

CATEGORY: CLINICAL GUIDANCE STATEMENT

Management of Postpartum Haemorrhage (PPH)

This statement has been developed and reviewed by the Women's Health Committee and approved by the RANZCOG Board and Council.

A list of Women's Health Committee Members can be found in Appendix B.

Disclosure statements have been received from all members of this committee.

Disclaimer This information is intended to provide general advice to practitioners. This information should not be relied on as a substitute for proper assessment with respect to the particular circumstances of each case and the needs of any patient. This document reflects emerging clinical and scientific advances as of the date issued and is subject to change. The document has been prepared having regard to general circumstances.

First endorsed by RANZCOG: March 2011

Current: November 2021

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Objectives: To provide advice on the management of postpartum haemorrhage.

Outcomes: Minimising risks for the patient associated with Postpartum Haemorrhage.

Target audience: All health practitioners providing maternity care and patients.

Values: The evidence was reviewed by the Women's Health Committee (RANZCOG) and applied to local factors relating to Australia and New Zealand.

Background: This statement was first developed by Women's Health Committee in March 2011 and the last full review was conducted in March 2014, July 2017. Minor amendments were made in May 2015 and February 2016.

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Contents

1. Plain language summary	3
2. Summary of recommendations	3
3. Introduction	3
4. Discussion and recommendations	5
4.1 How can postpartum haemorrhage be prevented?	5
4.1.1 What are the risk factors?	5
4.1.2 What are important considerations in the event of abnormal placentation?	5
4.1.3 How should the third stage of labour be managed?	5
4.2 What are the management considerations for Postpartum Haemorrhage?	6
4.3 How should secondary PPH be managed?	10
5. References	11
6. Other suggested reading.....	12
7. Links to other College statements	13
8. Patient information.....	13
Appendices	14
Appendix A – Patient Blood Management Guidelines: Module 1, Massive transfusion protocol template	14
Appendix B Women’s Health Committee Membership	16
Appendix C Overview of the development and review process for this statement	16
Appendix D Full Disclaimer	18

1. Plain language summary

Heavy bleeding after a baby is born (postpartum haemorrhage) is a complication of pregnancy that has the potential to be very serious, even resulting in death in rare cases. Some women will have risk factors for heavy bleeding, but most will not. This means that it is very difficult to predict when heavy bleeding might occur and essentially all women giving birth are at risk of having a severe postpartum haemorrhage. The use of some simple measures – receiving a small dose of medication to help the uterus contract after birth and assisting with delivering the placenta – all reduce the risk of heavy bleeding.

When heavy bleeding occurs, the birth attendants must act quickly and use proven techniques to stop the bleeding and help the woman recover. Because postpartum haemorrhage occurs so unpredictably, all women giving birth should have timely access to skilled care and all the resources needed for managing heavy bleeding. This is one of many reasons why the College recommends that all women birth in (or adjacent to) an appropriately equipped hospital.

2. Summary of recommendations

Recommendation 1	Grade and reference
Active management of the third stage of labour (administration of prophylactic oxytocics and assisting delivery of the placenta) should be recommended to all pregnant women as this reduces the risk of PPH and the need for blood transfusion. ¹ Prophylactic oxytocics should be recommended for the management of the third stage of labour, whether following vaginal or caesarean birth, as they reduce the risk of PPH by at approximately 50%.	Evidence-based recommendation
Recommendation 2	Grade and reference
All those managing births regardless of location or complexity, must do so with a clear guideline for the management of a Postpartum Haemorrhage should it occur. The guideline should include acute management at the place of birth and the procedure for timely escalation should the haemorrhage not respond rapidly to initial measures.	Consensus-based recommendation

3. Introduction

Postpartum haemorrhage (PPH) remains a major cause of both maternal mortality and morbidity within Australia and New Zealand. PPH is common, with an incidence in Australia of between five and fifteen percent.¹ While the majority of these cases are minor, requiring little active management and causing minimal morbidity, it must be remembered that PPH remains a leading cause of maternal death both globally and in Australia and New Zealand.

Definitions

Traditionally PPH has been defined as a blood loss of 500ml or more during puerperium and severe PPH as a blood loss of 1000ml or more.¹ More recently, PPH has been considered severe if there are signs of haemodynamic compromise regardless of the estimated volume of blood loss.² Further classification of PPH

into primary (within 24 hours of delivery) and secondary (between 24 hours and six weeks postpartum) is also well established.

Background Physiology

In order to prevent and treat PPH, the clinician requires an understanding of the physiological mechanisms that arrest the blood flow to the placental bed following placental separation. The blood flow to the placental bed varies with gestation but is approximately 750 ml/min at term. Given that maternal blood volume may only be approximately 7 litres and blood loss may be life-threatening with unreplaced volume loss of as little as 30%, it can be seen that a mother can become critically unwell in just a few minutes if blood flow to the placental bed is not rapidly arrested with placental separation.

Aetiology

The principle physiological mechanism for avoiding excessive blood loss is constriction of the blood vessels supplying the placenta bed by uterine contraction. This is supplemented by common haemostasis: vasoconstriction, platelet aggregation and clot formation. A classification of the causes of PPH are listed in table 1.

Table 1. Aetiology of PPH

<p>Traumatic Site (“Trauma”) Uterine rupture, Cervical Tear, Vaginal Tear, Perineal Tear, Extensions of angles of uterine incision at caesarean section</p>
<p>Placental Site Uterine Atony (“Tone”) Prolonged labour and particularly prolonged 2nd stage of labour Increasing Parity Oxytocin withdrawal Uterine overdistension Multiple pregnancy, Polyhydramnios, Macrosomia Instrumental Birth Retained Products of Conception (“Tissue”) Placenta Praevia Spectrum Placenta Accreta Uterine Inversion Bleeding Disorder Thrombocytopenia Disseminated Intravascular Coagulation (“Thrombin”) Severe Preeclampsia, Placental Abruptio, Sepsis, FDIU, Amniotic Fluid Embolism Hereditary Bleeding Disorders e.g. von Willebrand’s Anticoagulant medications</p>

4. Discussion and recommendations

4.1 How can postpartum haemorrhage be prevented?

4.1.1 What are the risk factors?

A large number of risk factors for PPH have been identified but most cases of PPH have no identifiable risk factor³. For those women known to have risk factors for PPH appropriate management should be instigated in both the antenatal and intrapartum periods to mitigate this risk. All women should birth in a unit with rapid access to blood and blood products and have antenatal correction of anaemia. Where a woman is likely to decline the administration of blood products, risk of death from postpartum haemorrhage becomes considerably greater and prophylaxis even more important than otherwise.

4.1.2 What are important considerations in the event of abnormal placentation?

All women must have placental location determined by antenatal ultrasound. Appropriate recognition, preparation and management of women with placenta praevia or suspected morbidly adherent placentation is crucial as these conditions are associated with increased risk of catastrophic haemorrhage and maternal mortality.

4.1.3 How should the third stage of labour be managed?

Active management of the third stage of labour (use of prophylactic oxytocics and assisting delivery of the placenta) should be practised as this reduces the risk of PPH and the need for blood transfusion.¹ Prophylactic oxytocics should be used for the management of the third stage of labour, whether following vaginal or caesarean birth, as they reduce the risk of PPH by at least 50%.¹

Oxytocin should remain the drug of choice for this indication in women without risk factors for PPH. The addition of ergometrine to oxytocin (Syntometrine®) may reduce the need for additional uterotonics and other PPH interventions but does not appear to reduce the risk of severe PPH or blood transfusion compared to oxytocin alone⁴⁻⁷ and has notable maternal side effects including vomiting.

Misoprostol has been used in routine management of the third stage of labour, but quality trials in the hospital setting have reported that it is less effective than oxytocin and is associated with a greater incidence of side effects.⁸

Carbetocin, a long-acting oxytocin receptor agonist, has been shown to be at least equivalent to oxytocin bolus with oxytocin infusion for reducing PPH in women following planned or emergency caesarean birth⁹⁻¹². It does not appear to have clinical benefits over single-dose oxytocin in vaginal birth. It does not require refrigeration and therefore may be of use in low-resource settings.

Women may occasionally request physiological management of the third stage without the use of an oxytocic. It is important that these women are adequately informed of the increased risks of bleeding associated with this practice.

Recommendation 1	Grade and reference
Active management of the third stage of labour (administration of prophylactic oxytocics and assisting delivery of the placenta) should be recommended to all pregnant women as this reduces the risk of PPH and the need for blood transfusion. ¹ Prophylactic oxytocics should be recommended for the management of the third stage of labour, whether following vaginal or caesarean birth, as they reduce the risk of PPH by at approximately 50%.	Evidence-based recommendation ¹

4.2 What are the management considerations for Postpartum Haemorrhage?

Effective team management of PPH involves recognition, communication, resuscitation, monitoring and investigation and directed treatment. Once a PPH has been recognised these components should be conducted simultaneously for optimal patient care. Some guidelines invoke basic measures for estimated blood loss (EBL) of 500ml-1000ml with no clinical shock and a full protocol of measures for EBL greater than 1000ml and continuing bleeding, or where there is evidence of clinical shock. It is important to consider both the patient's prior haemoglobin and her total blood volume when assessing the severity of PPH. Total blood volume at term is approximately 100ml/kg (i.e. 7000ml for a 70 kg woman, but only 5000ml for a 50kg woman).

1. Recognition

Assessment of ongoing blood loss is an essential aspect of post-partum care. Visual estimation of blood loss is notoriously unreliable and often underestimates true blood loss. Weighing drapes, pads and swabs will be more accurate but it should be remembered that some amniotic fluid will be included in the estimation. Clinical signs of shock or tachycardia should prompt a thorough assessment of the mother including an accurate appraisal of blood loss, both concealed and revealed.

2. Communication

The successful management of PPH requires a multidisciplinary team approach. The clinical team involved, their response to PPH, and ability to escalate this response in the face of severe haemorrhage will vary according to the setting and circumstance of delivery. All centres providing obstetric care should implement and regularly review a clear plan of communication, resuscitation and directed treatment to respond to PPH. Senior obstetric and midwifery staff will be needed in the first instance, but other clinicians (such as anaesthetists, haematologists or transfusion specialists, intensivists and sub-specialty surgeons) may be called upon in the setting of more serious haemorrhage. In all cases of PPH, a second clinician (usually the anaesthetist) is vital in ensuring adequate resuscitation, especially while the obstetrician is busy instituting operative management. Often haematologists are required to co-ordinate the transfusion of blood products. Communication with the patient and their support person is important as this can be a frightening event for all involved.

3. Resuscitation

The cornerstone of resuscitation is restoration of blood volume and oxygen-carrying capacity. A simple 'ABC' approach is often used initially but clinical judgement should be used to guide resuscitation in each situation.

- Immediately call for help
- Rapidly assess for danger to self and others
- Assessment of airway and breathing initially with administration of high flow oxygen is recommended.
- Wide-bore intravenous access should be established with blood sent for full blood count, coagulation profile and cross-match.
- Rapid infusion with fluids, ideally warmed, should be begun once intravenous access is achieved.
- The use of group specific or group O Rh(D)-negative blood should be considered early to restore oxygen carrying capacity.

- It is critical that facilities providing obstetric care have, and adhere to, a massive transfusion protocol with which all staff are familiar. Many larger hospitals will already have such a protocol in place, but a template can be found in Appendix A.⁸
- Additional measures such as keeping the woman warm and positioned flat are also important.

4. Monitoring and investigation

Appropriate monitoring and investigation should be guided by clinical judgement. At a minimum this should include the recording of clinical observations at regular intervals and repeating haematological investigations as indicated. Pulse rate, blood pressure, oxygen saturation and urinary output measurement should be instigated for severe (e.g. >1000ml) or ongoing PPH, and invasive haemodynamic monitoring may be necessary depending upon the clinical situation. Consideration must be given to the most appropriate place of ongoing care in women with severe PPH, and this may be a high dependency care or intensive care unit in some instances. Where patients need to be transferred to a more highly equipped facility for management of PPH, the need for transfer should be anticipated and initiated early. In the meantime, aggressive resuscitation should continue in order to optimise patient stability for transfer. Regular communication with the receiving unit is essential, particularly if the clinical situation is changing.

Pulse rate, blood pressure, oxygen saturation and urinary output measurement should be instigated for any significant (>1000ml) or ongoing PPH, and invasive monitoring of arterial blood pressure or central venous pressure may be necessary depending upon the clinical situation. Consideration must be given to the most appropriate place of care in women with severe PPH; this may be a high dependency care or intensive care unit in some instances. Where patients need to be transferred to a more highly equipped facility for management of PPH, the need for transfer should be anticipated and initiated early. In the meantime, aggressive resuscitation should continue and regular communication with the receiving unit is essential.

Appropriate prophylaxis for venous thromboembolism should also be instituted once the acute situation has been controlled.

5. Management of PPH

Management of PPH invariably involves addressing the causes of bleeding, commonly known as ‘the four Ts’. A fifth ‘T’ has been added to emphasise the important role of theatre and surgery in managing all causes of PPH. There is little randomised control trial (RCT) evidence to guide the management of PPH. The only Cochrane review on primary PPH identified only three suitable trials; all concerned the use of misoprostol. There was inadequate evidence to comment on the utility of surgical, radiological, haemostatic or other pharmacological interventions.² Hence most interventions are guided by best practice rather than high quality evidence.

a. Tone

Uterine atony is the most common cause of primary PPH but clinical assessment should be used to exclude other causes. The following interventions have all been used to stop the bleeding, generally in the stepwise progression as presented here.

- i. Mechanical:
 - Uterine massage or bimanual uterine compression (emptying the bladder may assist in this process).

- ii. Pharmacological:

The following agents are useful in the management of PPH. They are commonly given in combination and, in the absence of individual contraindications, a patient may be given all four in the event of severe ongoing atonic bleeding. Because of the difficulties in

undertaking clinical trials in the circumstances of unexpected PPH, the outcomes of the uterotonics in varying combinations to manage PPH have not been assessed by sufficiently-powered randomised controlled trials. However, their use is strongly recommended if the atonic haemorrhage is continuing.

- Oxytocin (Syntocinon)
5 units by slow intravenous injection (if already administered for 3rd stage management, a repeat dose may be given).
Intravenous oxytocin infusion as per local protocol (e.g. 40 units oxytocin in 500mL normal saline over four hours)
- Ergometrine 0.25 mg by slow intravenous or intramuscular injection, repeated if necessary 5 minutely up to a maximum of 1.0 mg; in the absence of contraindications.
- Misoprostol (up to 1000mcg) rectally. Whilst many studies have studied the use of misoprostol to manage the third stage of labour, fewer have dealt with using misoprostol to treat PPH. In the hospital setting, there is evidence to suggest that misoprostol is clinically equivalent to further oxytocin in women who have already received prophylactic oxytocin when used for excessive post-partum bleeding due to suspected uterine atony⁸.
- Prostaglandin and its analogues are the most potent of the uterotonics but also have the most serious adverse effect profile which includes severe hypertension and bronchospasm (therefore contraindicated where there is a significant history of asthma). In Australia, following the discontinuation of dinoprost trometamol, alternatives may be accessed through the TGA Special Access Scheme (SAS).
15-methyl-PGF₂α (carboprost; Prostinfenem) which may be administered in one of two ways:
Intra-muscular injection of 0.25mg, in repeated doses as required at intervals of not less than 15 minutes to a maximum total cumulative dose of 2.0mg (ie up to 8 doses)

Intramyometrial injection of 0.5mg, under the responsibility of the administering clinician as it is not recommended by the manufacturer for intramyometrial use.
- The off-label use of these medications is considered routine for this indication with high quality evidence to support its use.

b. Trauma of the genital tract.

Thorough assessment of the entire genital tract is essential. The perineum, vagina and cervix should all be visually inspected for bleeding sources. Pressure should be applied to bleeding areas and repair attempted, either in the labour ward or the operating theatre if required.

If the patient is shocked and the amount of vaginal bleeding is normal, consider intra-abdominal sources such as ruptured uterus, broad ligament haematoma, subcapsular liver rupture, ruptured spleen, and ruptured splenic artery, hepatic artery or pancreatic artery aneurysm.

c. Tissue (retained products of conception)

This is usually due to retained placenta, cotyledon or membranes. If the placenta has been delivered assess for obvious missing tissue. If the placenta has not been delivered and cannot be delivered easily by controlled cord traction, empty the bladder and transfer the patient to theatre for manual removal of placenta.

Even when the placenta appears complete, there is still the possibility of unrecognised retention of a cotyledon or segment of a bipartite placenta. Hence, uterine exploration is indicated for all cases of persistent postpartum haemorrhage.

d. Thrombin (abnormalities of coagulation)

i) Tranexamic Acid

The “WOMAN” Trial demonstrated efficacy of the administration of 1g of tranexamic acid intravenously with a clinical diagnosis of PPH. The dose was repeated after 30 minutes if bleeding was persistent. The authors concluded that: “Tranexamic acid reduces death due to bleeding in women with post-partum haemorrhage with no adverse effects. When used as a treatment for postpartum haemorrhage, tranexamic acid should be given as soon as possible after bleeding onset.”³ Tranexamic acid should only be administered in the context of overall patient management; the protocol should include strict attention to the control of bleeding, physiological and metabolic parameters, coagulation status and temperature maintenance.⁴

ii) Replacement of Platelets and Clotting Factors

- Early replacement of clotting factors and platelets is essential in the management of severe PPH.
- “Point of Care” testing has an increasing role in the assessment of PPH (e.g. ROTEM).¹⁵
- Particular attention should be made to the fibrinogen level with replacement (cryoprecipitate or fibrinogen concentrate if available) where the fibrinogen is < 1.5-2g^{15,16}

iii) Management of specific abnormalities such as von Willebrand disease or severe thrombocytopenia is beyond the scope of this guideline.

e. Theatre

Surgical interventions should be initiated sooner rather than later, especially hysterectomy in cases of uterine rupture, placenta accreta or uncontrolled massive haemorrhage. The following is a list of some available procedures. This should not necessarily be a step-wise progression and both order and utilisation will depend on the services/ clinical experience available and the individual clinical circumstances.

- i. Balloon tamponade. Several case series have been published reporting the results of using a Foley catheter, Bakri balloon, Rusch balloon or Sengstaken-Blackmore oesophageal catheter with good results where the uterus is empty and contracting.⁸ Newer intrauterine devices using low-pressure vacuum may also have a role but have not yet been thoroughly evaluated in large clinical trials.¹⁷
- ii. Haemostatic brace suturing (such as the B-Lynch suture).
- iii. Bilateral ligation of uterine arteries.
- iv. Bilateral ligation of internal iliac arteries by an experienced operator.
- v. Selective arterial embolisation. This intervention can only be achieved in institutions with timely access to both radiological expertise and equipment. It is important to note that time delays in accessing embolisation can occur and should not preclude alternate surgical treatment.
- vi. Hysterectomy.

4.3 How should secondary PPH be managed?

Secondary PPH is usually associated with endometritis (with or without retained products of conception). Conventional treatment usually includes antibiotic therapy and, uterotonics in some cases. In situations of excessive or continued bleeding surgical intervention, particularly the evacuation of retained products, should be considered, irrespective of ultrasound findings.¹

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7. Links to other College statements

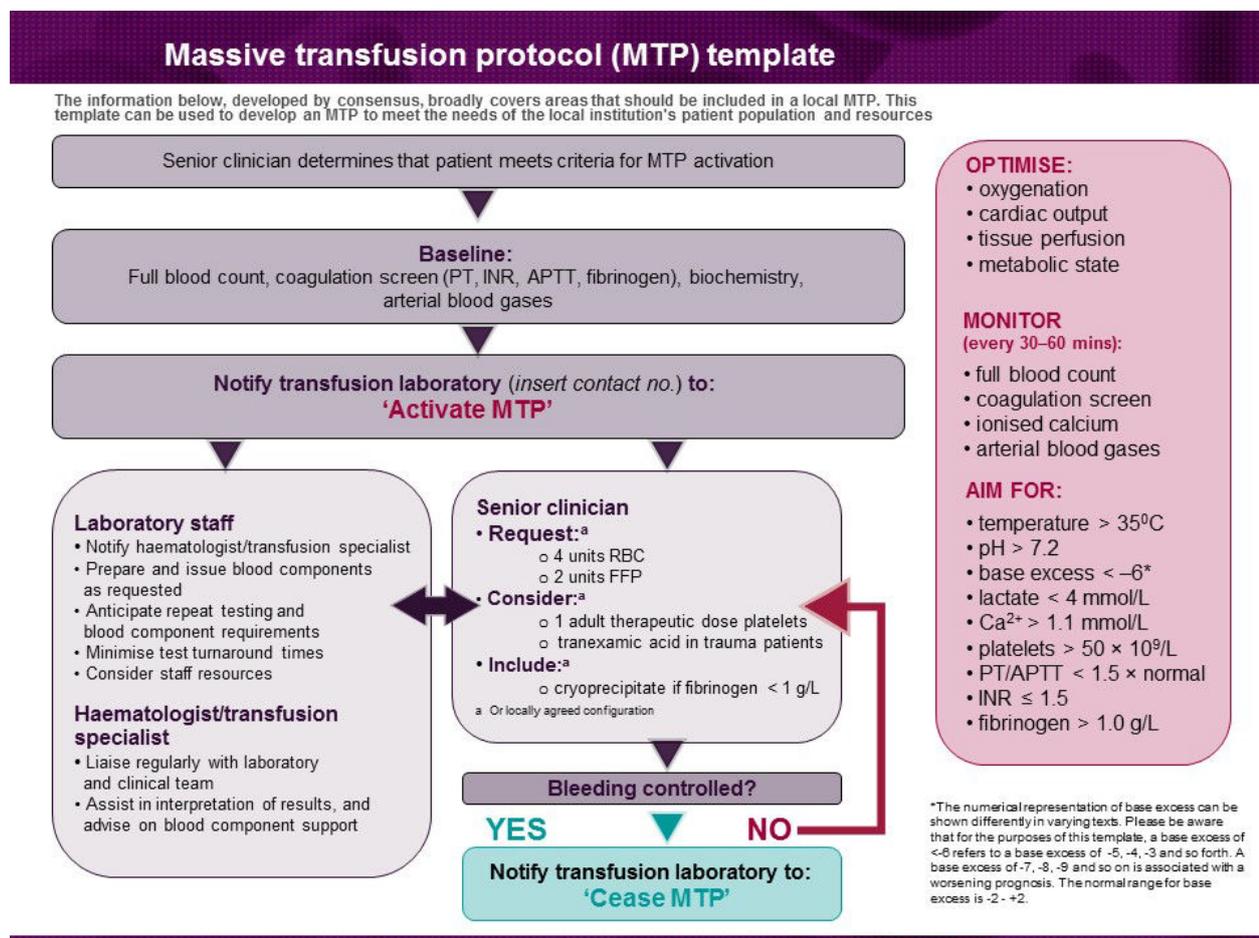
Evidence-based Medicine, Obstetrics and Gynaecology (C-Gen 15)

8. Patient information

A range of RANZCOG Patient Information Pamphlets can be ordered via:
<https://ranzcof.edu.au/womens-health/patient-information-guides/patient-information-pamphlets>

Appendices

Appendix A – Patient Blood Management Guidelines: Module 1, Massive transfusion protocol template⁴



Suggested criteria for activation of MTP

- Actual or anticipated 4 units RBC in < 4 hrs, + haemodynamically unstable, +/- anticipated ongoing bleeding
- Severe thoracic, abdominal, pelvic or multiple long bone trauma
- Major obstetric, gastrointestinal or surgical bleeding

Initial management of bleeding

- Identify cause
- Initial measures:
 - compression
 - tourniquet
 - packing
- Surgical assessment:
 - early surgery or angiography to stop bleeding

Specific surgical considerations

- If significant physiological derangement, consider damage control surgery or angiography

Cell salvage

- Consider use of cell salvage where appropriate

Dosage

Platelet count < 50 x 10 ⁹ /L	1 adult therapeutic dose
INR > 1.5	FFP 15 mL/kg ^a
Fibrinogen < 1.0 g/L	cryoprecipitate 3–4 g ^a
Tranexamic acid	loading dose 1 g over 10 min, then infusion of 1 g over 8 hrs

^a Local transfusion laboratory to advise on number of units needed to provide this dose

Resuscitation

- Avoid hypothermia, institute active warming
- Avoid excessive crystalloid
- Tolerate permissive hypotension (BP 80–100 mmHg systolic) until active bleeding controlled
- Do not use haemoglobin alone as a transfusion trigger

Special clinical situations

- Warfarin:
 - add vitamin K, prothrombinex/FFP
- Obstetric haemorrhage:
 - early DIC often present; consider cryoprecipitate
- Head injury:
 - aim for platelet count > 100 × 10⁹/L
 - permissive hypotension contraindicated

Considerations for use of rFVIIa^b

The *routine* use of rFVIIa in trauma patients is not recommended due to its lack of effect on mortality (Grade B) and variable effect on morbidity (Grade C). Institutions may choose to develop a process for the use of rFVIIa where there is:

- uncontrolled haemorrhage in salvageable patient, and
- failed surgical or radiological measures to control bleeding, and
- adequate blood component replacement, and
- pH > 7.2, temperature > 34°C.

Discuss dose with haematologist/transfusion specialist

^brFVIIa is not licensed for use in this situation; all use must be part of practice review.

ABG	arterial blood gas	FFP	fresh frozen plasma	APTT	activated partial thromboplastin time
INR	international normalised ratio	BP	blood pressure	MTP	massive transfusion protocol
DIC	disseminated intravascular coagulation	PT	prothrombin time	FBC	full blood count
RBC	red blood cell	rFVIIa	activated recombinant factor VII		

Appendix B Women's Health Committee Membership

Name	Position on Committee
Professor Yee Leung	Chair and Board Member
Dr Gillian Gibson	Deputy Chair, Gynaecology
Dr Scott White	Deputy Chair, Obstetrics and Subspecialties Representative
Dr Jared Watts	Member and EAC Representative
Dr Kristy Milward	Member and Councillor
Dr Will Milford	Member and Councillor
Dr Frank O'Keefe	Member and Councillor
Professor Sue Walker	Member
Dr Roy Watson	Member and Councillor
Dr Susan Fleming	Member and Councillor
Dr Sue Belgrave	Member and Councillor
Dr Marilyn Clarke	ATSI Representative
Associate Professor Kirsten Black	Member
Dr Thangeswaran Rudra	Member
Dr Nisha Khot	Member and SIMG Representative
Dr Judith Gardiner	Diplomate Representative
Dr Angela Brown	Midwifery Representative, Australia
Ms Adrienne Priday	Midwifery Representative, New Zealand
Ms Ann Jorgensen	Community Representative
Dr Ashleigh Seiler	Trainee Representative
Dr Leigh Duncan	Maori Representative
Prof Caroline De Costa	Co-opted member (ANZJOG member)
Dr Christine Sammartino	Observer

Appendix C Overview of the development and review process for this statement

i. Steps in developing and updating this statement

This statement was originally developed in March 2011 and was most recently reviewed in November 2021.

The Women's Health Committee carried out the following steps in reviewing this statement:

- Declarations of interest were sought from all members prior to reviewing this statement.
- Structured clinical questions were developed and agreed upon.
- An updated literature search to answer the clinical questions was undertaken.
- At the September 2021 face-to-face committee meeting, the existing consensus-based recommendations were reviewed and updated (where appropriate) based on the available body of evidence and clinical expertise. Recommendations were graded as set out below in Appendix C part iii)

ii. Declaration of interest process and management

Declaring interests is essential in order to prevent any potential conflict between the private interests of members, and their duties as part of the Women's Health Committee.

A declaration of interest form specific to guidelines and statements was developed by RANZCOG and approved by the RANZCOG Board in September 2012. The Women's Health Committee members were

required to declare their relevant interests in writing on this form prior to participating in the review of this statement.

Members were required to update their information as soon as they become aware of any changes to their interests and there was also a standing agenda item at each meeting where declarations of interest were called for and recorded as part of the meeting minutes.

There were no significant real or perceived conflicts of interest that required management during the process of updating this statement.

iii. Grading of recommendations

Each recommendation in this College statement is given an overall grade as per the table below, based on the National Health and Medical Research Council (NHMRC) Levels of Evidence and Grades of Recommendations for Developers of Guidelines.⁴ Where no robust evidence was available but there was sufficient consensus within the Women’s Health Committee, consensus-based recommendations were developed or existing ones updated and are identifiable as such. Consensus-based recommendations were agreed to by the entire committee. Good Practice Notes are highlighted throughout and provide practical guidance to facilitate implementation. These were also developed through consensus of the entire committee.

Recommendation category	Description
Evidence-based	A Body of evidence can be trusted to guide practice
	B Body of evidence can be trusted to guide practice in most situations
	C Body of evidence provides some support for recommendation(s) but care should be taken in its application
	D The body of evidence is weak and the recommendation must be applied with caution
Consensus-based	Recommendation based on clinical opinion and expertise as insufficient evidence available
Good Practice Note	Practical advice and information based on clinical opinion and expertise

Appendix D Full Disclaimer

Purpose

This Statement has been developed to provide general advice to practitioners about women's health issues concerning management of postpartum haemorrhage and should not be relied on as a substitute for proper assessment with respect to the particular circumstances of each case and the needs of any person. It is the responsibility of each practitioner to have regard to the particular circumstances of each case. Clinical management should be responsive to the needs of the individual person while managing postpartum haemorrhage and the particular circumstances of each case.

Quality of information

The information available in Management of Postpartum Haemorrhage (C-Obs 43) is intended as a guide and provided for information purposes only. The information is based on the Australian/New Zealand context using the best available evidence and information at the time of preparation. While the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) had endeavoured to ensure that information is accurate and current at the time of preparation, it takes no responsibility for matters arising from changed circumstances or information or material that may have become subsequently available. The use of this information is entirely at your own risk and responsibility.

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Exclusion of warranties

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These terms and conditions will be constructed according to and are governed by the laws of Victoria, Australia

Version	Date of Version	Pages revised / Brief Explanation of Revision
v1.1	Mar / 2011	WHC
v2.1	Mar / 2014	WHC Amended Feb 2016 –(approved by flying minute by WHC &Board)
v3.1	Jul / 2017	WHC

Policy Version:	Version 4.1
Policy Owner:	Women's Health Committee
Policy Approved by:	RANZCOG Council/Board
Review of Policy:	November / 2026