427.3 POSTPARTUM HAEMORRHAGE (PPH) – MAT/LWG/Intrapartum/10

Primary: blood loss greater than 500ml within 24 hours of delivery.
Secondary: blood loss greater than 500ml after 24 hours, up to 6 weeks postpartum.

If blood loss >1,000-1,500ml also follow massive obstetric haemorrhage guideline.

Primary postpartum haemorrhage

Expect/anticipate primary PPH if:

- Large baby.
- Multiple pregnancy.
- Previous PPH.
- Polyhydramnios.
- Long or augmented labour.
- Fibroids.
- Grand multiparity.
- Physiological third stage.

Causes of primary PPH:

- Uterine atony.
- Retained placenta or products of conception.
- Laceration/trauma to genital tract (uterine rupture, cervical, vaginal or perineal injury).
- Coagulopathy.

Uterine atony:

1. Give syntometrine if physiological 3rd stage.
2. Palpate the uterus and try to rub up a contraction + bimanual uterine compression.
3. Give oxytocin (Syntocinon) 5-10 units IV slowly IV or IM. If no response give ergometrine 500mcg IV or IM, but not if hypertensive or cardiac disease.
4. Catheterise bladder.
5. Examine the placenta and membranes to ensure they are complete.
6. Call SHO and registrar if not already present.
   If massive haemorrhage – emergency call 2222 may be appropriate. At SMH ask for “code red PPH”. At WH ask for “emergency obstetric team”.
7. Monitor BP and pulse and commence fluid balance chart.
8. Set up an IV infusion and take blood for FBC and group and save or cross-match.
9. Commence IV infusion of 30 units oxytocin in 500ml normal saline (infusion rate 125ml per hour). If fluid restricted change concentration/rate as necessary. Oxytocin can be given undiluted via a syringe driver, e.g. take 30 units of oxytocin and make up to 50ml with normal saline: run at 12ml per hour.
10. If uterus still atonic give 250 micrograms carboprost (Hemabate) by deep intramuscular injection. Dose may be repeated every 90 minutes (in severe cases every 15 minutes) to a maximum of 2mg (8 doses). May also be given intra-myometrially.
11. If haemorrhage severe (>1,500ml), follow massive obstetric haemorrhage guidelines and **call consultant.**
12. Use of cell saver may be appropriate (see cell salvage in obstetrics guideline MAT/Intrapartum/46).

If the uterus is well contracted:

13. Exclude local bleeding from episiotomy.
14. Exclude vaginal or cervical bleeding and retained products of conception under anaesthesia.

If bleeding persists:

15. Call the consultant for assistance.
16. Prepare for theatre: laparotomy may be required.

Surgical options include:

- Repair of uterine rupture or other genital tract laceration.
- Brace (B-Lynch) suture[1] for uterine atony. Use PDS suture, e.g. No 1 on 50mm needle (W9262T). DVD available in office.
- Uterine artery ligation (unilateral or bilateral) at the upper part of the lower segment.
- Internal iliac artery ligation - knowledge of anatomy required.
- Uterine packing or tampanade using balloon catheter[2] filled with 500ml fluid.
- Hysterectomy – usually subtotal.

Other medical options include:

- Rectal misoprostol[3] tablets 1000 micrograms (unlicensed use).
- Arterial embolisation. Useful in selected cases but not currently available at SMH or WH.

When bleeding is controlled after severe PPH:

17. Transfer to high dependency bed or ITU depending on condition.
18. Give prophylactic antibiotics if uterus or vagina explored.
19. Maintain regular observation of condition and fluid balance as detailed in massive obstetric haemorrhage guideline.

Secondary postpartum haemorrhage

This is usually due to retained products or infection.

Evacuation of the uterus is indicated if an ultrasound confirms retained products, the bleeding is heavy or the uterus is bulky and tender with an open cervix.

If there is evidence of infection and bleeding is not heavy, it is usually better to commence IV antibiotics for 12-24 hours before evacuation.

See also:

Guideline 445 Massive Obstetric Haemorrhage
Guideline 525 Use of Cell Salvage in Obstetrics

[1] Lynch CB, Coker A, Laval AH et al. The B-Lynch surgical technique for control of massive postpartum haemorrhage: an alternative to hysterectomy? Five cases reported. Brit J Obstet Gynaecol 1997; 104: 372-76

[2] Katesmark M, Brown R, Raju KS; Successful use of Sengstaken-Blakemore tube to control massive postpartum haemorrhage. Brit J Obstet Gynaecol 1994; 101: 259-60

[3] O'Brien P, El Refaey H, Gordon A et al. Rectally administered misoprostol for the treatment of postpartum haemorrhage unresponsive to oxytocic and ergometrine: a descriptive study. - Obstet Gynaecol 1998; 92: 212-4

Approved by the Drug and Therapeutics Committee September 2007

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Buckinghamshire Hospitals NHS Trust
Produced December 2005
Updated July 2007
To be reviewed July 2009
Uploaded 19th September 2007