

Department:	Obstetrics and Gynecology		
Document:	Multidisciplinary Policy and Procedure		
Title:	Management of Postpartum Hemorrhage		
Applies To:	All Obstetrics and Gynecology Staff		
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1. PURPOSE:

- 1.1 To ensure prompt, initiation and care of patients with 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 postpartum hemorrhage (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 gases, 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 administered as IV infusion 20 units in 1l IV 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 F_{2α} 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 curette

- 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 more 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.

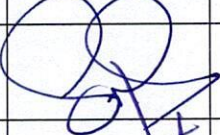

8.4 Integrated Management of Pregnancy and Childbirth, Managing complications in pregnancy and childbirth. Section 2-Symptoms. Vaginal bleeding after childbirth a guide for Doctors and Midwives. WHO/RHR/00.7, Geneva, 2003.


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
Reviewed by:	Dr. Mohannad Yaghmour	Head of the Department		January 12, 2025
Reviewed by:	Ms. Awatif Hamoud Al - Harbi	IPCD Director		January 12, 2025
Reviewed by:	Mr. Sabah Turayhib Al - Harbi	Director of Nursing		January 13, 2025
Reviewed by:	Mr. Abdulelah Ayed Al - Mutairi	QM&PS Director		January 14, 2025
Reviewed by:	Dr. Thamer Naguib	Medical Director		January 15, 2025
Approved by:	Mr. Fahad Hezam Al - Shammari	Hospital Director		January 22, 2025

KINGDOM OF SAUDI ARABIA  وزارة الصحة Ministry of Health	MRN: رقم الملف الطبي: Name: _____ الاسم: Nationality: _____ الجنسية: Age: سنة شهر يوم العمر: _____ Years _____ Months _____ Days Date of Birth: ____/____/14 ____H ____/____/20 تاريخ الميلاد: Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female الجنس:
Hospital: _____ مستشفى: Region: _____ المنطقة/المحافظة: Dept/Unit: _____ القسم/الوحدة:	

OPERATION NOTES FORM			
Date: Time commenced: Time completed:	O.R. No. <div style="border: 1px solid black; height: 20px; width: 100%;"></div>	O.R. Nurse <div style="border: 1px solid black; height: 20px; width: 100%;"></div>	Operation category: <input type="checkbox"/> Elective <input type="checkbox"/> Day case <input type="checkbox"/> Emergency
Surgeon/ s: 1- _____ 2- _____ 3- _____	Assistant/ s: 1- _____ 2- _____ 3- _____		
Anesthesist Name: _____			
Type of anesthesia: _____			
Pre- operative diagnosis: _____			
Operation: _____			
Post- operative diagnosis: _____			
NARRATIVE FINDINGS INDICATION FOR SURGARY AND PROCEDURES:(Including the condition of all organs – examined, incision ligatures, sutures, drainage, swab count and closure).			
<div style="border: 1px solid black; min-height: 140px;"></div>			

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ISSUED DATE:09/02/2013

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Name: _____ الاسم: _____

MRN: _____ رقم الملف الطبي: _____

POST- OPERATIVE OBSERVATION & INSTRUCTIONS**NARRATIVE FINDINGS AND PROCEDURES (CONT):**

Intra- Operative Complication:

☐ No☐ Yes

if Yes sepecify:

Specimen/s to pathology: ☐ No ☐ Yes

Type:

Blood loss _____ ml

Transfusion: ☐ Yes ☐ No
Unit use _____ mlInstrument and swab Count Correct: ☐ Yes ☐ No**POST- OPERATIVE INSTRUCTIONS (Packs, Drains, Transfusions, Sedation, Antibiotics)**

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



KINGDOM OF SAUDI ARABIA  وزارة الصحة Ministry of Health		MRN: _____ الاسم: _____ الجنسية: _____ العمر: _____ سنة _____ شهر _____ يوم Age: _____ Years _____ Months _____ Days تاريخ الميلاد: ____/____/14 H ____/____/20 الجنس: <input type="checkbox"/> Male <input type="checkbox"/> Female
Hospital: _____ المنطقة/المحافظة: _____ القسم/الوحدة: _____		
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.		أقرض أنا (المريض) الموقع أدناه، وأعطي موافقتي للطبيب المعالج وللمن يختار لمساعدته وذلك لتقديم عناية طبية وتمريضية وأي تشخيصات سريرية أو أية طرق علاجية باستثناء العمليات الجراحية والإجراءات التداخلية حقن الدم أو مشتقاته أو أي عمل آخر يتطلب موافقة خاصة.
I understand that Dr. _____ 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.		لقد تم إعلامي أن الطبيب المعالج د. _____ هو الشخص المسؤول عن تقييم حالتي الطبية وخطه العلاجي وتقع عليه عليها مسؤولية أمر خروجي من المستشفى أو تحويلي 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 وأعي أن المستشفى وموظفيه سوف يحترمون خصوصياتي في كل الأوقات وأن سرية المعلومات الطبية الخاصة بي سوف يحافظ عليها بعناية وسوف تستخدم فقط وحصرياً لأجل العلاج وأن تعطي فقط لهؤلاء الأشخاص الذين يقومون على رعايتي. ولن يتم إعطاء المعلومات لأي شخص أو جهة إلا في حالة موافقتي الشخصية أو موافقة الشخص المصرح كبديل عني.
I shall abide by the hospital rules and regulations.		سوف التزم واطيع 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 النقود، الممتلكات الثمينة أو أية ممتلكات خاصة بي إلا في الحالة الطارئة أو في حالة عدم وجود بديل للحفاظ على ممتلكاتي حيث إن هذه الممتلكات يجب أن تعطى لمسؤولي الأمن 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 إنني غير مؤهل للعلاج المجاني فإنني أتفهم إنني مطالب بدفع كل المصاريف المتعلقة بعلاجي وأوافق أن الجهات المختصة والمحاكم بالمملكة العربية السعودية هي التي تقرر مسؤولية الدفع في حالة وجود خلاف حول المصاريف 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 غيبوبة أو عدم تركيز وكنت غير قادر على اتخاذ قرار بشأن حالتي الصحية هأنذا أوافق حق اتخاذ القرار بالنيابة عني بشأن حالتي الصحية إلى الأشخاص التالية أسمائهم.
1. Name: _____ Relation to the Patient _____ Date: ____/____/____ Time: _____		الاسم: _____ صلة القرابة: _____ تاريخ: ____/____/____ وقت: _____

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ISSUED DATE:09/02/2013

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Name: _____ الاسم: _____	رقم الملف الطبي: _____ MRN: _____	
I acknowledge that my signature on this form signifies that I am in agreement with all the statements. Signature of Patient: _____ Date: ____/____/____ Time: _____	أقر أن توقيعي على هذه الاستمارة يعني أنني موافق على كل بنودها وإنني قرأتها بالكامل فببيل توقيعي هذا. توقيع المريض: _____ 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. Substitute Decision Maker Name _____ Relation to the Patient _____ Signature: _____ Date: ____/____/____ Time: _____ Reason for Patient not signing to Consent: _____	في الحالة الطارئة وحين يكون المريض غير قادر على اتخاذ القرار ولم يمنح أحد حق التوقيع بالنيابة عنه. اسم من ينوب عن المريض: _____ صلة القرابة: _____ التوقيع: _____ تاريخ: ____/____/____ وقت: _____ سبب عدم توقيع المريض: _____	
In case of emergency and no Substitute Decision Maker and patient not granted any person to sign on his behalf 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. 1. Physician Name & ID No.: _____ Position: _____ Signature: _____ Date: ____/____/____ Time: _____ 2. Physician Name & ID No.: _____ Position: _____ Signature: _____ Date: ____/____/____ Time: _____	في الحالة الطارئة وغالب من ينوب عن المريض. ويكون المريض لم يمنح أحد حق التوقيع بالنيابة عنه. نحن نؤكد ونوثق 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 وخيمة اسم الطبيب والرقم الوظيفي: _____ وظيفته: _____ التوقيع: _____ تاريخ: ____/____/____ وقت: _____ اسم الطبيب والرقم الوظيفي: _____ وظيفته: _____ التوقيع: _____ تاريخ: ____/____/____ وقت: _____	
WITNESS		
شاهد		
Name (الاسم)	Signature (التوقيع)	Date & Time (التاريخ والوقت)
1.)		
2.)		
3.)		

