

MANATŪ HAUOR

Initial early recognition and action

Call for help

- Allocate roles
- include care of baby, partner and family/whānau

Assess and arrest bleeding

- Lie woman flat
- Deliver placenta
- Massage fundus and expel clots
- Place baby skin to skin
- Administer uterotonics
- Syntocinon 10iu IM or 5iu IV or Syntometrine 1ml IM (unless contraindicated)
- Empty bladder

Identify cause

- Consider the 4Ts
- Tone uterine atony
- Tissue retained placenta
- Trauma lacerations or rupture
- Thrombin coagulopathy

Minimise impact of blood loss

- Insert large bore IV cannula (16g)
- Take blood for FBC, Group and Hold, Coags
- Give high flow oxygen
- Consult with specialist obstetrician regarding transfer
- Start rapid IV fluid replacement and commence with crystalloids (Normal Saline, Hartmann's or similar)

Maternal observations and clinical assessment¹

- Assess and document:
- blood pressure, pulse, respiratory rate, temperature, cumulative blood loss, fluid balance

Blood loss stops and woman's condition is stable

- Continue observations and clinical assessments
- Document plan for ongoing care (including best location)
- Ensure woman has adequate level of observation by health professional or partner, family/whanau with access to health professional or emergency services
- Watch for further blood loss
- Check haemoglobin
- Remember:
- all health professionals consistently underestimate blood loss
- healthy women compensate: tachycardia and hypotension are late signs
- agitation or restlessness in women indicates hypovolaemia.

Ongoing significant bleeding

Don't delay transfer to secondary/tertiary obstetric service if

Treating Postpartum Haemorrhage

- at home or in a primary unit
- Allocate care of baby to suitable person
- Commence Syntocinon infusion (40iu in Normal Saline 1000mls over 4 hours)
- Reconsider the 4Ts
- Apply bimanual compression to arrest blood loss
- Ensure senior obstetric and midwifery team present on arrival

Call for additional support

- Transfer care to senior obstetrician as per Referral Guidelines
- Summon anaesthetist
- Prepare theatre team
- Inform laboratory of major PPH
- send blood to lab on arrival: FBC, Group & Hold, coagulation studies
- request blood for transfusion

Assess and arrest bleeding

- Reconsider the 4Ts
- Assess cumulative blood loss
- Insert second large bore IV cannula (16g)
- Massage the fundus to expel clots and consider bimanual compression
- Insert indwelling catheter
- Administer Carboprost² 250mcg every 15 minutes (maximum of 8 doses), IM or intrauterine or Misoprostol 800mcg, buccal or PR
- Consider EUA for
- removal of retained placenta/products
- repair of tears
- intrauterine balloon or packing

Resuscitation

- Give crystalloids (maximum 2–3L)
- Give red cell transfusion as soon as possible
- Start transfusing O Neg red cells if urgent transfusion required until cross-matched blood available

Maternal observations and clinical assessment

- Assess and document:
 - blood pressure, pulse, respiratory rate, temperature, cumulative blood loss, fluid balance

Blood loss stops and woman's condition is stable

- Continue observations and clinical assessments
- Document plan for ongoing care (including best location)
- Ensure 1:1 care
- Watch for further blood loss
- Check haemoglobin via FBC
- ² Carboprost can cause severe bronchospasm. Avoid in women with a history of asthma or bronchospasm.

- for care

- Reconsider the 4Ts
- Consider laparotomy
- - uterine compression suture (+/- tamponade balloon/packing)

 - aortic compression

Resuscitation

Maternal observations and clinical assessments

Ongoing uncontrolled bleeding

Call for additional help

• Senior obstetrician and senior anaesthetist clinically responsible

Consult with haematologist/transfusion medicine specialist • Transfer to operating theatre

Assess and arrest bleeding

- Consider early recourse to hysterectomy
- Consider other options if appropriate:
- uterine artery ligation
- internal iliac emobilisation

• Administer blood and blood products • Trigger massive transfusion protocol (MTP) where available³ • Avoid hypothermia, hypocalcaemia and acidosis • Use of cell saver where available Consider tranexamic acid · Consider recombinant factor Vlla

• Consider arterial line or central venous line • Assess and document blood pressure, pulse, respiratory rate, temperature, oxygen saturation: - document cumulative blood loss and accurate fluid balance (hourly urine output) - hourly FBC and coagulation studies

Blood loss stops and woman's condition is stable

• Make plan for ongoing care Consider transfer to ICU

³ Many units are using MTP; however the underlying principle of all the MTP is early recognition and prevention of worsening coagulation.