



Public Health
England

Screening Quality Assurance visit report

NHS Antenatal and Newborn Screening Programmes

Liverpool Women's NHS Foundation Trust

27 and 28 February 2018

Public Health England leads the NHS Screening Programmes

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Public Health England, Wellington House, 133-155 Waterloo Road, London SE1 8UG

Tel: 020 7654 8000 www.gov.uk/phe

Twitter: [@PHE_uk](https://twitter.com/PHE_uk) Facebook: www.facebook.com/PublicHealthEngland

About PHE Screening

Screening identifies apparently healthy people who may be at increased risk of a disease or condition, enabling earlier treatment or better informed decisions. National population screening programmes are implemented in the NHS on the advice of the UK National Screening Committee (UK NSC), which makes independent, evidence-based recommendations to ministers in the 4 UK countries. The Screening Quality Assurance Service ensures programmes are safe and effective by checking that national standards are met. PHE leads the NHS Screening Programmes and hosts the UK NSC secretariat.

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Prepared by: Screening QA Service (North).

For queries relating to this document, please contact: phe.screeninghelpdesk@nhs.net



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Executive summary

Antenatal and newborn screening quality assurance (QA) covers the identification of eligible women and babies and the relevant tests undertaken by each screening programme. It includes acknowledgement of the referral by treatment or diagnostic services as appropriate (for individuals/families with screen-positive results), or the completion of the screening pathway.

The findings in this report relate to the quality assurance (QA) visit of the Liverpool Women's NHS Foundation Trust (LWH) screening service held on 27 and 28 February 2018.

Quality assurance aims to maintain national standards and promote continuous improvement in antenatal and newborn screening. This is to ensure that all eligible people have access to a consistent high quality service wherever they live.

QA visits are carried out by the PHE screening quality assurance service (SQAS).

The evidence for this report comes from the following sources:

- routine monitoring data collected by the NHS screening programmes
- data and reports from external organisations
- evidence submitted by the provider(s), commissioner and external organisations
- information shared with the North regional SQAS as part of the visit process

Description of local screening service

LWH provides all 6 antenatal and newborn screening programmes.

10,412 women booked for maternity care between 2016 and 2017 and there were 8,816 births.

The health and wellbeing of children in Liverpool is generally worse than the England average. Infant and child mortality rates are similar to the England average.

NHS England North (Cheshire and Mersey) is the lead commissioner for antenatal and newborn screening. Formal contractual arrangements are in place with NHS Liverpool CCG, NHS South Sefton CCG and NHS Knowsley CCG for the Maternity Payment Pathway (MPP).

LWH provides the following parts of the antenatal and newborn screening pathway:

- Sickle Cell and Thalassaemia Screening Programme (SCT) laboratory, in partnership with The Royal Liverpool and Broadgreen University Hospitals Trusts
- Infectious Diseases in Pregnancy Screening Programme (IDPS) laboratory, in partnership with Royal Liverpool University Hospital
- tertiary fetal medicine unit providing prenatal diagnosis and subsequent care
- provide all scans including first trimester and mid pregnancy scan for Fetal Anomaly Screening (FASP)
- Newborn Infant Physical Examination (NIPE)
- the Newborn Hearing Screening Programme (NHSP)

Services that interface with LWH:

- antenatal Down's, Edwards' and Patau's syndromes screening assessment is provided by the screening laboratory within The Wolfson Institute of Preventative Medicine
- Newborn blood spot (NBS) screening sample analysis is provided by the Liverpool newborn blood spot screening laboratory at Alder Hey Children's Hospital NHS Foundation Trust
- Child Health Organisation (CHO) service was provided by Liverpool Community Health NHS Trust and transferred into Mersey Care NHS Foundation Trust from 1 April 2018
- Health Visiting services are provided by Liverpool Community Health NHS Trust

Findings

This is the second QA visit to this service. The first QA visit took place on 19 June 2014. All recommendations were completed except for the implementation of a picture archiving and communication system (PACS) at the Aintree site to support image review within antenatal ultrasonography.

This antenatal and newborn screening service is a woman and family focussed service with a strong ethos for quality improvement. It is delivered by a team which is motivated and works well across all disciplines. The commitment to address areas falling short of standards, maintain patient safety and drive programme quality is clearly evident.

Immediate concerns

The QA visit team identified no immediate concerns.

High priority

The QA visit team identified 9 high priority findings as summarised below:

- Managing Safety Incidents in NHS Screening Programmes guidance is not followed across all 6 programmes and all departments
- patient information does not accurately describe the NHS screening programme pathway for the Fetal Anomaly Screening Programme (FASP)
- the planned review of management and administrative function for the NHSP programme is incomplete
- the inability to track a women's screening journey means that LWH do not have assurance that each woman who accepts a screening test receives a valid result
- the guideline for sickle cell and thalassaemia (SCT) screening does not provide assurance that all women who have a 'at risk' pregnancy are counselled and offered prenatal diagnosis
- pregnant women with fetal anomaly suspected on anomaly ultrasound do not receive support from the screening team and are not all seen in the Fetal Medicine Unit within 3 working days
- the FASP service is outside of national guidance and there is no formal risk assessment in place
- lack of engagement with the national FASP non-invasive prenatal testing (NIPT) evaluative roll out and education cascade

Shared learning

The QA visit team identified several areas of practice for sharing, including:

- offer of screening to women housed at the asylum reception centre
- daily duty sonographer for timely offer of scan following combined screening
- focused on improving access to high quality patient information. Detailed policy and Trust level strategy supported by use of technology with development of an app for accessing Maternity Assist online pregnancy information
- within the blood sciences laboratory there is a comprehensive sample risk management policy covering the entire sample pathway
- comprehensive multidisciplinary hepatitis B integrated referral pathway between Liverpool Women's and the Royal Liverpool University Hospital

Recommendations

The following recommendations are for the provider to action unless otherwise stated.

Governance and leadership

No.	Recommendation	Reference	Timescale	Priority *	Evidence required
1	Update the terms of reference for the Trust antenatal and newborn screening programme board (ANNBPB) to make sure there is operational oversight and representation from all key stakeholders	9, 10, 11, 12, 13, 14, 15	6 months	S	Revised terms of reference, minutes of meeting, standing agenda items: Key Performance Indicators (KPI) and incidents
2	Make sure that Managing Safety Incidents in NHS Screening Programmes guidance is followed within all departments for all 6 screening programmes	8	3 months	H	Appropriate reporting and management of incidents
3	Review and update all policies, guidelines and operating procedures to meet current national service specifications and standards	9, 10, 11, 12, 13, 14, 15	6 months	S	Updated policies, guidelines and operating procedures ratified and available to staff
4	Develop and implement an annual audit schedule for all screening programmes to demonstrate failsafe processes and that national programme standards are met	9, 10, 11, 12, 13, 14, 15	3 months	S	Annual audit schedule. Audit examples from antenatal and newborn screening programmes presented to ANNBPB
5	Undertake and act on the findings of an equity audit	9, 10, 11, 12, 13, 14, 15	12 months	S	Findings and actions presented to ANNBPB

No.	Recommendation	Reference	Timescale	Priority *	Evidence required
6	Complete an annual user feedback survey specific to antenatal and newborn screening programme pathways	9, 10, 11, 12, 13, 14, 15	12 months	S	User survey discussed at ANNBPB. Action plan to address findings
7	Make sure patient information accurately describes the NHS screening programme pathway	9, 10, 11, 12, 13, 14, 15	3 months	H	Patient information clearly describes the NHS screening programme pathway

Infrastructure

No.	Recommendation	Reference	Timescale	Priority *	Evidence required
8	Review the capacity and function of the screening team and roles to assure the safety and management of delivery for the ANNB programmes	9, 10, 11, 12, 13, 14, 15	6 months	S	Capacity and function of screening team reviewed and approved at board level
9	Complete the planned review of management and administrative function for the NHSP programme and take action to safely manage the programme	14, 22	3 months	H	Capacity and function of NHSP screening team reviewed and approved at board level
10	All staff involved in the screening pathways to complete the appropriate training requirements to maintain competence	9, 10, 11, 12, 13, 14, 15	6 months	S	Auditable training log for all staff. Training needs analysis and action plan

Identification of cohort: antenatal

No.	Recommendation	Reference	Timescale	Priority *	Evidence required
11	Implement an effective method of cohort tracking women's screening journey to provide assurance that each woman who accept a screening test receives a valid result with documented evidence of those that decline screening	9, 10, 11, 12	6 months	H	Produce and submit KPI with assurance of matched cohort. KPIs signed off by HoM before external submission

Identification of cohort: newborn

No.	Recommendation	Reference	Timescale	Priority *	Evidence required
12	Take action to make sure that KPI NH1 consistently meets the acceptable threshold	14, 22	9 months	S	Acceptable level consistently met for KPI NH1 ANNBPB review
13	Implement a plan to achieve KPI NP1 to consistently meet the acceptable threshold for all babies including those cared for on the neonatal unit	15, 24, 25	9 months	S	Acceptable level consistently met for KPI NP1
14	Child Health Organisation (CHO) to review the process to accurately capture all 'movers in babies' and generate a report for SLHV that identify babies over 14 days without a valid screening result. CHO review of parameters used for KPI reporting NB4 to make sure all movement in babies are captured in the KPI submission	13, 30	3 months	S	Weekly report produced and shared between CHO and SLHV KPI NB4 submissions meet the acceptable threshold

No.	Recommendation	Reference	Timescale	Priority *	Evidence required
15	All NIPE examinations to be recorded onto NIPE SMART and the system used as an effective failsafe across all clinical areas where examination is performed	15	3 months	S	NIPE screening is recorded on NIPE SMART for the newborn cohort of babies

Invitation, access and uptake

No.	Recommendation	Reference	Timescale	Priority *	Evidence required
16	Make sure that a documented pathway is in place for identifying and referring pregnant women with pre-existing diabetes for timely access for diabetic eye screening	33, 34	6 months	S	Agreed systems, and updated policy approved by ANNBPB

Sickle cell and thalassaemia screening

No.	Recommendation	Reference	Timescale	Priority *	Evidence required
17	Review the guideline for SCT screening to make sure that all women who have a 'at risk' pregnancy are counselled and offered prenatal diagnosis in accordance with the SCT standards	12, 16, 18	3 months	H	Agreed systems and updated guideline approved by ANNBPB and laboratory
18	Implement a failsafe process with the laboratory to make sure that all women who accept the offer of screening receive a valid result in the timeframe to meet national standards	12, 16, 18	6 months	S	Agreed systems, approved by ANNBPB and laboratory

Infectious diseases in pregnancy screening

No.	Recommendation	Reference	Timescale	Priority *	Evidence required
19	Implement a failsafe system to make sure that all women who accept the offer of screening receive a valid result in a timeframe to meet national standards	9, 17, 27, 28	6 months	S	Agreed systems, approved by ANNBPB which include a failsafe shared with the laboratory
20	Implement a system that makes sure all women receive their screen negative results if pregnancy ends early	9, 12, 18, 27, 28	6 months	S	Agreed system, approved by ANNBPB. with evidence of monitoring to demonstrate compliance
21	CHO and commissioners to work together to explore if EMIS system functionality can be adapted to allow capture of mother's record for hepatitis B	7, 9	6 months	S	CHRD and commissioners agree on functionality requirements
22	CHO to produce weekly data quality reports to ensure all hepatitis B babies and mothers are identified	7, 9, 27	3 months	S	Data quality reports produced with ongoing actions monitored

Fetal anomaly screening

No.	Recommendation	Reference	Timescale	Priority *	Evidence required
23	Implement a system to be able to generate and submit accurate figures for KPI FA2	11	3 months	S	KPI FA2 submitted quarterly exceeding the acceptable threshold, reported to the ANNBPB
24	Provide assurance of a suitable system for image review at Aintree in the absence of PACS at Aintree	10, 20	3 months	S	Image review is regularly undertaken for the practitioners who work at Aintree
25	Make sure that immediate support is available for a woman and her partner when an anomaly is suspected on ultrasound, with offer of a Fetal Medical Unit appointment within 3 working days	11, 19, 20	1 month(review) 3 months (implement) 6 months (audit)	H	Updated SOP and audit of process and compliance reported into ANNBPB
26	The Trust to produce an interim risk assessment to assure commissioners that the current provision of FASP screening is signed off at Trust Board, given non-compliance with national FASP standards for Down's, Edwards' and Patau's syndrome screening	10, 19	3 months	H	Completed risk assessment shared with commissioning Screening for Down's, Edwards' and Patau's should comply with FASP national standards
27	Make sure the Service Level Agreement with The Wolfson Institute of Preventative Medicine is compliant with current FASP pathway and standards	10, 19	6 months	H	Revised SLA including national FASP pathway, standards and service specification.

No.	Recommendation	Reference	Timescale	Priority *	Evidence required
28	Make sure that an action plan is in place for implementing the evaluative rollout of Non Invasive Prenatal Testing (NIPT) in line with the national fetal anomaly screening programme	10, 19	2 months	H	Action plan including education cascade for staff.

Newborn hearing screening

No.	Recommendation	Reference	Timescale	Priority *	Evidence required
29	Implement a strategy to meet KPI NH2 acceptable threshold consistently	14, 22	6 months	S	KPI production, exceeding the acceptable threshold
30	Put in place a process to share NHSP Case records in a timely way between LWH NHSP sites and other NHSP sites where babies are being treated	14, 22	3 months	S	Assurance is provided that case records are shared timely
31	Develop a SOP to make sure that all babies who move in under 3 months without a valid hearing screening result are referred by health visiting to NHSP at LWH	14, 22	6 months	S	SOP ratified and implemented

Newborn and infant physical examination

No.	Recommendation	Reference	Timescale	Priority *	Evidence required
32	CHO to put a process in place for recording NIPE and NHSP screening results	7, 15	9 months	S	Service development plan in place
33	CHO to develop a data quality report to identify and follow up on missing NIPE and NHSP results	7, 15	9 months	S	Effective auditable recording of NIPE results on Child Health Information System

Newborn blood spot screening

No.	Recommendation	Reference	Timescale	Priority *	Evidence required
34	Make sure that the practitioner taking the bloodspot correctly identifies the baby and completes the request card themselves. All sample cards should have a unique approved, validated NHS number barcode label, including those from NICU	31	1 month	S	Prospective audit to demonstrate compliance
35	Cease checking quality of blood spots on NBS cards	31	1 month	S	Reduction in duplicate samples received by Liverpool NBS laboratory

I = Immediate

H= High

S = Standard

Next steps

Liverpool Women's NHS Foundation Trust is responsible for developing an action plan to ensure completion of recommendations contained within this report.

SQAS will work with commissioners to monitor activity/progress in response to the recommendations made for a period of 12 months following the issuing of the final report. After this point, SQAS will send a letter to the provider and the commissioners summarising the progress made and will outline any further action(s) needed.