Clinical Guideline for Indications for Placental Examination and use of placenta fridge

Document Control:

For Use In:	Norfolk and Norwich University Hospital Maternity Services		
Search Keywords	Placenta, histology, indications		
Document Author:	C Bircher, updated by V Maxey May 2023 Supported by X Tyler Consultant Perinatal Histopathologist		
Document Owner:	C Bircher		
Approved By:	Maternity Clinical Guidelines Committee Clinical Guidelines Assessment Panel		
Ratified By:	Clinical Safety and Effectiveness Sub-board		
Approval Date:	26/06/2023	**Date to be reviewed by:** This document remains current after this date but will be under review	26/06/2026
Implementation Date:	N/A		
Reference Number:	869		

Version History:

Version	Date	Author	Reason/Change
V9.0	10/05/2023	V Maxey Consultant Obstetrician	New template. Indications for placental histology updated to reflect change in national guideline

Previous Titles for this Document:

Previous Title/Amalgamated Titles	Date Revised
None	Not applicable

Distribution Control

Printed copies of this document should be considered out of date. The most up to date version is available from the Trust Intranet.

Consultation

The following were consulted during the development of this document:
Mr Richard Smith Consultant Obstetrician and Subspecialist in Fetal Medicine
Dr X Tyler, Consultant Perinatal Histopathologist
Mrs B Gibson Chief of Service Obstetrics
V Maxey Consultant Obstetrician
Mr C Bircher Consultant Obstetrician
Mr E Prosser Snelling Consultant Obstetrician and Gynaecologist

Monitoring and Review of Procedural Document

The document owner is responsible for monitoring and reviewing the effectiveness of this Procedural Document. This review is continuous however as a minimum will be achieved at the point this procedural document requires a review e.g. changes in legislation, findings from incidents or document expiry.

Relationship of this document to other procedural documents

This document is a clinical guideline applicable to the Norfolk and Norwich University Hospital NHS FT; please refer to local Trust's procedural documents for further guidance, as noted in Section 5.

Clinical guideline for Indications for placental examination and use of placenta fridge

Contents Page

Clinical guideline for Indications for placental examination and use of placenta fridge

1. Introduction

1.1. Rationale

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.

This guideline reflects the most recent version of *'Tissue Pathway for histopathological examination of the placenta, September 2022'*, from The Royal College of Pathologists.

1.2. Objective

The objective of the clinical guideline is to:

- Provide evidence-based guidance for medical and midwifery staff involved in the requesting and sending of placentas to histopathology
- Provide information relevant to the future management and on-going care of the child.
- Provide information for subsequent antenatal management of the woman

1.3. Scope

This clinical guideline is to guide Obstetricians and Midwifery staff working in maternity services regarding the decision to send a placental for histology or are involved in the storage and sending of placentas for histopathology.

1.4. Glossary

The following terms and abbreviations have been used within this document:

Term	Definition
Placenta	Organ supplying baby in the womb
Histopathology	Diagnosis of disease by studying body tissues
Histology	Study of body tissues under the microscope
Mortuary	Location for storage of dead bodies
Stillbirth	Death in the womb after 24+0 weeks
Late miscarriage	Death in the womb up to 23+6 weeks
Peripartum death	Death around the time of birth
Termination	Medical process of ending a pregnancy
Neonatal death	Death of a baby born with signs of life
Fetal distress	Delay in oxygen delivery in unborn fetus
Preterm birth	Birth prior to 37+0 weeks of pregnancy
Fetal growth restriction	A baby not meeting their own growth potential
Pre-eclampsia	Pregnancy specific condition involving high blood pressure
Iatrogenic	Caused by medical examination of treatment
Umbilical artery dopplers	Blood flow measurement informing about placental function

Fetal hydrops	Fluid accumulation in an unborn baby
Peripartum hysterectomy	Removal of the womb at the time of birth
Morbidly adherent placenta	Abnormal placental invasion to womb wall
Sepsis	Widespread severe infection
Level 3 NICU	Intensive neonatal care
Microbiology	Department responsible for the study of bacterial infections
Placental abruption	Premature separation of the placenta prior to delivery of the baby
Retroplacental clot	Blood clot formed behind the placenta due to separation
Monochorionic twins	Twins sharing a placenta
TTTS	Twin-Twin Transfusion Syndrome
GROW-chart	Gestation Related Optimal Weight Chart

2. Responsibilities

All obstetricians and midwifery staff involved in the storage or sending of placentas for histology should remain up to date with this guidance.

3. Processes to be followed

3.1. Indications for histological examination

The placenta must be sent to the **Mortuary** as soon as possible following delivery in the event of:

- **stillbirth** (antepartum or intrapartum)
- **miscarriage (14+0–23+6** completed weeks' gestation)

PLEASE DO NOT WAIT TO SEND THE PLACENTA WITH THE BABY.

The placenta should be sent to the **Histology Lab** at the Cotman Centre in the event of:

- **severe fetal distress** defined as: pH <7.05 or Base Excess ≥–12 or scalp lactate >4.8mmol/l
- **preterm birth (less than 32+0 weeks'** gestation)
- fetal growth restriction defined as: birthweight **below 3rd centile** or a **drop in growth velocity of > 50 percentiles** (calculated as a reduction of more than 50 centiles when comparing most recent two ultrasound GROW centiles)
- abnormal umbilical artery Dopplers (**absent or reversed end diastolic flow**)
- **fetal hydrops**
- **early-onset (<32 weeks) severe pre-eclampsia** requiring iatrogenic delivery
- Antenatally suspected **morbidly adherent placenta**

- **severe maternal sepsis requiring adult intensive care admission** and/or **fetal sepsis requiring ventilation or level 3 NICU admission**
- **massive placental abruption** with retroplacental clot
- monochorionic twins with **TTTS**

***IMPORTANT**:*

To ensure that the agreed indications are adhered to, and specimens are not rejected in indicated cases, the indication from the list above must be included exactly on the ICE request form in addition to the pregnancy gestation and brief clinical summary.

The staff member requesting placental histology on ICE should refer to the 'lead clinician' named on Euroking to ensure that the result is returned to the correct Consultant Obstetrician.

3.2. Additional Considerations

There are indications that may be outside of the current local criteria, these placentas should be requested by Consultant Obstetrician following a discussion with one of the perinatal pathologists

3.3. Practical Processes to be followed

- The placenta should be placed in a dry white pot with a sealed lid, this should then be labelled with a patient addressograph, including Full name, DOB, Hospital and NHS number.
- Complete an ICE request form.
    - Clinical details must include: gestation, birth weight and the indication for examination.
    - Placentas without a documented indication for examination will be rejected by the reporting pathologist.
- Placental swabs if required, should be taken prior to sending to Histology.
- If the placenta is being examined after a stillbirth or termination of pregnancy, send it fresh to the mortuary.
- If the placenta is being examined for other reasons, send it fresh to the pathology lab.
- Please complete the pathology log report for ALL placentas sent to both histology and the mortuary.

If there is any delay in sending the placenta to mortuary/histology due to clarification of need, or workload priorities, then please label the white specimen pot clearly as below and store in the placenta fridge on delivery suite.

3.4. Placenta Fridge

The fridge is in the sluice on delivery suite by obstetric theatre 2. The fridge is to be used to store placentas for both research and investigation pending transfer to research/pathology lab or mortuary.

When placing a placenta in the fridge please can you ensure it is potted as per guidance with patient identifier. Please complete the placenta log on the front of the fridge with Hospital number, Date and time and signature of storer. Please ensure that this process is repeated when the placenta has been removed.

Please ensure that the fridge temperature is checked daily, and the results documented in the logbook which is kept on top of the fridge. The target temperature is 2-8 °C.

4. Related Documents

RCPath: Tissue Pathway for histopathological examination of placenta 2022

5. References

1. RCPAth: Tissue pathway for histopathological examination of placenta (G108). RCPath 2022.
2. Gibbs RS, Rosenberg AR, Warren CJ, Galan HL, Rumack CM. Suggestions for Practice to Accompany Neonatal Encephalopathy and Cerebral Palsy. Obstet Gynecology 2004;**103:** 778-779.

6. Monitoring Compliance

Compliance with the process will be monitored through the following:

Key elements	Process for Monitoring	By Whom (Individual / group /committee)	Responsible Governance Committee /dept	Frequency of monitoring
Placenta fridge temperature	Tenable Daily safety check	Delivery suite clinical staff	Maternity Governance	Daily
Indication for placental histology request in keeping with national guideline	Indication checked by pathology on receiving sample against agreed guideline prior to examination being undertaken	Pathology	Histopathology	Case by case

The audit results are to be discussed at relevant maternity clinical governance meetings to review the results and recommendations for further actions and will ensure that the actions and recommendations are suitable and sufficient.

7. Appendices

Hospital Number	Date and time into fridge	Research	Investigation Mortuary/Histo	Name Sign	Date and time out of fridge	Name Sign

7.1. Appendix 1 – Placenta Fridge Log

Placenta Fridge Log

8. Equality Impact Assessment (EIA)

Type of function or policy	Existing

Division	Women's and Children's	**Department**	Maternity
Name of person completing form	V Maxey	**Date**	10/05/2023

Equality Area	**Potential Negative Impact**	**Impact Positive Impact**	**Which groups are affected**	**Full Impact Assessment Required YES/NO**
Race	No	No	N/A	No
Pregnancy & Maternity	No	No	N/A	No
Disability	No	No	N/A	No
Religion and beliefs	No	No	N/A	No
Sex	No	No	N/A	No
Gender reassignment	No	No	N/A	No
Sexual Orientation	No	No	N/A	No
Age	No	No	N/A	No
Marriage & Civil Partnership	No	No	N/A	No
EDS2 – How does this change impact the Equality and Diversity Strategic plan (contact HR or see EDS2 plan)?	No impact			

- **A full assessment will only be required if: The impact is potentially discriminatory under the general equality duty**
- **Any groups of patients/staff/visitors or communities could be potentially disadvantaged by the policy or function/service**
- **The policy or function/service is assessed to be of high significance**

IF IN DOUBT A FULL IMPACT ASSESSMENT FORM IS REQUIRED

The review of the existing policy re-affirms the rights of all groups and clarifies the individual, managerial and organisational responsibilities in line with statutory and best practice guidance.