Public Health England

NHS

Screening Quality Assurance visit report

NHS Antenatal and Newborn Screening Programmes University Hospital Southampton NHS Foundation Trust

20 April 2017

Public Health England leads the NHS Screening Programmes

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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 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 four 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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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 to 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 antenatal and newborn screening service at University Hospital Southampton NHS Foundation Trust held on 20 April 2017.

Purpose and approach to quality assurance (QA)

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 south regional SQAS as part of the visit process

Description of local screening service

The antenatal and newborn screening service at University Hospital Southampton NHS Foundation Trust (UHS) delivers screening to an eligible population of approximately 1.9 million people from Southampton, West Hampshire and parts of Dorset. The local population is characterised as 77.7% white British, 8.4% Asian, 7.4% other white (2011 census) with 36.6% of live births non-white British or Irish (JSNA 14/15).

The programme is commissioned by and on behalf of NHS England.

Delivery of the service provided at UHS includes:

- maternity services at the acute site
- sickle cell and thalassaemia screening laboratory
- infectious diseases in pregnancy screening laboratory

- ultrasound service for the first trimester Down's, Edwards' and Patau's syndrome screening and the 18+0 to 20+6 week fetal anomaly scan
- tertiary referral centre for fetal medicine including prenatal diagnostic procedures
- tertiary referral centre and level 3 neonatal intensive care unit
- newborn hearing screening programme - a hospital model which includes 12 community outpatient clinics for babies discharged prior to screening

There are identified leads within the provider organisations to co-ordinate and oversee the screening programmes.

Findings

Immediate concerns

The QA visit team did not identify any immediate concerns.

High priority

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

- all stakeholders within the screening pathways are required to identify, report and manage incidents and serious incidents as per the PHE guidance
- newborn hearing screening equipment quality assurance checks were incomplete and appear to have been used in the screening pathway
- resolve cross border issues with Salisbury NHS Foundation Trust relating to cohort of babies requiring newborn hearing screening
- the sickle cell and thalassaemia laboratory uses historic red blood cell indices to support the high performance liquid chromatography (HPLC) element of the sickle cell and thalassaemia screen when the sample from the current pregnancy is received clotted
- the infectious disease laboratory authorises and releases screen positive results prior to confirmation of the result from the reference laboratory
- the fetal anomaly screening cohort requires tracking in a timely way to ensure all those booked are offered and complete screening
- the newborn infant physical examination screen positive cohort requires tracking in a timely way to ensure each baby enters treatment services
- the outcome of babies requiring referral to audiology services during the period of IT failure should be reviewed to ensure no baby missed an appointment in treatment services

Shared learning

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

- screening is included in the induction process for maternity and medical staff
- there is a comprehensive standard operating procedure in place to support management of the newborn bloodspot failsafe solution
- the infectious disease screening laboratory reports declines and repeat requests to the screening team twice weekly enabling timely follow up
- vulnerable groups such as teenage mothers are supported by the ‘needing extra support teams (NEST)’

Table of consolidated recommendations

Governance and leadership

No.	Recommendation	Timescale	Priority *	Evidence required
1.1	Ensure that all stakeholders within the screening pathways identify, report and manage incidents and serious incidents as per the PHE guidance	3 months	High	Ratified trust wide incident management policy which reflects the PHE Managing Safety Incidents in NHS Screening Programmes guidance (October 2015) Timely engagement with NHS England and PHE to ensure closure of serious incident within the timescales specified within policy
1.2	Investigate the use of newborn hearing screening equipment which had incomplete quality assurance checks	3 months	High	Potential incident reported and managed in accordance with PHE Managing Safety Incidents in NHS Screening Programmes guidance (October 2015)
1.3	Develop terms of reference for all programme specific meetings	6 months	Standard	Terms of reference developed and agreed
1.4	Revise the terms of reference for the trust 6 monthly screening governance group to ensure adequate representation from senior management and stakeholders from each programme	6 months	Standard	Terms of reference Attendance from senior management and programme stakeholders included in minutes

No.	Recommendation	Timescale	Priority *	Evidence required
1.5	Strengthen links between the maternity services and the newborn hearing screening programme across the two directorates	6 months	Standard	Minutes of meetings
1.6	Review the newborn hearing screening group meetings to ensure focus on hearing screening as well as audiology services	6 months	Standard	Terms of reference
1.7	Revise all screening guidelines, pathways and standard operating procedures to ensure that local practice is in line with current national guidance	6 months	Standard	Revised ratified guidelines and standard operating procedures which have been benchmarked against NHS screening programme service specifications and standards
1.8	Introduce a standard operating procedure for the newborn infant physical examination (NIPE) screening management and reporting tool (SMART) system which defines role and responsibility and process for transfer of babies into and out of the trust	6 months	Standard	Standard operating procedure for NIPE SMART
1.9	Ensure women who decline infectious diseases screening are reoffered screening as recommended by the national infectious diseases in pregnancy screening programme	6 months	Standard	Re-audit women who decline infectious disease screening at booking to demonstrate improvement since audit was performed in 2016
1.10	Audit infectious disease screen positive samples which are sent away to Colindale Reference Laboratory in order to identify cause of delay in the pathway	6 months	Standard	Audit and action plan Compliance with 8 working day turnaround times for all infectious disease screening results
1.11	Conduct an audit of quadruple screening to identify the reasons for the test in order to reduce the numbers of women who cannot have combined screening	6 months	Standard	Audit and action plan Reduction in quadruple screening rate

No.	Recommendation	Timescale	Priority *	Evidence required
1.12	Implement an audit within the newborn hearing screening programme to ensure that all adequate checking processes are in place and these are acted upon in a timely way	6 months	Standard	Newborn hearing screening audits and action plans for discrepant data reports, manual entry of results, NICU and well-baby protocols and QA checks
1.13	Undertake a client satisfaction survey specific to antenatal and newborn screening pathways	12 months	Standard	Completion of user satisfaction survey and feedback at screening group meetings

Infrastructure

No.	Recommendation	Timescale	Priority *	Evidence required
2.1	Ensure the screening support sonographer has adequate programmed activity to complete all elements of her role	6 months	Standard	Quarterly crown rump length (CRL) and nuchal translucency (NT) audits for all sonographers Tracker for completion of education and training for all sonographers
2.2	Undertake a workforce review within the ultrasound department to ensure resilience within the team	6 months	Standard	Workforce review and action plan
2.3	Review administrative support capacity within the ANNB screening team	6 months	Standard	Review and action plan
2.4	Ensure an education programme for screening continues to be implemented	6 months	Standard	Screening to be included in mandatory training schedule Tracker to ensure all staff complete training yearly

2.5	Monitor completion of the NHS screening programmes e-learning resources for sonographers	12 months	Standard	Tracker demonstrating completion of e-learning training for sonographers

Identification of cohort – antenatal

No.	Recommendation	Timescale	Priority *	Evidence required
3.1	Engage with trust IT analyst to support data collection of key performance indicators and reduce manual collection of data	12 months	Standard	Data reports for collection of key performance indicator data

Identification of cohort – newborn

No.	Recommendation	Timescale	Priority *	Evidence required
4.1	Resolve the cross border issues with Salisbury Hospital relating to cohort of babies requiring newborn hearing screening	3 months	High	Agreement relating to responsibility for screening Re-mapping of SMaRT4Hearing at border with Salisbury Hospital
4.2	Reconcile the cohort data for newborn hearing screening to include birth notifications from New Forest Birth Centre in the event of an IT failure	6 months	Standard	Birth notifications from New Forest Birth Centre to be sent to newborn hearing screening office

Invitation, access and uptake

No.	Recommendation	Timescale	Priority *	Evidence required
5.1	Revise the referral and booking process for maternity care to prevent delays in screening	6 months	Standard	Improvement in key performance indicator data ST2 (the proportion of booking bloods taken and a result for sickle cell and thalassaemia screening available by 10 weeks gestation)
5.2	Review and update the trust website to ensure access to screening information via NHS Choices	6 months	Standard	Updated website with screening information
5.3	Ensure the maternity service communicates results to all women who have had a screening test including those who have had a miscarriage or termination of pregnancy	6 months	Standard	System implemented Ratified trust screening policies describing pathway
5.4	Review the pathway for women who decline infectious disease screening to ensure that the tests are reoffered by 20 weeks gestation	6 months	Standard	Ratified policy to reflect change in gestation
5.5	Offer all women a fetal anomaly scan between 18+0 and 20+6 regardless of body mass index	6 months	Standard	Improvement in key performance indicator data FA2 (completion of 18+0 to 20+6 anomaly scan)
5.6	Disseminate did not attend (DNA) policy for the follow up of women who do not attend ultrasound appointments to all sonographers	6 months	Standard	Tracking that DNA policy has been disseminated

Sickle cell and thalassaemia screening

No.	Recommendation	Timescale	Priority *	Evidence required
6.1	Discontinue the use of historic red blood cell indices to support the high performance liquid chromatography (HPLC) element of the sickle cell and thalassaemia screen when the sample from the current pregnancy is received clotted	3 months	High	Updated standard operating procedure to reflect that clotted samples are rejected by the laboratory and repeat sample is requested
6.2	Update the integrated antenatal booking blood form to incorporate the latest version of the family origin questionnaire	6 months	Standard	Booking blood form which includes latest version of the family origin questionnaire
6.3	Implement a process in the sickle cell and thalassaemia laboratory to ensure that samples are not processed without a completed family origin questionnaire	6 months	Standard	Updated standard operating procedure to reflect change in process
6.4	Implement a process in the sickle cell and thalassaemia laboratory to ensure that rejected samples are reported to the screening department in a timely manner to facilitate prompt follow up	6 months	Standard	Updated standard operating procedure to reflect change in process
6.5	Implement a process to track samples sent to external laboratories from the sickle cell and thalassaemia laboratory in a timely manner	6 months	Standard	Updated standard operating procedure to reflect timely tracking of samples sent to external laboratories
6.6	Revise the format of sickle cell and thalassaemia screen positive reports to incorporate the terminology ‘baby’s father’ rather than ‘partner’ screen	6 months	Standard	Revised screen positive reports from laboratory information management system reflecting new terminology

Infectious diseases in pregnancy screening

No.	Recommendation	Timescale	Priority *	Evidence required
7.1	Discontinue the practice of authorising and releasing screen positive results prior to confirmation of the result from the reference laboratory	3 months	High	Screen positive reports only released following confirmation of result
7.2	Remove request for rubella screening on the integrated antenatal booking blood form on the next print run of the forms	6 months	Standard	Booking blood form with request for rubella screening removed

Fetal anomaly screening

No.	Recommendation	Timescale	Priority *	Evidence required
8.1	Track the fetal anomaly screening cohort in a timely way to ensure all those booked are offered and complete screening	3 months	High	Ratified policy to reflect tracking of the programme

Newborn and infant physical examination

No.	Recommendation	Timescale	Priority *	Evidence required
9.1	Track the newborn and infant physical examination screen positive cohort in a timely way to ensure each baby enters treatment services	3 months	High	Ratified policy to reflect tracking of screen positive cohort

No.	Recommendation	Timescale	Priority *	Evidence required
9.2	Improve the process for the communication of newborn and infant physical examination screening when babies are transferred into and out of the trust. Particularly when the receiving hospital does not use the newborn and infant physical examination screening management and reporting tool (SMART)	6 months	Standard	Standard operating procedure for use of newborn and infant physical examination SMART
9.3	Report outcomes into the newborn and infant physical examination screening management and reporting tool (SMART) of babies referred following abnormal hip findings at the newborn and infant physical examination	6 months	Standard	Key performance indicator data collected from newborn and infant physical examination SMART

Newborn blood spot screening

No.	Recommendation	Timescale	Priority *	Evidence required
10.1	Discontinue the process of rejecting samples in the maternity department prior to receipt at the newborn blood spot screening laboratory	6 months	Standard	Ratified policy to reflect a discontinuation of this process

Newborn hearing screening

No.	Recommendation	Timescale	Priority *	Evidence required
11.1	Review the outcome of babies requiring referral to audiology services during the period of IT failure to ensure no baby missed appointment in treatment services	3 months	High	Audit and outcomes
11.2	Develop a written pathway to ensure that babies in paediatric intensive care are screened as appropriate	6 months	Standard	Ratified policy reflecting process
11.3	Update and amend existing letter to include contact details to be given to parents when baby requires a targeted follow up appointment	6 months	Standard	Letter template
11.4	Discontinue the use of ‘targeted follow up’ setting in SMaRT4Hearing platform when not appropriate	6 months	Standard	Audit the ‘targeted follow up’ function on S4H to establish if it is being used appropriately

Next steps

The screening service providers are responsible for developing an action plan to ensure completion of 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. Following the issuing of the final report to allow time for at least one response to all recommendations to be made.