Royal Cornwall Hospitals
NHS Trust

Examination of the Placenta Clinical Guideline

V2.1

October 2023

1. Aim/Purpose of this Guideline

1.1. The guideline is intended to standardise the procedure for examining the placenta and membranes after birth. Individual circumstances and unexpected outcomes should be taken into consideration.

1.2. To provide information relevant to the future management and on-going care of the child.

1.3. To provide information for subsequent antenatal management of the woman.

1.4. Macroscopic and histological examination of the placenta has historically played an important role in delineating the cause of maternal and neonatal problems. In addition to the clinical relevance, it has implications for governance and perinatal audit and will influence changes in practice.

1.5. This guideline makes recommendations for women and people who are pregnant. For simplicity of language the guideline uses the term women/person 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.

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

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

The Trust has a duty under the Data Protection Act 2018 and UK 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 UK 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 UK 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. Retained products of conception are one of the main causes of postpartum haemorrhage and infection. The placenta and membranes should be examined carefully for irregularities and completeness as soon as possible after birth.

2.2. Histopathological examination of the placenta following a pregnancy affected by medical complications, pregnancy loss or neonatal death may provide an explanation of the pregnancy complications, pregnancy loss or neonatal death and may also provide information relevant to the management of the current infant and/or subsequent pregnancies and medico legal litigation.

2.3. **The Placenta**

2.3.1. A fresh, term, healthy placenta is approximately 15 – 20 cm in diameter and 2.0 to 2.5 cm thick. It generally weighs approximately 500-600gms (1/6 of the baby's birth weight). However, the measurements can vary considerably depending on a number of variables including ethnicity, pathophysiology, and baby weight.

2.3.2. The maternal surface of the placenta should be dark maroon in colour and should consist of around 15-20 cotyledons, which are divided by septa.

2.3.3. The fetal surface of the placenta should be shiny, grey, and translucent so that the colour of the underlying maroon villous tissue may be seen.

2.3.4. Insignificant changes can occur such as infarctions due to the depositing of fibrin, and the surface can appear gritty due to lime salt deposits.

2.4. **The Umbilical Cord**

2.4.1. At term, the typical umbilical cord is 55 to 60 cm in length, with a diameter of 2.0 to 2.5 cm, and is twisted spirally in order to protect the vessels.

2.4.2. The cord vessels are suspended in Wharton's jelly and covered by the amnion.

2.4.3. The normal cord contains two arteries and one vein.

2.4.4. The cord is usually inserted in the centre of the fetal surface with blood vessels branching outwards.

2.5. **The Membranes**

The membranes consist of two layers, the amnion, and the chorion.

2.6. **Multiple Pregnancy**

2.6.1. The placenta and membranes for multiple births are more complex as there are a variety of possible combinations of placenta and membranes.

2.6.2. Visually, the surfaces and cord are as described above for singletons. When checking membranes it is helpful to look at the early ultrasound report to see what type of twinning was diagnosed:

- Monochorionic, monoamniotic (MC, MA) twins are very rare but have just one placenta, one pair of amnion and chorion and two cords.

- Monochorionic, diamniotic twins (MC, DA) have one placenta and one chorion (the outer slightly thicker membrane), but, on the shiny fetal surface should have two cords, each inside its own amnion.

- Dichorionic, diamniotic (DC, DA) twins always have two separate placental units, each with two layers of membranes, just like a singleton. They may, however, be side by side, and appear to be joined at first glance.

2.7. Examination of the Placenta

2.7.1. The midwife should ensure that the woman is comfortable following birth, has monitored the blood loss and checked the uterus is well contracted. The examination of the placenta and membranes should take place as soon as possible following this; in order to ensure that they are complete and that no further actions are required before the woman is discharged or transferred to the ward.

2.7.2. Explain the procedure to the parents and ask if they want to observe.

2.7.3. Ensure that there is adequate lighting to check the placenta. If the lighting in the delivery room is dim, it is advised that the placenta is examined in an alternative location where there is adequate lighting. In the home the midwife should ask if an alternative room can be used with good lighting.

2.7.4. Prepare a flat surface with protection to avoid blood spillage.

2.7.5. Prepare syringe and needle if cord samples are required.

2.7.6. Wash hands; wear an apron and gloves.

2.7.7. Lay out the placenta with the fetal surface uppermost – noting shape, size, colour and smell.

2.7.8. Examine the cord, noting the length, insertion point and presence of true knots or thrombi.

2.7.9. Inspect the umbilical cord vessels at the cut end at the furthest point from the placenta as the arteries can be fused around the insertion site making it difficult to differentiate them.

2.7.10. Count the vessels in the cut end of the cord; the absence of one of the arteries can be associated with renal agenesis.

2.7.11. Observe the fetal side for irregularities such as succenturiate lobes, missing cotyledons, fatty deposits, or infarctions.

2.7.12. By lifting the cord and holding the placenta up, you can then observe the membranes and inspect for completeness. There should be a single hole present where the baby has passed through the membranes.

2.7.13. Return the placenta to the surface and spread the membranes out in order to look for extra vessels, lobes, or holes in the surface.

2.7.14. Separate the amnion from the chorion by pulling the amnion back over the base of the umbilical cord to ensure both are present.

2.7.15. Turn the placenta over to inspect the maternal side.

2.7.16. Examine the cotyledons, ensuring all are present, noting the size and any areas of infarction, blood clots or calcification. Retain the clots to make an accurate assessment of blood loss. The lobes of a complete placenta fit neatly together without any gaps with the edges forming a uniform circle. Broken fragments of cotyledon should be carefully replaced before making an accurate assessment, e.g., succenturiate lobes, missing cotyledons, fatty deposits, or infarctions.

2.7.17. Weigh, swab or take samples if indicated. A normal placenta when combined with a good perinatal outcome need not be normally weighed.

2.7.18. If the placenta is examined by a student midwife, the supervising midwife must also examine the placenta to ensure completeness and countersigned the records to confirm this.

2.7.19. Where there is suspicion that the placenta and/or membranes are incomplete, they should be kept for further inspection and referred to the duty obstetrician.

2.7.20. Where there is suspicion/evidence of APH due to vasa praevia, photos should be taken using the theatre camera and stored in the medical notes. (NEW 2023).

2.7.21. Clean away equipment.

2.8. **Discussion and Documentation of Findings**

2.8.1. Discuss findings with the woman.

2.8.2. It is important to inform the woman if there are concerns about the completeness of the placenta. She should be advised to be observant for an increase in blood loss/passing clots/signs of infection and advised to seek professional advice from a midwife or doctor as soon as possible. This should be clearly documented in the maternal health record to alert other health care professionals attending the woman in the postnatal period.

2.8.3. If the placenta is thought to be incomplete at a homebirth or standalone birthing unit, the woman may need to be transferred into the consultant unit for evacuation of retained products of conception.

2.8.4. The midwife should document all of the findings and act accordingly.

2.8.5. On checking the placenta and membranes the midwife should report any abnormalities to the Delivery Suite Coordinator and appropriate medical professional. For example:

- An excessively large or oedematous placenta (it may appear to have large, clear coloured bubbles on the maternal surface) may be associated with maternal diabetes, hydrops, or cardiac abnormalities.

2.9. **Investigations of the Placenta**

2.9.1. Weigh the placenta if abnormally large or small and record weight in maternity health record. For cases of inter-uterine death (IUD) or neonatal death (NND), follow Trust protocol (Refer to Stillbirth Management Clinical Guideline and Neonatal Death (Early) Clinical Guideline).

2.9.2. Placentas should be swabbed on both fetal and maternal sides for the following reasons:

- Maternal intravenous antibiotics in labour for confirmed or suspected sepsis.
- Offensive smelling liquor.
- Suspected Chorioamnionitis.
- Baby born in unexpected poor condition (not associated with IUGR or known pathology).
- Prolonged Rupture of Membranes (≥24 hours).
- In all cases of IUD/NND (Refer to Stillbirth Management Clinical Guideline).

2.10. **Indications for Referral of Placentas for Pathological Examination**

2.10.1. Referral of placenta for histological examination is ESSENTIAL for:

- Stillbirth (antepartum or intrapartum) – refer to relevant guideline for advice.
- Late miscarriage.
- Severe fetal distress requiring admission to NNU (including any baby cooled, HIE grade 3 or has decreased central tone, comatosed and seizures.
- Prematurity (less than 34 weeks gestation).
- Fetal growth restriction (birthweight below 3rd centile).
- Fetal hydrops.
- Placental abruption.
- Morbidly adherent placenta.
- Severe pre-eclampsia.

- Maternal coagulopathy.

2.10.2. Placentas for storage for 7 days

Any baby admitted to the neonatal unit for any other reason than the above.

2.10.3. Additional considerations

There are indications that may be outside of the current local criteria, these placentas should be requested by consultant obstetrician.

2.10.4. **Please remember if this is a stillbirth or neonatal death to refer to** the 'Management of Stillbirth Clinical Guideline' and 'Early Neonatal Death Clinical Guideline' for further instructions as these placentas may not be examined at RCHT **and they may be sent to a specialist PERINATAL PATHOLOGIST.**

2.11. **Process for sending a placenta to histology at RCHT.**

Each placenta to be sent to Royal Cornwall Hospital histology requires:

- Placing into a white 2.5 litre size pot, lid in situ with an addressograph on the lid and side of pot, labelled placenta. No need for formalin or plastic bag.

- The histology form should be taped to the lid of the white pot, ensure the form contains as much clinical information as possible to enable a thorough examination.

- During office hours the porter should be called to come and collect the pot and it needs to be taken straight to histology and given to a member of staff there so they can add formalin.

- Outside of office hours the placenta will remain in the white pot in the delivery suite fridge and the coordinator each morning will arrange for collection. At weekends there is no lab worker in histology so any placentas will have to be sent on the Monday morning.

- If the woman requests her placenta to be returned to her, please advise her it will not be fit for consumption. Clearly indicate that she wants it returned to her on the histology form.

2.12. **Disposal of Placentas not being sent to histology.**

2.12.1. The majority of women will want the midwife to dispose of the placenta which should be done in accordance with the Trust policy.

2.12.2. The placenta should be placed in a yellow placenta bag, ensuring the CR number is written on it and placed into the large yellow clinical waste pot in the specified fridge in the sluice.

2.12.3. If the woman wishes to take her placenta home to bury or encapsulate it, it is important that the midwife double bags it and the parents are required to provide a suitable container for transport home which is labelled. The woman should be given instructions for safe disposal of placenta.

2.12.4. Some women opt for a 'lotus birth', whereby the placenta remains attached to the baby until the cord naturally detaches. If this is the woman's wishes, then the midwife or a family member should wipe off any excess fluids, if necessary, wash it clean, and carefully pat it dry. The placenta is then usually wrapped in a cloth, but when at home this may be placed in a covered bowl. It is important that the air is able to pass through the cloth or the bowl to allow the placenta to dry out to aid separation, thus preventing a distinctive musky odour. Some women may speed up this process by adding sea salt or essential oils.

3. Monitoring compliance and effectiveness

Information Category	Detail of process and methodology for monitoring compliance
Element to be monitored	Compliance to escalation, storage and testing of placentas.
Lead	Audit team and Delivery Suite Ward Manager.
Tool	Was the placenta swabbed if: • IVABX in labour for confirmed or suspected sepsis. • Offensive liquor noted. • Suspected Chorioamnionitis. • Baby born in unexpected poor condition. • PROM (≥24 Hrs). • IUD or NND. Was placenta sent for pathological examination if: **Bristol** • Still birth. • Later miscarriage. **RCHT** • Severe fetal distress requiring NNU admission (Cooled, HIE 3, decreased tone, comatose or seizure). • <34 weeks. • Morbidly adherent placenta (ask obstetrician if unsure or EAU) • Severe pre-eclampsia. Maternal coagulopathy.

Information Category	Detail of process and methodology for monitoring compliance
	Were all placentas in the fridge labelled with maternal CR - spot checks by DS team or audit team?
Frequency	Labelling of placentas stored for histopathology in the fridges will be checked daily. All other areas will be monitored once in the lifetime of this guideline or more often if indicated.
Reporting arrangements	Maternity governance will be informed of any issues along with the Delivery Suite Ward Manager.
Acting on recommendations and Lead(s)	Delivery Suite manager will be in charge of implementing any actions required within the specified time frame.
Change in practice and lessons to be shared	Required changes to practice will be identified and actioned within 8 weeks of the audit. The delivery Suite Ward Manager take each change forward where appropriate, or delegate to other members of staff as appropriate. Lessons will be shared with all the relevant stakeholders.

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:	Examination of the Placenta Clinical Guideline V2.1
This document replaces (exact title of previous version):	Examination of the Placenta Clinical Guideline V2.0
Date Issued/Approved:	October 2023
Date Valid From:	October 2023
Date Valid To:	May 2026
Directorate / Department responsible (author/owner):	Joanne Crocker Delivery Suite Ward Manager
Contact details:	01872 25 2361
Brief summary of contents:	Guidance for inspection, storage and disposal of placentas following delivery
Suggested Keywords:	Placenta, storage,
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:	None required
Training Need Identified?	No

Information Category	Detailed Information
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 2020	V1.0	Initial version	Joanne Crocker Delivery Suite Ward Manager
April 2023	V2.0	Full update – addition of 2.7.20 and updated information for perinatal pathologist	Catherine Wills Practice Development Midwife
October 2023	V2.1	Amendment to 2.10.1 with updated relevant gestation of placenta to be sent	Catherine Wills Practice Development Midwife

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:	Examination of the Placenta Clinical Guideline V2.1
Directorate and service area:	Midwifery. Womens, Childrens and HIV Care Group.
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):	Joanne Crocker, Delivery Suite Ward Manager
Contact details:	01872 25 2361

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)	The purpose of this guideline is to give concise information about the examination, testing and disposal of placentas following deliver.
2. Policy Objectives	To ensure all women and their placentas are treated appropriately with standardised care.
3. Policy Intended Outcomes	Ensure placentas are correctly examined, swabbed, tested, stored, and discarded appropriately in all cases.
4. How will you measure each outcome?	Compliance monitoring tool and spot checks in Delivery Suite
5. Who is intended to benefit from the policy?	Mothers and Neonates

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?	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	
Marriage and civil partnership	No	

Protected Characteristic	(Yes or No)	Rationale
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: Joanne Crocker, Delivery Suite Ward Manager.

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