



Primary Postpartum Haemorrhage Guideline

1. Guiding principle

To minimise the risk of harm to women from primary post-partum haemorrhage (PPPH) in WA Country Health Service (WACHS) health care services.

2. Guideline

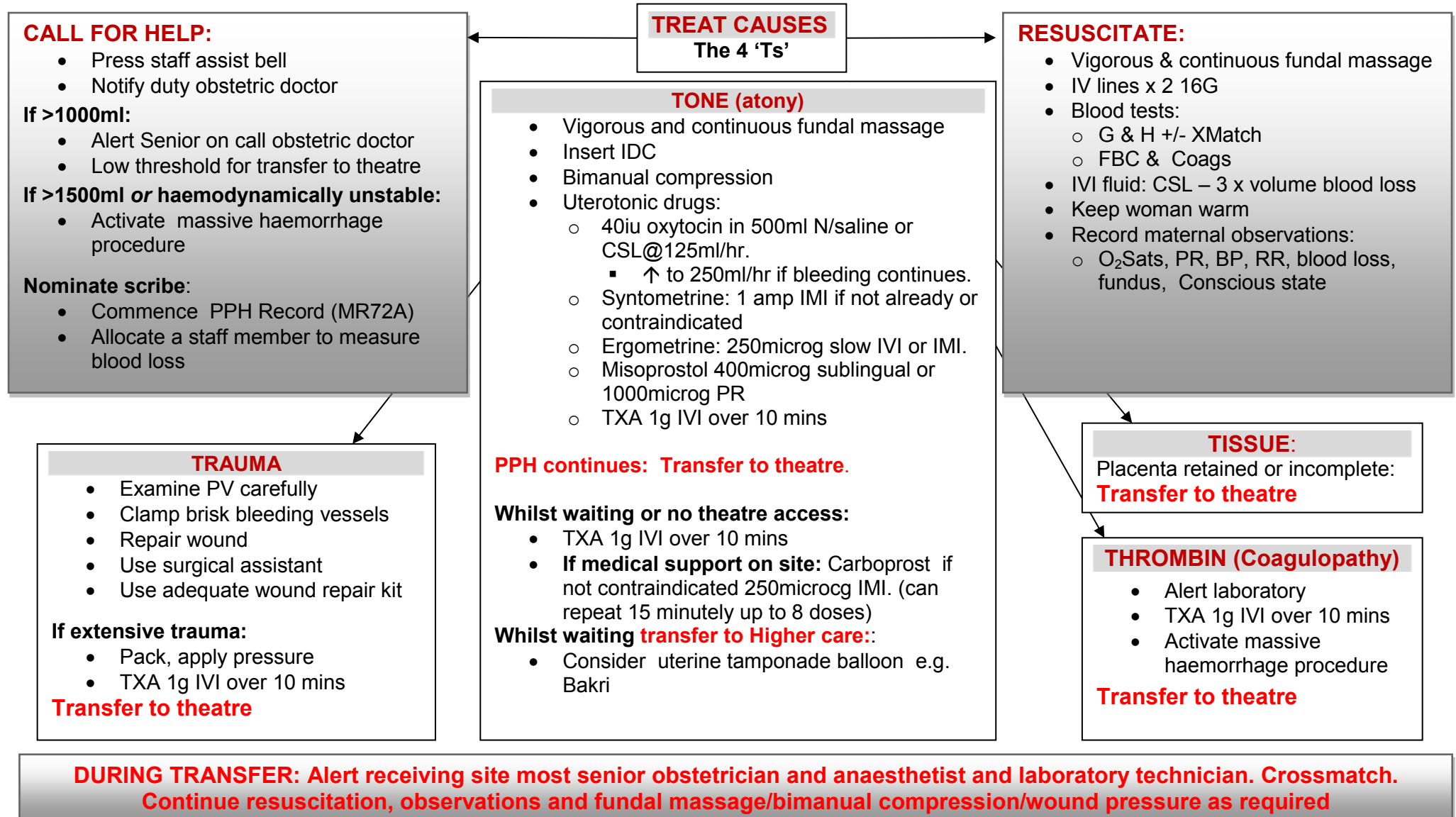
1. Management summary: See below - [Primary Postpartum Haemorrhage Flow Chart](#).
2. All intrapartum women should have the PPH risk assessment completed on the rear of the partogram ([MR72](#)).
3. Active management of third stage of labour is recommended for all women: It reduces the chance of both PPPH and transfusion.
4. Active management does not preclude optimal timing of cord clamping for neonatal placental transfusion benefits:
5. Midwives can administer emergency drugs in management of PPH under the [Midwife Initiated Medication Policy](#) as long as the Obstetric doctor/s have been called to attend the PPH
6. Choice of uterotonic agent for active management is:
 - Oxytocin 10i.u. IMI for women without risk factors for PPPH
 - Oxytocin 5iu + Ergometrine 500microg in 1ml (Syntometrine 1 ampoule) IMI for women with risk factors for PPPH **and** no contraindication to ergometrine e.g. hypertension, cardiac or peripheral vascular disease, impaired liver or renal function.
7. Tranexamic acid (TXA) should be standard treatment under the ‘thrombin’ cause of PPH and should be administered as per the World Health: [WHO recommendation on tranexamic acid for the treatment of postpartum haemorrhage](#):
 - a. Fixed dose of 1g (100mg/ml) intravenously (IV) at 1ml per minute (i.e. over 10 mins), with a second dose if bleeding continues after 30 minutes or if bleeding re-starts within 24 hours of first dose.
 - b. TXA is of most benefit when given early and within three hours of the birth
8. Site specific Major Haemorrhage Procedure documents should be readily available for reference in all birth suites, operation theatres and emergency departments.

9. If urgent blood transfusion indicated: the order of preference for use is (i) crossmatched RBC (ii) uncrossmatched group specific RBC (if neither of these available) then (iii) uncrossmatched O negative RBC.
10. Early initiation of transfer to regional or tertiary centres should be considered during PPPH management in sites with limited or no access to an operating theatre or blood products.
11. All maternity unit birth suites should stock special perineal suture repair kits equipped to facilitate expeditious control of perineal wound haemorrhage.
12. Use [MR72A WACHS Primary Postpartum Haemorrhage Record](#) to record management of the PPH.

13. Contraindications:

- a. **Misoprostol:** allergy to misoprostol, severe asthma requiring steroid therapy, bleeding disorder or anticoagulant treatment, adrenal or hepatic failure.
- b. **Carboprost:** established pelvic sepsis. Use with caution in asthmatics. Medical expertise to manage acute respiratory distress must be available on site when carboprost is administered.
- c. **Tranexamic acid:** concurrent use of anticoagulants; Thrombosis during pregnancy; Suspected subarachnoid haemorrhage;. Significant renal impairment (eGFR less than 30ml/min I 1.73m²); Hypersensitivity; Infection at IV site and more than 3 hours after the birth.

Primary Postpartum Haemorrhage Flow Chart



In theatre

In theatre

- Most senior available anaesthetist and obstetrician.
- Compression stockings.
- Examination under anaesthetic.
- Manual removal of retained products.
- Careful examination of genital tract.
- Repair trauma.
- Atonic uterus: Maintain fundal massage.
- Tranexamic acid 1gram IVI push over 10 min if not given prior.
- Antibiotic cover

Still bleeding

If atonic:

- Repeat ergometrine 250microg IVI (**Max total dose 1000 microg**)
- Carboprost 250microg IMI: may be repeated 15minutely for up to a total of 8 doses
- Insert uterine tamponade balloon. e.g. Bakri. Consider bedside ultrasound to monitor position and fill.

Still bleeding

- Repeat FBC, coagulation profile, additional crossmatch.
- Transfuse RBC/Fibrinogen concentrate/FFP and activate massive haemorrhage procedure
- **Follow algorithm below for fibrinogen concentrate use.**
- Follow haematologist advice for administration of cryoprecipitate and platelets if available.
- Arterial line if capability available

Speedy resort to surgical intervention may be lifesaving:

- Aortic pressure
- Laparotomy and B Lynch suture (leave legs in fin stirrups)
- Call for urgent general surgical assistance if available
- Compression sutures uterine arcade vessels
- If consultant surgical skill capacity: uterine artery +/- internal iliac ligation and/or hysterectomy
- **Call for tertiary advice**
- **Alert RFDS**
- **Arrange post op admission to ICU/HDU or transfer to regional or metro centre**

Guideline for the use of Fibrinogen Concentrate during Obstetric Haemorrhage at WACHS sites

GENERAL ADVICE:

- The priority is **always to treat the cause of bleeding** – e.g. oxytocics, surgery, physical measures, balloon tamponade.
- Fibrinogen levels differ in pregnant women and administration should also be guided by blood loss volume
- Minimise use of colloids (they cause iatrogenic coagulopathy). Follow massive haemorrhage algorithm.
- Warm all fluids and blood products.
- Aim for temp > 36, iCa >1, Hb > 70g/L

NO LABORATORY TEST AVAILABLE

Decision to administer Fibrinogen Concentrate based on clinical criteria

The patient must be **still actively bleeding AND:**

1. Estimated blood loss of greater than 2 litres

OR

2. Hb <70g/L

OR

3. High clinical suspicion of coagulopathy e.g. Amniotic fluid embolism, severe abruption, HELLP syndrome

Give Tranexamic acid 1g (if not already given)

Give Fibrinogen Concentrate 3g

Administration of Fibrinogen Concentrate

- Reconstituted 1g in 50ml warm sterile water (use prepared kit in fluid warmer).
- Swirl gently and do not shake (to avoid foaming)
- Administer each 1g :
 - If life threatening: via syringe driver over 3 min (1000ml/hr)

LABORATORY TESTS AVAILABLE

- Ideally the decision to use fibrinogen concentrate should be based on the results of laboratory tests, (fibrinogen concentration or fibtem A5)
- If ROTEM available use the KEMH ROTEM algorithm

Give Tranexamic acid 1g (if not already given)

FIBRINOGEN DOSING GUIDE

Target FIBTEM A5 ≥ 12mm or Fibrinogen conc ≥ 2g/L

FIBTEM A5	Fibrinogen Concentration	Cryoprecipitate*	Fib Conc
6-10 mm	1-2 g/L	15 units	3g
<6 mm	<1 g/L	25 units	5g

PPPH prophylaxis for women at high risk

- 16G intravenous cannula; Send blood for Full Blood Count; Blood Group & Hold.
- Syntometrine (unless contraindicated) for active management 3rd stage.
- Consider oxytocin 5i.u IVI slow bolus for very obese women where there is doubt that an intramuscular injection can be achieved with available needle.
- Commence post-partum premixed infusion of 40i.u. oxytocin in 500ml N/saline or CSL at 125ml/hr following delivery of placenta.
- **If placenta retained, commence infusion whilst awaiting theatre access.**

Perineal repair suture kits

In addition to standard perineal suture kits, additional equipment should be readily available in all birth suites to assist with expeditious repair of vaginal and perineal wounds associated with excessive haemorrhage. Available instrumentation should include:

Sims speculums Vaginal wall retractors Small artery forceps Sponge holders Allis forceps

Retained Placenta

Manual removal of a retained placenta is done with adequate regional or general anaesthesia. Prompt transfer to theatre should always be considered.

Balloon Tamponade:

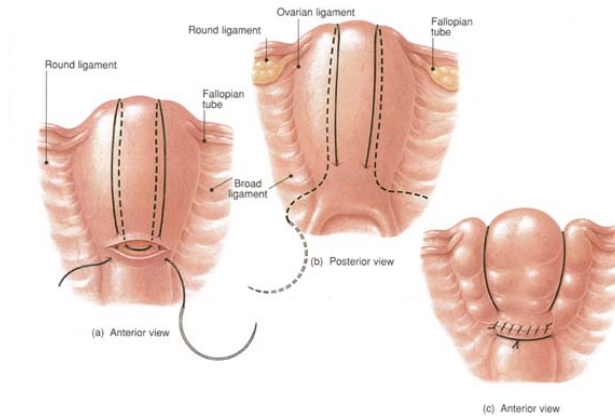
A Bakri or alternate balloon catheter can be inserted into the uterine cavity through the cervix (or a uterine incision) to tamponade the placental bed. The balloon is usually placed under direct vision; experienced practitioners may be able to effect digital placement. The balloon is inflated with saline, using a 50mL syringe until resistance is encountered, or from a 500mL bag using gravity feed and a giving set. Bedside ultrasound can be useful to guide /check placement and fluid infusion. A vaginal pack may help keep a balloon catheter in the uterine cavity, particularly if a woman has been in labour. If used in conjunction with a B Lynch suture, insert & inflate the balloon **after** placement and tying off the uterine compression suture.

Removal of a balloon catheter should be done at a hospital well-resourced to manage recurrent haemorrhage.

B-Lynch Suture

Use a long, absorbable suture on a large needle*. Assistant must compress uterus whilst knot is secured.

*e.g. Kat Eyed Colts Tension 100 MM –
Reference TM 1330, 1 POLYSORB L115



3. Definitions

Primary Post-Partum Haemorrhage	Maternal blood loss in excess of 500ml within 24 hours of childbirth
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4. Roles and Responsibilities

Maternity clinicians are to perform the assessment and procedures in line with their skills, training, competence and scope of practice.

At each WACHS maternity care site, all major PPPH and peripartum blood transfusion events should be reviewed by a senior midwife and obstetric clinician. Documentation in Datix Clinical Incident Management System may be indicated.

5. Compliance

Failure to comply with this policy document may constitute a breach of the WA Health Code of Conduct (Code). The Code is part of the [Employment Policy Framework](#) issued pursuant to section 26 of the [Health Services Act 2016](#) (WA) and is binding on all WACHS staff which for this purpose includes trainees, students, volunteers, researchers, contractors for service (including all visiting health professionals and agency staff) and persons delivering training or education within WACHS.

WACHS staff are reminded that compliance with all policies is mandatory.

6. Evaluation

Monitoring of compliance with this document is to be carried out by Maternity Unit Managers at least annually using information generated by the WACHS maternity unit PPPH reports from the STORK perinatal database and the WACHS clinical incident monitoring system. Individual clinicians or unit manager may choose to provide direct feedback regarding the guideline and implementation to the WACHS Obstetric and Gynaecology Clinical Advisory and Patient Safety Group.

7. Standards

[National Safety and Quality Healthcare Standards](#) 1.10c, 1.16, 1.27a, 6.11, 8.8

8. King Edward Memorial Hospital Reference Documents

[Labour: Third Stage](#)

[Oxytocin Prophylactic and Therapeutic Regimens](#)

[Misoprostol Administration for Primary PPH in FBC](#)

[Retained Placenta](#)

[Management of Primary Postpartum Haemorrhage](#) for Aetiology, Risk Factors, References. Some information not relevant to WACHS settings:

- Use WACHS [PPPH guideline flow chart](#)
- Rotem analysis is not available in WACHS PathWest laboratories.

9. Other Reference Documents

WOMAN Trial Collaborators. 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: 2105–16

[http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(17\)30638-4.pdf](http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(17)30638-4.pdf)

B-Lynch, C., Coker, A., Lawal, A. H., Abu, J. and Cowen, M. J. (1997), The B-Lynch surgical technique for the control of massive postpartum haemorrhage: an alternative to hysterectomy? Five cases reported. BJOG: An International Journal of Obstetrics & Gynaecology, 104: 372–375. doi:10.1111/j.1471-0528.1997.tb11471.x

[The B-Lynch surgical technique for the control of massive postpartum haemorrhage: an alternative to hysterectomy? Five cases reported - B-Lynch - 1997 - BJOG: An International Journal of Obstetrics & Gynaecology - Wiley Online Library](#)

Tang, O.S. et al, Misoprostol: Pharmacokinetic profiles, effects on the uterus and side effects, International Journal of Gynaecology and Obstetrics (2007) 99, s160-s167

10. Related Forms

[MR72A WACHS Primary Post-Partum Haemorrhage Record](#)

[MR72 WACHS Partogram Form](#)

11. Related Policy Documents

WACHS [Blood and Blood Products Management Clinical Practice Standard](#)

WACHS [Major Haemorrhage Procedure for Sites with Blood Products](#)

WACHS [Major Haemorrhage Procedure for Sites without Blood Products](#)

WACHS [King Edward Memorial Hospital \(KEMH\) Resources - Endorsed for Use in Clinical Practice Policy](#)

WACHS [Midwife Initiated Medication Policy](#)

Policy Framework

[Clinical Services Planning and Programs](#)

This document can be made available in alternative formats on request for a person with a disability

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