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सत्यमेव जयते
Department of Health Research
Ministry of Health and Family Welfare, Government of India

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Standard Treatment Workflow (STW) for the Management of
POSTPARTUM HAEMORRHAGE (PPH)
ICD O72

More than 500 ml of blood loss or any amount of bleeding which causes derangement of vital parameters is PPH

RED FLAG SIGN:

- PR > 120/min
- Systolic BP < 100 mm Hg
- Tachypnea < 95%
- SpO_2 < 95%
- Deterioration of sensorium

- Call for help
- Rapid Initial Assessment - evaluate vital signs: PR, BP, RR and Temperature
- Establish two IV lines with wide bore cannula (16-18 gauge)
- Draw blood for grouping and cross matching
- Start RL/ NS, infuse 1 L in 15-20 minutes*
- Give Oxygen @ 6-8 L /minute by mask,
- Insert indwelling Catheter and connect to urobag
- Check vitals and blood loss frequently - at least every 15 minutes
- Monitor input and output

SUPPORTIVE MANAGEMENT

- Monitoring of vitals
- Measurement of input and output
- Give blood transfusion as indicated

- Give Inj. Oxytocin 10 IU IM (if not given after delivery)
- Start Oxytocin infusion : 20 IU in 500 ml RL/NS @ 40-60 drops per minute
- IV bolus of oxytocin should NOT be given
- Check to see if placenta has been delivered.

PLACENTA NOT DELIVERED

- Continue Oxytocin drip
- Palpate uterus
- Attempt controlled cord traction if uterus is contracted

PLACENTA DELIVERED
- Continue oxytocin and uterine massage
- Check for completeness of placenta and membranes

PLACENTA NOT DELIVERED
Shift for manual removal of placenta (MRP)

PLACENTA DELIVERED

- Fundal Massage of the uterus
- Inspect placenta for completeness
- Explore uterus for any retained placental bits/ membranes/ clots and evacuate

Uterus well contracted but bleeding continuing

Uterus flabby

TRAUMATIC PPH

- Explore for cervical/ vaginal/ perineal tears. Repair if present
- If bleeding persists despite repair of above, suspect inadequate repair, rupture uterus or scar dehiscence.
- Shift to OT for exploration under GA and/or laparotomy

ATONIC PPH

Bimanual compression and pharmacotherapy as per details below

If bleeding continues without any apparent cause check for coagulopathy

* Arrange for blood / blood product at the earliest

3 ml of crystalloid solution should be used to replace every ml of blood lost during the initial part of the acute bleeding phase

MANAGEMENT OF ATONIC PPH

PHARMACOTHERAPY

(Any of the following options can be used either alone or combination as per availability)

Inj Methyl Ergometrine 0.2 mg IM or IV slowly
- Contraindicated in hypertension, severe anemia, heart disease
- Can be repeated after 15 minutes to a maximum of 5 doses (1mg)

Tab Misoprostol (PGE1) 800 µg
Per rectal or sublingual

Inj Carboprost (PGF2 alpha) 250 µg IM
- Contraindicated in asthma
- Can be repeated every 20 minutes to a maximum of 8 doses (2 mg)

Bleeding not controlled

Explore uterus for retained bits

Continue bimanual compression & Oxytocin infusion @10-20 units /hr

Bleeding not controlled

- Check for coagulation defects
- If present give blood and blood components

Intra uterine balloon tamponade using condom catheter

Bleeding still not controlled

Surgical intervention
- Uterine compression sutures
- Systematic uterine devascularisation by doing Uterine → Ovarian → Internal Iliac artery ligation
- Hysterectomy

Bleeding controlled

- Repeat uterine massage every 15 minutes for first two hours
- Monitor vitals every 10 minutes for 30 minutes , every 15 minutes for next 30 minutes and every 30 minutes for next 3-6 hours or until stable
- Continue Oxytocin infusion @5-10 units /hr (total Oxytocin not to exceed 100 IU in 24 hours)

Tranexamic Acid (1g slow IV) has recently been recommended as an adjunctive treatment for PPH to be used as early as possible irrespective of cause but definitely within three hours of delivery. It can be repeated after 30 minutes if bleeding persists. Standard treatment for PPH must continue meanwhile 1, 2

1 The WOMAN trial, The Lancet, 2017

2 WHO update on Tranexamic Acid, 2017

Timely Referral to a higher centre must be considered if facilities for blood transfusion or exploration and surgical intervention are not available. Patient must be transported with I/V fluids containing oxytocin on flow and preferably with uterine/vaginal tamponade in situ.
- Aortic compression may be used as a short time measure to reduce blood loss while awaiting definitive steps.
- Non- pneumatic anti-shock garment (NASG) should be used during transport if available
- Uterine artery embolization may be offered in selected patients if facilities are available

☛ COUNSELLING IS AN IMPORTANT ADJUNCT TO MANAGEMENT

☛ KEEP A HIGH THRESHOLD FOR INVASIVE PROCEDURES