	4	279	2	7	0	15	0	0	16	5	17	5	5	5	378
Number of first samples received/ babies tested	59	139	12	69	10942	14	42	2	146	32	6	148	101	301	63	38	98	12212
Avoidable Repeat Requests Rate	3.4%	10.8%	8.3%	5.8%	2.5%	14.3%	16.7%	0.0%	10.3%	0.0%	0.0%	10.8%	5.0%	5.6%	7.9%	13.2%	5.1%	3.1%

Transfusion Repeats are not included in the Avoidable Repeat calculation