RETAINED PLACENTA - MANAGEMENT

This LOP is developed to guide clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this LOP.

1. AIM

- Delivery of placenta and membranes within 90 minutes of vaginal birth
- Prevention of postpartum haemorrhage (PPH)

2. PATIENT

- Woman with third stage of labour longer than 30 minutes, following a vaginal birth

3. STAFF

- Medical, nursing and midwifery staff

4. EQUIPMENT

- 16-gauge intravenous (IV) cannula
- Indwelling urinary catheter (IDC)
- Blood collection tubes:
  - one purple – full blood count (FBC)
  - one pink – group and hold (G+H)
  - one blue - coagulation studies (coags)

5. CLINICAL PRACTICE

- Convert to active management of the third stage in a woman who chooses physiological management of the third stage if the placenta is not delivered within 30 minutes
- Initiate the following from 15 minutes (in woman who has had active management of third stage) if the placenta has not yet delivered as per flowchart Appendix 1:
  - Insert 16-gauge IV cannula, send FBC and G+H
  - Commence 1L sodium chloride 0.9% with 40 units oxytocin at rate of 250mL/hr
  - Insert IDC
  - Re-attempt controlled cord traction (CCT)/Brandt-Andrews manoeuvre to deliver placenta
- Activate Rapid Response System, if placenta is not delivered by 30 minutes of active third stage of labour, to alert medical staff, expedite delivery of the placenta and minimise risk of PPH
- Escalate to Rapid Response System earlier at any point if there is increased vaginal bleeding and/or compromise of the woman
- Book Manual Removal of Placenta (MROP) in Operating Theatre (OT) as 'Urgent to be in OT/Anaesthetic bay by 30 minutes' from Clinical Emergency Response System (CERS) and notify obstetric consultant on call
- Coordinate resuscitation under the lead of anaesthetic registrar
- Aim for delivery of placenta by 60 minutes from activation of first CERS call
- Monitor maternal observations (blood pressure (BP), pulse and respiration rate) every five minutes
- Monitor and measure (weigh) blood loss
- Notify blood bank for crossmatch of two units packed red blood cells (PRBC) if blood loss is >1L
- Perform a coagulation profile (coags) and maintain intravascular volume with IV fluids if blood loss >1L

…./2

RETAINED PLACENTA – MANAGEMENT cont'd

MROP

- Assess for suitability of performing procedure in Delivery Suite (DS) or moving to OT. OT is the preferable place for the procedure
- Consider (if planned in DS):
  - analgesia/anaesthesia
  - consent
  - hemodynamic stability
  - expertise
  - access to adequate equipment, asepsis, and lighting
- Perform under adequate anaesthesia in OT
- Assess the woman in anaesthetic bay for consideration of:
  - placental separation and delivery
  - regional anaesthesia if clinically and haemodynamically stable
- Administer broad spectrum antibiotics:
  - Single dose of cephazolin 1g IV PLUS metronidazole 500mg IV[1]
  - If penicillin allergic, single dose of clindamycin 600mg IV PLUS metronidazole 500mg 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 to ensure the uterus is well contracted:
  - continue 1L sodium chloride 0.9% with 40 units oxytocin at rate of 250ml/hr
  - ergometrine IV 250mcg and intramuscular (IM) 250mcg
  - 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)[8]
- Consider tranexamic acid 1g IV. May give second dose after 30 minutes[9]
- Consider placement of uterine tamponade balloon (Bakri®) if ongoing bleeding and adequate uterotonics have been given (as per LOP for balloon placement for uterine tamponade)

Postpartum Care

- Keep woman warm
- Maintain urine output at >30mL/hr
- Ensure uterus remains firm, central, and well contracted
- Collect FBC and coags if PPH >1L
- Recommend Acute Care Centre bed if PPH >1L

6. DOCUMENTATION

- Medical record

RETAINED PLACENTA – MANAGEMENT cont'd

7. EDUCATIONAL NOTES

- According to World Health Organisation (WHO), retained placenta is diagnosed when the placenta is not expelled within 30 minutes of delivery of the baby. The incidence of retained placenta is 3.3% with this definition. The median duration of the third stage is 6 minutes. The incidence of PPH significantly increases after 30 minutes of the third stage of labour[1,5]
- Retrospective data from RHW deliveries show that PPH >1L occurred 38% with retained placenta whereas PPH >1L occurred 3.5% without retained placenta (i.e. relative risk of PPH >1L with retained placenta was 10-11 times greater)[4]
- The frequency of retained placenta is increased in preterm delivery (gestation <37 weeks) and markedly increased in very preterm delivery (gestation <27 weeks)
- The use of oxytocin as part of the active management of the third stage of labour has been shown to diminish bleeding in the third stage. However, once the diagnosis of retained placenta has been made, no pharmacological treatment has been shown to be effective and immediate manual removal of placenta should be considered[5]
- There are currently no randomised controlled trials evaluating the efficacy of antibiotic prophylaxis to prevent endometritis after MROP with a vaginal delivery[2]. According to RANZCOG guidelines there is insufficient evidence for or against the use of prophylactic antibodies in MROP, and the decision for treatment should be based on individual patient and clinical factors.[10] The WHO proposes a prophylactic antibiotic regimen of a single dose of ampicillin 2g IV OR cephazolin 1g IV PLUS metronidazole 500mg IV [1] as these cover aerobic and anaerobic flora commonly seen in the genital tract, are widely available, and are inexpensive and safe.

8. RELATED POLICIES / PROCEDURES / CLINICAL PRACTICE LOP

- Third Stage Management Following Vaginal Birth
- Postpartum Haemorrhage - Prevention and Management
- NSW Health Policy Directive. Maternity – Prevention, Detection, Escalation and Management of Postpartum Haemorrhage (PPH) GL2017_018
- Balloon Placement for Uterine Tamponade
- Critical bleeding Protocol (CBP) POWH CLIN072 (formerly Massive Transfusion)
- Clinical Emergency Response System (CERS) – Management of the deteriorating patient

9. RISK RATING

- Medium

10. NATIONAL STANDARD

- Standard 5 - Comprehensive Care
- Standard 8 - Recognising and Responding to clinical deterioration

11. REFERENCES

1 World Health Organisation Guidelines for the management of postpartum haemorrhage and retained placenta. 2012.
2 Chongsomchai C, Lumbiganon P, Laopaiboon M. Prophylactic antibiotics for manual removal of retained placenta in vaginal birth (Review). The Cochrane Collaboration 2014.
3 Combs CA, Laros RK Jr. Prolonged third stage of labour: Morbidity and risk factors. Obstet Gynecol (1991); 77:863-867.

RETAINED PLACENTA – MANAGEMENT cont'd

4 Royal Hospital for Women ObstetriX Data from 2008-2014
5 Duffy J, Mylan S, Showell M, Wilson M, Khan K. Pharmocologic Intervention for Retained Placenta: A Systematic Review and Meta-Analysis. Obstetrics & Gynecology 2015 March 125(3); 711-718.
6 Nardin JM, Weeks A, Carroli G. Umbilical Vein Injection for Management of Retained Placenta. Cochrane Database Systematic Review. 2011 May.
7 World Health Organisation Managing Complications in Pregnancy and Childbirth: A guide for midwives and doctors. 2nd Edition, 2017.
8 Postpartum haemorrhage – carboprost. The Royal Women's Hospital (VIC) Clinical Guideline, November 2018.
9 WOMAN Trial Collaborative Group. Effect of early tranexamic acid administration on mortality, hysterectomy, and other morbidities in women with post-partum haemorrhage (WOMAN): An international, randomised, double-blind, placebo-controlled trial. Lancet (2017); 389:2105-2116.
10 Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG). Prophylactic antibiotics in obstetrics and gynaecology. RANZCOG College Statement: C-Gen 17, 2020. Available from URL: http://www.ranzcog.edu.au/college-statements-guidelines.html.

REVISION & APPROVAL HISTORY
Reviewed and endorsed Maternity Services LOPs July 2020
Amended August 2019 – changed PACE to CERS
Approved Quality & Patient Care Committee 21/6/18
Reviewed and endorsed Maternity Services LOPs 19/6/18
Approved Quality & Patient Safety Committee 19/11/15
Reviewed and endorsed Maternity Services LOPs group November 2015
Approved Patient Care Committee 6/12/07
Endorsed Maternity Services Clinical Committee 11/9/07

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…./Appendix 1

(Appendix 1)
Management of Retained Placenta (MROP) – Flowchart

If **placenta not delivered**, initiate the following **at 15 minutes** from active third stage of labour:

- Insert 16G IV cannula, send FBC, G+H
- Commence 1L normal saline with 40 units oxytocin at 250mL/hr
- Insert IDC
- IV Fluid
- Re-attempt delivery of placenta with CCT/Brandt-Andrews Manoeuvre
- Escalate to rapid response system at any stage if increased vaginal bleeding or haemodynamic concern

FROM 15 MINS

Diagnose retained placenta if placenta not delivered within 30 minutes of third stage of labour

AT 30 MINS

Activate rapid response system

Obstetric Registrar to:

- Re-attempt delivery of placenta
- If unsuccessful, book MROP in OT as "Urgent to be in OT/Anaesthetic bay by 30mins from CERS"
- Notify obstetric consultant on call

Anaesthetic Registrar to:

- Coordinate resuscitation

Aim for delivery of placenta within 60 minutes from activation of CERS call (90 mins from birth)

- Monitor maternal observations every five minutes
- Monitor and measure (weigh) blood loss
- If blood loss is >1L, notify blood bank for cross match of two units PRBC, perform coagulation profile, maintain intravascular volume with IV fluids

IN OT BY 30 MINS FROM CERS (60 MINS FROM BIRTH)

MROP in OT:

- Regional anaesthesia may be attempted if clinically and haemodynamically stable (assess in anaesthetic bay, check if placenta already separated/delivered)
- Prep and drape, aseptic technique
- Follow umbilical cord until lower edge of placenta felt
- Separate edge from body of uterus and deliver placenta
- Ensure uterine cavity feels empty
- If very adherent, consider placenta accreta and call obstetric consultant to attend
- Examine placenta/membranes, send to histopathology
- Give uterotonics to ensure uterus well contracted
- Administer broad spectrum antibiotics in OT as single dose of:
  cephazolin 1g IV PLUS metronidazole 500mg IV
  OR
  clindamycin 600mg IV PLUS metronidazole 500mg IV if allergic to penicillin

Deliver Placenta

BY 60 MINS FROM CERS (90 MINS FROM BIRTH)

Postpartum Care:

- Keep woman warm
- Maintain urine output >30mL/hr
- Ensure uterus remains firm, central, and well contracted
- Send FBC and coags if PPH >1L
- Consider Acute Care ward bed if PPH >1L