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Title:	**Management of the Third Stage of Labour**
Author:	**Mary Dawson**
Speciality / Division:	**SCS – IMWH**
Directorate:	**Acute**
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Guideline for the Management of the Third Stage of Labour

1.0 Definition

The third stage of labour is defined as the period of time between the birth of the baby and the expulsion of the placenta and membranes (National Institute for Health and Care Excellence (NICE), 2023).

2.0 Aims

- The guideline aims to provide guidance for both midwives and obstetricians for the physiological and active management of the third stage of labour.
- To reduce the risk and incidences of postpartum haemorrhage
- To empower midwives and obstetricians to be competent in both active and physiological management.

Women should be made aware that national recommendations currently advise all women have active management of third stage of labour, as this lowers the associated risk of major PPH and the need for blood transfusion (NICE, 2023).

For those women who do not have any known predisposing factors for PPH and request physiological management, appropriate evidence based information should be provided, including risks and benefits, and women should be supported by all staff with this choice.

Informed choice

Informed choice regarding the management of the third stage of labour should be offered to all women. This discussion should take place within the antenatal period and should be recorded in the maternity hand held records. Women should be informed of the benefits and risks for both an active and physiologically managed of third stage. Further discussion about different options for managing third stage should take place during the initial assessment of labour.

3.0 Definitions

Active management of third stage is comprised of the following components:

- Routine use of prophylactic oxytocic agent
- Deferred clamping and cutting of cord
- Controlled cord traction following signs of separation of the placenta

Benefits and risks of active management of third stage:

- Can shorten the length of third stage compared with physiological management
- Is associated with a lower risk of PPH
- Reduced likelihood of requiring a blood transfusion

- Due to side effects of oxytocic agents, nausea and vomiting can occur in approximately 100 of 1000 women

Physiological management of third stage is comprised of the following components:

- No routine use of prophylactic oxytocic agent
- No clamping of the cord until pulsation has stopped
- Delivery of the placenta by maternal effort

Benefits and risks of physiological management of third stage:

- Is associated with a higher risk of a primary PPH
- Increased likelihood of requiring a blood transfusion
- Due to absence of oxytocic drugs there is a lower incidence of reported nausea and vomiting

Benefits for babies include:

- Improved haematological status, measured as haematocrit value
- Improved ferritin concentration
- Improved level of stored iron
- A clinically important reduction in the risk of anaemia

In preterm babies:

- Increased blood pressure during stabilisation
- A lower incidence of intraventricular haemorrhage
- Fewer blood transfusions

4.0 Active management

Active management of the third stage of labour consists of interventions designed to facilitate the delivery of the placenta by increasing uterine contractions and prevent primary postpartum haemorrhage by averting uterine atony. Active management involves administration of uterotonic agents.

Advise women that active management of the third stage of labour is associated with a lower risk of a postpartum haemorrhage or blood transfusion. If a woman requests physiological management of the third stage, discuss her level of risk so she can make an informed decision and support her in her choice. Document in her records the decision that is agreed with the woman about management of the third stage (NICE, 2023).

For a woman who is having a vaginal birth and has chosen to have an active third stage, discuss the choice of uterotonic for active management. Include that:

• Oxytocin plus ergometrine may be more effective than oxytocin alone at reducing the risk of postpartum haemorrhage

- Oxytocin plus ergometrine is advised if there are risk factors which could increase the risk of postpartum haemorrhage
- Oxytocin plus ergometrine is more likely to lead to nausea and vomiting compared with oxytocin alone
- Oxytocin plus ergometrine is contraindicated in women with severe hypertension, pre-eclampsia, eclampsia, or severe cardiac, hepatic or renal disease

(NICE, 2023)

Offer antiemetics to women having oxytocin plus ergometrine.

For active management after vaginal birth, administer 10 units of oxytocin (by intramuscular injection) or 5 units of oxytocin plus 500 micrograms of ergometrine (by intramuscular injection), or 5 units of oxytocin (by intravenous injection), immediately after the birth of the baby and before the cord is clamped and cut.

If a woman has risk factor(s) for postpartum haemorrhage, these risks should be highlighted in the woman's records, along with a comprehensive care plan covering third stage of labour (NICE, 2023).

Ergometrine is contraindicated in hypertension, PIH and pre-eclampsia and the risk of intracranial bleeding should be considered and balanced against the risk of postpartum haemorrhage.

Postpartum Haemorrhage

Women with predisposing risk factors for postpartum haemorrhage (see Table 1), should be advised to give birth in an obstetric unit, to assist with prompt action and risk mitigation (NICE, 2023).

Postpartum haemorrhage is commonly defined as a blood loss in excess of 500mls, with severe haemorrhage being a loss of 1000mls or more and very severe haemorrhage being a loss of 2500mls or more (WHO, 2009). However, the effect of blood loss at birth on an individual woman can vary considerably and will depend not only on the volume of blood lost, but also on the woman's general state of health (Begley et al, 2019).

Table 1. Risk factors for Post-Partum Haemorrhage (PPH):

Previous Postpartum Haemorrhage >1,000mls or requiring blood transfusion	**Multiple Pregnancy**
Placenta accreta spectrum	**Existing uterine abnormalities, e.g. fibroids**

Induction or augmentation of labour with oxytocin or prostaglandins	**Sepsis**
Polyhydramnios	**Shoulder Dystocia**
Existing uterine abnormalities	**Low lying placenta**
BMI >35 kg/m^2	**Placental abruption**
Grand multiparity: Parity 4 or above	**Delay in delivery of the placenta**
Maternal haemoglobin level below 85g/dl at onset of labour	**Birth with forceps or ventouse**
Caesarean section	

- Be aware that taking selective serotonin reuptake inhibitor (SSRI) or serotonin-noradrenaline reuptake inhibitor (SNRI) antidepressants in the month before birth may result in a small increased risk of postpartum haemorrhage, and that this should be taken into account as part of the bleeding and thrombotic risk assessment.
- Oxytocics may not be suitable for third stage management in women with maternal cardiac disease. Management of third stage may need to be agreed between the Obstetrician and Anaesthetist.

(NICE, 2023)

5.0 Procedure

- Oxytocin should be removed from the fridge when the birth is imminent and drawn up by the professional who is responsible for administering it.
- The Oxytocin should be checked by another qualified member of staff.
- Oxytocin should be administered by intramuscular injection with the birth of the anterior shoulder, or as soon as practical after the birth of the baby ***(In the case of a twin birth an oxytocin agent, depending on risk factors should be administered at the birth of the second twin's shoulder)***
- All uterotonic drugs administered for active management of third stage of labour should be recorded on the regional maternity medicine kardex.
- Oxytocin 10 international units and 5 units of oxytocin plus 500 micrograms of ergometrine can be supplied and administered under Midwives' Exemption.
- Defer clamping of the umbilical cord for a minimum of 1 minute and up to 5 minutes after the birth of the baby, unless there are concerns about the integrity of the cord or the baby has a heart rate below 60 bpm that is not getting faster.
- If the woman requests that the cord is clamped and cut later than 5 minutes, support her in her choice.
- A minimum of three clamps should be applied to isolate a segment of cord for possible cord blood sampling.
- Document the time of cord clamping in the maternal record.
- Await signs of separation:

  Lengthening of the cord

Small gush/trickle of blood
Uterine contraction, fundus becomes firm and globular
Uterus rises in the abdomen

- Controlled cord traction should only be performed after administration of oxytocin and signs of separation of placenta are identified.
- Proceed to birth the placenta by placing a sterile drape over the mother's abdomen and place the non-dominant hand gently over the fundus. Keep the hand still, do not rub or massage the fundus but await a contraction of the uterus.
- When the uterus is contracted place the non-dominant hand over the symphysis pubis, with the thumb and fingers stretched across the abdomen and the palm facing inwards.
- If the placenta and membranes remain in situ and the woman is not bleeding ensure the bladder is empty.
- Observe the woman's condition throughout, noting any blood loss.
- Do not apply increased traction to the cord if resistance is felt.
- Delayed third stage in active management is defined as the placenta and membranes being undelivered within 30 minutes after birth (NICE, 2023).
- Contact Obstetric Registrar for assessment. If retained placenta is diagnosed, follow guidelines for management of retained placenta.

6.0 Physiological management of third stage

Physiological management of third stage can be perceived as the logical ending to a straightforward physiological labour. Physiological management allows placental separation and expulsion to occur spontaneously without intervention. The placenta and membranes are expelled by maternal effort only and without the use of uterotonic agents or controlled cord traction (NICE, 2023).

6.1 Procedure for physiological management

- Place the baby against the mother's skin to allow the physiological and hormonal changes to occur within both the woman and the new born. Minimal disruption and separation of mother and baby should occur during this time.
- Leave the cord to pulsate, do not touch, clamp or cut the cord. Allow cord to stop pulsing naturally – "Wait for white".
- Immediate assessment of the newborn and continued observation of its condition should occur to allow early intervention/resuscitation if required.
- Once the cord has stopped pulsating it may be clamped and cut. Document the time when the cord is clamped.
- Do not palpate the uterus or apply cord traction.

- Encourage the women to adopt an upright position.
- Observe the woman's condition throughout recording any PV blood loss.
- Observe the signs of separation, lengthening of the cord or gush of blood.
- Encourage maternal effort to expel the placenta and membranes.
- Breastfeeding should be encouraged to help separation.
- Record the time placenta and membranes are expelled in the maternal records.
- Delayed third stage in physiological management is defined as the placenta and membranes not delivering within 60 minutes after birth (NICE, 2023).

Changing from physiological management to active management of third stage is indicated in the case of:

- Haemorrhage
- Delay in delivering the placenta and membranes within 1 hour of birth
- The woman's choice

Completion of the third stage of labour for active and physiologic third stage

- Ensure fundus is contracted
- Measure and document blood loss
- Perform maternal observations and record in obstetric early warning chart
- Examine the placenta and membranes for completion
- Dispose in a yellow waste bin and record hospital number on placenta bag
- Document findings and any deviation from the norm in maternal hand held records and NIMATS
- If placenta is not complete report to obstetrician for management of care
- Retained placenta must be excluded prior to transfer to postnatal ward.

Management of retained placenta

Retained placenta is described as the placenta and membranes not delivering after 30 minutes (with active management) and 60 minutes (physiological management) following the birth of the baby (NICE, 2023).

The main risk of this obstetric complication is post-partum haemorrhage. This is most likely to occur with partial separation of the placenta or when it has separated completely but is retained within the uterus. Other risks include infection, as well as complications related to the removal of the placenta (NICE, 2023).

Management:

- Encourage baby to breast feed with mother's consent.

- If retained placenta is diagnosed following either physiological or active management, insert 1 x 16 gauge cannula, take blood for FBP and Group and Hold. If signs of haemorrhage also obtain a coagulation screen.
- Review from senior obstetrician within 30 minutes after diagnosis of retained placenta or immediately if the woman is bleeding excessively.
- A catheter should be inserted to ensure the bladder is empty.
- A vaginal examination should be performed with consent to ensure placenta is not retained in the vagina.
- If the placenta has not separated, or still remains in the uterine cavity, then manual removal of placenta should be undertaken in Theatre under regional anaesthesia.
- Do not use umbilical vein agents if the placenta is retained.
- Inform anaesthetics once decision has been made to proceed to a manual removal of the placenta.
- Complete Theatre check list.
- Do not use intravenous oxytocic agents routinely to deliver a retained placenta unless the woman is bleeding excessively with a retained placenta.
- In the event of a significant blood loss and the placenta is retained and there is concern about the woman's condition, offer a vaginal examination to assess the need to undertake immediate manual removal of the placenta, in order to control bleeding in a life threatening situation (NICE,2023).

In the presence of haemorrhage or haemodynamic instability:

- Call 6000 for obstetric emergency, requesting anaesthetist, senior obstetrician, anaesthetic nurse
- Ensure two 16 gauge cannulas are inserted and FBP, Group and Cross Match 4 units, U&E, Coag screening is requested
- Uterine massage
- Uterotonic drugs
- Intravenous fluids
- Give supplementary oxygen
- Empty the bladder
- Control cord traction if placenta has not already been delivered
- Continuously assess blood loss and the woman's condition, documenting on the PPH pro forma, OEWS chart and fluid balance chart
- Identify the source of bleeding
- Immediate transfer to Theatre
- Follow SHSCT guidelines for massive blood loss: http://www.southernguidelines.hscni.net/?wpfb_dl=848

Manual removal of placenta

- Procedure should be carried out in Theatre where an anaesthetist is present.

- Procedure should be performed under regional anaesthesia. General anaesthetic may be necessary, for example if there is heavy bleeding or there are contraindications to regional anaesthesia.
- Insert a self-retaining catheter.
- The removal of the placenta must be performed by an obstetrician who is deemed competent in the procedure or directly supervised by a senior obstetrician.
- The uterus should be well contracted after removal of the placenta and membranes. Oxytocin infusion (40 international units in 500mls of 0.9% saline) should be commence at the end of procedure to run at 125ml/hr for 1-4 hours.
- A single dose of prophylactic antibiotics should be given, 1.2g co-amoxiclav IV or Clindamycin 900mgs and Gentamicin IV (if penicillin allergic).
- Blood loss should be measured and documented.
- WHO check list should be completed at sign in, time out and sign out.

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