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Prevention and Management of Postpartum Haemorrhage

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Prevention and Management of Postpartum Haemorrhage

This is the second edition of this guideline, which was published in 2009 under the same title. The 2009 guideline was based on an earlier guideline on the management of postpartum haemorrhage (PPH) developed in 1998 under the auspices of the Scottish Committee of the Royal College of Obstetricians and Gynaecologists (RCOG) and updated in 2002.[1]

Executive summary of recommendations

Prediction and prevention of PPH

What are the risk factors for developing PPH and how can they be minimised?

Risk factors

Risk factors for PPH may present antenatally or intrapartum; care plans must be modified as and when risk factors arise. ✓

Clinicians must be aware of risk factors for PPH and should take these into account when counselling women about place of delivery. ✓

Women with known risk factors for PPH should only be delivered in a hospital with a blood bank on site. D

Minimising risk – treating antenatal anaemia

Antenatal anaemia should be investigated and treated appropriately as this may reduce the morbidity associated with PPH. [*New 2016*] D

Minimising risk – reducing blood loss at delivery

Uterine massage is of no benefit in the prophylaxis of PPH. [*New 2016*] A

Prophylactic uterotonics should be routinely offered in the management of the third stage of labour in all women as they reduce the risk of PPH. A

For women without risk factors for PPH delivering vaginally, oxytocin (10 iu by intramuscular injection) is the agent of choice for prophylaxis in the third stage of labour. A higher dose of oxytocin is unlikely to be beneficial. A

For women delivering by caesarean section, oxytocin (5 iu by slow intravenous injection) should be used to encourage contraction of the uterus and to decrease blood loss. B

Ergometrine–oxytocin may be used in the absence of hypertension in women at increased risk of haemorrhage as it reduces the risk of minor PPH (500–1000 ml). C

For women at increased risk of haemorrhage, it is possible that a combination of preventative measures might be superior to syntocinon alone to prevent PPH. [*New 2016*] ✓

Clinicians should consider the use of intravenous tranexamic acid (0.5–1.0 g), in addition to oxytocin, at caesarean section to reduce blood loss in women at increased risk of PPH. [*New 2016*] A

How should PPH be managed?

Identification of the severity of haemorrhage

Clinicians should be aware that the visual estimation of peripartum blood loss is inaccurate and that clinical signs and symptoms should be included in the assessment of PPH. [*New 2016*] C

Communication and multidisciplinary care

Communication with the woman

Communication with the patient and her birthing partner is important, and clear information of what is happening should be given from the outset. [*New 2016*] ✓

Who should be informed when the woman presents with PPH?

Relevant staff with an appropriate level of expertise should be alerted of PPH. [*New 2016*] ✓

The midwife in charge and the first-line obstetric and anaesthetic staff should be alerted when women present with minor PPH (blood loss 500–1000 ml) without clinical shock. ✓

A multidisciplinary team involving senior members of staff should be summoned to attend to women with major PPH (blood loss of more than 1000 ml) and ongoing bleeding or clinical shock. ✓

Resuscitation

Measures for minor PPH

Measures for minor PPH (blood loss 500–1000 ml) without clinical shock: ✓

- **intravenous access (one 14-gauge cannula)**
- **urgent venepuncture (20 ml) for:**
  - **group and screen**
  - **full blood count**
  - **coagulation screen, including fibrinogen**
- **pulse, respiratory rate and blood pressure recording every 15 minutes**
- **commence warmed crystalloid infusion.**

Measures for major PPH

Full protocol for major PPH (blood loss greater than 1000 ml) and continuing to bleed or clinical shock (see Appendix III): ✓

- **A and B – assess airway and breathing**
- **C – evaluate circulation**
- **position the patient flat**
- **keep the woman warm using appropriate available measures**
- **transfuse blood as soon as possible, if clinically required**
- **until blood is available, infuse up to 3.5 l of warmed clear fluids, initially 2 l of warmed isotonic crystalloid. Further fluid resuscitation can continue with additional isotonic crystalloid or colloid (succinylated gelatin). Hydroxyethyl starch should not be used.**
- **the best equipment available should be used to achieve rapid warmed infusion of fluids**
- **special blood filters should not be used, as they slow infusions.**

Blood transfusion

There are no firm criteria for initiating red cell transfusion. The decision to provide blood transfusion should be based on both clinical and haematological assessment. [*New 2016*] ✓

Selection of red cell units for transfusion

Major obstetric haemorrhage protocols must include the provision of emergency blood with immediate issue of group O, rhesus D (RhD)-negative and K-negative units, with a switch to group-specific blood as soon as feasible. [*New 2016*] D

If clinically significant red cell antibodies are present, close liaison with the transfusion laboratory is essential to avoid delay in transfusion in life-threatening haemorrhage. [*New 2016*] D

All delivery units, especially small units without a blood bank on site, should maintain a supply of group O, RhD-negative blood. [*New 2016*] ✓

Intraoperative cell salvage should be considered for emergency use in PPH associated with caesarean section and with vaginal delivery. [*New 2016*] D

Blood components

Transfusion of fresh frozen plasma (FFP)

If no haemostatic results are available and bleeding is continuing, then, after 4 units of red blood cells, FFP should be infused at a dose of 12–15 ml/kg until haemostatic test results are known. [*New 2016*] D

If no haemostatic tests are available, early FFP should be considered for conditions with a suspected coagulopathy, such as placental abruption or amniotic fluid embolism, or where detection of PPH has been delayed. [*New 2016*] ✓

If prothrombin time/activated partial thromboplastin time is more than 1.5 times normal and haemorrhage is ongoing, volumes of FFP in excess of 15 ml/kg are likely to be needed to correct coagulopathy. [*New 2016*] D

Clinicians should be aware that these blood components must be ordered as soon as a need for them is anticipated, as there will always be a short delay in supply because of the need for thawing. [*New 2016*] ✓

Fibrinogen

A plasma fibrinogen level of greater than 2 g/l should be maintained during ongoing PPH. [*New 2016*] C

Cryoprecipitate should be used for fibrinogen replacement. [*New 2016*] D

Transfusion of platelets

During PPH, platelets should be transfused when the platelet count is less than 75×10^9/l based on laboratory monitoring. [*New 2016*] D

Is there a role for antifibrinolytic drugs?

Consideration should be given to the use of tranexamic acid in the management of PPH. [*New 2016*] B