Placenta examination after birth - practice guideline (GL886)

Approval

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<th>Approval Group</th>
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<tr>
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Change History

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<tr>
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Overview: 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.

The guideline is intended as a practice tool, and should be used to standardise the procedure for examining the placenta and membranes after birth. Individual circumstances and unexpected outcomes should be taken into consideration.

Rationale for examination of the placenta
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.

The Placenta
A fresh, term, healthy placenta is approximately 15 – 20 cm in diameter (Johnson and Taylor 2010) 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. The maternal surface of the placenta should be dark maroon in colour and should consist of around 20 cotyledons. 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.

The Umbilical cord
At term, the typical umbilical cord is 55 to 60 cm in length, with a diameter of 2.0 to 2.5 cm. The cord vessels are suspended in Wharton’s jelly. The normal cord contains two arteries and one vein.

The Membranes
The membranes consist of two layers; the amnion and the chorion.

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

The diagrams below show the arrangement of placenta/ membranes and cord in utero for each type of twin

**Procedure: examination of the placenta**

- Explain the procedure to the parents and ask if they wish to observe.
- 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.
- Prepare a flat surface with protection to avoid blood spillage.
- Prepare syringe and needle if cord samples are required
- Wearing an apron and gloves lay the placenta fetal side uppermost, noting the size, shape, smell and colour.
- Examine the cord, noting the length, insertion point and presence of true knots or thrombi.
• 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.

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

• Lift the placenta up by the cord, by doing this the membranes can be observed for completeness. There is usually a single hole where the baby passes through the membranes.

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

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

• Turn the placenta over to inspect the maternal surface.

• 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.

• Take cord samples if required. See Fetal (FBS) / Paired Cord Blood Sampling guideline for instruction on how to take samples.

• Weigh the placenta if abnormally large or small and record weight in maternal health record. Weigh the placenta in all cases of IUD/NND and follow stillbirth/TOP pathway.

• Swab the placental surface in cases of suspected infection and all cases of IUD/NND.

• Take a sample of placenta for chromosome analysis if required through all layers.

• 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.

• 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.

• Where there are missing lobes or other abnormal features of the placenta, a photograph should be taken and retained in the maternal records.

• Inform the mother of your findings.

• Complete documentation in the woman’s health care record.
On checking the placenta and membranes the midwife should report any abnormalities to the 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. The placenta should be photographed and the photo/s placed in the maternal health care record for future reference.

**NB:** 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 and on the CMIS computerised record to alert other health care professionals attending the woman in the postnatal period.

If the placenta is thought to be incomplete at a home birth the woman may need to be transferred into the main unit for evacuation of retained products of conception.

**Universal disposal of the placenta**

The majority of women will want the midwife to dispose of the placenta which should be done in accord with the Trust policy. The placenta should be placed in a placenta pot inside a placenta bag. Once the pot has been sealed, the placenta pot should be marked with the woman’s maternity number, midwives signature, date and time of disposal. The placenta pots should then be placed within the designated freezer on the delivery suite or the midwifery-led unit. At a home confinement, place the placenta into the orange clinical waste bag and place into a placenta pot. Label the pot as above and transport the placenta into the main unit and place in either the Delivery Suite or Rushey Ward freezer.

There are occasions where the placenta may need to be sent off for histology for further investigation. This may be due to a poor outcome or to aid in treatment for the neonate. Please refer to appendix 1 to determine if the placenta needs to be sent and what information is needed to process the request.

If the woman wishes to take her placenta home to bury or encapsulate it, a tissue release form for placenta should be completed (see appendix). One copy is retained by the woman and the other filed within the woman’s maternal health record. The woman should be given instructions for safe disposal and should bring a suitable container for transferring the placenta.
Some women opt for a ‘lotus birth’, whereby the placenta remains attached to the baby until the cord naturally detaches (Blackburn, 2008). 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 (Lotus birth, 2009).

**References**

4. McDonald (2009) Examination of placenta and membranes in Myles Textbook for midwives

Written:  C Hudson, N McArthur, L Talmage (Midwives) March 2014
Review due: May 2016
Do I need to send the placenta to histology?

Placental histology helps us to accurately diagnose problems which can make sure we can treat the baby appropriately. It also can help us to have more information to counsel parents after a poor outcome.

Send the placenta to histology if the birth involves any of the following:

- The baby/babies were born in unexpectedly poor condition and admitted to NNU/ITU/HDU
- The baby is severely growth restricted (e.g. under the 3rd centile)
- The baby/babies were born before 32 weeks
- Monochorionic twins (no need to send for any other types of multiples if they do not meet any other criteria)
- The baby is suspected of having a significant abnormality that doesn’t have a clear antenatal diagnosis
- A miscarriage between 16 and 24 weeks, a stillbirth, or a neonatal death has occurred
- The placenta is suspected to have been abnormally invasive (placenta accreta)

On the request include:
- The clinical details, gestation and birthweight
- For twins, specify which twin’s cord has the clamp attached
- Put the mother’s sticky label on the side of the tub