# Examination of the Placenta

**Clinical Guidelines**

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<th>Register No:</th>
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<td>Status:</td>
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## Developed in response to:
- Intrapartum NICE Guidelines
- RCOG guideline

## Consulted With

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<tr>
<td>Anita Rao/Alison Cuthbertson</td>
<td>August 2017</td>
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<td>Miss Dutta</td>
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- August 2017

## Version Number

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## Issuing Directorate

- Women’s and Children’s

## Ratified By

- DRAG Chairmans Action

## Ratified On

- 29th October 2017

## Executive Management Group Date

- November 2017

## Implementation Date

- 7th November 2017

## Next Review Date

- October 2020

## Author/Contact for Information

- Sarah Moon, Specialist Midwife for Guideline and Audit

## Policy to be followed by (target staff)

- Midwives, Obstetricians, Paediatricians

## Distribution Method

- Intranet and Website. Notified on Staff Focus

## Related Trust Policies (to be read in conjunction with)

- 04072 Hand Hygiene
- 04071 Standard Infection Prevention
- 06036 Guideline for Maternity Record Keeping
- 09079 Management of Normal Labour and Prolonged Labour in Low Risk Patients
- 04245 Guideline for the management of retained placenta
- 09042 Management of Patients with Pregnancy Loss

## Document Review History:

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<tr>
<td>1.0</td>
<td>Barbara Jackson, Midwife</td>
<td>November 2014</td>
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<tr>
<td>1.1</td>
<td>Barbara Jackson, Midwife – clarification to point 11.1</td>
<td>December 2014</td>
</tr>
<tr>
<td>2.0</td>
<td>Sarah Moon, Specialist Midwife for Guideline and Audit</td>
<td>7 November 2017</td>
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1.0 **Purpose**

1.1 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.

1.2 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.

2.0 **Equality and Diversity**

2.1 Mid Essex Hospital Services NHS Trust is committed to the provision of a service that is fair, accessible and meets the needs of all individuals.

3.0 **Rationale for Examination of the Placenta**

3.1 A thorough inspection must be undertaken to ensure that no part of the placenta or membranes have been retained as this may result in a postpartum haemorrhage and/or infection. Inspection of the placenta should be performed as soon as possible after birth.

4.0 **The Placenta**

4.1 A fresh, term, healthy placenta is approximately 15 – 20 cm in diameter and 2.0 to 2.5 cm thick. It generally weighs approximately 5-600gms (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.

4.2 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.

4.3 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.

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

5.0 **The Umbilical Cord**

5.1 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.

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

5.3 The normal cord contains two arteries and one vein.

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

6.0 **The Membranes**

6.1.1 The membranes consist of two layers; the amnion and the chorion.
7.0 Multiple Pregnancy

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

7.2 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.

8.0 Examination of the Placenta

8.1 The midwife should ensure that the woman is comfortable following birth and that she 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.

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

8.3 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.

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

8.5 Prepare syringe and needle if cord samples are required.

8.6 Wash hands; wear an apron and gloves.

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

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

8.9 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.

8.10 Count the vessels in the cut end of the cord; the absence of one of the arteries can be associated with renal agenesis.
8.11 Observe the fetal side for irregularities such as succenturate lobes, missing cotyledons, fatty deposits or infarctions

8.12 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.

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

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

8.15 Turn the placenta over to inspect the maternal side.

8.16 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. succenturate lobes, missing cotyledons, fatty deposits or infarctions.

8.17 Weigh, swab or take samples if indicated.

8.18 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.

8.19 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.

8.20 Clean away equipment.

8.21 Wash hands.

9.0 Discussion and Documentation of Findings

9.1 Discuss findings with the woman.

9.2 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.

9.3 If the placenta is thought to be incomplete at a home birth or stand alone birthing unit, the woman may need to be transferred into the consultant unit for evacuation of retained products of conception.

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

9.5 On checking the placenta and membranes the midwife should report any abnormalities to the Labour Ward Co-ordinator 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.

• One arterial vessel is associated with renal agenesis.

10.0 Investigations of Placenta

10.1 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 ‘Guideline for the Management of Patients with Pregnancy Loss’ register number 09042).

10.2 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
• In all cases of IUD/NND (Refer to ‘Guideline for the Management of Patients with Pregnancy Loss’ register number 09042).

10.3 Cord and placental wedge samples for cytogenics should be sent in a dry universal specimen container.

10.3.1 On weekdays send cord sample to cytogenics laboratory by phoning transport department. If ANC sending amnio samples can be sent with them – ring to check.

10.3.2 If out of hours store in labour ward fridge and ensure labour ward co-ordinator is aware and it is written on the labour ward board and in Labour Ward diary.

10.3.3 Ensure samples are correctly labelled.

11.0 Indications for Referral of Placentas for Pathological Examination
(Refer to Appendix A)

11.1 Referral of placenta for examination is ESSENTIAL for:

• Stillbirth (antepartum or intrapartum); if baby is not going for a post mortem
• Late miscarriage
• Severe fetal distress requiring admission to NNU
• Prematurity (less than 30 weeks gestation)
• Intrauterine growth restriction (birthweight below 3rd centile)
• Fetal hydrops
• Maternal pyrexia (>38ºC)

11.2 Referral of placenta for examination may be DESIRABLE for:

• Prematurity (30–36 weeks)
• Placental abruption
• Fetal congenital malformation
• Rhesus (and other) isoimmunisation
• Morbidly adherent placenta
• Twins or other multiple pregnancy (uncomplicated)
• Abnormal placental shape (if clinically relevant)
• Two vessel cord, etc.
• Prolonged rupture of the membranes (more than 36 hours)
• Gestational diabetes
• Maternal group B streptococcus
• Pre-eclampsia/maternal hypertension
• Maternal coagulopathy
• Maternal substance abuse.

11.3 Referral is NOT indicated in the following conditions as pathological examination is unlikely to provide useful information:

• Cholestasis of pregnancy
• Pruritis of pregnancy
• Hepatitis B, HIV, etc.
• Other maternal disease with normal pregnancy outcome
• Placenta praevia
• Post partum haemorrhage
• Polyhydramnios
• Normal pregnancy.

11.4 If placenta is for post-mortem, it should be placed in dry sealed universal histopathology container (NO FORMALIN), then in plastic bag. If it is not for post-mortem placenta is sent to histopathology completely immersed in formalin.

11.5 Ensure specimens are correctly labelled.

12.0 Disposal of Placenta

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

12.2 The placenta should be placed in a yellow placenta bag then into a yellow placenta pot. The pot should not be sealed until one hour after delivery. Once the pot has been sealed, the placenta pot should be marked with the date and time of assembly and disposal and the midwife’s signature. The pot should then be disposed of in the Clinical Disposal Room. Placentas should not be left in the sluice.

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 places it in a suitable container for transport home. The woman should be given instructions for safe disposal of placenta.

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

13.0 Staffing and Training

13.1 All midwives and obstetric staff must attend yearly mandatory training which includes skills and drills training, involving normal labour. (Refer to ‘Mandatory training policy for Maternity Services (incorporating training needs analysis. Register number 09062)

13.2 All midwifery and obstetric staff are to ensure that their knowledge and skills are up-to-date in order to complete their portfolio for appraisal.

14.0 Professional Midwifery Advocates

14.1 Professional Midwifery Advocates provide a mechanism of support and guidance to women and midwives. Professional Midwifery Advocates are experienced practising midwives who have undertaken further education in order to supervise midwifery services and to advise and support midwives and women in their care choices.

15.0 Infection Prevention

15.1 All staff should follow Trust guidelines on infection prevention by ensuring that they effectively ‘decontaminate their hands’ before and after each procedure.

16.0 Audit and Monitoring

16.1 Audit of compliance with this guideline will be considered on an annual audit basis in accordance with the Clinical Audit Strategy and Policy (register number 08076), the Corporate Clinical Audit and Quality Improvement Project Plan and the Maternity annual audit work plan; to encompass national and local audit and clinical governance identifying key harm themes. The Women's and Children’s Clinical Audit Group will identify a lead for the audit.

16.2 The findings of the audit will be reported to and approved by the Multi-disciplinary Risk Management Group (MRMG) and an action plan with named leads and timescales will be developed to address any identified deficiencies. Performance against the action plan will be monitored by this group at subsequent meetings.

16.3 The audit report will be reported to the monthly Directorate Governance Meeting (DGM) and significant concerns relating to compliance will be entered on the local Risk Assurance Framework.

16.4 Key findings and learning points from the audit will be submitted to the Patient Safety Group within the integrated learning report.

17.0 Guideline Management

17.1 As an integral part of the knowledge, skills framework, staff are appraised annually to ensure competency in computer skills and the ability to access the current approved guidelines via the Trust’s intranet site.
17.2 Quarterly memos are sent to line managers to disseminate to their staff the most currently approved guidelines available via the intranet and clinical guideline folders, located in each designated clinical area.

17.3 Guideline monitors have been nominated to each clinical area to ensure a system whereby obsolete guidelines are archived and newly approved guidelines are now downloaded from the intranet and filed appropriately in the guideline folders. ‘Spot checks’ are performed on all clinical guidelines quarterly.

17.4 Quarterly Clinical Practices group meetings are held to discuss ‘guidelines’. During this meeting the practice development midwife can highlight any areas for further training; possibly involving ‘workshops’ or to be included in future ‘skills and drills’ mandatory training sessions.

18.0 Communication

18.1 A quarterly ‘maternity newsletter’ is issued and available to all staff including an update on the latest ‘guidelines’ information such as a list of newly approved guidelines for staff to acknowledge and familiarise themselves with and practice accordingly.

18.2 Approved guidelines are published monthly in the Trust’s Focus Magazine that is sent via email to all staff.

18.3 Approved guidelines will be disseminated to appropriate staff quarterly via email.

18.4 Regular memos are posted on the guideline notice boards in each clinical area to notify staff of the latest revised guidelines and how to access guidelines via the intranet or clinical guideline folders

19.0 References

With Thanks to: The Royal Berkshire Hospital ‘Practice Guideline for the Examination of the Placenta Afterbirth’ May 2014.

Royal College of Pathologists (2011) Tissue Pathway for Histopathological Examination of the Placenta. RCPath Tissue Pathway No. 1 Sept.

Appendix A

Request for Placental Examination

*When to send off a placenta to the Lab*

**Full Examination including Histology**

- IUGR (<2.5kg / below 3rd centile)
- Abruption / morbidly adherent placenta
- Prematurity (<30/40)
- Severe Fetal Distress (NNU Admission) if cord PHs are < 7.20
- Fetal Hydrops
- Fetal Abnormality
- Isoimmunisation

- Maternal Pyrexia (>38 degrees)
- Maternal Coagulopathy
- Maternal Substance Abuse

*Unless being sent for Post Mortem*

- Late Miscarriage
- Stillbirth (ante/intrapartum)
- Termination of Pregnancy
- Neonatal Death

**Macroscopic Examination only**

- Twins / Multiple pregnancies
- Abnormal Placental Shape
- Two Vessel Cord

**Storage for 2 weeks**

- Pre-eclampsia (uncomplicated)
- Maternal Hypertension (uncomplicated)
- Prematurity (30-36/40)
- PROM (>36 hours)
- Gestational Diabetes
- Maternal GBS

*Samples sent to Lab need to be in Formalin (samples for Post Mortem are sent dry)*