Companions to Management Series

PROLONGED THIRD STAGE OF LABOUR

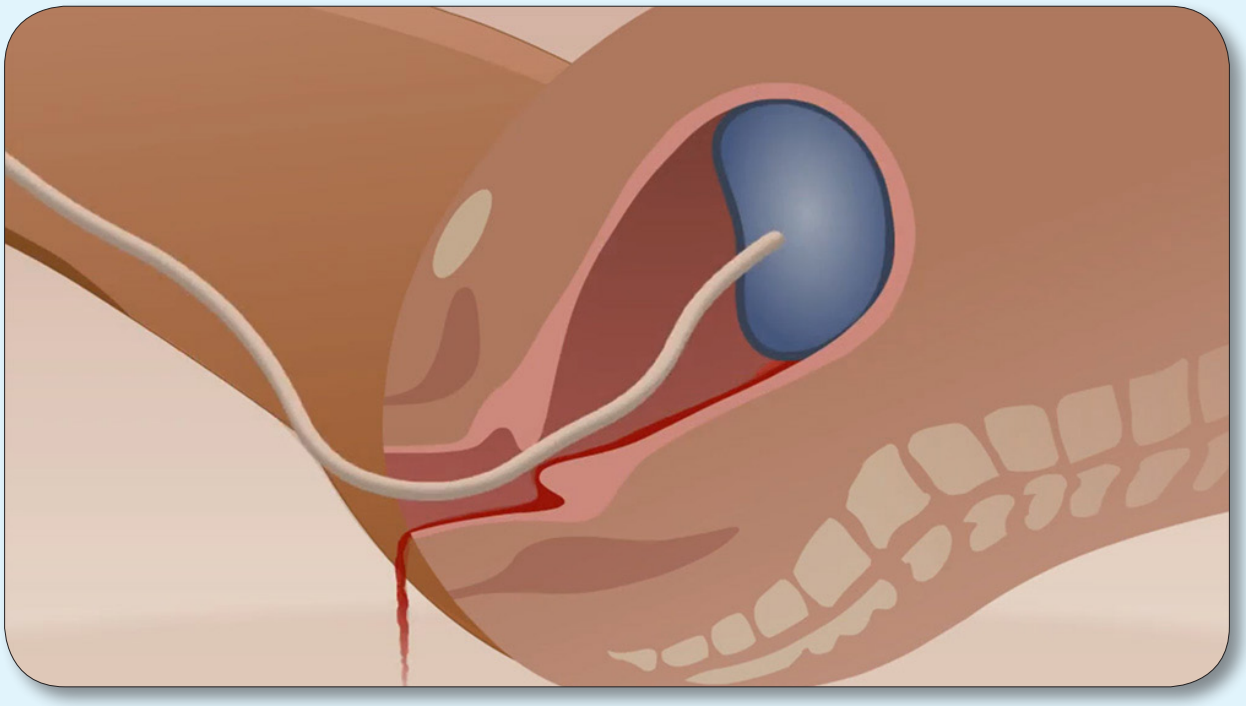
The Welfare of Women

Prolonged Third Stage of Labour

The third stage of labour is defined as the time from the birth of the baby to the expulsion of the placenta and membranes. In most cases the placenta is delivered easily once the uterus contracts after the birth of the baby.

ACTIVE management of the third stage of labour includes use of uterotonic drugs and controlled cord traction (only where a skilled birth attendant is present) following signs of placental separation. It is considered 'prolonged' if the placenta and membranes are not delivered within **30 minutes** of the birth. This is the management technique recommended by the World Health Organization.

PHYSIOLOGICAL management of the third stage of labour does not include usage of drugs to promote contraction of the uterus. Instead, it involves delivery of the placenta by maternal effort once the physiological mechanisms of labour have caused it to separate. This becomes 'prolonged' if the placenta and membranes are not delivered within **60 minutes**.



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Clinical Relevance

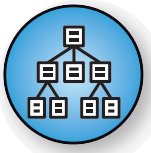
The third stage of labour is prolonged in approximately 3% of all deliveries. This may be caused by the uterus not contracting well, the umbilical cord snapping, or abnormal attachment of the placenta. It is a known risk factor for post-partum haemorrhage (PPH), which is the leading contributor to maternal morbidity and mortality globally.

Active management of the third stage of labour reduces the risk of PPH and is recommended for all births. Where available, oxytocin (10 IU, IM or IV) is the preferred uterotonic drug.

In settings where oxytocin is unavailable, the use of other uterotonics is advised for the third stage of labour. In the absence of contraindications, ergometrine (500 mcg, IM), syntometrine (500 mcg/10 IU, IM), or misoprostol (600 mcg, PO) are appropriate options.

Delayed umbilical cord clamping (not earlier than 1 minute after birth) is generally associated with improved maternal and infant outcomes. In settings where skilled birth attendants are available, controlled cord traction (CCT) is recommended for vaginal births and is associated with a reduction in the duration of the third stage of labour and a small decrease in overall blood loss.

Risk factors for with prolonged third stage of labour
• Maternal age over 30
• Previous history of retained placenta
• Prolonged first or second stage of labour
• Preterm birth
• Stillbirth



Management Algorithm

1. **Use conservative measures to help the uterus contract, and to enable the placenta to separate**
   - Empty the bladder – if full this can prevent the uterus from contracting
   - Recommend breastfeeding –this releases oxytocin, which helps the uterus to contract
   - Massage the uterine fundus – this can stimulate contraction
   - Ask the woman to change her position, e.g. to a sitting or squatting position

2. **Move to active management of third stage of labour if physiological management has been unsuccessful**
   - The placenta should be delivered within 60 mins of commencing physiological management of the third stage of labour
   - Look for signs of placental separation (a trickle of blood, a lengthening of the cord externally, and palpable contraction of the uterine fundus) before placing any traction on the cord
   - NEVER pull too quickly on the umbilical cord or firmly as this can lead to uterine inversion, or snapping of the umbilical cord

3. **Secure intravenous access. Request full blood count and group & save, where possible**

   Bleeding after giving birth is normal, but the risk of heavy bleeding increases with a retained placenta. Intravenous access can be used to administer fluids or blood to replace volume loss and/or to give uterotonic medication.

4. Monitor maternal observations and assess the patient's clinical appearance regularly

A prolonged third stage of labour brings increased risk of PPH. It is therefore vital for the patient's safety to closely monitor her clinical wellbeing. This includes regular assessment of her:

- Observations (pulse, blood pressure, temperature, respiratory rate, oxygen saturation)
- Blood loss
- Urine output
- Clinical appearance, including,
  - Hands and digits – are they blue, pale, mottled, or cold?
  - Capillary refill time – is this >2 seconds?
  - Mucous membranes – are they dry, or pale?
  - Level of consciousness – is the patient drowsy, confused, or unrousable?
  - Level of pain – is this beyond normal expectations following delivery?

Any deterioration of these features over time can suggest that the patient is decompensating and may become unwell very quickly – in this case urgent action is required to resuscitate her and deliver the placenta

5. Undertake a vaginal examination and deliver the placenta

Sometimes the placenta is sitting low in the uterus and/or vagina and can be encouraged out with gentle manipulation

For more invasive examination, appropriate pain relief/anaesthetic should first be administered

Care should again be taken not to exert too much traction on the cord if the placenta remains attached – this can result in uterine inversion, which may be difficult to manage and dangerous for the patient

Where manual removal of the placenta from the uterus is required, do this using a sterile technique and give antibiotics at the time to reduce the risk of infection

- Use the dominant hand to follow the cord up into the vagina, and proceed into the uterus with a flat, open palm
- Sometimes the cervix has closed since delivery and needs to be encouraged back open (with fingers stretched outwards inside the os) to pass through it, this can take several minutes
- Cup the uterine fundus with the non-dominant hand to fix it in place
- Move external and internal hands towards one another, aiming to find the 'cleavage plane' – where the placenta attaches to the uterine wall
- Once the cleavage plane has been located, use the side of the open internal hand like a spoon, working along the plane to detach the placenta. Once fully detached it can be grasped and gently pulled out. It is preferable to try and do this in one piece

- Immediately reinsert the dominant hand and explore the uterine cavity to ensure that it is completely empty – do not stop the procedure until all pregnancy tissues have been removed

6. Anticipate and manage post-partum haemorrhage (PPH) appropriately

Where the placenta is slow to be delivered there is increased risk of PPH, both in the third stage of labour and afterwards. Healthcare practitioners caring for the patient should be mindful of this throughout and monitor overall blood loss carefully.

Sometimes bleeding can take place internally and remain hidden in the uterus and vagina. It is therefore important not to rely only on the blood seen externally as a measure of overall loss.

Swift and effective management of PPH can be lifesaving. Please see CTM '***Management of Post-Partum Haemorrhage (PPH)***' for further information.

7. Where difficulties arise in removing the placenta, the patient should be referred appropriately for further medical input until this is completed

If for any reason the third stage of labour cannot be concluded it is important to be proactive in transferring the patient to a place where this can be managed definitively.

However, especially where this involves a significantly long journey,

- Considerable thought and effort should be given to see if the patient can be managed fully in her current location, as transfer brings additional risks
- The patient must be fully stabilised beforehand and plans made for any deterioration in condition during the journey
  (it is dangerous to attempt the transfer of someone who is already unwell)
- A detailed and accurate written or verbal handover should take place between the referring and accepting teams, to ensure that the key aspects of the patient's case are well understood by the team taking over her care

See CTM '***Transfer of a Patient***' for further information

https://www.glowm.com/resource_type/resource/wall_chart/title/active-management-of-the-third-stage-of-labor/resource_doc/535

Associated GLOWM Resources

- Wall chart
  https://www.glowm.com/resource_type/resource/wall_chart/title/active-management-of-the-third-stage-of-labor/resource_doc/535

References

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