Care pathways for Postpartum haemorrhage and retained placenta

Make initial assessment and start basic treatment

- ✓ Call for help
- ✓ Assess airway, breathing, and circulation (ABC)
- ✓ Provide supplementary oxygen
- ✓ Obtain an intravenous line
- ✓ Start fluid replacement with intravenous crystalloid fluid
- ✓ Monitor blood pressure, pulse and respiration
- ✓ Catheterize bladder and monitor urinary output
- ✓ Assess need for blood transfusion
- ✓ Order laboratory tests:
  - complete blood count
  - coagulation screen
  - blood grouping and cross

Temporizing and transfer interventions

Be ready at all times to transfer to a higher-level facility if the patient is not responding to the treatment or a treatment cannot be administered at your facility.

Start intravenous oxytocin infusion and consider:
- uterine massage;
- bimanual uterine compression;
- external aortic compression; and
- balloon or condom tamponade.

Transfer with ongoing intravenous uterotonic infusion. Accompanying attendant should rub the woman's abdomen continuously and, if necessary, apply mechanical compression.

Observe factors related to bleeding and determine cause

Uterine atony: uterus soft and relaxed

- **Treat for uterine atony**
  - Uterine massage
  - Uterotonic drugs:
    - Oxytocin
    - Ergometrine
    - Prostaglandins
      - Misoprostol
      - Prostaglandin F2α
- **If bleeding continues**
  - Nonsurgical uterine compression:
    - Bimanual uterine compression
    - Balloon or condom tamponade
  - Tranexamic acid
- **If bleeding continues**
  - Compression sutures
  - Artery ligation (uterine, hypogastric)
  - Uterine artery embolization
- **If bleeding continues**
  - Hysterectomy
  - If intra-abdominal bleeding occurs after hysterectomy, consider abdominal packing

Placenta not delivered

- **Treat for whole retained placenta**
  - Oxytocin
  - Controlled cord traction
  - Intraumbilical vein injection (if no bleeding)
- **If whole placenta still retained**
  - Manual removal with prophylactic antibiotics

Placenta delivered incomplete

- **Treat for retained placenta fragments**
  - Oxytocin
  - Manual exploration to remove fragments
  - Gentle curettage or aspiration
- **If bleeding continues**
  - Manage as uterine atony

Lower genital tract trauma: excessive bleeding or shock contracted uterus

- **Treat for lower genital tract trauma**
  - Repair of tears
  - Evacuation and repair of haematoma
- **If bleeding continues**
  - Tranexamic acid

Uterine rupture or dehiscence: excessive bleeding or shock

- **Treat for uterine rupture or dehiscence**
  - Laparotomy for primary repair of uterus
  - Hysterectomy if repair fails
- **If bleeding continues**
  - Tranexamic acid

Uterine inversion: uterine fundus not felt abdominally or visible in vagina

- **Treat for uterine inversion**
  - Immediate manual replacement
  - Hydrostatic correction
  - Manual reverse inversion (use general anaesthesia or wait for effect of any uterotonic to wear off)
- **If treatment not successful**
  - Laparotomy to correct inversion
- **If laparotomy correction not successful**
  - Hysterectomy

Clotting disorder: bleeding in the absence of above conditions

- **Treat for clotting disorder**
  - Treat as necessary with blood products

Drugs and dosages

Oxytocin – treatment of choice	Ergometrine – if oxytocin is unavailable or bleeding continues despite oxytocin	Prostaglandins – if oxytocin or ergometrine are unavailable or bleeding continues despite oxytocin and ergometrine	Tranexamic acid
• 20–40 IU in 1 litre of intravenous fluid at 60 drops per minute, and 10 IU intramuscularly • **Continue** oxytocin infusion (20 IU in 1 litre of intravenous fluid at 40 drops per minute) until haemorrhage stops	• 0.2 mg intramuscularly or intravenously (slowly), or Syntometrine® 1 ml • **After** 15 minutes, repeat ergometrine 0.2 mg intramuscularly • **If required**, administer 0.2 mg intramuscularly or intravenously (slowly) every 4 hours • **Do not exceed** 1 mg (or five 0.2 mg doses)	**Misoprostol:** • 200–800 µg sublingually • **Do not exceed** 800 µg **Prostaglandin F2α:** • 0.25 mg intramuscularly • Repeat as needed every 15 minutes 0.25 mg intramuscularly • **Do not exceed** 2 mg (or eight 0.25 mg doses)	• 1 g intravenously (taking 1 minute to administer) • **If bleeding continues,** repeat 1 g after 30 minutes

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