Royal Hospital for Women (RHW)
BUSINESS RULE

Management of the third stage & retained placenta

RHW CLIN131

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FORMER REFERENCE(S)	Third stage management following vaginal birth Retained placenta
EXECUTIVE SPONSOR	Clinical co-directors of maternity services
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SUMMARY	Best practice for the management of a woman's third stage of labour, including identified retained placenta
KEY WORDS	Physiological, active, third stage, retained placenta, manual removal of placenta (MROP)

This Clinical Business Rule (CBR) is developed to guide safe clinical practice at the Royal Hospital for Women (RHW). Individual patient circumstances may mean that practice diverges from this

Within this document we will use the term woman, this is not to exclude those who give birth and do not identify as female. It is crucial to use the preferred language and terminology as described and guided by each individual person when providing care.

1 BACKGROUND

The aim of this CBR is to protect, promote and support normal birth through women-centered and evidence based collaborative care including the third stage of labour and the identification and management of the retained placenta.

Definitions:

Third stage of labour commences with the birth of the baby and is complete with the birth of the placenta and membranes. Management of the third stage can be either expectant (physiological) or active.

Retained placenta*:* Retained placenta is diagnosed when the placenta does not spontaneously birth within the time period for active (30min) or physiological (60min) management of third stage.

2 RESPONSIBILITIES

2.1 Staff

Registered Midwives, Registered Nurses, and Medical staff.

3 PROCEDURE

3.1 Clinical Practice points

Communication and Care Provision

Woman-centred care should underpin all interactions with the woman to ensure that her social, emotional, physical, psychological, spiritual and cultural needs and expectations are met. Ensure that all care providers hold a culture of respect for each woman as an individual undergoing a significant and emotionally intense life experience, so that the woman is in control, is listened to and is cared for with compassion.

Antenatal Period

- Develop a clear plan in consultation with all women in the antenatal period that includes:
    - Identified antenatal and intrapartum risk factors for Post Partum Haemorrhage (PPH) (see appendix.1)
    - Recommendations for active management of third stage of labour for all women[18]
    - Identification of benefits and risks of active **and** physiological management of third stage of labour ensuring informed consent is obtained supportive of a woman's choice[18]
    - Identifying women at high risk of PPH and retained placenta in accordance with the ACM guidelines and commence referral pathway to obstetrician and anaesthetist if required
    - Clear documentation of plan in consultation with woman in electronic medical record (eMR)
    - Respecting, responding to and supporting the woman's needs, preferences and questions with a positive attitude and compassion

Birth Environment for the third stage of labour

- Ensure a midwife is always present with the woman during the third stage of labour
- Maintain a warm, safe, private, dim and quiet environment with baby skin to skin (facilitating this is conducive to the physiology of birth of the placenta)
- Delay cord clamping for at least 1-3 minutes, unless to facilitate neonatal or maternal resuscitation (see education notes)
- Aid with immediate skin-to-skin and initiation of breastfeeding, as it supports the separation and birth of the placenta and membranes by natural release of oxytocin, aiding in preventing atonic PPH[19, 20, 21]
- Assess the bladder and encourage the woman to pass urine

- Observe for signs of placental separation: (see education notes)
- Perform fundal massage with consent to check if central, firm and contracted following the birth of the placenta and observe cumulative blood loss
- Inspect the perineum, vagina and vulva with consent for tearing and vaginal bleeding. This should be attended as soon as possible post the birth of the placenta
- Complete a full set of maternal observations and document on Standard Maternity Observation Chart (SMOC)
- Attend a full examination of the placenta, membranes and cord
- Document management and cares provided throughout the third stage of labour in K2/eMR

Active Management of third stage – 30 minutes

- Recommend active management of third stage to all women, particularly for women with increased risk factors[18] (see appendix 1)
- Obtain informed consent and document in eMR
- Ensure standing order of 10 international units (IU) oxytocin is prescribed in the woman's Electronic Medication Administration Record (MAR)
- Administer oxytocin intramuscularly (IM) at or just after the birth of the anterior shoulder
- Consider cord clamping close to the woman's vulva after a minimum of 60 seconds (see education notes)
- Collect cord blood gases or cord blood as per Umbilical Cord Blood Gas Sampling
- Observe for signs of placental separation (see education notes)
    - Guard the uterus by placing one hand over the symphysis pubis and applying controlled cord traction (CCT) in a downward direction (approximately 45 degrees) then outwards and upwards as placental advancement occurs Continue until the placenta is visible at the introitus and support birth of the placenta by holding in both hands and gently twist to ease membranes out
    - If membranes tear, gently examine the upper vagina and cervix with verbal consent, wearing sterile gloves, using forceps to remove any pieces of membrane that may be visible
- Stop CCT if there is no placental advancement, the uterus relaxes, or there is evidence of cord shearing
- Diagnose prolonged third stage/retained placenta if placenta not birthed within 30 minutes
    - Escalate to midwifery team leader and obstetric team regardless of blood loss
    - Document in the woman's K2/eMR new diagnosis.
- Follow management of PPH as per Postpartum Haemorrhage- Prevention and Management if any concerns of cumulative blood loss at any stage of active management

Physiological management of third stage – 60 minutes

- Support maternal choice of physiological management of third stage as per the woman's understanding of risks and benefits. All discussions and choice should be documented clearly in the woman's eMR.
- Do not administer prophylactic uterotonic agent at birth
- Consider delayed cord clamping until pulsation ceases
- Encourage the woman to be upright to allow for gravity to assist with descent of the placenta by maternal effort only
- Do not handle the uterus or commence controlled cord traction
- Recommend changing to active third stage management if
    - Observed blood loss is greater than 300mls and is ongoing
    - Delay in birth of the placenta greater than 60 minutes
    - Maternal request to shorten third stage (PPH guideline)
- Escalate to midwifery team leader and obstetric team if commencing active management in context of concerns for blood loss and/or prolonged third stage
- Document change in management plan in K2/eMR
- Convert to clinical steps of 'active management of third stage' with the woman's consent (NOTE: if the woman is stable, active stage timing of 30 minutes is to be facilitated, totalling 90 minutes prior to transfer)
- In home birth setting: Refer to Homebirth Transfer to Hospital
- Follow Postpartum Haemorrhage- Prevention and Management if concerns of cumulative blood loss at any stage of physiological management

Management of prolonged third stage/ retained placenta

- Diagnose prolonged third stage/retained placenta if:
- Physiological: no birth of placenta by 60 minutes & additional 30 minutes for active management if the woman is stable
    - Active: no birth of placenta by 30 minutes
- Escalate to midwifery team leader and call 2222 - Rapid Response regardless of cumulative blood loss
- Monitor woman's condition and attend full set of maternal observations 5 minutely in SMOC
    - Blood pressure
    - Maternal pulse
    - Oxygen saturation
    - Respiration rate
    - Temperature
    - Cumulative blood loss
    - Fundal position, tone and size

- Perform a vaginal examination with consent to assess the location of the placenta if either
  - Sitting in cervix or vagina – birth via CCT in Birth Unit
  - Above cervical os – consider transfer to operating theatre
- Insert two large bore intravenous cannula (IVC) collect full blood count (FBC) and group and hold (G&H) & commence 40u Oxytocin infusion at 250mls/hr
- Insert Indwelling Catheter (IDC)
- Follow Postpartum Haemorrhage- Prevention and Management
- Notify Operating Theatres (OT) team of a Manual removal of Placenta (MROP) by going to theatres and escalating to OT TL
- Notify obstetric consultant
- Ensure the woman and support persons are aware of the clinical situation and obtain informed consent for the procedure
- Document in the woman's K2/eMR diagnosis and management of prolonged third stage/ retained placenta
- Follow management of PPH as per Postpartum haemorrhage- Prevention and Management if any concerns of cumulative blood loss

Manual removal of placenta - Operating Theatres

NOTE: Recommend preferable location for MROP in OT. Obtain consent from woman prior to transfer. (see education notes)

- Perform under adequate anaesthesia in OT
- Assess the woman in anaesthetic bay for consideration of:
  - placental separation and birth
  - regional anaesthesia if clinically and haemodynamically stable
- Administer broad spectrum antibiotics:
- SINGLE dose of cephazolin 2g IV PLUS metronidazole 500mg IV1
- If penicillin allergic, single dose of clindamycin 600mg IV
- Perform MROP by credentialed obstetric registrar, or consultant:
  - prep and drape in lithotomy position with use of aseptic technique
  - follow umbilical cord until lower edge of placenta felt, with other hand over fundus for control
  - separate edge from body of uterus and deliver placenta
  - ensure uterine cavity feels empty
- Consider placenta accreta if total or part of placenta is very adherent and call obstetric consultant to attend
- Give uterotonics if not already implemented, to ensure the uterus is well contracted:

- continue 1L sodium chloride 0.9% with 40 units oxytocin at rate of 250ml/hr
- ergometrine slow IV 250mcg and intramuscular (IM) 250mcg (NOTE: In OT, anaesthetics to dilute IV dose with 5ml sodium chloride 0.9% and inject slowly over 1 minute)
- misoprostol 800mcg per rectum (PR)
- carboprost 250mcg (1mL) by deep IM injection. Repeat up to every 15 minutes to a maximum of 2mg (8 doses)

  OR decision may be made by a consultant for intramyometrial injection of 250mcg carboprost on each side of the fundus using a 22-G spinal needle (NOTE: intramyometrial use not recommended by manufacturer)

- Consider tranexamic acid 1g IV, to be given over ≥ 10 minutes. May give second dose after 30 minutes
- Consider placement of uterine tamponade balloon (Bakri®) if ongoing bleeding and adequate uterotonics have been given as per Balloon Placement for Uterine Tamponade

Examination of placenta

- Attend a full examination of the placenta, membranes and cord
- Send all placentas for histological assessment if any clinical indications are noted.

3.2 Documentation

- K2 Guardian
- Electronic medical record (eMR)

3.3 Education Notes

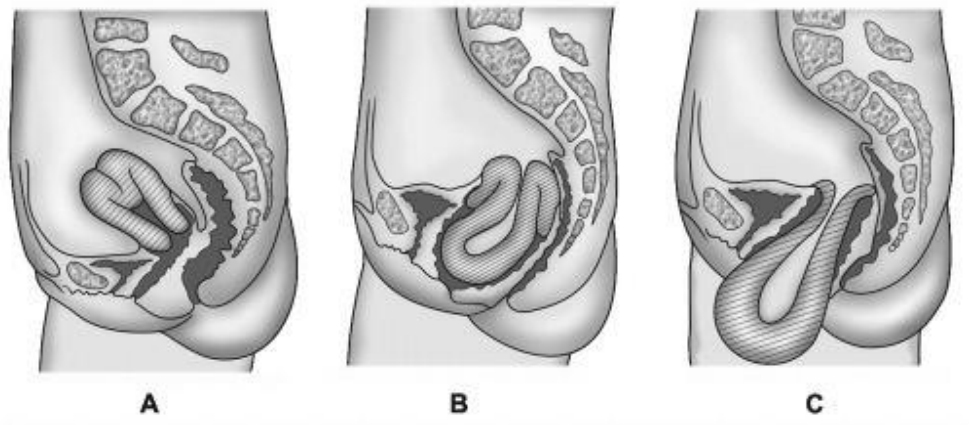
- There is some evidence that possible harms of active management include increased diastolic BP and increased number of women returning to hospital as an inpatient or outpatient because of bleeding[5]

Signs of Placental Separation:

- Separation of the placenta from the uterine wall is usually identified by three signs including the following and should also be accompanied by descent[2]:
  - a trickle of blood
  - lengthening of the umbilical cord and
  - the uterus becoming firm, rising up and being ballotable.

Uterine inversion

- Uterine inversion refers to the collapse of the fundus into the uterine cavity (in varying degrees Figure 1.0 [4]) and is considered one of the most serious complications of childbirth. Although rare, it carries a high risk of mortality due to haemorrhage and shock[3]
- Incomplete 1st degree: Fundus inverts but does not herniate through the level of the internal os
- Complete 2nd degree: The internal lining of the fundus crosses through the cervical os with no fundus palpable abdominally
- Prolapsed 3rd degree: Entire uterus prolapsing through the cervix with the fundus passing out of the introitus



(Figure 1.0 Types of uterine inversion (A) 1st degree (B) 2nd degree (C) 3rd degree)

Uterotonic medication for management of third stage of labour

- In the presence of risk factors, prophylactic administration of a uterotonic agent following birth and prior to the delivery of the placenta reduces the risk of severe PPH and the need for blood transfusion
- Oxytocin (Syntocinon®) is the drug of choice for both vaginal and caesarean births
- Active management should be offered to all women as it may reduce:
    - atonic PPH by half [18]
    - blood loss > 1000 mL by two-thirds
    - Maternal blood transfusion by two-thirds.[5]
- There is less high-level evidence available for the benefits for women with no identified risk factors for PPH. For these women, it is uncertain whether active or physiological management of third stage of labour makes a difference to the incidence of
    - Severe PPH (≥ 1000ml or blood loss that causes signs of haemodynamic compromise)
    - Maternal Haemoglobin less than 90g/L at 24 to 72hrs postpartum

Taking placenta home

- Follow instructions as per Placenta- Removal from Hospital by Parents

Delayed cord clamping

- Increasing bodies of evidence demonstrate that delaying cord clamping for a minimum of 1-3 minutes has advantages for the baby without affecting maternal outcomes[14,15, 16, 18]
    - Baby benefits from continued oxygen until spontaneous breathing is established. Research shows a decreased incidence in newborn bradycardia if the cord is clamped after respiration commences[17]
    - Decreased incidence of anaemia in the baby with iron stores increased[14,15,16]
- Decision on when to cut the cord must be based on clinical scenario and woman's preference. Early clamping may be required if there is postpartum haemorrhage, vasa praevia, placenta praevia, cord avulsion or if the baby is asphyxiated and requires immediate resuscitation
- Consideration should be given to newborn resuscitation in the absence of the above risk factors with the cord intact where possible
- Recommend skin to skin contact after all births to promote the production of oxytocin which stimulates uterine contractility, reduces the duration of third stage and risk of PPH from retained tissue and atony

Lotus Birth

- The practice of lotus birth (umbilical non-severance) is strongly discouraged due to lack of research and risk of harm. Some studies report no adverse effects, whilst others have associated the practice to be associated with increased risk of neonatal infection (omphalitis, idiopathic neonatal hepatitis, endocarditis) which could result in neonatal septicaemia and subsequent death[8,9,10,11]

Manual Removal of Placenta

- On identification of a retained placenta, the woman should be recommended to transfer to OT for the following reasons:
    - Decrease risk of infection in sterile environment
    - Ensure adequate analgesia for the woman
    - Minimise any traumatic aspect of the procedure

3.4 CBR should include implementation, communication and education plan

The revised CBR will be distributed to all medical, nursing and midwifery staff via @health email. The CBR will be discussed at ward meetings, education and patient quality and safety meetings. Education will occur through in-services, open forum and local ward implementation strategies to address changes to practice. The staff are asked to respond to an email or sign an audit sheet in their clinical area to acknowledge they have read and understood the revised CBR. The CBR will be uploaded to the CBR tab on the intranet and staff are informed how to access

3.5 Related Policies/procedures

Postpartum Haemorrhage - Prevention and Management

NSW Health Guideline- Postpartum Haemorrhage

Homebirth (publicly funded): Criteria and Process

Homebirth Transfer to Hospital

Induction of labour for women with a postdates low risk pregnancy

Comprehensive Care

Deteriorating Maternity woman- Management of

Clinical Emergency response System (CERS) - Management of the deteriorating patient

Oxytocin for induction or augmentation of labour

Umbilical Cord blood Gas sampling

Assisted Vaginal Birth

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4 ABORIGINAL HEALTH IMPACT STATEMENT DOCUMENTATION

- Traditional ways of birthing and birthing practices vary among Aboriginal nations. 'Women's Business' should be acknowledged and respected for all Aboriginal women. Female caregivers should be offered wherever possible.
- Considerations for culturally safe and appropriate care provision have been made in the development of this Business Rule and will be accounted for in its implementation.
- When clinical risks are identified for an Aboriginal and/or Torres Strait Islander woman or family, they may require additional supports. This may include Aboriginal health professionals such as Aboriginal liaison officers, health workers or other culturally specific services

5 CULTURAL SUPPORT

- For a Culturally and Linguistically Diverse CALD woman, notify the nominated cross-cultural health worker during Monday to Friday business hours
- Offering information in a clear and concise manner, avoiding medical jargon. Use of healthcare interpreters to ensure adequate communication
- If the woman is from a non-English speaking background, call the interpreter service: NSW Ministry of Health Policy Directive PD2017_044-Interpreters Standard Procedures for Working with Health Care Interpreters.

6 REVISION AND APPROVAL HISTORY

Date	Revision No.	Author and Approval
22/8/2024	V1	Natascha Dastur & Grace Bickmore-Hutt
11/2/2025	V2	CBR committee- send out for comment. Medical endorsement from Dr A.Bisits.
04/03/2025	V2	UAT approved-
19/3/25	V2	Pharmacy input. Changes accepted.
31/3/2025	V2	BRGC

Appendix 1: Risk Factors for PPH

CAUSE	ANTEPARTUM	INTRAPARTUM	POSTPARTUM

TONE 70%	• Maternal age ≥ 35years
	• BMI ≥ 35
	• Grand multiparity
	• Uterine anomalies (fibroids)
	• Hx of primary or secondary PPH
	• Hx of APH in current pregnancy
	• Over distension of uterus
	  ○ Multiple pregnancy
	  ○ Polyhydramnios
	  ○ Fetal macrosomia > 4kg
		• Precipitate labour
		• Prolonged labour (1st/2nd/3rd stage)
		• Arrest of descent
		• Uterine infection
		• Oxytocin use for augmentation or induction of labour
		• Instrumental birth (forceps or vacuum)
		• Intrapartum haemorrhage
			• Drug induced hypotonia (magnesium sulphate, anaesthetic agent)
			• Bladder distention

TRAUMA 20%		• Precipitate labour • Instrumental birth (forceps)	• Cervical, uterine or perineal lacerations • Caesarean birth
TISSUE 10%	• Hx of retained placenta • Abnormal placentation (placenta praevia, accreta, percreta or increta)		• Retained placenta • Manual removal of placenta or products (membranes, clots) • Uterine inversion

THROMBIN 1%	• Intrauterine fetal death
	• Therapeutic anticoagulation
	• Maternal bleeding disorders
	  ○ Von Willebrand Disease
	  ○ Idiopathic thrombocytopenia purpura
	  ○ Thrombocytopenia
	  ○ Disseminating intravascular coagulation (DIC)
		• Amniotic fluid embolism (AFE)
		• DIC
			• AFE
			• DIC

NOTE: Most cases of PPH occur in women with no identifiable risk factors