# 

**PPH is one of the most serious complications of childbirth and should be treated urgently.**

It usually occurs after a woman loses more than 500 ml blood after vaginal delivery, or more than 1000 ml blood after caesarean delivery. Any blood loss that adversely affects the patient must also be treated as PPH.

Most common symptoms of PPH can include:1

* Uncontrolled bleeding
* Decreased blood pressure
* Increased heart rate
* Decrease in the red blood cell count
* Swelling and pain in the vagina and nearby area if bleeding is from a hematoma

PPH treatment can be more effective if the cause is identified quickly. This can help focus the next steps of treatment on addressing the specific cause.

**Always refer the patient to the nearest high-level facility immediately in case of severe clinical symptoms.**

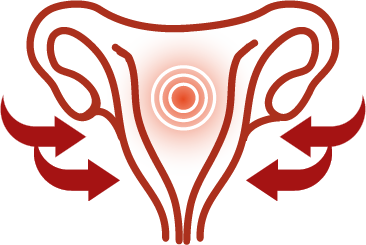
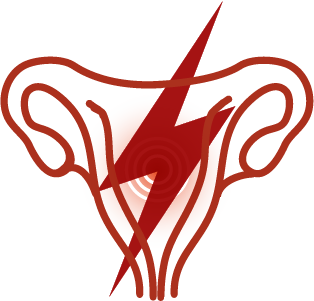
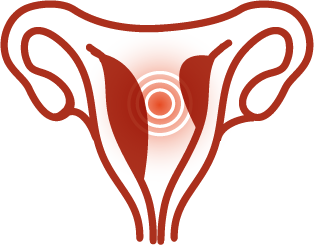
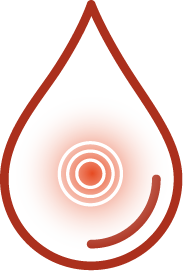
**Severe clinical symptoms are unconsciousness and collapse.**

PPH can occur within 24 hours of delivery (Primary PPH) or up to six weeks after delivery (Secondary PPH).

**Postpartum hemorrhage (PPH)** is severe loss of blood after childbirth that adversely affects the patient

**Postpartum hemorrhage**

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1. University of Rochester Medical Center. Health encyclopedia: postpartum hemorrhage.

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**Tone**

Failure of uterus to contract

**Trauma**

Uterus or genital tract is ruptured during childbirth

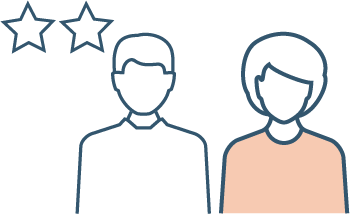
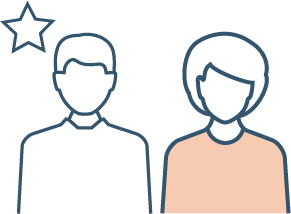
**Tissue**

Placenta and/or membranes do not detach and deliver completely

**Thrombin**

Patient has a blood clotting disorder

**Causes of PPH are called 4Ts**



**Community Health Workers with no medical training**

What should you do when a patient with PPH comes to you with severe post-birth vaginal blood loss and/or symptoms of blood loss?

**Staff with some birth-related training**

**Follow TCC advice and monitor symptoms and blood loss. If the patient deteriorates, immediately refer to the nearest high-level medical facility**

* **Call TCC to refer**
* **Follow the Management and Therapeutic Strategies (labelled as Basic or Comprehensive level)**

**If you are trained in administering IV, performing blood tests and the use of bimanual compression and/or condom tamponade to stop bleeding**

**If you are not trained in Telemedicine protocol care for the patient, or in midwifery skills**

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* **Call TCC urgently**
* **Take history of the patient (duration and amount of bleeding, date and time of delivery, delivery mode and any intervention)**

**Refer to the nearest medical facility immediately**

**If you are trained in administering IV, performing blood tests and massaging uterus**

* **Call TCC to refer**
* **Follow the Management and Therapeutic Strategies (labelled as Community or Basic level)**

**Follow TCC advice and monitor symptoms and blood loss. If the patient deteriorates, immediately refer to the nearest high-level medical facility**

**Staff with comprehensive birth-related training (i.e. midwives)**



**NOTE:** This is a template based on the Ghana telemedicine pilot experience. Countries must review the content and adapt to their local procedures and policies for each disease or condition.Edit the content directly within each text box. **Please delete this note before sending out to your telemedicine staff.**

1. What is the date and time of delivery?
2. How was the baby delivered?  
   Was it a caesarean birth?
3. Were there any interventions?
4. How long has the patient been bleeding after delivery?
5. What is the amount of bleeding, any fainting or shock?

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* Mode of delivery
* Induction of labor
* Augmentation of labor
* Duration of second stage of labor
* Approximate amount of blood loss
* State of the uterus
* State of the genital tract (vaginal area, perineum, cervix)
* State of the placenta and membranes
* Number of previous pregnancies
* Duration of pregnancy
* History of pregnancy-induced hypertension
* History of bleeding before birth (antepartum hemorrhage)
* History of bleeding after birth (postpartum hemorrhage)
* History of enlarged uterus – from multiple pregnancies, too much amniotic fluid, large baby, fibroids, etc.
* More than five babies including stillbirths
* Age over 35 years

**Delivery history**

**Previous history of pregnancy or labor**

* Cause of bleeding – find out cause of PPH
* Amount of blood loss
* Any signs of shock (pale, BP <90/60 mmHg, fast and thready pulse >120 beats per minute, cold and clammy limbs, restlessness)
* State of the uterus – shrunk/contracted or flabby
* State of the vaginal area
  + Any tearing
  + Ruptured uterus
* Placenta that is out of the uterus is complete
* Any sign that a part of the placenta or fetal membranes are left in the uterus

**Questions/accompanying symptoms**

**Alarm/danger signs and symptoms**

**Usually refer to hospital**

* Uterus is not contracted after birth (uterine atony)
* Uterus or vaginal area is torn after birth
* Placenta and/or fetal membranes are left inside the uterus
* Bleeding takes very long to clot (coagulopathy)
* Bleeding is heavy and/or patient is in shock  
  (pale, blood pressure (BP) <90/60 mmHg,  
  very fast pulse >120 beats per minute)

Interventions: cutting the vaginal opening (episiotomy), helping to increase contractions (augmentation of labor), helping to start labor (induction)

**First answer these questions:**

Postpartum hemorrhage (PPH) is heavy bleeding (500 ml or more) after child birth that causes the patient to deteriorate

**A telemedicine**

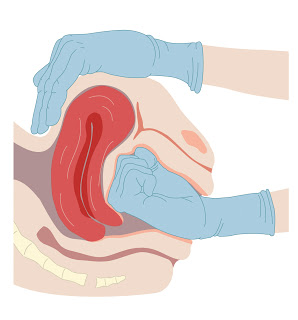
**protocol is a standardized**

**procedure to guide treatment and referral during a teleconsultation.**

**Please follow systematically when managing a case – it will save time and lives.**

**GHANA TELEMEDICINE TOOLKIT**

**Telemedicine protocol for postpartum hemorrhage**



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**Bimanual compression**

* Even if bleeding stops, refer to a higher level for further evaluation

**Basic level**

* Give or continue IV fluids – 500 ml normal saline or Ringer’s lactate. Give as much as needed to maintain circulation
* Monitor for signs of shock (pale, blood pressure (BP) <90/60 mmHg, very fast pulse >120 beats per minute)
* Give oxygen
* Take blood for Hb, grouping and cross-matching if not already done
* Give IV/intramuscular (IM) oxytocin 10 IU stat and oxytocin 20 IU in 500 ml normal saline to run at 40 to 60 drops per minute OR insert misoprostol 600 µg   
  (3 tabs) rectally
* Insert Foley’s catheter to drain bladder continuously
* If bleeding continues, examine for laceration of perineum, vagina or cervix – suture if present
* If placenta is delivered:
  + Massage uterine fundus and stimulate nipples
  + Do bimanual compression of the uterus if necessary (see picture below)
* Examine placenta and membranes for completeness and extra lobe

**If bleeding continues:**

* **Organize blood donors to accompany patient**
* **Arrange transport**
* **Refer**

**Anti-shock garment**

* Massage/rub the uterus continuously to expel blood and blood clots
* Start IV fluids – normal saline or Ringer’s lactate
* Insert misoprostol 800 µg (4 tabs) rectally if available
* Call ahead to alert referral hospital
* Arrange transport
* Transport patient in anti-shock garment if available – see picture below
* Refer immediately and accompany patient to next level (Basic level)

**Call for help**

**If trained:**

* **IV access with a large bore cannula**
* **Insert Foley’s catheter** **to drain bladder continuously**

**Community level**

**Management/Therapeutic strategies**

**Laboratory investigation**

* Take blood sample for grouping
* Cross-match blood sample to be sent to next level
* Check hemoglobin (Hb) level

**Note: History, examination and resuscitation should be done at the same time. Every minute is important.**

* General physical examination e.g. for pallor
* Check perineum and vaginal area for signs of tears
* Palpate/feel the uterus to see if it is shrunk/contracted
* Examine the placenta and membrane for completeness

**Examination**

**Management/Therapeutic strategies**

**Telemedicine protocol for postpartum hemorrhage**

**GHANA TELEMEDICINE TOOLKIT**

**Anti-shock garment**

**Bimanual compression**



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**Comprehensive level**

* Follow the steps as for basic level care
* Give blood transfusion, if necessary
* Identify cause of hemorrhage
  + Atonic uterus
  + Retained placenta, retained fragments or pieces of placenta
  + Rupture, occult rupture or incomplete rupture of uterus
  + Inversion of uterus
  + Lacerations or tears of vulva, vagina and cervix
  + Coagulopathy
* If bleeding stops:
  + Give broad-spectrum antibiotics for 5 days
  + Observe for 24 hours
  + Check Hb
  + Give iron, vitamin B12, folate or similar, to prevent or treat anemia
* If bleeding with placenta still *in utero:*
  + If you have the skill to remove, do manual removal
  + If you do not have the skill to remove, refer
  + Continue to stimulate the uterus to contract or slow the bleeding until referral is possible

**Management/Therapeutic strategies**

**GHANA TELEMEDICINE TOOLKIT**

**Telemedicine protocol for postpartum hemorrhage**