

Management of Post Partum Hemorrhage (PPH)

Blood loss > 500ml after vaginal child birth/ > 1000ml after C-section/or any loss which deteriorates maternal condition

Patient received in Obstetric Triage of Emergency Room

Initial Assessment:

- A quick history with simultaneous assessment and initial management
- Ascertain the cause
- Continue with the steps of facility-based management (enumerated below)

Facility based management

- Call for help (mobilize all available personnel)
- Assess Airway Breathing and Circulation (ABC), check vitals
- Secure 2 wide bore IV lines (16/18 G)
- Collect blood for investigation: blood group and cross match, complete blood count, blood coagulation profile-bedside clotting and clot retraction time

- Start IV fluids (0.9% Normal Saline/Ringers Lactate)
- Arrange and transfuse blood, when indicated as soon as possible
- Give inj oxytocin 10 IU IM (if not given after delivery)
- 20 IU of oxytocin in 1000ml of RL/NS or 10 IU of oxytocin in 500ml of RL/NS @ 40-60 drops/mt
- Tranexemic acid 1gm in 10ml NS IV over 10 mins (100 mg/min); repeat another dose after 30 min of first dose if required

Monitor

- Pulse rate, blood pressure, respiratory rate, temperature and bleeding per vaginum
- Catheterize and monitor urine output until the woman is stable (normal output > 30 ml/hr)

Check if placenta is expelled or not

Placenta is not expelled (Retained placenta)

- Continue oxytocin drip (Total oxytocin not to exceed 100 IU in 24 hrs)
- If uterus is contracted, attempt controlled cord traction
- Give IV antibiotic or as per Protocol
- Do manual removal of placenta under anaesthesia if required

Placenta is expelled

- Examine placenta and membranes for completeness
- Palpate the uterus per abdomen for the consistency. Rule out inversion of uterus
- Conduct uterine massage and continue oxytocin drip (Total oxytocin not to exceed 100 IU in 24 hrs)

Uterus contracted/relaxed

Uterus well contracted, examine for Genital Trauma (Traumatic PPH)

- Look for cervical/ vaginal/ perineal tear - repair it
- Continue Oxytocin drip
- If scar dehiscence or uterine rupture is suspected than shift to OT for laparotomy

Uterus is not well contracted/ soft and traumatic causes excluded (Atonic PPH)

Continue uterine massage and oxytocin drip (total oxytocin not to exceed 100 IU in 24 hrs)

- If uterus is still relaxed and bleeding uncontrolled – Tablet Misoprostol (PGE1) 800 microgram sublingual/per rectal
- If uterus is still relaxed and bleeding uncontrolled – Inj Carboprost (PGF2 alfa) 0.25mg IM (contraindicated in asthma)/ inj. Methyl ergometrine 0.2 mg IM/IV slowly (contraindicated in hypertension, severe anemia, heart disease)

Check bleeding

Bleeding is uncontrolled

- Arrange for blood transfusion
- Apply non-surgical compression:
 - Bimanual uterine compression
 - Uterine balloon tamponade (Condom over Foley's catheter)
 - External aortic compression

If no response

- Shift to OT for surgical compression
- May consider Uterine Artery Embolization (UAE) in select cases such as with coagulopathy if facilities available

If no response

- Systemic devascularization: uterine artery, ovarian artery, internal iliac artery ligation

If no response

- Hysterectomy total or subtotal (timely hysterectomy)

Refer to higher center (with nearest distance) if above facilities are not available:

Continue oxygen with oxytocin drip and pressure to arrest bleeding by balloon tamponade/vaginal packing/or external aortic compression during transfer

- Closely monitor vitals and bleeding during transport
- If available, consider use of well-equipped ambulance services with trained staff for emergency interventions/resuscitation during transport

Bleeding is controlled

- Repeat uterine massage every 15 min for first 2 hours
- Check vitals and bleeding per vaginum every 15 mins for 1st one hour followed by every 1 hr for next 4 hours and then every 6 hourly for next 24 hr
- Continue Oxytocin infusion (Total Oxytocin dose not to exceed 100 IU in 24 hrs)

Follow up

- Checkup and treat for anemia after bleeding is stopped for 24 hours

Maintenance Dose of Uterotonics

Whenever needed:

- Inj Ergometrine can be repeated every 15 min. {0.2mg IM} (Max 5 doses = 1mg)
- Inj Carboprost can be repeated every 15 min. {0.25mg IM} (Max 8 doses = 2mg)

Map government and private centers/hospitals providing surgical management of PPH for prompt referral and treatment to the nearest available center to avoid delay in reaching the facility – The list and contact details of nearest centers should be displayed for prompt reference

Follow complete referral protocol: Prior communication to referral facility is a must with complete details of woman, management provided, confirm availability of space and requisite staff, etc.