

Department:	Obstetrics and Gynecology		
Document:	Multidisciplinary Policy and Procedure		
Title:	Management of Postpartum Hemorrhage		
Applies To:	All Obstetrics and Gynecology Staff		
Preparation Date:	January 08, 2025	Index No:	L&D-MPP-002
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1. PURPOSE:

- 1.1 To ensure prompt, initiation and care of patients will massive obstetric hemorrhage.

2. DEFINITIONS:

- 2.1 It is often defined as the loss of more than 500ml or 1,000ml of blood within the first 24 hours following childbirth.

3. POLICY:

- 3.1 Vaginal bleeding in excess of 500ml after vaginal delivery or in excess of 1000cc at caesarean section is defined as postpartumhemorrhage (PPH). There are, however, some problems with this definition.
- 3.2 Clinician should identify the risk factors before and during labor although significant life-threatening bleeding can occur in the absence of risk factors and without warning.
- 3.3 All care givers and facilities involved in maternity care must have a clear plan for the prevention and management of PPH in addition to stages and management of hypovolemic shock.
- 3.4 Active management of the third stage of labor should be offered by skilled attendants to all women.
- 3.5 All postpartum women must be closely monitored to determine those that have PPH.
- 3.6 Isotonic crystalloid solutions can be used for volume replacement in hemorrhagic shock. There is no place for hypotonic dextrose solutions in the management of hemorrhagic shock.

4. PROCEDURE:

4.1 General Management:

- 4.1.1 SHOUT FOR HELP. Urgently mobilize all available personnel.
- 4.1.2 Make a rapid evaluation of the general condition of the woman including vital signs (pulse, blood pressure, respiration, temperature).
- 4.1.3 If shock is suspected or develops, immediately begin treatment.
- 4.1.4 Administer oxygen mask.
- 4.1.5 Take blood for cross matching of 6 units PRBCs or whole blood if available and obtain a complete blood count, coagulation screen, urea level,creatinine value and electrolytes status, arterial blood gasses, liver function tests.
- 4.1.6 Massage the uterus to expel the blood and blood clots. Blood clots trapped in the uterus will inhibit effective uterine contractions.
- 4.1.7 Oxytocin (10 units parenterally) or ergometrine/ methylergometrine (0.25mg parenterally) be offered to all women by skilled attendants to prevent PPH.
 - 4.1.7.1 If oxytocin is not available; skilled attendants should offer ergometrine/ methylergometrine or the fixed drug combination of oxytocin and ergometrine to women without hypertension or heart disease for prevention of PPH.
- 4.1.8 Start an IV infusion and infuse IV fluids Normal Saline or Ringers Lactate Solution.

- 4.1.9 Insert urinary catheter.
- 4.1.10 Check fluid input and output.
- 4.1.11 Do not give more than 3.5 liters of fluids before starting blood transfusion, crystalloids have short half life in the circulation and so, it should be given in a ratio of 3/1 (3 liters of crystalloids for each liter of blood loss).
- 4.1.12 For every 4 units of PRBC transfused, give 2 units of Fresh Frozen Plasma (FFP) which contains all the clotting factors to prevent the possibility of Disseminated Intravascular Coagulation (DIC).
- 4.1.13 Evaluate the success of your management from the clinical and biochemical points of view till patient is stabilized.
 - 4.1.13.1 Clinical evaluation (every 15-20 minutes)
 - 4.1.13.1.1 Vital Signs.
 - 4.1.13.1.2 Oxygen Saturation.
 - 4.1.13.1.3 Uterine tone and fundal level.
 - 4.1.13.1.4 Vaginal bleeding.
 - 4.1.13.1.5 Urine output.
 - 4.1.13.1.6 Base of the lung (Risk of overloading).
 - 4.1.13.2 Biochemical evaluation (Every 6 hours)
 - 4.1.13.2.1 CBC.
 - 4.1.13.2.2 Coagulation profile.
 - 4.1.13.2.3 Renal function tests.
- 4.1.14 Check to see if the placenta has been expelled and examine the placenta to be certain it is complete.
- 4.1.15 Examine the cervix, vagina, and perineum for tears.
- 4.1.16 After bleeding is controlled (24 hours after bleeding stops), determine hemoglobin or hematocrit to check for anemia.

4.2 Management of the underlying cause of PPH

- 4.2.1 Uterine atony
 - 4.2.1.1 If uterus fails to contract after delivery, continue to massage the uterus.
 - 4.2.1.2 Use oxytocic drugs which can be given together or sequentially.
 - 4.2.1.2.1 Oxytocin can be administrated as IV infusion 20 units in 1l lv fluids at 60 drops per minute or IM: 10 units.
 - 4.2.1.2.2 Ergometrine/ Methylergometrine IM or IV (slowly): 0.2mg. repeat 0.2mg IM after 15minutes if required, give 0.2mg IM or IV (slowly) every 4 hours. 5 doses (total 1.0mg).
 - 4.2.1.2.3 15-Methyl Prostaglandin F2 α IM: 0.25mg every 15 minutes for 8 doses (total of 2mg).
 - 4.2.1.3 If bleeding continues, take the patient to theatre:
 - 4.2.1.3.1 Check placenta again for completeness.
 - 4.2.1.3.2 If there are signs of retained placental fragments (absence of a portion of maternal surface or torn membranes with vessels), remove remaining placental tissues.
 - 4.2.1.3.3 Assess clotting status using a bedside clotting test. Failure of a clot to form after 7 minutes or a soft clot that breaks down easily suggests coagulopathy.
 - 4.2.1.3.4 If bleeding continues in spite of management above.
 - 4.2.1.3.5 Perform bimanual compression of the uterus.
 - 4.2.1.3.6 Wearing high-level disinfected gloves insert a hand into the vagina and form a fist.
 - 4.2.1.3.7 Place the fist into the anterior fornix and apply pressure against the anterior wall of the uterus.
 - 4.2.1.3.8 With the other hand, press deeply into the abdomen behind the uterus, applying pressure against the posterior wall of the uterus.

- 4.2.1.3.9 Maintain compression until bleeding is controlled and the uterus contracts.
- 4.2.1.3.10 Alternatively, compress the aorta.
- 4.2.1.3.11 Apply downward pressure with a closed fist over the abdominal aorta directly through the abdominal wall.
- 4.2.1.3.12 The point of compression is just above the umbilicus and slightly to the left.
- 4.2.1.3.13 Aortic pulsations can be felt easily through the anterior abdominal wall in the immediate postpartum period.
- 4.2.1.3.14 With the other hand, palpate the femoral pulse to check the adequacy of compression.
- 4.2.1.3.15 If the pulse is palpable during compression, the pressure exerted by the fist is inadequate.
- 4.2.1.3.16 If the femoral pulse is not palpable, the pressure exerted is adequate.
- 4.2.1.3.17 Maintain compression until bleeding is controlled.
- 4.2.1.3.18 If bleeding continues in spite of compression.
- 4.2.1.3.19 Perform uterine and utero-ovarian artery ligation and/ or internal iliac artery ligation.
- 4.2.1.3.20 If life-threatening bleeding continues after ligation, perform subtotal hysterectomy.

4.2.2 Tears of Cervix, Vagina or Perineum

- 4.2.2.1 Examine the woman carefully and repair tears to the cervix or vagina and perineum.
- 4.2.2.2 If bleeding continues, assess clotting status using a bedside clotting test.

4.2.3 Retained Placenta: there may be no bleeding with retained placenta.

- 4.2.3.1 If the placenta still in, ask the woman to push it out. If you can feel the placenta in the vagina, remove it.
- 4.2.3.2 Ensure that the bladder is empty. Catheterize the bladder, if necessary.
- 4.2.3.3 If the placenta is not expelled, give oxytocin 10 units IM if not already done for active management of the third stage.
- 4.2.3.4 Do not give ergometrine because it causes tonic uterine contraction. This may delay expulsion.
- 4.2.3.5 If the placenta is undelivered after 30 minutes of oxytocin stimulation and the uterus is contracted, attempt controlled cord traction.
 - 4.2.3.5.1 Avoid forceful cord traction and fundal pressure as they may cause uterine inversion.
- 4.2.3.6 If controlled cord traction is unsuccessful, attempt manual removal of placenta.
 - 4.2.3.6.1 Very adherent tissue may be placenta accrete. Efforts to extract a placenta that does not separate easily may result in heavy bleeding or uterine perforation which usually requires hysterectomy.
- 4.2.3.7 If bleeding continues, assess clotting status using a bedside clotting test.
- 4.2.3.8 If there are signs of infection (fever, foul-smelling vaginal discharge), give antibiotics as for metritis.

4.2.4 Retained Placental Fragments

- 4.2.4.1 There may be no bleeding with retained placental fragments. When a portion of the placenta one or more lobes is retained, it prevents the uterus from contracting effectively.
 - 4.2.4.1.1 Feel inside the uterus for placental fragments. Manual exploration of the uterus is similar to the technique described for removal of the retained placenta.
 - 4.2.4.1.2 remove placental fragments by hand, ovum forceps or large currette

- 4.2.4.1.2.1 Very adherent tissue may be placenta accrete. Efforts to extract fragments that do not separate easily may result in heavy bleeding or uterine perforation which usually requires hysterectomy.
- 4.2.4.1.3 If bleeding continues, assess clotting status using a bedside clotting test.
- 4.2.5 Inverted Uterus
 - 4.2.5.1 The uterus is said to be inverted if it turns inside-out during delivery of the placenta. Repositioning the uterus should be performed immediately. With the passage of time the constricting ring around the inverted uterus becomes mere rigid and the uterus more engorged with blood.
 - 4.2.5.1.1 If the woman is in severe pain, give pethidine 1mg/kg body weight (but not more than 100mg) IM or IV slowly or give morphine 0.1mg/kg body weight IM.
 - 4.2.5.1.1.1 Do not give oxytocic drug until the inversion is corrected.
 - 4.2.5.1.2 If bleeding continues, assess clotting status using a bedside clotting test.
 - 4.2.5.1.3 Give a single dose of prophylactic antibiotics after correcting the inverted uterus.
 - 4.2.5.1.4 Ampicillin 2 grams IV plus Metronidazole 500mg IV.
 - 4.2.5.1.5 Or Cefazolin 1 gram IV plus Metronidazole 500mg IV
 - 4.2.5.1.6 If there are signs of infection (fever, foul-smelling vaginal discharge), give antibiotics as for metritis.
- 4.2.6 Delayed (Secondary) Postpartum Hemorrhage
 - 4.2.6.1 If anemia is severe (Hemoglobin less than 7g/dl or hematocrit less than 20%), arrange for a transfusion.
 - 4.2.6.2 If there are signs of infection (fever, foul-smelling vaginal discharge), give antibiotics as for metritis. Prolonged or delayed PPH may be a sign of metritis.
 - 4.2.6.3 Give oxytocic drugs as mentioned earlier.
- 4.2.7 Coagulopathy
 - 4.2.7.1 If manual exploration has excluded uterine ruptured or retained placental fragments, bleeding from a well- contracted uterus is most commonly due to a defect in hemostasis.
 - 4.2.7.1 A review of the history and risk factors along with coagulation test results clarifies this diagnosis. Proceed with blood product replacement as previously described in order to correct abnormalities of hemostasis.
- 4.2.8 Bleeding at caesarean delivery
 - 4.2.8.1 The management of bleeding at caesarean is not greatly different from that following vaginal delivery. Direct bimanual compression may be used in the case of atony. Retained adherent tissue is a concern, leave in the case of atony. Retained adherent tissue is a concern; leave it in site if it cannot be easily remove.
 - 4.2.8.2 Persistent bleeding following hysterectomy or due to placenta previa, may be managed by packing with gauze which could be removed 24-36 hours later.
 - 4.2.8.3 Uterine rupture or extension of a uterine incision requires excellent visualization and careful repair with attention to adjacent structures.
- 4.3 Post-operative details: patient to be referred to intensive care unit continue resuscitation, and repeat laboratory tests. Monitor vital signs, urine output, and any on-going losses. After recovery, she should be shifted to the postpartum ward.
- 4.4 Follow up care: full documentation of the case is imperative, and a careful explanation of events and interventions must be given to the patient.

5. MATERIALS AND EQUIPMENT:

N/A

6. RESPONSIBILITIES:

- 6.1 Physician
- 6.2 Nurse

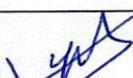
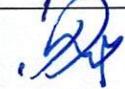
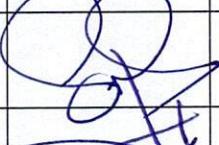
7. APPENDICES:

- 7.1 OR Notes
- 7.2 Consent Form

8. REFERENCES:

- 8.1 Guidelines Obstetrics & Gynecology, Ministry of Health, 2013.
- 8.2 WHO recommendation for the prevention of postpartum hemorrhage Geneva, World Health Organization, 2007.
- 8.3 CBAHI Standard 3rd Edition 2016.
- 8.4 Integrated Management of Pregnancy and Childbirth, Managing complications in pregnancy and childbirth. Section 2-Symptoms. Vaginal bleeding after childbirth a guide for Doctors and Midwives. WHO/RHR/00.7, Geneve, 2003.
Management of Major Postpartum Hemorrhage (blood loss >1000ml or clinical shock).
First Line Management-Failure to control bleeding a Second Line Management.
Failure to control bleeding.

9. APPROVALS:

	Name	Title	Signature	Date
Prepared by:	Dr. Abdalla Mohamed Albasha	Obstetrician and Gynecologist		January 08, 2025
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Reviewed by:	Dr. Thamer Naguib	Medical Director		January 15, 2025
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KINGDOM OF SAUDI ARABIA  وزارة الصحة Ministry of Health	MRN: _____ رقم الملف الطبي: _____ Name: _____ الاسم: _____ Nationality: _____ الجنسية: _____ Age: _____ سنة _____ Years شهور _____ Months يوم _____ Days العمر: _____ Hospital: _____ مستشفى: _____ Region: _____ المنطقة/المحافظة: _____ Dept./Unit: _____ القسم/الوحدة: _____ Date of Birth: _____ / _____ / 14 _____ H _____ / _____ / 20 _____ تاريخ الميلاد: _____ Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female الجنس: _____
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OPERATION NOTES FORM

EDD-H-1NP-ONE-101

ISSUED DATE:09/03/2013

1 OF 2

9-882008-981814

SN

Name: _____

رقم الملف الطبي: _____ MRN: _____

POST- OPERATIVE OBSERVATION & INSTRUCTIONS

NARRATIVE FINDINGS AND PROCEDURES (CONT):

Intra- Operative Complication: No Yes if Yes sepcify:

Specimen/s to pathology: No Yes

Blood loss ml

Transfusion: Yes No

Type:

POST-OPERATIVE INSTRUCTIONS (Packs, Drains, Transfusions, Sedation, Antibiotics)

Surgeon: _____ Stamp & Signature: _____ Date ____/____/____

EDOH-INP-ONE-101

ISSUED DATE:09/02/2013

20F2

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SN

Hospital: _____
Region: _____
Dept./Unit: _____

MRN: _____ رقم الملف الطبي: _____

Name: _____ الاسم: _____

Nationality: _____ الجنسية: _____

Age: _____ سن: _____ شهور: _____ يوم: _____
Years Months Days

Date of Birth: _____ / _____ / 14 _____ H _____ / _____ / 20 _____

Gender: Male Female الجنس: _____

GENERAL CONSENTS

إقرارات عامة

I (for Named Patient) signed below, authorize and give consent to my attending physician and/or his/her assistant to provide medical, nursing care and other clinical diagnostic or therapeutic procedures with the exception of surgical and invasive procedures, induction of anesthetics, infusion of blood and blood products and other procedures that require special consent.

أهواه أننا (المريض) الموقع أدناه، وأعطي موافقتي للطبيب المعالج ولمن يختار لمساعدته وذلك لتقديم عناية طبية وتمريضية وأي تشخيصات سريرية أو أية طرق علاجية بإسناد العمليات الجراحية والإجراءات التداخلية حقن الدم أو مشتقاته أو أي عمل آخر يتطلب موافقته خاصة.

I understand that Dr. _____

لقد قرأتني أن الطبيب المعالج.

is attending physician and is the person responsible for the assessment of my medical condition & my care plan & he/she will have the responsibility according to my medical condition, to Discharge or Transfer.

هو الشخص المسؤول عن تقديم حالتي الطبية وخطة علاجي وتقع عليهما مسؤولية أمر درجتي من المستشفى أو تدويني إلى أية جهة عناية صحية أخرى وذلك بناء على ما تستدعيه حالتي الصحية.

I understand that the hospital and its employees will respect my rights and privacy at all times and that the confidentiality of my medical information will be guarded carefully and released only to authorized person.

أفهم وأعترف أن المستشفى وموظفيه سوف يحترمون خصوصياتي هي كل الأوقات وأن سرية المعلومات الطبية الخاصة بي سوف يحافظ عليها بعناية وسوف تستند فقط وحصراً إلى العجل العالج وأن تعطى فقط لآهؤلة الأشخاص الذين ينوبون على رعايتي، ولن يتم إعطاء المعلومات للأفراد أو جهات إلا في حالة موافقتي الشخصية أو موافقته الشخص المقصود كبديل عنى.

I shall abide by the hospital rules and regulations.

سوف ألتزم واتبع كل القوانين والنظم الخاصة بالمستشفى.

I understand that the hospital is not responsible for the loss or damage of my money, valuables and other personal property and that in case of emergency or no alternative situations the items should be handed over to the security for safekeeping.

أفهم إن المستشفى لا تتحمل مسؤولية فقدان الثقة أو أي ممتلكات خاصة بي إلا في حالة الطوارئ أو هي حالة عدم وجود بديل للحفاظ على ممتلكاتي حيث أن هذه الممتلكات يجب أن تعطى لمسؤولي الأمان في المستشفى للحفاظ عليها.

If it is found that I am not eligible for free treatment, I am obligated to pay for all services rendered as per my healthcare needs, I agree that the authorities and Kingdom's courts will decide any dispute in connection with such costs.

إذا اتضح إني غير مؤهل للعلاج المجاني فإنني أتفهم إني مطالب بدفع كل المصروفات المتعلقة بعلاجي وأوافق أن الجهات المختصة والمحاكم بالملوك العربية السعودية هي التي تقرر مسؤولية الدفع في حالة وجود خلاف حول المصروفات الواجب دفعها.

In case of emergency, where I am not coherent or conscious and unable to make my healthcare decision, I hereby grant the following person (s) the right to take decision of my medical treatment on my behalf:

إذا كان هناك طارئ أو حالة غير عادية أو عدم تفكيز وفقت غير قادر على اتخاذ قرار بشأن حالتي الصحية فإنني أمني حق إتخاذ القرار بالنيابة عنى بشأن طالبي الصحية إلى الأشخاص التاليه اسمائهم.

1. Name: _____

الاسم: _____

Relation to the Patient: _____

صلة القرابة: _____

Date: _____ / _____ / _____ Time: _____

تاريخ: _____ / _____ و وقت: _____

Name: _____	الاسم: _____	MRN: _____	رقم الملف الطبي: _____
I acknowledge that my signature on this form signifies that I am in agreement with all the statements.		أقر أن توقيعي على هذه الاستمارة يعني إنني موافق على كل بنودها وإنني فرأتها بالكامل قبل توقيعي هنا.	
Signature of Patient: _____		توقيع المريض: _____	
Date: ____/____/____ Time: _____		تاريخ: ____/____/____ وقت: _____	
Substitute Decision Maker		من ينوب عن المريض (أو صانع القرار البديل)	
In case of emergency and the patient is unable to make decision and not granted any person to sign on his behalf.		في حالة الطارئة وحين يكون المريض غير قادر على اتخاذ القرار ولم يمنح أحد حق التوقيع بالنيابة عنه.	
Substitute Decision Maker Name _____		اسم من ينوب عن المريض: _____	
Relation to the Patient _____		صلة القرابة: _____	
Signature: _____		التوقيع: _____	
Date: ____/____/____ Time: _____		تاريخ: ____/____/____ وقت: _____	
Reason for Patient not signing to Consent: _____		سبب عدم توقيع المريض: _____	
In case of emergency and no Substitute Decision Maker and patient not granted any person to sign on his behalf		في حالة الطارئة وغياب من ينوب عن المريض، تكون المريض لم يمنح أحد حق التوقيع بالنيابة عنه.	
We certify that, we have examined the patient and it is our professional opinion that this patient lacks decision capacity to take health care decision and any delay providing medical treatment will endanger his life or lead to serious body harm.		نحن نأكيد ونتحقق أنه عند فحص المريض وحسب رأينا المهني أن هذا المريض غير قادر على اتخاذ القرار بشأن حالته الصحية وأن أي تأخير في تقديم العناية الطبية اللازمة سوف يعرض حياته للخطر أو قد يؤدي إلى عواقب ودية.	
1. Physician Name & ID No.: _____		اسم الطبيب والرقم الوظيفي: _____	
Position: _____ Signature: _____		وظيفته: _____ التوقيع: _____	
Date: ____/____/____ Time: _____		تاريخ: ____/____/____ وقت: _____	
2. Physician Name & ID No.: _____		اسم الطبيب والرقم الوظيفي: _____	
Position: _____ Signature: _____		وظيفته: _____ التوقيع: _____	
Date: ____/____/____ Time: _____		تاريخ: ____/____/____ وقت: _____	
WITNESS			
Name (الاسم)		Signature (التوقيع)	Date & Time (التاريخ والوقت)
1.)			
2.)			
3.)			