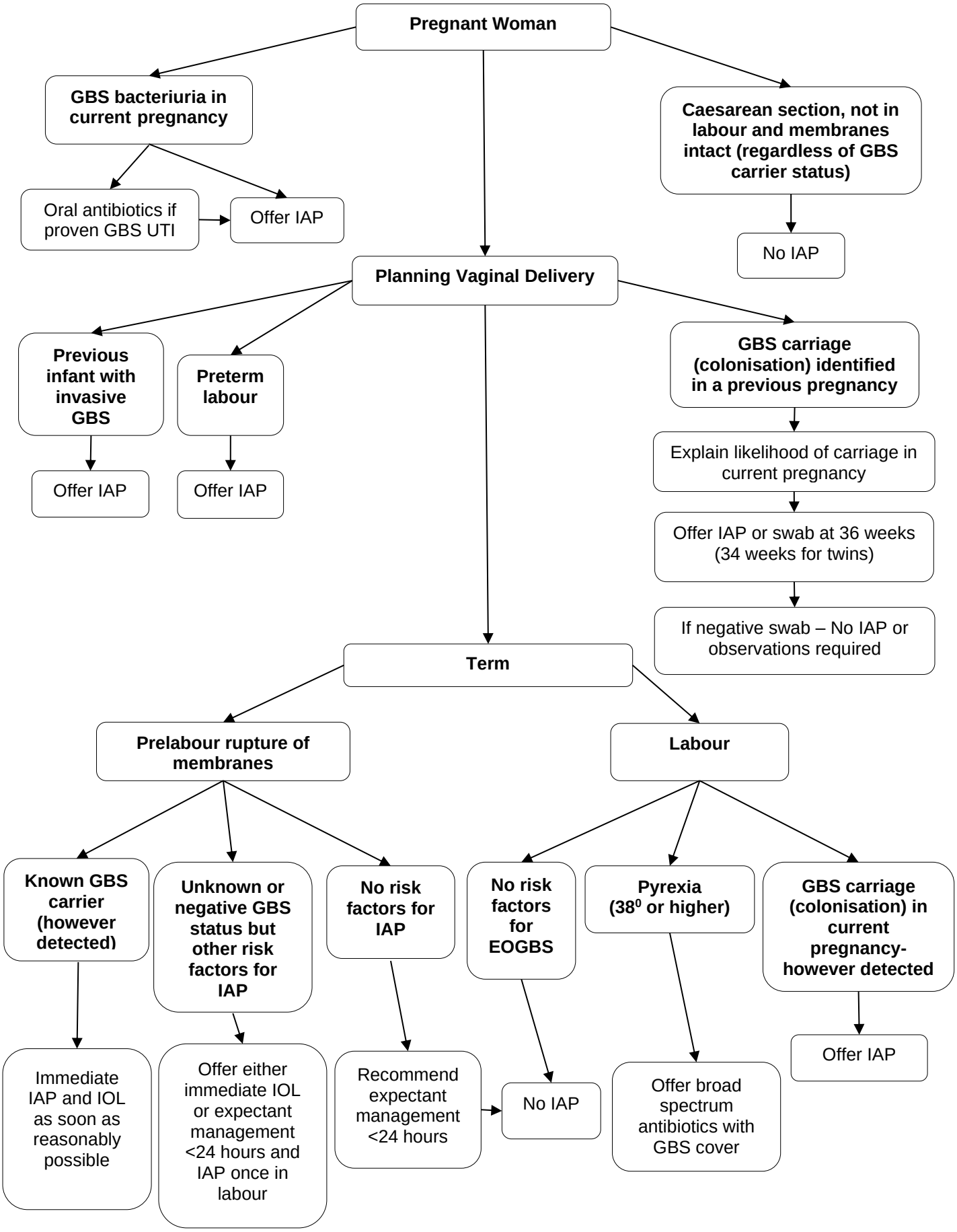
Royal Cornwall Hospitals
NHS Trust

Group B Beta Haemolytic Streptococcus (GBS) Maternal Management Clinical Guideline

V3.0

August 2023

Summary


Pregnant Woman
GBS bacteriuria in current pregnancy
Oral antibiotics if proven GBS UTI
Offer IAP
Caesarean section, not in labour and membranes intact (regardless of GBS carrier status)
No IAP
Planning Vaginal Delivery
Previous infant with invasive GBS
Offer IAP
Preterm labour
Offer IAP
GBS carriage (colonisation) identified in a previous pregnancy
Explain likelihood of carriage in current pregnancy
Offer IAP or swab at 36 weeks (34 weeks for twins)
If negative swab – No IAP or observations required
Term
Prelabour rupture of membranes
Known GBS carrier (however detected)
Immediate IAP and IOL as soon as reasonably possible
Unknown or negative GBS status but other risk factors for IAP
Offer either immediate IOL or expectant management <24 hours and IAP once in labour
No risk factors for IAP
Recommend expectant management <24 hours
No IAP
Labour
No risk factors for EOGBS
No IAP
Pyrexia (38⁰ or higher)
Offer broad spectrum antibiotics with GBS cover
GBS carriage (colonisation) in current pregnancy- however detected
Offer IAP

1. Aim/Purpose of this Guideline

1.1. This guideline provides concise practical guidance to midwives and obstetricians caring for women whose babies are at risk of Early Onset Group B Streptococcus infection.

1.2. This guideline makes recommendations for women and people who are pregnant. For simplicity of language the guideline uses the term women throughout, but this should be taken to also include people who do not identify as women but who are pregnant, in labour and in the postnatal period. When discussing with a person who does not identify as a woman, please ask them their preferred pronouns, and then ensure this is clearly documented in their notes to inform all health care professionals.

1.3. This version supersedes any previous versions of this document.

Data Protection Act 2018 (General Data Protection Regulation – GDPR) Legislation

The Trust has a duty under the Data Protection Act 2018 and General Data Protection Regulations 2016/679 to ensure that there is a valid legal basis to process personal and sensitive data. The legal basis for processing must be identified and documented before the processing begins. In many cases we may need consent; this must be explicit, informed, and documented. We cannot rely on opt out, it must be opt in.

Data Protection Act 2018 and General Data Protection Regulations 2016/679 is applicable to all staff; this includes those working as contractors and providers of services.

For more information about your obligations under the Data Protection Act 2018 and General Data Protection Regulations 2016/679 please see the Information Use Framework Policy or contact the Information Governance Team

Royal Cornwall Hospital Trust rch-tr.infogov@nhs.net

2. The Guidance

2.1. Background

Group B beta haemolytic Streptococcus (GBS) is commonly carried by women of childbearing age (about 25%) and is recognised as the most frequent cause of severe early infection in the new born. The incidence quoted is 0.5 per 1000 births in the UK with no preventative measures. However, this incidence is accepted by many to be an underestimate, as it represents culture proven infection. This infection carries a mortality and a risk of disability in survivors. Reducing the risk of neonatal infection has to be balanced against the increased medicalisation of childbirth, the adverse risk of antibiotics (fatal anaphylaxis to mothers given IV penicillin is estimated to be 1:100,000) and neonatal infection with resistant organisms.

2.2. Information for women

All women should be provided with information about GBS colonisation and information about neonatal sepsis in the neonatal period (NEW 2023).

2.3. Strategies during pregnancy to prevent neonatal Early-onset bacterial infection (EOI)

2.3.1. Samples for bacterial culture during pregnancy

- Universal bacteriological screening is not recommended.
- A maternal request is not an indication for GBS screening.
- Routine antenatal screening for asymptomatic bacterial vaginosis is not recommended.
- Routine antenatal screening of all pregnant women for GBS carriage is not recommended.
- If GBS has been identified in a previous pregnancy, the woman should be informed that there is a 50% likelihood of GBS carriage in this pregnancy. She should be offered either Intrapartum Antibiotic Prophylaxis (IAP) or testing in late pregnancy (35-37 weeks for singletons and 32-34 weeks for multiple pregnancy) to determine whether to offer IAP. The woman may choose to decline both these options (NEW 2023).
- If the woman has a negative swab or declines testing, she does not need intrapartum antibiotics or additional postnatal observations, unless there are new concerns.
- If testing is chosen a swab should be taken from the lower vagina and anorectum (this can be one or two swabs) (NEW 2023).
- If swabs are not transported immediately to the laboratory, they should be refrigerated.
- The request form should state that the swab is being taken for GBS.

2.3.2. Use of antenatal antibiotic therapy

- Antenatal benzylpenicillin prophylaxis does not reduce the likelihood of GBS.
- Colonisation at delivery and is not an effective preventive strategy.
- Women found to have vaginal or rectal colonisation with GBS during pregnancy should not have antenatal treatment.

- Treatment of asymptomatic GBS or other bacteriuria in pregnancy reduces the risk of maternal pyelonephritis. Therefore, women with significant bacteriuria (growth of greater than 108cfu/l or at a lower count if symptomatic) should receive antibiotic treatment appropriate to the organism identified.

- Erythromycin should be offered orally for 10 days following a definite diagnosis of preterm pre-labour rupture of membranes.

2.4. Intrapartum Antibiotic Prophylaxis (IAP)

IAP reduces the risk of neonatal EOI in babies born to women colonised or infected with GBS. The recommendations on use of IAP against GBS seek to balance the reduction in risk of neonatal infection with the increased medicalisation of childbirth, risk of adverse antibiotic reaction, and the potential promotion of resistant organisms.

2.4.1. Women to be offered IAP:

- Previous baby affected by early- or late-onset neonatal GBS disease.
- GBS bacteriuria in current pregnancy.
- Coincidentally identified GBS in the current pregnancy.
- GBS in a previous pregnancy IF:
    - Positive GBS screen at 35-37 weeks (32-34 weeks for twins).

      OR

    - Maternal request for IAP.
    - (The woman may choose neither swab nor IAP).
    - All women in established preterm labour.

2.4.2. Women who do not require IAP:

- Term or preterm planned Caesarean section not in labour and with intact membranes. If PROM has occurred, IAP should be offered and delivery by Caesarean section after 2 hours if clinical situation allows.
- Maternal request in the absence of a past history and/or microbiological evidence of GBS.

2.4.3. Communication

All women identified antenatally with any of these indications for IAP should have a yellow GBS sticker placed on the ‘maternity management plan page’ and an alert placed in the electronic records.

2.4.4. **Antibiotic prescription**

- Benzyl penicillin 3g IV then 1.5g at 4 hourly intervals until delivery
- If the woman is allergic to penicillin take a history of the reaction (NEW 2023).
    - If non severe allergy Ceftriaxone 2g IV OD should be used
    - For severe allergy (anaphylaxis, angioedema, respiratory distress) then Vancomycin 1g every 12hrs (NEW 2023).
    - Clindamycin should not be used due to the current resistance rate (NEW 2023).
- Commence antibiotics at presentation in labour
- If undergoing induction of labour (IOL) and IAP is indicated, this should be administered at the onset of any uterine activity
- Antibiotics commenced at least 4 hours prior to delivery negates the need for neonatal observations in the absence of other risk factors or concerns but treatment for a shorter time may still be beneficial to the neonate.
- If IAP not commenced within 4 hours of delivery or declined by the mother, neonatal observations are required at 1 and 2 hours of age, then 2 hourly for a total of 12 hours in the absence of other infection risk factors. If neonatal infection risk factors are present, antibiotic treatment is required for the neonate (NEW 2023).

2.4.5. **Suspected Chorioamnionitis**

Women with a fever > 38^0C in labour or with clinically suspected Chorioamnionitis should:

- Have a blood sample sent for blood culture.
- Commence broad spectrum IV antibiotic therapy, including an antibiotic active against GBS.
- Have placenta sent for culture and histology.

2.5. Management of GBS cases with Prelabour rupture of the membranes (PROM)

2.5.1. Term PROM

- For women with GBS colonisation in the current pregnancy, offer immediate IAP and induce as soon as reasonably possible.
- Induce with oxytocin. If however delivery suite is unable to accept the women immediately then the induction of labour should be commenced with Propess until they are able to accept the women on delivery suite to start oxytocin.
- Women who are GBS negative or not tested, should be offered either expectant management for up to 24 hours, or immediate induction with Propess (NEW 2023).
- All babies born following PROM and GBS will require antibiotic treatment (NEW 2023).
- All mothers of babies born following PROM should be asked to inform their healthcare professionals immediately of any concerns they have about their baby's wellbeing in the first 5 days following birth, particularly in the first 12 hours when the risk of infection is greatest.

2.5.2. Preterm PROM (PPROM)

- Bacteriological testing for GBS carriage is not recommended but IAP should be given once labour is confirmed or induced irrespective of GBS status.
- Expectant management is appropriate before 34 weeks' gestation.
- After 34+0 weeks' gestation a detailed discussion should occur with a Consultant Obstetrician to discuss the risks of benefit of induction of labour balanced with the risks of prematurity. RCOG guidance states 'it may be beneficial to expedite delivery' if a woman is a known GBS carrier; however, the NICE guidance recommends 'offer immediate induction of labour' (NEW 2023).
- All babies born following PPROM and GBS will require antibiotic treatment (NEW 2023).

2.6. Management of the neonate

Please see Infection in Neonates - Early and Late Onset Clinical Guideline (cornwall.nhs.uk)

3. Monitoring compliance and effectiveness

Information Category	Detail of process and methodology for monitoring compliance
Element to be monitored	The audit will take into account record keeping by obstetric, anaesthetic and paediatric doctors, midwives, nurse, students and maternity support workers.
Lead	Maternity Patient Safety Midwife.
Tool	• If antenatal risk for GBS identified was a yellow sticker placed on maternity management plan page. • If the woman was prescribed intrapartum antibiotics was this documented in the intrapartum records. • If routine neonatal observation required was this documented on a newborn observation chart as per the neonatal plan.
Frequency	Frequency 1% or 10 sets, whichever is the greatest, of all health records where there is known GBS present in either mother or new-born will be audited over a 12 month period.
Reporting arrangements	• A formal report of the results will be received annually at the Maternity Patient Safety and Clinical Audit Forum, as per the audit plan. • During the process of the audit if compliance is below 75% or other deficiencies identified, this will be highlighted at the next Maternity Patient Safety and Clinical Audit Forum and an action plan agreed.
Acting on recommendations and Lead(s)	• Any deficiencies identified on the annual report will be discussed at the Maternity Patient Safety and Clinical Audit Forum and an action plan developed. • Action leads will be identified and a time frame for the action to be completed by. • The action plan will be monitored by the Maternity Patient Safety Forum and Clinical Audit Forum until all actions complete.
Change in practice and lessons to be shared	• Required changes to practice will be identified and actioned within a time frame agreed on the action plan. • A lead member of the forum will be identified to take each change forward where appropriate. • The results of the audits will be distributed to all staff through the Patient Safety Newsletter.

4. Equality and Diversity

4.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement which can be found in the Equality Diversity And Inclusion Policy or the Equality and Diversity website.

4.2. Equality Impact Assessment

The Initial Equality Impact Assessment Screening Form is at Appendix 2.

Appendix 1. Governance Information

Information Category	Detailed Information
Document Title:	Group B Beta Haemolytic Streptococcus (GBS) Maternal Management Clinical Guideline V3.0
This document replaces (exact title of previous version):	Group B Beta Haemolytic Streptococcus (GBS) Maternal Management Clinical Guideline V2.0
Date Issued/Approved:	August 2023
Date Valid From:	August 2023
Date Valid To:	August 2026
Directorate / Department responsible (author/owner):	Helen Le Grys Consultant Obstetrician
Contact details:	01872 252730
Brief summary of contents:	To give guidance to all midwives and obstetricians on the management of women who receive a diagnosis of GBS during pregnancy or have had a baby previously infected with GBS.
Suggested Keywords:	GBS, Group B Strep, labour, antenatal.
Target Audience:	**RCHT:** Yes **CFT:** No **CIOS ICB:** No
Executive Director responsible for Policy:	Chief Medical Officer
Approval route for consultation and ratification:	Maternity Guidelines Group
Manager confirming approval processes:	Caroline Chappell
Name of Governance Lead confirming consultation and ratification:	Caroline Amukusana
Links to key external standards:	None required
Related Documents:	• RCOG Green Top Guideline No36: The prevention of early-onset neonatal Group B Streptococcal Disease.

Information Category	Detailed Information
	• RCOG Green Top Guideline No 44: Preterm pre-labour rupture of membranes. • Induction of Labour Clinical Guideline (cornwall.nhs.uk)
Training Need Identified?	No
Publication Location (refer to Policy on Policies – Approvals and Ratification):	Internet and Intranet
Document Library Folder/Sub Folder:	Clinical / Midwifery and Obstetrics

Version Control Table

Date	Version Number	Summary of Changes	Changes Made by
April 2006	V1.0	Initial document	Paul Munyard Consultant Neonatologist
April 2008	V1.1	Reviewed and updated	Paul Munyard Consultant Neonatologist
April 2010	V1.2	Reviewed and updated and change to compliance monitoring	Paul Munyard Consultant Neonatologist
September 2012	V1.3	Changes to compliance monitoring	Karen Watkins Consultant Obstetrician
7th July 2016	V1.4	Flow chart added and benchmarked to RCOG green top clinical guidelines	Karen Watkins Consultant Obstetrician
10th August 2018	V1.5	Updates to sections 2.2.1, 2.2.2, 2.3.1, 2.3.3, 2.3.4, 2.4.1, 2.4.2	Rob Holmes Consultant Obstetrician
November 2020	V2.0	Update to section 2.3.4 regarding antibiotic administration	Rob Holmes Consultant Obstetrician

Date	Version Number	Summary of Changes	Changes Made by
August 2023	V3.0	Full update including updates to 2.2, 2.3.1, 2.4.3, 2.4.4, 2.5.1, 2.5.2	Helen Le Grys Consultant Obstetrician

All or part of this document can be released under the Freedom of Information Act 2000.

All Policies, Strategies and Operating Procedures, including Business Plans, are to be kept for the lifetime of the organisation plus 6 years.

This document is only valid on the day of printing.

Controlled Document.

This document has been created following the Royal Cornwall Hospitals NHS Trust The Policy on Policies (Development and Management of Knowledge Procedural and Web Documents Policy). It should not be altered in any way without the express permission of the author or their Line Manager.

Appendix 2. Equality Impact Assessment

Section 1: Equality Impact Assessment (EIA) Form

The EIA process allows the Trust to identify where a policy or service may have a negative impact on an individual or particular group of people.

For guidance please refer to the Equality Impact Assessment Policy (available from the document library) or contact the Equality, Diversity, and Inclusion Team rcht.inclusion@nhs.net

Information Category	Detailed Information
Name of the strategy / policy / proposal / service function to be assessed:	Group B Beta Haemolytic Streptococcus (GBS) Maternal Management Clinical Guideline V3.0
Directorate and service area:	Obstetrics and Gynaecology
Is this a new or existing Policy?	Existing
Name of individual completing EIA (Should be completed by an individual with a good understanding of the Service/Policy):	Catherine Wills, Maternity Guidelines Midwife
Contact details:	01872 255019

Information Category	Detailed Information
1. **Policy Aim - Who is the Policy aimed at?** (The Policy is the Strategy, Policy, Proposal or Service Change to be assessed)	To give guidance to all midwives, obstetricians and neonatal staff on the management of women who receive a diagnosis of GBS during pregnancy or have had a baby previously infected with GBS. To give guidance on the initial management of a baby at risk of GBS following birth.
2. **Policy Objectives**	Ensure correct and timely management of a woman and her newborn baby at risk of GBS infection.
3. **Policy Intended Outcomes**	Best possible outcome for a woman and baby at risk of GBS Infection.
4. **How will you measure each outcome?**	Compliance Monitoring Tool.
5. **Who is intended to benefit from the policy?**	All pregnant women and their newborn babies.

Information Category	Detailed Information
6a. Who did you consult with? (Please select Yes or No for each category)	• Workforce: Yes • Patients/ visitors: No • Local groups/ system partners: No • External organisations: No • Other: No
6b. Please list the individuals/groups who have been consulted about this policy.	**Please record specific names of individuals/ groups:** Maternity Guidelines Group
6c. What was the outcome of the consultation?	Guideline agreed
6d. Have you used any of the following to assist your assessment?	**National or local statistics, audits, activity reports, process maps, complaints, staff, or patient surveys:** No

7. The Impact

Following consultation with key groups, has a negative impact been identified for any protected characteristic? Please note that a rationale is required for each one.

Where a negative impact is identified without rationale, the key groups will need to be consulted again.

Protected Characteristic	(Yes or No)	Rationale
Age	No	
Sex (male or female)	No	
Gender reassignment (Transgender, non-binary, gender fluid etc.)	No	
Race	No	
Disability (e.g. physical or cognitive impairment, mental health, long term conditions etc.)	No	
Religion or belief	No	

Protected Characteristic	(Yes or No)	Rationale
Marriage and civil partnership	No	
Pregnancy and maternity	No	
Sexual orientation (e.g. gay, straight, bisexual, lesbian etc.)	No	

A robust rationale must be in place for all protected characteristics. If a negative impact has been identified, please complete section 2. If no negative impact has been identified and if this is not a major service change, you can end the assessment here.

I am confident that section 2 of this EIA does not need completing as there are no highlighted risks of negative impact occurring because of this policy.

Name of person confirming result of initial impact assessment: Catherine Wills, Maternity Guidelines Midwife

If a negative impact has been identified above OR this is a major service change, you will need to complete section 2 of the EIA form available here:
Section 2. Full Equality Analysis