Worcestershire Acute Hospitals NHS Trust

Histopathological assessment of placentas after an adverse pregnancy outcome

This guidance does not override the individual responsibility of health professionals to make appropriate decision according to the circumstances of the individual patient in consultation with the patient and /or carer. Health care professionals must be prepared to justify any deviation from this guidance.

Introduction

Guideline on the process for Placental Histology.

This guideline is for use by the following staff groups:

All maternity staff

Lead Clinician(s)

Steph Beddall	Lead Bereavement Midwife
Laura Veal	Consultant Obstetrician
Approved by *Maternity Governance Meeting* on:	15th September 2023
Approved by Medicines Safety Committee on:	N/A
Review Date: This is the most current document and should be used until a revised version is in place	15th September 2026

Key amendments to this guideline

Date	Amendment	Approved by:
Sept 2023	Guideline review – minor amendments	MGM

Histopathological examination of the placenta following a pregnancy affected by medical complications, pregnancy loss or neonatal death may provide an explanation of why this occurred. It may also provide information to help in the management of subsequent pregnancies.

All of the placentas for examination are sent ~~off~~ to Birmingham Women's Hospital. Unfortunately, due to a significantly reduced perinatal service, histological assessment on live birth placentas is now on a case by case basis and following referral via email from Consultant to Pathologist. Consultants should email the patient's history and birth details to bwc.bwhmortuaryresults@nhs.net and notify the Delivery Suite Co-ordinator if referral is accepted who can make arrangements for the placenta to be transferred to Pathology Reception. See below for paperwork needed

Which placentas should be sent off for histology?

In accordance with the Royal College of Pathologists the placenta should be sent off for histology in all of the following cases:

- All stillbirths (antenatal or intrapartum)
- Late miscarriages (16-23+6 weeks)
- Neonatal deaths, if access to the placenta is still possible

All placenta's from babies transferred for therapeutic cooling should also be sent as a recommendation by the Healthcare Safety Investigation Branch (HSIB)

Consideration should also be given to sending the placenta for analysis in cases of severe fetal distress requiring admission to the NNU and fetal hydrops. These cases should be discussed as above for livebirths~~.~~

Due to recent changes regarding the criteria for which placentas will be examined, all placenta's, from babies admitted to the NNU at delivery, are to be kept for two weeks post-delivery. They are to be double bagged in placenta bags, sealed with a zip tie and labelled with a maternal sticker and date of delivery on it for identification. It is then to be placed into the fridge, located in the dirty utility on Delivery Suite and documented in the purple folder alongside the reason for storage and the Consultant responsible for care at that time.

It will be the responsibility of the Midwife completing the daily checks to check and discard the placenta's after two weeks if the baby is discharged home and to transfer any suitable placentas to Histopathology for examination.

How should the specimens be sent?

Placentas should be submitted to the Laboratory fresh. If it is not possible to refrigerate the specimen (at 4°C) Formalin should be used. It may also be desirable to fix the placenta in Formalin in potentially high-risk infective cases or where there is a risk of congenital infection being transmitted to a vulnerable member of staff (liase with histopathology at WRH if this is required). A biohazard sticker should be applied to the bag/container and to paperwork accompanying any high-risk infective placentas.

If submitted in Formalin the container should be of sufficient size to minimise distortion of the placenta and the specimen should be completely covered in Formalin. If cytogenetic tests are to be performed Formalin should not be used and the placenta should be sent Fresh to the laboratory.

In all cases, placentas for examination should be placed into a white container (still in the zip tied bags) and sealed well. The container should be labelled on the side and lid with a

maternal sticker and date and time of delivery and then placed into a clear plastic bag with the paperwork securely attached. See Appendix 1 for the paperwork to be completed. Although parental consent is ideal it is not necessary and the placenta can be submitted for analysis without it.
A Porter needs to be requested via the help desk to transport the placenta to pathology reception, this can only take place Monday to Thursday before midday. Ensure the Porter knows that the placenta is for the courier service to Birmingham Women's Hospital.

If there are any doubts about whether the placenta should be sent off for assessment, or if you feel that it would be desirable and your case does not fit the criteria please contact the mortuary at Birmingham Women's Hospital to discuss your case in more detail on 01213358210. Once there is confirmation that the placenta can be examined, the medical team can liaise with the Delivery Suite coordinator or 223 to organise the placenta to be sent.

References

Royal College of Pathologists. Tissue pathway for histopathological examination of the placenta. Oct 2019

Roberts DJ, Oliva E. Clinical significance of placental examination in perinatal medicine. J Maternal Fetal Neonatal Med 2006;19:255–264

Lakshmi Thirumalaikumar FRCOG, Kalaivani Ramalingam FRCOG, Tamas Marton MD PhD. Placental histopathological abnormalities and poor perinatal outcomes. The Obstetrician & Gynaecologist, Vol 21, Issue 2. April 2019

Contribution List

This key document has been circulated to the following individuals for consultation;

Designation
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This key document has been circulated to the chair(s) of the following committee's / groups for comments;

Committee
Maternity Quality Governance Meeting

Birmingham Women's and Children's

WEST MIDLANDS PERINATAL PATHOLOGY

CLINICAL INFORMATION FOR PLACENTAL EXAMINATION FOLLOWING PREGNANCY LOSS

Mother (sticker if available)	Fetus/Infant (sticker if available)
Family Name:.....	Family Name:.....
First Name:.....	First Name:.....
D.o.B.: / /	D.o.B.: / / D.o.D / /
Reg No.....	Reg No.....

Please carefully complete this form. Any missing information could potentially delay or alter the findings.

All Parts require completion for EVERY referral made.

REFERRING HOSPITAL:_____ Ward: _____

CONSULTANT OBSTETRICIAN: _____

Part 1. MOTHER'S DETAILS

(**ALL** fields for this section are MANDATORY for **ALL** requests please)

Ethnic origin: _____ Father's ethnic origin (if known) _____

Consanguinity between parents? Y/N

Maternal height: cm; Booking weight: kg BMI:

Blood Group:

Obstetric History:

	Date	Gestation	Delivery	Sex	Outcome
1					
2					
3					
4					
5					
6					
7					

Part 2. CURRENT PREGNANCY DETAILS

(**ALL** fields for this section are MANDATORY for **ALL** requests please)

Booked/Unbooked LMP : _____ EDD: _____

Gestation: by dates: _____/40 by scan:_____/40 weeks

Is there any relevant past medical history? (If yes, what?) _____

Were there any abnormal screening results? (If yes, what?) _____

Medications (if any): _____

USS findings (please send report if abnormal):

	Date	Dating/Anomaly/ Growth	Gestation	Findings
1				
2				
3				
4				

Antenatal diagnostic procedures eg. CVS or other invasive techniques/ fetal MRI (please include results if available/ known):

_____

Additional antenatal history:

Was this a twin pregnancy?	Y/N	If so, MCDA/ MCMA/ DCDA?
History of reduced fetal movements?	Y/N	If so, how many episodes for how long?
Was there antenatal bleeding?	Y/N	If so, when and how much?
Was there hypertension?	Y/N	Max BP = mmHg
Was there pre-eclampsia?	Y/N	Max BP = mmHg
Was there anaemia?	Y/N	

Anything else of relevance regarding the pregnancy that you would like to tell the pathologist?

Part 3: LABOUR & DELIVERY DETAILS

1) Was this a TOP? Y/N If Yes - Feticide Y/N If so, date of feticide:

2) Was this a miscarriage (i.e. pregnancy loss <24 weeks' gestation)? Y/N

3) Was this an antepartum IUD > 24 weeks' gestation? Y/N

a) If Yes, when was the last documented evidence of fetal/ infant viability/ fetal heart beat?

4) Was this an intrapartum or neonatal death (i.e. fresh stillbirth/ live birth)? Y/N

If Yes:

a) What was the presenting part? Vertex/ Breech/ Other

b) Rupture of membranes: date _____ time_____ Augmentation (Syntocinon): yes/no

c) 1st stage __h __min 2nd : __h __min

d) Fetal distress: Y/N If yes, please specify signs: _____

e) DELIVERY:

Spont. / Assisted (forceps / ventouse) / CS (elective/emergency). Date: _____ Time:____

Did labour commence spontaneously/ did it require induction?

Date of induction, if applicable:

Liquor: Normal / reduced volume/ increased volume. Abnormal liquor colour?

Was there antepartum haemorrhage? Was there maternal pyrexia?

The Infant or fetus			Any abnormalities in the fetus/infant at delivery?:
Male ♂	Female ♀	Indeterminate	
Birth weight (g):			
Apgar Scores: 1'	5'	10'	

Please do not hesitate to contact us should you have any queries regarding the completion of this form.

Person completing form: _____

Contact number / bleep No_____ (Please PRINT)

Copy of report to be sent to:

Consultant Obstetrician: (Mr/ Ms/ Mrs/ Dr) _____

THE PLACENTAS SHOULD BE SENT FRESH IN A LEAKPROOF, OPAQUE CONTAINER.
ALL SPECIMENS MUST BE CLEARLY LABELLED AND ACCOMPANIED WITH A COMPLETED REQUEST FORM

Monitoring

Page/ Section of Key Document	Key control:	Checks to be carried out to confirm compliance with the Policy:	How often the check will be carried out:	Responsible for carrying out the check:	Results of check reported to: *(Responsible for also ensuring actions are developed to address any areas of non-compliance)*	Frequency of reporting:
	WHAT?	**HOW?**	**WHEN?**	**WHO?**	**WHERE?**	**WHEN?**

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