



Public Health  
England

Protecting and improving the nation's health

# Screening Quality Assurance visit report

NHS Antenatal and Newborn Screening  
Programmes University Hospitals  
Birmingham NHS Foundation Trust

28 November 2019

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

Tel: 020 7654 8000 [www.gov.uk/phe](http://www.gov.uk/phe)

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## About PHE screening

Screening identifies apparently healthy people who may be at increased risk of a disease or condition, enabling earlier treatment or 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. PHE advises the government and the NHS so England has safe, high quality screening programmes that reflect the best available evidence and the UK NSC recommendations. PHE also develops standards and provides specific services that help the local NHS implement and run screening services consistently across the country.

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## Executive summary

Antenatal and newborn screening quality assurance 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 visit of the University Hospitals Birmingham NHS Foundation Trust screening service held on 28 November 2019.

### Quality assurance purpose and approach

Quality assurance (QA) 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 Midlands and East regional SQAS as part of the visit process

### Local screening service

University Hospitals Birmingham NHS Foundation Trust offers all 6 NHS antenatal and newborn screening programmes. The full range of antenatal, intrapartum and postnatal care is provided at 3 sites. Heartlands hospital, Good Hope hospital and Solihull hospital. There were 12,183 bookings in 2018 to 2019:

- Heartlands hospital had 5,788 bookings
- Good Hope hospital had 3,805 bookings
- Solihull hospital had 2,590 bookings

There were 9,222 live births:

- Heartlands hospital had 6,221
- Good Hope hospital had 2,930
- Solihull hospital had 71

The lead commissioner for University Hospitals Birmingham NHS Foundation Trust maternity services is Birmingham and Solihull Clinical Commissioning Group. NHS England and NHS Improvement (Midlands) commission antenatal and newborn screening in line with NHS England section 7a service specifications.

Birmingham Women's and Children's NHS Foundation Trust provides the laboratory services for the analysis of newborn blood spot screening samples as well as screening for Down's syndrome, Edwards' syndrome and Patau's syndrome.

University Hospitals Birmingham NHS Foundation Trust provides the laboratory testing for:

- infectious diseases in pregnancy screening
- sickle cell and thalassemia screening

United Kingdom Accreditation Service (UKAS) assesses both ISO 15189:2012 requirements and the screening QA requirements as an integrated process. The interfaces between the laboratory and the trust were included in the QA visit day discussions and will be included in this report.

Newborn hearing screening services are provided by Sandwell and West Birmingham Hospitals NHS Trust.

Child health information services are provided by Birmingham Community Healthcare Foundation NHS Trust.

## Findings

This is the second quality assurance visit to the antenatal and newborn screening programmes at University Hospitals Birmingham NHS Foundation Trust. The first visit took place in September 2014 and this was to Heart of England Foundation NHS Trust. In April 2018, there was a merger between Queen Elizabeth Hospital Birmingham and Heart of England NHS Foundation Trust, which managed Heartlands Hospital, Good Hope Hospital and Solihull Hospital.

## Immediate concerns

The QA visit team identified no immediate concerns.

## High priority

The QA visit team identified 4 high priority findings as summarised below:

- eligible women and babies were not all accounted for in national data submission
- outcomes were not recorded for all newborn infant physical examination referrals and audiology referrals on newborn IT systems
- action plans were not in place for standards and key performance indicators that did not reach the acceptable level
- the process for ultrasound services to check for consent before screening for Down's syndrome, Edwards' syndrome and Patau's syndrome is time consuming

## Recommendations

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

### Governance and leadership

No.	Recommendation	Reference	Timescale	Priority	Evidence required
1.	Implement a process for the regular reporting and monitoring of all antenatal and newborn screening programme standards	Service specifications 15 to 21  NHS public health functions agreement 2018 to 2019	6 months	High	National programme standards as a standing item on the antenatal and newborn screening programme board agenda  Action plans presented to the programme board to address any identified gaps
2.	Review the joint programme board to make sure that it remains an effective tool to monitor the screening programmes at University Hospitals Birmingham NHS Foundation Trust	Service specifications 15 to 21  NHS public health functions agreement 2018 to 2019	12 months	Standard	Review undertaken and discussed at programme board with input from all stakeholders

No.	Recommendation	Reference	Timescale	Priority	Evidence required
3.	Make sure all screening programme standards are monitored at the internal antenatal and newborn screening steering group to provide clinical oversight and governance	Service specifications 15 to 21	6 months	Standard	Terms of reference and minutes show that screening programme standards are regularly monitored
4.	Include national guidance on 'managing safety incidents in NHS screening programmes' in the Birmingham Community Healthcare Foundation NHS Trust incident policy	Managing safety incidents in NHS screening programmes	6 months	Standard	Policy which includes reference presented at programme board
5.	Review and update all screening guidelines to make sure that they meet national guidance and reflect internal processes	Service specifications 15 to 21	12 months	Standard	Ratified guidelines presented at programme board
6.	Implement an annual audit schedule for antenatal and newborn screening programmes	Service specifications 15 to 21	6 months	Standard	Audit scheduled presented to programme board  Regular presentation of audits and findings presented to programme board

No.	Recommendation	Reference	Timescale	Priority	Evidence required
7.	The provider and commissioners should work together to undertake a health equity audit and develop an action plan to identify and reduce inequalities	Service specifications 15 to 21  Guidance for NHS Commissioners on equality and health inequality duties 2015	12 months	Standard	Summary of the audit and findings presented and discussed at the programme board  The action plan presented to the programme board to address any identified inequalities
8.	Complete a user survey to gather views about the antenatal and newborn screening pathways	Service specifications 15, 16 ,17, 18, 19 and 21	12 months	Standard	Outcome of survey discussed at programme board

## Infrastructure

No.	Recommendation	Reference	Timescale	Priority	Evidence required
9.	Undertake a screening staff capacity review. Use the results to support service improvements and failsafe processes	Service specifications 15 to 21  NHS population screening: checks and audits for failsafe	6 months	Standard	Review presented at programme board with evidence of failsafe processes



No.	Recommendation	Reference	Timescale	Priority	Evidence required
10.	Make sure all ultrasound machines used for fetal anomaly screening have quality assurance and maintenance checks in place	Service specification 17	6 months	Standard	Evidence of checks and maintenance contracts presented at the programme board and internal trust steering group

### Identification of cohort – antenatal

No.	Recommendation	Reference	Timescale	Priority	Evidence required
11.	Make sure that all eligible women without a screening result are accounted for in quarterly data submissions	Service specifications 15 to 18	6 months	High	Key performance indicator report shows that all eligible women have an outcome

### Identification of cohort – newborn

No.	Recommendation	Reference	Timescale	Priority	Evidence required
12.	Make sure that all eligible babies without a screening result are accounted for in quarterly data submissions	Service specifications 19 to 21	6 months	High	Key performance indicator report shows that all eligible babies have an outcome
13.	Implement a process for updating a baby's status as deceased on the screening IT systems	Service specifications 19 to 21	3 months	Standard	Standard operating procedure for the updating of the newborn IT systems when a baby dies

## Invitation, access and uptake

No.	Recommendation	Reference	Timescale	Priority	Evidence required
14.	Update trust website to include information about access to maternity care and antenatal and newborn screening programmes	Service specifications 15 to 21	6 months	Standard	Updated website showing information on accessing maternity care and antenatal and newborn screening

## Sickle cell and thalassaemia screening

No.	Recommendation	Reference	Timescale	Priority	Evidence required
15.	Update the current pathology request form to make sure it is in line with the latest version of the family origin questionnaire	Service specification 18	6 months	Standard	Updated booking request form
16.	Make sure all women and couples who already know their carrier status are offered prompt referral for counselling and offer of prenatal diagnosis	Service specification 18	6 months	Standard	Antenatal screening guideline shows “fast track” process for known at risk couples
17.	Investigate KPI ST2 (timeliness of test) to make sure biological father of the baby can be offered testing and prenatal diagnosis can be offered for at risk couples by 12 weeks and 0 days	NHS Sickle cell and thalassaemia screening programme standard 2	6 months	Standard	Investigation and actions to improve timeliness of results presented to programme board

No.	Recommendation	Reference	Timescale	Priority	Evidence required
18.	Implement and monitor a plan to consistently meet key performance indicator ST3 (completion of FOQ)	Service specification 18  NHS Sickle cell and thalassaemia screening programme standard 3	6 months	Standard	Action plan monitored at antenatal and newborn screening programme board  Submission of data that shows consistent achievement of the acceptable standard

### Infectious diseases in pregnancy screening

No.	Recommendation	Reference	Timescale	Priority	Evidence required
19.	Complete the national audit for all women who have confirmed screen positive results for HIV, hepatitis B and syphilis so that attendance at screening assessment appointment within 10 working days can be monitored	NHS Infectious diseases in pregnancy screening programme standard 5a, 5b and 5c	12 months	Standard	Submission of national audit data that meets the acceptable level presented at the internal steering group and programme board
20.	Revise the pathway for women who decline the reoffer of screening to make sure it is in line with national guidance	Service specification 15	12 months	Standard	Revised guideline presented to programme board

## Fetal anomaly screening

No.	Recommendation	Reference	Timescale	Priority	Evidence required
21.	Make sure ultrasound staff can access BadgerNet to check consent for screening before completing scan	Service specification 16	3 months	High	Confirmation at programme board

## Newborn hearing screening

No.	Recommendation	Reference	Timescale	Priority	Evidence required
22.	Implement and monitor a plan to consistently meet standard 2 (well babies without a clear response) and standard 3 (referral rate to audiological assessment) across all sites	NHS Newborn hearing screening programme standards 2 and 3	12 months	Standard	Action plan that is agreed and monitored by the antenatal and newborn screening programme board  Submission of data that shows consistent achievement of the acceptable standard
23.	Make sure audiology outcome data for screened babies is entered into the NHS Newborn Hearing Screening Programme national IT system (SMaRT4Hearing)	NHS Newborn hearing screening programme operational guidance	6 months	High	Confirmation that records have been updated by audiology at the screening board

## Newborn and infant physical examination

No.	Recommendation	Reference	Timescale	Priority	Evidence required
24.	Make sure outcomes for standard 2 (abnormalities of the eye), standard 3 (developmental dysplasia of the hips), standard 4 (developmental dysplasia of the hips – risk factors) and standard 5 (bilateral undescended testes) are recorded on SMaRT4NIPE	Service specification 21  Newborn infant physical examination screening programme standards 2, 3, 4 and 5	12 months	High	Outcomes are recorded on SMaRT4NIPE  Standards are monitored at the antenatal and newborn screening programme board
25.	Implement and monitor a plan to consistently meet key performance indicator NP2 (developmental dysplasia of the hips)	Service specification 21  Newborn infant physical examination screening programme standard 3	6 months	Standard	Action plan that is agreed and monitored by the programme board  Submission of data that shows consistent achievement of the acceptable standard

## Newborn blood spot screening

No.	Recommendation	Reference	Timescale	Priority	Evidence required
26.	Implement and monitor a plan to meet standard 3 (use of barcoded labels)	Service specification 19 Newborn blood spot screening programme standard 3	12 months	Standard	Action plan monitored at antenatal and newborn screening programme board  Submission of data that shows consistent achievement of the acceptable standard
27.	Make sure all babies without a newborn blood spot result are followed up by 17 days of age	Service specification 19	6 months	Standard	Confirmation that reports are run more frequently  Submission of NB1 and NB4 data that shows improvement

## Next steps

The screening service provider is responsible for developing an action plan in collaboration with the commissioners to complete the recommendations contained within this report.

SQAS will work with commissioners to monitor activity and progress in response to the recommendations made for a period of 12 months after the report is published. 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.