



Guideline for Maternal Antenatal Screening Including diagnosis and referral of women with a suspected Fetal Abnormality

Author/Owner	Antenatal and Newborn Screening Coordinator/Deputy Antenatal and Newborn Screening Coordinator/Consultant Obstetrician					
Equality Impact	N/A if clinical guideline or	Date:				
Assessment	procedure					
Version	1					
Status	Approved					
Publication date	28/03/2023					
Review date	23/03/2026					
Approval recommended by	Maternity guideline group	Date: N/A				
recommended by	Women's Business and	Date:17/03/2023				
	Governance Meeting					
Approved by	CBU 3 Overarching	Date:22/03/2023				
	Governance Meeting					
Distribution	Barnsley Hospital NHS Foundation Trust – intranet					
	Please note that the intranet ve	ersion of this document is the only				
	version that is maintained.					
	Any printed copies must therefore be viewed as "uncontrolled" and as such, may not necessarily contain the latest updates and amendments					





Table of Contents

Table of Conf	tents		
	Section	on heading	Page
1.0	Introd	luction	3
2.0	Objec	ctive	3
3.0	Scope	e	3
4.0	Main	body of the document	3
	4.1	Screening tests at booking	3 - 7
	4.2	7	
	4.3	Abnormal scan results	7
	4.4	Screening for Downs, Edwards and Patau's Syndrome (Aneuploidy Screening)	8 - 10
	4.5	None-Invasive prenatal testing (NIPT)	10
	4.6	Invasive Testing	10
	4.7	Referral and exclusion criteria for the fetal clinic	11
	4.8	Management and care following diagnosis of severe/life threatening abnormality or maternal choice	12
	4.9	Referral to at tertiary unit	13
5.0	Roles	and responsibilities	14
	5.1	Midwives	14
	5.2	Obstetricians	14
	5.3	Paediatricians	14
	5.4	14	
6.0	Assoc	ciated documents and references	14
7.0	Traini	ing and resources	14
8.0	Monit	oring and audit	14
9.0	Equa	lity, diversity and inclusion	15
	9.1	Recording and monitoring of equality, diversity and inclusion	15
Appendix 1	Equa	lity impact assessment – required for policy only	16
Appendix 2		of Obstetric Women with HIV Care Flow Chart	17
Appendix 3	Care	Pathway for Obstetric Women with HIV	18 - 20
Appendix 4	Care	of Obstetric Women with Hepatitis B Flowchart	21
Appendix 5		titis B screening and immunisation maternal and latric checklist	22 - 23
Appendix 6		ening for Syphilis in Pregnancy Flowchart	24
Appendix 7		Pathway for Obstetric Women with Syphilis	25 - 26
Appendix 8		nosis of Suspected Fetal Abnormality Flowchart	27
Appendix 9		and Second Trimester Screening Flow Chart	28
Appendix 10		ed Nuchal Translucency Measurement (NT) Flowchart	29
Appendix 11	Overa	all Outcome Based on Nuchal Translucency	30
Appendix 12		onic villus sampling and Amniocentesis tests	31 - 36
Appendix 13		sary of terms	38
Appendix 14		ment history/version control – must be the last	38
		,	



appendix



Section Headings

1.0 Introduction

The guideline uses the terms 'woman' or 'mother' throughout. These should be taken to include people who do not identify as women but who are pregnant.

This guideline details antenatal screening tests which are offered during pregnancy and the role of the fetomaternal team if an abnormality is detected.

2.0 Objective

To ensure that women and their partners are aware of the screening tests available during pregnancy and the choices that are available to them.

To ensure that appropriate maternal screening tests are offered, undertaken and reported on following the guidance of the United Kingdom National Screening Committee.

3.0 Scope

This guideline applies to all medical and midwifery staff working within the maternity unit.

4.0 Main body of the document

'Screening tests for you and your baby' is available via the hospital intranet and is sent to all pregnant women/birthing people via an email link once they have been contacted by the maternity administration team. The information covers all the screening tests available during and after pregnancy. Screening tests in pregnancy - NHS (www.nhs.uk)

The decision to accept or decline screening is the choice of the woman/birthing person. Any decline in screening should be discussed with the woman to make sure she has made an informed choice and she understands the importance of screening in pregnancy. The Antenatal and Newborn Screening Coordinator's role is to facilitate the screening programs and involve the multidisciplinary teams to provide the care. The role of the Deputy Screening Coordinator is to support the Antenatal and Newborn Screening Coordinator within her role.

4.1 Screening tests at booking

The antenatal screening tests offered are:

- Blood group, Rhesus status and antibody screen.
- Infectious diseases (HIV, Hepatitis B, Syphilis).
- Haemoglobin levels including platelets and white cell count.
- Haemoglobinopathies (Sickle Cell and Thalassaemia).

The above tests are taken by the maternity support worker (MSW) prior to the booking appointment with the community midwife (CMW). The results are checked by the community midwife and inputted onto the woman's electronic patient record (EPR). If the bloods are taken in the antenatal clinic (ANC) then the ANC midwife will check and action where appropriate.





If a woman declines any antenatal screening tests it is recommended that she is booked for shared care and re-offered screening at her first hospital consultation. This is because she may have underlying conditions that we do not know about. BRAIN is a simple acronym to assist in gathering information needed to make informed choices, considering the **B**enefits, **R**isks, **A**lternatives, **I**ntuition & **N**othing. If the woman still declines after the consultation the Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will arrange to see her after her anomaly scan to re-offer her the screening blood tests.

Repeat antenatal screening can be offered at any point during her pregnancy. This may be if there has been a change of sexual partner.

The antenatal screening tests can be taken at any gestation, if the woman books late or if she presents in labour un-booked.

If there are any positive or equivocal results for HIV, Hepatitis B, Syphilis or an Haemoglobinopathy the Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator are informed by the laboratory via an email and the information is added by the screening team to the HBO shared drive, which can be updated with any actions and/or results.

The process for screen positive results:

The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will action any screen positive results, ensure the appropriate care is being received by following the care pathway/flow chart. (See appendices) The woman should be contacted within 3 working days by the antenatal screening team and informed of the result. An appointment will then be made by the screening team for the antenatal clinic with her consultant to discuss the results and commence on the appropriate care pathway and upload the information onto the woman's EPR.

Women with red cell antibodies:

- The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will receive an email from the laboratory informing them of a positive antibody result and the action required.
- The results are inputted onto CareFlow with a tile on the front page for what action needs to be undertaken by the CMW or ANC staff.
- It is the role of whoever had taken the sample to contact the woman with the results and inform her of the plan. If the community midwife is not available then any pending results should be passed to another team member to chase and action where applicable.
- Antibody care pathways are commenced by the Antenatal and Newborn Screening Coordinator and the details entered on to the spreadsheet on the screening shared drive. This ensures effective communication within the screening team and to act as a failsafe in the absence of the community midwife. This spreadsheet is checked on a weekly basis by the screening team to make sure follow up bloods are obtained within the expected timeframes set out by the labs.



An increase in titre levels that require specialist fetal medicine input are reviewed by Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator and an appointment is made in the Fetal Clinic for review by the specialist consultants.

 Referrals to the tertiary unit, The Jessop Wing Feto Maternal Unit Sheffield, are made by the Antenatal and Newborn Screening Coordinator/ Deputy Screening Coordinator.

Women with Haemoglobinopathies:

- The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator
 will inform the woman within 7-10 working days of receiving the preliminary screen
 positive result. Confirmatory results can take up to 10 working days to be received
 by the Antenatal and Newborn Screening Coordinator. Partner testing is requested
 whilst waiting for the confirmed report.
- If the partner testing confirms an abnormal haemoglobin or if there is no partner available for testing, the Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will arrange an appointment for the woman to be seen by the obstetric consultant to discuss the management plan. Genetic counselling and prenatal diagnosis (invasive testing) will be discussed in view of the risk of the baby either having the condition or being a carrier of the condition (depending whether the confirmatory results show a carrier status or an actual condition).
- If the partner declines there may be a historic result on the ICE system as he may have been tested before. Consent would be needed from the partner to view this result. If there are no previous results we would continue as above in the case of no partner available.
- All confirmed Haemoglobinopathies are referred to the Haematologist via the obstetric consultant.
- If the results show no evidence of an abnormal haemoglobinopathy there will be no effect to the fetus other than a possible carrier status. The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will inform the woman and her partner via telephone and update the woman's EPR with her partners status.
- All abnormal results are entered onto a spreadsheet to ensure effective communication within the screening team and to act as a failsafe.

See appendix 1 for HBO flowchart

Women with HIV:

- The results can take up to 10 working days to come back from the laboratory in Sheffield. All positive results are sent to the Antenatal and Newborn Screening Coordinator via email from the Hepatologist Nurse Specialist. The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will arrange to see the woman within 3 working days.
- The woman will be transferred to the Obstetric Lead for HIV and given the next available appointment in the Fetal Clinic. The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will commence the HIV care pathway, offer information leaflets and obtain any additional blood tests if required.
- The consultant will review the results and determine a plan of care and update careflow and the HIV care pathway. A referral will be made to the consultant at



Spectrum Community Health (CIC) by the Obstetric Lead for HIV. Referral is via from the consultant and ongoing care is shared between the hospital and Spectrum Community Health.

- The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will inform the CMW, Infection Control (if detectable viral load and high infectivity) and the Paediatricians via a Paediatric alert.
- The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator
 will inform the paediatric consultant for HIV who will arrange to see the woman
 between 24-28 weeks gestation in the Fetal Clinic. The paediatric consultant will
 devise a plan of care for the delivery of baby, postnatal management and prescribe
 any medication for the baby. This will be documented on the care pathway.
- Any medication that is required for the woman in labour will be prescribed by the Obstetric Lead for HIV during the antenatal period.
- The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will enter the details onto a spreadsheet to ensure effective communication within the screening team and as a failsafe.
- The care pathway will be uploaded onto the EPR.

See appendix 2 for HIV flowchart See appendix 3 for HIV care pathway

Women with Hepatitis B:

- The results can take up to 10 working days to come back from the laboratory in Sheffield. All positive results are sent to the Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator via email from the Hepatologist Nurse Specialist. The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will arrange to see the woman within 3 working days and commence the Hepatitis B care pathway.
- The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will inform the CMW, Infection Control (if detectable viral load and high infectivity) and the Paediatricians via a Paediatric alert.
- The obstetric consultant will review the results and determine a plan of care and update the EPR and the Hepatitis care pathway.
- The woman will be referred to the gastroenterologist by the obstetric consultant.
- A Paediatrican will prescribe the Hepatitis B vaccine and Immunoglobulin if required (high infectivity and/or birthweight <1500g). The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will arrange for the prescription to be prescribed. The Birthing Centre have a stock of the hep B vaccine at all times, which is kept in the fridge.
- The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator
 will enter the details onto an infectious disease's spreadsheet on the screening
 shared drive spreadsheet to ensure effective communication within the screening
 team and to act as a failsafe.
- The care pathway will be uploaded onto the EPR.

See appendix 4 for Hep B flowchart See appendix 5 for Hep B Care pathway





Women with Syphilis:

- The results can take up to 10 working days to come back from the laboratory in Sheffield. All positive results are sent to the Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator via email from the laboratory and added to the spreadsheet. The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will arrange to see the woman within 3 working days of receiving the result and will refer the woman to an obstetrician via the first available antenatal clinic appointment. The consultant will review the results and determine a plan of care, complete the care pathway and update the woman's EPR.
- The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will refer the woman to the Spectrum Community Health (CIC) who will manage the treatment. Spectrum liaise with the screening coordinator regarding treatment and ongoing care.
- The Paediatricians are informed via the Paediatric alert form.
- The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator
 will inform the Community Midwife. It is the role of the named community midwife to
 reoffer screening to all women at 28 and 36 weeks, particularly if there has been a
 change in partner status.
- The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will enter the details onto the infectious diseases spreadsheet to ensure effective communication within the screening team and to act as a failsafe.
- The care pathway will be uploaded onto the EPR.

See appendix 6 for syphilis flowchart See appendix 7 for syphilis Care pathway

4.2 Ultrasound scans

- Dating Ultrasound scan (USS) this will be offered to all women and should be performed between 10-14 weeks gestation.
- Anomaly Ultrasound scan this will be offered to all women and should be performed between 18-20+6 gestation.
- For women who are further on in their pregnancy when they attend, the anomaly scan can be performed up to 26 weeks. The Anomaly scan is part of the screening process. Women can choose to not have this scan. The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will discuss the rationale with all woman who decline the anomaly scan.

4.3 Abnormal scan results

The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator
will see any woman where there is a suspected anomaly that has been detected on
either the dating or the anomaly USS. The Screening Coordinator will refer the
woman to the fetal clinic for review within 3 days of the scan.



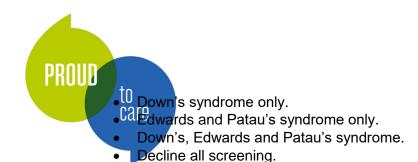
Relevant and appropriate information should be provided if possible and contact details for the Screening team given should the woman have any questions or queries after the initial consultation.

- The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator
 will provide advice and support throughout the process and coordinate the plan of
 care with the multidisciplinary team (MDT). All plans and referrals will be
 documented on EPR and the community midwife will be informed of the findings and
 the current plan of care.
- The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will chase up any blood results and discuss any further testing if required.
- Where applicable, an invasive test for fetal abnormality will be discussed and
 offered. If it is a multiple pregnancy and the decision for an invasive test has been
 made then a referral to a tertiary unit is required. Discussions must take place with
 the woman relating to the risk of miscarriage, how results are given and the option to
 proceed to termination of the pregnancy if a positive diagnosis is confirmed.
- If the invasive testing result shows a normal karyotype, the consultant with a specialist interest in fetal medicine will provide a plan of care for the duration of the pregnancy.
- If the invasive result confirms an abnormal karyotype then the Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will contact the woman to discuss the findings and the options available. The Antenatal and Newborn Screening Coordinator/ Deputy Screening Coordinator will then make an appointment in the fetal clinic for consultant review if it is within 3 working days, or contact the consultant to arrange a follow-up appointment to ensure she is seen within the 3 working days.
- Continuing with the pregnancy if an abnormality has been diagnosed is entirely the
 choice of the woman. A paediatric alert from will be completed by the consultant. An
 appointment will be offered for the parents to see the paediatric consultant for further
 information/plan of care for their baby.
- The National Congenital Anomaly and Rare Disease Registration Service (NCARDRS) will be commenced by the Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator.
- The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will enter the details onto a spreadsheet to ensure effective communication within the screening team and as a failsafe.

See appendix 8 for suspected fetal abnormality flowchart

4.4 Screening for Down's, Edwards' and Patau's Syndrome (Aneuploidy Screening)

Screening for Down's, Edwards and Patau's Syndrome is discussed at the community midwife booking appointment. The woman will have been given information to access the Barnsley Hospital Maternity webpage, where information and videos about the screening tests for Down's, Edwards and Patau's can be found. This will enable the woman to make an informed choice and to consent when the screening test is offered during her dating scan. First Trimester Screening (for both singleton and multiple pregnancies) is offered between 11+2-14+1 weeks gestation. The woman has the following screening options:





This is known as the combined test – serum and Nuchal Translucency. (NT) Second trimester screening is for Down's syndrome **only**. The test can be performed between 14+2 – 20+0 gestation. This is known as the quadruple test.

For multiple pregnancies: First trimester

- For dichorionic twins the results are based on the individual baby's NT measurement and an average of the biochemistry (serum sample). There will be 2 different chance results for each twin.
- Monochorionic twins the results are based on an average NT MoM and an average of the biochemistry (serum sample). There will only be 1 result for both babies.

Second trimester

 The consultant will counsel any woman who is requesting second trimester screening. The Fetal anomaly screening programme (FASP) recommends that the discussion should take place with a health professional with a specialist interest in multiple pregnancies. This is due to the complexities and limitations of second trimester screening and to consider other factors such as the possible need for diagnostic testing.

Low chance results:

The Screening team input the results onto the woman's EPR. The results are available within a week of the test being sent. A letter is sent to the woman confirming that the results are a low chance.

High chance results:

The results are available within 5 working days. The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will contact the woman via telephone within 3 working days of the result. The results are given and the following options are discussed:

- Await the anomaly scan and discuss scan limitations.
- Discuss Non-Invasive Prenatal Testing (NIPT).
- Discuss invasive testing.

The woman is given the option to attend in person to discuss the results with the Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator following the initial telephone consultation. An appointment is made for the Fetal Clinic for consultant review and scan.

See appendix 9 for 1st and 2nd Trimester Screening flowchart See appendix 10 for raised NT flowchart



pendix 11 for overall outcome based on NT measurement



4.5 Non-invasive prenatal testing (NIPT)

As part of the NHS screening pathway NIPT is offered to women who have received a higher chance result from first or second trimester screening (combined/quadruple). Inclusions are:

- Can be offered to single or twin pregnancies.
- Can be offered from 10 weeks up to 21+6.

The woman can choose whether to have the test for:

- Down's syndrome only.
- Edwards syndrome only.
- Patau's syndrome only.
- Down's, Edwards and Patau's syndrome.

There will be separate results for each condition if the woman chooses to have the test for all conditions. Most women will receive the results within 2 weeks.

Contraindications to NIPT:

- Triplet or higher order pregnancies.
- Current cancer, unless in remission.
- Received a blood transfusion in the last 4 months.
- Bone marrow or organ transplants.
- Stem cell therapy.
- Immunotherapy in the current pregnancy.
- Vanished twin pregnancy.

It is paramount to inform the woman that by having the NIPT it could cause a potential delay of 2 weeks in the screening timeframe, it may not produce a result at all (rare) and that it does not give a definite diagnosis. During the counselling with the Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator, it is also discussed that should she wish to end the pregnancy based on a high chance result that invasive testing is required to confirm the NIPT result. A termination would not be supported within the Trust based on NIPT alone. A woman may choose to self-refer to BPAS if she wishes a termination based on NIPT alone.

4.6 Invasive testing

Chorionic villus sampling (CVS) and Amniocentesis are both invasive and diagnostic tests. Invasive testing involves taking a sample of either placental tissue (CVS) or amniotic fluid (amniocentesis) and sending it to Sheffield Laboratory for genetic testing.

CVS and Amniocentesis should only be performed with the woman's explicit and informed consent. The woman will require adequate and timely information about the procedure,



which includes the risks of the procedure, the reliability of the tests and the results handling process. Women should be informed that the additional risk of miscarriage following either invasive test is around 1%. The amniocentesis may be offered to women who have:

- An inherited disorder.
- A previous pregnancy or child with a chromosome condition.
- A raised chance of Downs, Edward's and Patau's Syndrome following screening.
- A suspected anomaly following an ultrasound scan.

The woman will be given an information leaflet, the Antenatal and Results and Choices (ARC) booklet which offers independent support for couples who have choices to make and the contact numbers for The Antenatal and Newborn Screening Coordinator/Deputy if she has any questions or concerns. A letter to the GP is also sent informing them that an invasive procedure has been performed.

For parents - Antenatal Results and Choices (ARC) (arc-uk.org)

The results are usually available within 2 working days and are telephoned to the woman. The woman is given the option to attend the hospital to discuss the results face-to-face with the consultant. All options are discussed in depth with The Antenatal and Newborn Screening Coordinator/Deputy who make all the necessary arrangements should she wish to end the pregnancy.

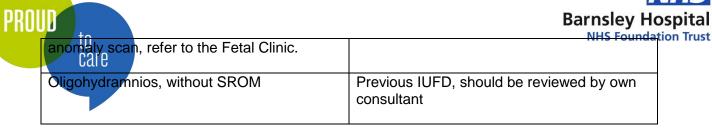
The results are then uploaded to the woman's EPR and a plan is documented.

See appendix 12 for Invasive testing information leaflet

4.7 Referral and exclusion criteria for the fetal clinic

Referrals by a qualified member of staff

Referral	Exclusion
Cleft lip and palate, USS at 24- and 36- weeks' gestation in the Fetal Clinic. If bilateral to offer invasive test. Refer to Cleft Lip and Palate Association (CLAPA).	Amniotic band, sheet and shelf, to remain under their own consultant. Does not require Fetal Clinic referral unless fetal abnormalities are detected.
Confirmed SROM at 24 weeks gestation combined with oligohydramnios refer to the Fetal Clinic.	Circumvallate placenta, to remain under their own consultant and to arrange serial growth scans.
Prolonged SROM below 24 weeks would need review in fetal clinic as may need to be referred for delivery in a tertiary unit.	Below 24 weeks SROM to be managed by their own consultant.
Femur length below the 3 rd centile at any gestation, refer to the Fetal Clinic. Nasal bone not seen on either dating or	Previous IUFD, should be reviewed by own consultant.







Previous fetal abnormality, viability and interim USS in the Fetal Clinic.	
Severe IUGR due to the association with chromosomal abnormalities.	
Raised NT, any measurement above 3.5mm, review in the Fetal Clinic and offer invasive testing.	
Raised Down's, Edwards and/or Patau's screening- to attend the Fetal Clinic for discussion and offer invasive testing.	
Any of the conditions on the FASP criteria. (see appendix 13)	
Known genetic conditions/siblings/carrier status	
Haemoglobinopathies – offer partner testing, offer invasive testing	
All fetal_anomalies - including: mild cerebral ventriculomegaly, echogenic bowel, renal pelvis dilatation.	
HIV/Syphilis and Hepatitis B, commence care pathway.	

4.8 Management and care following the diagnosis of a severe/life threatening abnormality

The care is as above with the addition of the following:

- If a woman chooses to end the pregnancy the Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator will commence the care pathway following the guidance from the Guideline for the termination of pregnancy for fetal anomalies under 20 weeks gestation/over 20 weeks gestation and refer the woman to either the Gynaecology Services or the birthing Centre.
- The Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator
 will discuss with the woman the need for a referral to a tertiary unit if feticide is
 required. This occurs if the pregnancy will be terminated after 22 weeks of
 pregnancy. The Jessop's Wing Feto Maternal Unit is where the referral is sent.
- Completion of all the required paperwork is by the Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator and the consultant who is consenting the woman to the termination of pregnancy.
- The consultant will discuss with the woman any postnatal follow-ups and appointments.
- There must be clear documentation on EPR of all discussions pertaining to ongoing care. The woman's choices must underpin all care delivery.





4.9 Referral to a tertiary unit

Barnsley Hospital NHS Foundation Trust does not provide all the specialist services required to manage all the fetal abnormalities that can be encountered. A referral to a tertiary unit may be required to have the appropriate treatment within 3 working days of the sent referral (if urgent).

When a referral to a tertiary unit is required, a form is completed by the Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator specific to which hospital the referral is for. The main local hospitals that referrals are made are to are: The Jessop Wing Feto Maternal Unit, Antenatal Genetics at Sheffield, Leeds Fetal Cardiology, Leeds Feto Maternal Unit and Nottingham City Hospital for Cleft Lip and Palate care. The referral forms are available through SharePoint on the main intranet page.

https://teamsites.bdgh-

tr.trent.nhs.uk/CBU3/MaternityDocuments/Forms/AllItems.aspx?RootFolder=%2FCBU3%2FMaternityDocuments%2FReferral%20Forms&FolderCTID=0x0120002934CD214AED0541A515242EA3BEA41B&View={DD97385E-551A-48A0-8390-810670BD9171}

The parents are supplied with information and details of how to get to the specialist center, with a follow-up telephone call from the Antenatal and Newborn Screening Coordinator/Deputy Screening Coordinator to ensure an appointment has been made for them and to discuss the outcome/plan of care.

The reporting system via email from the tertiary units to the Screening Team enable effective communication between the Trusts and helps to manage the care appropriately. All lines of communication are documented and uploaded to the EPR.

5.0 Roles and responsibilities

5.1 Midwives

To provide the best evidence-based care for women in accordance with appropriate guidance from diagnosis to delivery.

5.2 Obstetricians

To provide care for women in accordance with appropriate guidance from confirmation of pregnancy/ diagnosis of condition to delivery, if applicable.

5.3 Paediatricians

To attend delivery when their presence is requested, if applicable.

5.4 Anaesthetists

To attend when their presence is requested and provide analgesia/anaesthesia to the women for operations and procedures as appropriate, if applicable.

6.0 Associated documents and references



This section should detail the references that have been used to develop the document. It should also detail references to any associated Trust policies, guidelines or procedures in place that impact on its implementation.

7.0 Training and resources

Training will be delivered as outlined in the Maternity Training Needs Analysis. This is updated on an annual basis.

8.0 Monitoring and audit

Any adverse incidents relating to the guideline for Maternal Antenatal Screening Including diagnosis and referral of women with a suspected Fetal Abnormality will be monitored via the incident reporting system. Any problems will be actioned via the case review and root cause analysis action plans. The action plans are monitored by the risk midwife to ensure that improvements in care are made. The trends and any root cause analysis are discussed at the monthly risk meetings to ensure that appropriate action has been taken to maintain safety.

The guideline for Maternal Antenatal Screening Including diagnosis and referral of women with a suspected Fetal Abnormality will be audited in line with the annual audit programme, as agreed by the CBU. The audit action plan will be reviewed at the monthly risk management meetings on a quarterly basis and monitored by the risk midwife to ensure that improvements in care are made.

9.0 Equality and Diversity

This section is mandatory for all Trust Approved Documents and must include the statement below:

The Trust is committed to an environment that promotes equality and embraces diversity in its performance as an employer and service provider. It will adhere to legal and performance requirements and will mainstream equality, diversity and inclusion principles through its policies, procedures and processes. This guideline should be implemented with due regard to this commitment.

To ensure that the implementation of this guideline does not have an adverse impact in response to the requirements of the Equality Act 2010 this policy has been screened for relevance during the policy development process and a full equality impact assessment is conducted where necessary prior to consultation. The Trust will take remedial action when necessary to address any unexpected or unwarranted disparities and monitor practice to ensure that this policy is fairly implemented.

This guideline can be made available in alternative formats on request including large print, Braille, moon, audio, and different languages. To arrange this please refer to the Trust translation and interpretation policy in the first instance.

The Trust will endeavor to make reasonable adjustments to accommodate any employee/patient with particular equality, diversity and inclusion requirements in implementing this guideline This may include accessibility of meeting/appointment venues, providing translation, arranging an interpreter to attend appointments/meetings, extending policy timeframes to enable translation to be undertaken, or assistance with formulating any written statements.

9.1 Recording and Monitoring of Equality & Diversity



This section is mandatory for all Trust Approved Documents and must include the statement

The Trust understands the business case for equality, diversity and inclusion and will make sure that this is translated into practice. Accordingly, all guidelines will be monitored to ensure their effectiveness.

Monitoring information will be collated, analysed and published on an annual basis as part of Equality Delivery System. The monitoring will cover the nine protected characteristics and will meet statutory employment duties under the Equality Act 2010. Where adverse impact is identified through the monitoring process the Trust will investigate and take corrective action to mitigate and prevent any negative impact.



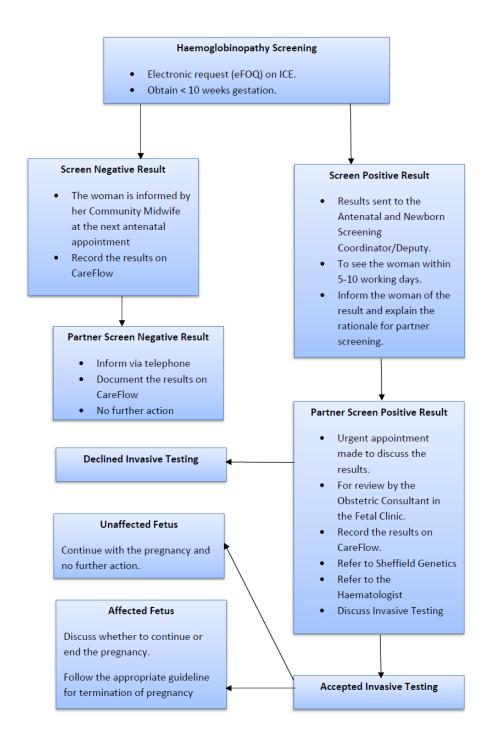


Equality Impact Assessment – required for policy only

Please refer to Equality Impact Assessment Toolkit – found in Corporate Templates on PC desktop.

For clinical policies use Rapid Equality Impact Assessment Form For all other policies use Equality Impact Assessment Blank Template

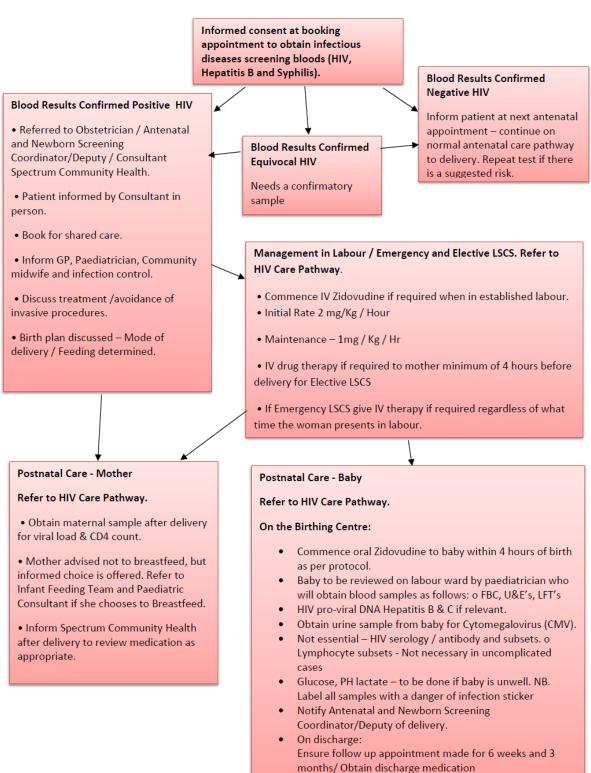
Antenatal Haemoglobinopathy Screening Flowchart







Care of Obstetric Women with HIV Care Flow Chart









Name:	
DOB:	
U/N:	
NHS:	

Care Pathway for Obstetric Women with HIV

_													
ANTENATA	L CAR	RE											
Date samples se	nt to She	effield:				Date results received:							
(For confirmation of	,					(Within							
Communication	1:					Compl	ete p	aedi	atric al	ert:			
Consultant Paediatrician info	formed CHIS informed			Infection control Informed (if high infectivity)									
Spectrum Comm Health informed	mid			Comr midwi inform		GTT arranged if on HAA			HAAI	RT			
Appointment ma (Within 5 – 10 da						Manag	geme	nt do	cumer	nted on	CareF	low?	
Date / Time:	Print name / Signature / Designation:												
Paediatric Review Completed at 24 – 28 weeks (in the Fetal Clinic)				Date / Tir	me:								
Medication preso		YES			Check Zid	lovudine is Prescribe Zidovudine			ine				
for mother (for la	ibour)	our) in the BBC f			ridge	for Baby at 24-28 dge weeks							
Viral Load - Date:					Undet	ectab	le	le Detected					
Viral Load - Dat	e:					Undetectable Detected							
Viral Load - Dat						Undetectable Detected							
Viral Load - Dat	e:					Undetectable Detected							
After delivery o load - Date:	btain vir	al				Undet	ectak	ole		Detec	ted		
										<u> </u>			
Mother requires Zidovudine durin labour?		Yes		No		Mother advised to Yes No bring her own medication in?			No				
Planned Method of Delivery: For vaginal deliver (Determined by Obstetrician/Spectrum Community Health at 34 weeks)				nal delivery	′		F	or Ele	ctive LS	SCS			
If the woman is admitted in preterm labour before a decision has been made: • If last viral load is undetectable for normal delivery													
Date / Time:	Print Na	ime / Si	gna	ature /	Designation	on:							







ON ADMISSION

- Inform infection control when this patient admitted (if high infectivity)
- Admit to a single room with their own toilet (only if high infectivity). Strict isolation is NOT
 necessary if low infectivity, however, having a side room may have advantages for
 confidentiality.
- It is essential that standard (universal) precautions are taken.
- Protective eye wear should be worn when contact with bodily fluids is anticipated. E.g. Vaginal examinations, deliveries.
- All Blood samples to be labelled with yellow "Danger of infection" label.
- If APH / PPH occur then full isolation precautions may need to be taken.
- Routine cleaning of the room will usually be adequate. On discharge the room will be cleaned as in general guidelines. Wall washing is not required. Allow the room to dry before use.

MANAGEMENT IN LABOUR

- Notify infection control of admission and delivery if high infectivity
- Check Zidovudine is available on the BBC for baby and mother if applicable.
- Ensure Zidovudine is prescribed on treatment sheets for mother and baby
- Administer Zidovudine infusion as per protocol to mother in established labour if applicable.

POSTNATAL MANAGEMENT MOTHER

- Obtain a blood sample from the mother for viral load and a CD4 count on the BBC after delivery (search on ICE).
- Mothers are advised not to breastfeed. If she chooses to breastfeed then refer her to the Infant Feeding Team and inform the Paediatric Consultant.
- Inform Spectrum Community Health to review mother's medication if applicable.

POSTNATAL MANAGEMENT BABY

On labour ward:

- Commence oral Zidovudine to baby within 4 hours of birth as per protocol and clearly document the date, time and administrator information.
- Baby to be reviewed on the BBC by paediatrician who will obtain blood samples as follows:
 - o FBC, U&E's, LFT's
 - o HIV pro-viral DNA
 - o Hepatitis B & C if relevant.
 - o Obtain urine sample from baby for Cytomegalovirus (CMV).
 - Not essential HIV serology / antibody and subsets.
 - Lymphocyte subsets Not necessary in uncomplicated cases
 - Glucose, PH lactate to be done if baby is unwell.

NB. Label all samples with a danger of infection sticker.

 Email <u>barnsley.screening@nhs.net</u> with the HIV immunisation information from the NIPE letters.

On discharge:

- Ensure follow up appointment made for 6 weeks and 3 months.
- · Obtain discharge medication.

Zidovudine Infusion Instructions (ONLY FOR HIGH INFECTIVITY)

Mixing of The Infusion.







Zidovudine is given at a concentrate of 4mg/ml via an infusion pump. To Mix:

- Withdraw 100ml from a 250ml bag of Dextrose 5% and discard.
- Add 100ml Zidovudine injection 95 x 20ml vials) to the bag of Dextrose and mix well.
- This gives an infusion of 100mg in 250mls (4mg/ml)

Infusion Rate for Women in Spontaneous Labour

To commence infusion when the woman is in established labour.

1. Initial rate is: 2mgs / Kg / Hr.

i.e. Patients weight $kg = \frac{ml}{hour}$ for ONE hour

2. Maintenance rate is: 1mg / Kg / Hr

i.e. Patients weight $kg = \frac{ml/hour}{4}$ until the cord is cut.

Emergency LSCS

The infusion for emergency patients should be mixed prior to transfer to theatre. It should be given irrespective of when the woman was admitted or whether she is in labour.

- Commence infusion at a rate of 2mg / Kg for 1 hour
- Maintenance rate is (1mg / Kg) until the cord is cut.

Elective LSCS

The infusion for elective patients can be mixed in pharmacy

- Commence infusion at least 4 hours prior to LSCS.
- Infuse at a rate of 2mg / Kg for 1 hour
- Maintenance rate is (1mg / Kg) until the cord is cut.

Zidovudine Dosage for Baby

>36 weeks gestation:

- Zidovudine 4mg / kg.
- · Administer orally every 12 hours starting ideally within 4 hours of birth.

30 - 36 weeks Gestation - 2mg / Kg BD for 2 weeks. Then 2mg / kg TDS.

< 30 Weeks Gestation - 2mg / kg BD

NB. Give for a total of 4 weeks.

If the mother has been on combination therapy and / or has a high viral load – seek further advice





Care of Obstetric Women with Hepatitis B Flow Chart

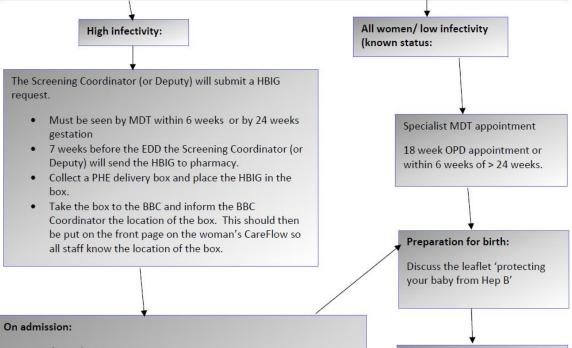
All women whether high or low infectivity:

The Screening Team are informed within 10 working days of the laboratory notification.

The Screening Coordinator (or Deputy) will discuss the care and offer the 'Hep B; a guide to your care in pregnancy and after your baby is born'.

Additional bloods are taken (Coagulation Screen, LFT's, HEP B vial load, HEP C antibodies and Hepatitis B virus maternal antenatal blood via PHE – this is sent directly to Collindale with specific blood bottles and packaging).

The Screening Coordinator (or Deputy) will then inform CHIS, Consultant Dr Tumi and the CMW.



- Inform the Screening team
- · Locate the PHE delivery box

Using the PHE delivery box:

- Take the maternal serology sample after delivery and complete form (pack 1)
- Take neonatal 'Hep B dried blood spot' prior to vaccination (pack 2)
- Give HBIG + Hep B vaccination (pack 3)
- Complete the paperwork and store with the samples in the PHE delivery box and take to the Screening Team (if the weekend or BH store in a fridge at 4 degrees or room temperature.
- Complete the Hep B notification form on NIPE and send to the Screening Team with the card number/time of blood test/date and time given/batch number.
- Explain to the mother of early registration with a GP.
- Screening Coordinator (or Deputy) will inform CHIS and CMW of vaccination and complete ISOSS.

Postnatal:

Inform the Screening team of delivery

barnslev.screening@nhs.net

Vaccine administered within 24 hours and Hep B notification sent to the Screening Team from NIPE.

Explain to the mother of early registration with a GP.

Screening Coordinator (or Deputy) will inform CHIS and CMW of vaccination and complete ISOSS.









								NHS Foun	dation	Trust
Public Health screening and immunisation maternal and paediatric checklist			NHS Surr Fore	S nur name enam	Please conber:			· ····································		
Date	of booking					Ser	ology resul	ts		
					Test		Date of test		sult	
Date	of hep B scre	een/		Vir	al load					
Date	of screening	result/		НС	V					
	of notification	n/ decline)		LF	Ts					
	of screening assessment				her test sults					
	ntment			wer	infectivity		Higher	infectivity		
tivity		creening team appointment 0 working days of laborato result/notification)			Status/	com	ments	Date	and	nature name in pitals
All women: or lower infectivity		re using 'Hep B: a guide to yo cy and after your baby is borr		ire						
All w higher or lo	Maternal ve	bloods taken as per local guid enous sample sent to PHE Co record all other antenatal res	olinda							
Ξ	Inform GP,	H/V, HPT, CHIS and CMW.								
Withi	n 6 weeks o	f result/notification					,			
	Submit a H	BIG request as per trust prac	tice.							
Higher infectivity women only	HBI delir mat box trus	efore EDD PHE coordinator was G to your pharmacy very suite box to screening teach up with HBIG and place in which should be stored account practice and the location clean on the maternal record.	eam to n box ording)						
	Notify the F	PHE co-ordinator if the woman	n's ca	re						
All women with hepatitis B	High infect women: wi gestation. Low infect	MDT appointment. tivity and all newly diagnos fihin 6 weeks or by 24 weeks ivity known status: 18-weel thin 6 weeks if ≥ 24 weeks)						







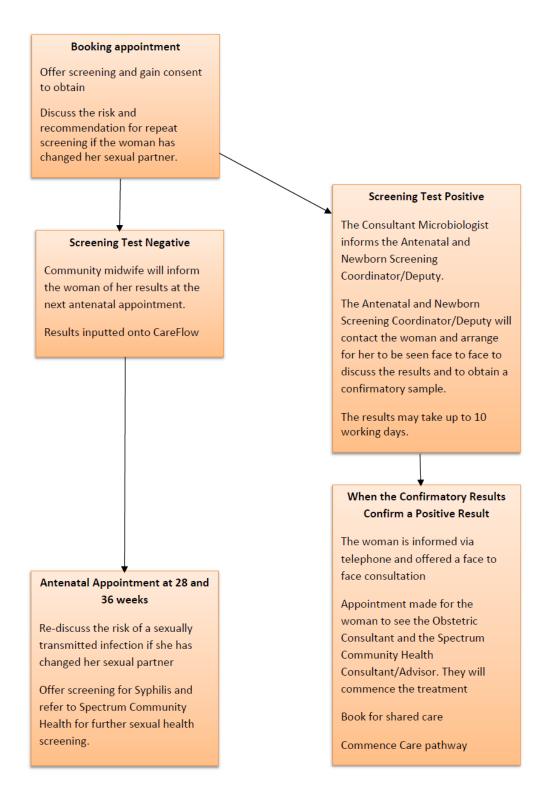
Barnsley Hospital

			NHS Foun	dation Trust
Cre	eate neonatal alert			
34-wee	ek pre-birth consultation/screening team review	Status/comments	Date	Signature and name in capitals
All	Preparation for birth Discuss care and adherence to schedule using PHE 'Protecting your baby from hep B' leaflet. Check neonatal alert is in place.			
Higher infectivity	Confirm where PHE hep B delivery suite box containing HBIG is stored and that the location is recorded in notes/birth plan/maternity information system.			
Delivery	suite team		•	
	On admission:	Date/time of blood test		
ivity oaby	Using the hep B delivery suite box - take maternal serology sample after delivery and complete form (pack 1)			
Higher infectivity mother and baby	 - take neonatal 'hep B dried blood spot' prior to vaccination (pack 2) - give HBIG + hep B vaccination (pack 3) - complete PCHR red book hep B page and give to mother 	Card number/time of blood test. Date/time given/batch number.		
1.	 complete paperwork and store with samples in hep B delivery suite box and return to screening team as soon as possible (if weekend/BH: recommend store in fridge at 4°C or room temperature if not available) 			
Lower infectivit y mother and baby	 vaccination administered ≤24 hours of birth complete PCHR red book hep B page and given to mother 	Prescription in notes/batch number.		
Post-nata	ıl			
Pre-discharge checks	- PCHR book has completed hep B page - mother has a copy of the vaccination leaflet - mother informed of the importance of early registration of the birth with a GP - ensure notes go back to screening team			
Screening team	- check request form for maternal sample and PHE notification forms are completed - DBS and bloods and forms despatched to PHE Virus Reference Department, Colindale in pre-paid packaging - inform CHIS, H/V GP, and CMW of vaccination using PHE letter templates - complete ISOSS database			





Screening for Syphilis in Pregnancy Flowchart







Barnsley Hospital	NHS
NHS Foundation Trust	

Name:	_
D.O.B:	
Unit No.	
NHS Number:	

CARE PATHWAY FOR OBSTETRIC WOMEN WITH SYPHILIS

ANTENATAL CAR	E						
Communication:	- 1	Screening coordinator informed			Obstetrician informed		
Paediatrician informed		GP informed			Infection control Informed		
GU medicine informed		Community midwife			Siblings for screening		
		informed			Please put details on paed alert		
Date / Time:	Prin	Print name / Signature / Designation:					
Mum treated during pregnancy and test of cure performed				Mum ad	dequately treated prior to pregnancy		
Letter from GU Med filed in hospital notes				Paed inf	formed of update		
Date / Time:	e: Print Name / Signature / Designation:						

MANAGEMENT IN LABOUR

- · Inform paed
- Ensure treatment has been completed.

POSTNAL MANAGEMENT BABY

 Send a venous blood sample for serum RPR and treponemal IgM (take blood from the neonate, not the umbilical cord).

ADDITIONAL TESTS ON INFANT IF LESIONS PRESENT

- Dark ground microscopy (DGM)
- T pallidum polymerase chain reaction (PCR) test

FURTHER TESTS IF TREATMENT INDICATED

- FBC,U+E, LFT, ALT/AST
- HIV antibody
- .Lumbar puncture for CSF WCC, VDRL or RPR, TPPA, protein
- Long bone X-rays for osteochondritis and periostitis
- · Chest X-ray for cardiomegaly
- Cranial U/S scan
- · Ophthalmology assessment for interstitial keratitis
- Audiology for 8th nerve deafness

INDICATIONS FOR FURTHER TESTS AND TREATMENT

- Mother inadequately treated (GUM consultant will advise, see above)
- · Infant has clinical signs consistent with syphilis
- Infant's RPR/VDRL titre 4x mother's on two occasions (e.g mother's RPR 1:4, infant's RPR 1:16). Sample from mother to be taken no greater than 4 weeks before that of infant.
- Infant has positive treponemal IgM test together with corroborative history, clinical signs.GUM consultant will advise.
- Infant has positive dark ground microscopy
- Infant has positive T pallidum PCR test together with corroborative history, clinical signs.GUM consultant will advise.





Barnsley Hospital	NHS
NHS Foundation Trust	

Name:	
D.O.B:	
Unit No.	
NHS Number:	

TREATMENT OF NEWBORN

• Benzylpenicillin 25 mg/kg 12hrly IV for 7 days, then 8 hrly on days 8, 9 and 10 (total of 10 days)

PHYSICAL SIGNS OF EARLY CONGENITAL SYPHILIS

- Jaundice, anaemia, generalised lymphadenopathy, hepatosplenomegaly, non-immune hydrops, pyrexia, failure to move an extremity (pseudoparalysis of Parrot), low birth weight.
- Skin rash (usually maculo-papular but almost any form of rash is possible); palms and soles
 may be red, mottled and swollen. Vesicles or bullae may be present.
- Condylomata lata (flat, wart-like plaques in moist areas such as perineum)
- Osteochondritis, periosteitis (elbows, knees, wrists)
- Ulceration of nasal mucosa, rhinitis ('snuffles' usually after the first week of life)
- Approximately half of all neonates with congenital syphilis are normal on initial examination

INFANT FOLLOW-UP

Ideally, this should be done in liaison with consultant colleague in genitourinary medicine.

1

Infants treated for syphilis at birth

Months 1 and 3: check RPR and treponemal IgM.

Month 6: check RPR

Month 12: check RPR.Discharge if RPR has achieved sustained 4x drop from peak level.

2

Infant not treated for syphilis

RPR <4 x mother's, IgM negative at birth

Month 3: check RPR and treponemal IgM.

Month 6: check RPR- if negative discharge, if positive repeat at 12 months.

Month 12: RPR negative, no further follow-up.

Month 12: RPR still positive, discuss with GUM colleague.

(Note: the RPR is usually negative by six months).

3

Infant not treated for syphilis and RPR and IgM negative at birth

Month 3: repeat RPR and IgM and discharge if still negative.

Month 3: RPR and/or IgM positive-discuss with GUM colleague

GUIDE TO INFANT LABORATORY TESTS





Diagnosis of Suspected Fetal Abnormality Flowchart Referral to the Antenatal and Newborn Screening Coordinator Ultrasound scan (USS) findings discussed with the parents. Leaflets and contact numbers given. Refer to local Fetal Clinic for USS and Consultant review Referral required to the Tertiary center Continue antenatal care locally. Plan updated on CareFlow. No Yes Referral sent via email by the Antenatal and Newborn Screening Coordinator. Findings/results discussed with the parents by the Antenatal and Newborn Screening Coordinator will contact the woman to ensure an appointment has been received. Contact numbers/support groups/ARC booklet provided Provide Tertiary Unit information leaflet Wishes to terminate the pregnancy? Paediatric alert completed by the Antenatal and Newborn Screening Coordinator Abnormality confirmed. Parents counselled and further invasive testing required. Arrangements made with the Consultant for TOP: Declined Gynaecology Ambulatory Centre (GAC) <20 weeks Accepted Normal result Birthing Centre >20weeks Abnormal result





First and Second Trimester Screening Flow Chart

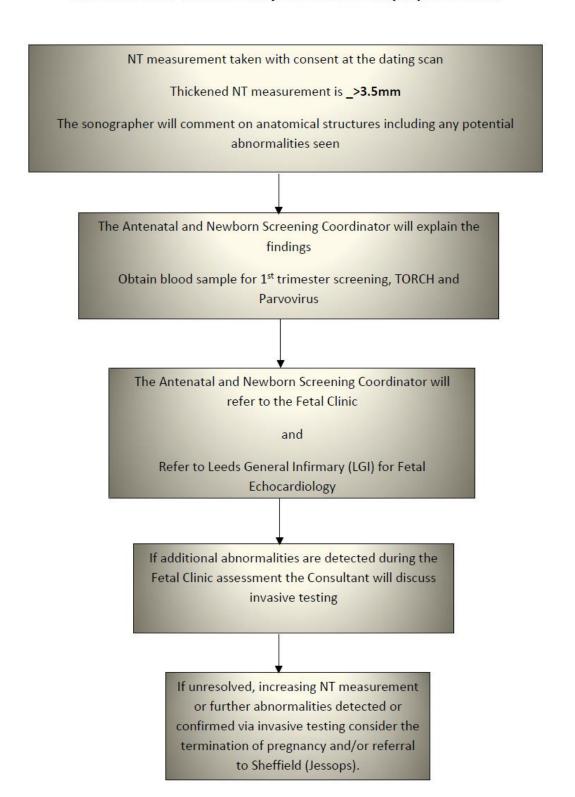
First Trimester Screening for Down's, Edwards' and Patau's syndromes: Offered between 11+2 and 14+1 Blood taken for serum screening Nuchal Translucency (NT) measurement taken Second trimester screening is offered between 14+2 and 20+0 weeks gestation. For twin pregnancies the Obstetric Consultant should counsel the woman due to the complexity and limitations of the High chance 1st or 2nd trimester screening Low Chance 1st or 2nd trimester result: screening result: Inform and counsel the woman To continue with routine with the results antenatal care, offer further Discuss options:-Await anomaly scan If the woman is unhappy or not Offer Non-Invasive Prenatal Test reassured by the result can offer (NIPT) Invasive testing. Offer Invasive Testing Refer to the Fetal Clinic Raised NT result >3.5mm: Discuss the findings. Offer 1st trimester screening test, leaflet High Chance NIPT result: of information and obtain Consents to bloods for TORCH and Discuss the results over the Parvovirus. Invasive Testing telephone and offer a face-to-face appointment. Discuss options:-Confirmed Karyotype result: Offer Invasive Testing to confirm the high chance result Discuss the options of continuing or ending If she chooses to end the the pregnancy pregnancy an Invasive Test must be performed unless she chooses to go to British Pregnancy Advisory Woman chooses to continue with the pregnancy: Service (BPAS) Support and provide information for pregnancy, Low Chance NIPT result: labour and postnatal care and management. Discuss the results over the telephone Woman chooses to end the pregnancy: Offer an interim scan at 16 weeks in the Fetal Clinic Follow the Guideline for the termination of pregnancy for fetal abnormalities under 20 weeks gestation Follow the Guideline for the termination of pregnancy for

fetal abnormalities over 20 weeks gestation





Raised Nuchal Translucency Measurement (NT) Flowchart





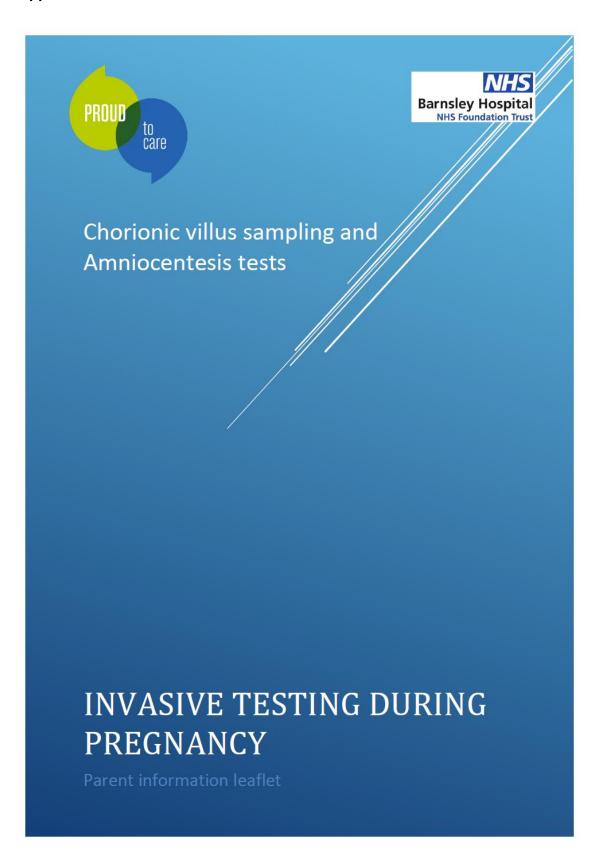


Overall Outcome Based on Nuchal Translucency Measurement

NT Measurement	Chromosomal Defect	Fetal Death	Major Fetal Anomaly	Cardiac Risk	Alive and Well
rotth countil	0.25%	1.20/	1.00	0.150	0794
<95 th Centile	0.25%	1.3%	1.6%	0.16%	97%
95 th -99 th Centile	3.7%	1.3%	2.5%	-	93%
2.5mm-3.4mm	-	-	-	1%	-
3.5mm-4.4mm	21.1%	2.7%	10%	3%	70%
4.5mm-5.4mm	33.3%	3.4%	18.5%	7%	50%
5.5mm-6.4mm	50.5%	10.1%	24.2%	20%	30%
>6.5mm	64.5%	19%	46.2%	30%	15%











Introduction

This leaflet will provide you with information about chorionic villus sampling (CVS) an amniocentesis invasive testing so you can make an informed choice whether to have th procedure or not.

If the Screening Coordinator or the Consultant has offered you a CVS or amniocentesis they will have already discussed with you the information in this leaflet, however, it is useful to read over the information again to help you to decide whether having an invasive test is the right choice for you. It is important to note that it is your choice and that there are no right or wrong decisions.

The CVS and amniocentesis are diagnostic tests, which means that they will give you a diagnosis of what condition, if any, your baby has. For example, it will tell you if your baby has Down's Syndrome or if you baby does **not** have Down's Syndrome.

When are a CVS or an amniocentesis offered?

We will have offered you an invasive test because of either of the following:

- Raised Nuchal Translucency (NT) measurement at your dating scan (>3.5mm)
- Raised 1st or 2nd trimester screening result
- A high chance Non-Invasive Prenatal Test (NIPT)
- A potential chromosome abnormality
- · A family history of a chromosome abnormality

What is chorionic villus sampling (CVS)?

This test involves removing tissue from the placenta to test if your baby has any abnormal chromosomes. The results will give a diagnosis.

Is an invasive test painful?

Most women say that having CVS or amniocentesis is uncomfortable rather than painful. Some say it feels like period pain. Women also say they feel anxious before and after the test. You may notice some cramping for a few hours afterwards. This is normal

You can take paracetamol for any discomfort (remember, you can only take a maximun of eight tablets in 24 hours). If you are worried about taking painkillers or have any questions, you should talk to your doctor or midwife.

If you experience any unusual symptoms immediately after the test or over the next few days (for example, if you have been feeling shivery (as if you have flu), have lost any fluid that surrounds your unborn baby (called amniotic fluid), have been bleeding or have contractions), you should call **Barnsley Birthing Centre on 01226 432249**.

E. Hargreaves 2023. Review 2026



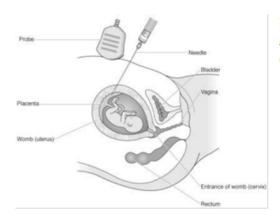


How is a CVS done?

Immediately before the test, your abdomen is cleaned to make sure that the test can take place in the most sterile conditions possible. During CVS, the sonographer puts gel on your abdomen. Using an ultrasound probe to scan and check the position of your baby, a fine needle is inserted through your abdomen and into your womb. A tiny sample of tissue is then removed from your placenta.

The test itself takes around 10 minutes. Your placenta will usually contain tissue that is genetically identical to your baby.

You will need to have a full bladder when you come for the appointment.



Most CVS are done through your abdomen. This is called 'transabdominal CVS'.

If you choose to have a CVS it is generally performed between 10 and 20 weeks of pregnancy, the most common time is between 11 and 13 weeks, but it can be later if a scan later on shows a potential abnormality.

What is an amniocentesis?

An amniocentesis involves using a fine needle to remove a small amount of the water (amniotic fluid) that is around your baby.

If you choose to have an amniocentesis it is usually carried out after 15 weeks of pregnancy. This test can be carried out at any time during your pregnancy.

How is an amniocentesis done?

Immediately before the test, your abdomen is cleaned to make sure that the test can take place in the most sterile conditions possible.

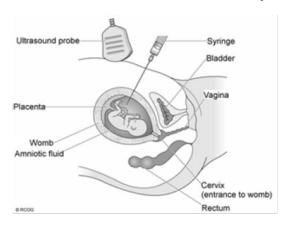
E. Hargreaves 2023. Review 2026





During the amniocentesis, the Consultant will put gel on your abdomen. You will then have an ultrasound scan to check the position of your baby. A fine needle is then inserted through your skin, through your abdomen and into your womb. The needle is used to remove a small sample of the amniotic fluid surrounding your baby.

You will need to have a full bladder when you come for the appointment.



Are there any risks to having an invasive test?

Because both of the tests involve inserting a needle into your abdomen there is a risk of miscarriage. The risk is only a small risk of 1%, meaning that there is a risk of 1 in every 100 women who have the procedure (either the CVS or amniocentesis) will have a miscarriage due to the procedure. We do not know exactly why a miscarriage happens but the amniocentesis risk of miscarriage is usually due to the sac around baby breaking, causing a bleed or due to an infection. It is hard to tell which women will miscarry after a CVS or why.

There is nothing that you can do to prevent a miscarriage, but we do advise after the procedure to rest for 24-48 hours, avoid having sex, doing any heavy lifting, strenuous exercise or long walks. However, there is little evidence to show that this helps. There is no need for complete bed rest.

After the procedure

After either the CVS or amniocentesis the Screening Coordinator/Deputy will take a blood sample from you. This is sent with the sample of either placenta or amniotic fluid to the laboratory for testing. The blood test is so the laboratory can check against the chromosome material of the invasive test to confirm which is the mother's chromosomes and which are the baby's.

There are 2 tests which are performed on the invasive sample, the initial result is usually back within 2-3 working days, if this shows that there is no chromosome E. Hargreaves 2023.

Review 2026





abnormality then no further testing is required, if an abnormal chromosome abnormality is found then they will perform a further test to confirm the initial result.

If you have a CVS the Consultant will discuss with you before the test that there may be a chance that the test may show something that may not be related to the scan findings or screening results. These findings could have implications for the future health of your baby (for example an increased risk of cancer in later life or possibly for other family members), this will be discussed in detail before the test.

The results

The Screening Coordinator/deputy will contact you via telephone with the results. You can also come up to the hospital to discuss them face-to-face if you prefer.

The results are usually straight forward with a "yes" or "no" answer and will tell you if your baby has the chromosome abnormality or not.

It is rare, but sometimes, a result cannot be given from the 1st procedure and you will be offered a further invasive test, this will be explained at the time of the phone call and why it could not be performed.

Most women will have a result that shows their baby does not have a chromosome abnormality. No further testing is required.

If the results confirm a chromosome abnormality then the Screening Coordinator/deputy will discuss your options in details and refer you to the Consultant if required.

A normal CVS or amniocentesis result does not guarantee your baby will not have any abnormalities. Not all abnormalities can be detected by the CVS or amniocentesis test.

When you are deciding what to do, you need to consider what is best for you and your family.

These decisions are often very difficult and you might want to talk about your feelings with a midwife, doctor or a support organisation for parents such as Antenatal Results and Choices (ARC). ARC's details are at the back of this leaflet.

You might choose to:

- continue with your pregnancy and use the information you have gained from the test results to help prepare for the birth and care of your baby: or
- end the pregnancy (have a termination).

E. Hargreaves 2023. Review 2026





If you decide to continue with your pregnancy, you can talk to your doctor or midwife and contact support organisations about how you can learn more about your baby's condition and how best to care for him or her.

If you decide to end your pregnancy, you will be given information about what this involves. The type of procedure you will be able to have will depend on how many weeks pregnant you are when you make the decision to end your pregnancy.

Very occasionally, an invasive result can detect a chromosome abnormality that wasn't originally being tested for. If this happens then a fully discussion will happen with the Screening Coordinator/deputy and arrangements made to be seen by the Consultant.

References:

 Screening in pregnancy: CVS and amniocentesis information for parents - GOV.UK (www.gov.uk) (last accessed 18/01/2023)





Screening test: fetal anomaly screening programme (FASP)

FASP currently offers antenatal screening to all pregnant women in England for the following conditions:

- anencephaly.
- open spina bifida.
- cleft lip.
- diaphragmatic hernia.
- gastroschisis.
- exomphalos.
- · serious cardiac abnormalities.
- bilateral renal agenesis.
- lethal skeletal dysplasia.
- Edwards' syndrome (T18).
- Patau's syndrome (T13).

Version	Date	Comments	Author

Review Process Prior to Ratification:

Name of Group/Department/Committee	Date	
Reviewed by Maternity Guideline Group	N/A	
Reviewed at Women's Business and Governance meeting	17/03/2023	
Approved by CBU 3 Overarching Governance Meeting	22/03/2023	
Approved at Trust Clinical Guidelines Group	N/A	
Approved at Medicines Management Committee (if document relates to medicines)	N/A	





Approved Documents (policies, clinical guidelines and procedures) Approval Form

Please complete the following information and attach to your document when submitting a policy, clinical guideline or procedure for approval.

Document type (policy, clinical	Guideline	
guideline or procedure)		
Document title	Guideline for Maternal Antenatal Screening Including diagnosis and referral of women with a suspected Fetal Abnormality	
Document author	Screening Team	
(Job title and team)	Consultant Obstetrician	
	Reviewed. Replaces	
New or reviewed document	Suspected fetal abnormality	
List staff groups/departments	Midwives	
consulted with during document	3 * * F * * * * * * * * * * * * * * * * * * *	
development		
Approval recommended by	WB&G 17/03/2023	
(meeting and dates):	CBU3 Governance 22/03/2023	
Date of next review (maximum 3 years)	23/03/2026	
	FASP	
	NIPT	
Key words for search criteria on	Downs	
intranet (max 10 words)	Edwards	
mitaliet (max 10 words)	Patau	
	T21	
Key messages for staff (consider		
changes from previous versions		
and any impact on patient safety)		
I confirm that this is the FINAL	Name: Jade Carritt	

FOR COMPLETION BY THE CLINICAL GOVERNANCE TEAM

Approved by (group/committee): CBU3 Governance

Date approved: 22/03/2023

Date Clinical Governance Administrator informed of approval: 23/03/2023

Date uploaded to Trust Approved Documents page: 28/03/2023