

Topic Overview: Post partum

Module Obstetrics 3

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Topic overview (Handout)

ASSESSMENT

Assessment of the woman in the post partum period is important. It is essential that the uterus be assessed to ensure that it is firmly contracted, that the placenta is complete, and that the genital tract is not bleeding excessively. Careful monitoring for blood loss, uterine tone, blood pressure and heart rate should occur every 5-10 minutes in the first 30 minutes, the 15-30 minutely over the first 4 hours post delivery. The principles of assessment for deterioration as outlined in the DETECT course in NSW, including activation of medical assessment should be adhered to.

PPH RISK FACTORS

An assessment of maternal and delivery risk factors for PPH is important with close surveillance of every woman for PPH postbirth. However, PPH may occur in the absence of any of these risk factors.

Antenatal Risks:

- Coagulation disorders, especially those associated with hypertensive diseases of pregnancy.
- Previous PPH
- Multiple gestation / grand-multiparity
- Previous caesarian sections

Intrapartum Risks:

- Prolonged third stage
- Congenital uterine abnormalities (i.e; fibroids)
- Arrest of descent
- Episiotomy
- Lacerations
- Assisted delivery with Vacuum or Forceps
- Augmented labour

ACTIVE MANAGEMENT OF THE THIRD STAGE OF LABOUR

Compared to expectant (physiological) management, active management of the third stage of labour can reduce the incidence of PPH by 50%. This is done by giving intramuscular oxytocin (10units) within 1 minute of childbirth, controlled cord traction, and uterine massage after delivery of the placenta.

Active management of should be performed in all births, as recommended by WHO and FIGO. It is essential to first palpate the abdomen for additional babies. The oxytocin should then be given into the lateral thigh. Controlled cord traction is then performed after clamping the cord close to the perineum 2 minutes after delivery, the uterus must be stabilised with counter-traction, then apply slight tension to the cord until a uterine contraction, at which point have the mother deliver the placenta with pushing.

Following delivery of the placenta the uterus should be massaged every fifteen minutes for 2 hours. This is ongoing assessment for the tone of the uterus in the post partum period.

These interventions reduce the length of the third stage and reduce the incidence of PPH and the interventions associated with increased bleeding.

POST PARTUM HAEMORRHAGE

Postpartum haemorrhage (PPH) is commonly defined as blood loss of 500 ml or more during and after childbirth. PPH is a leading cause of maternal mortality in Australia and approximately one quarter of maternal deaths worldwide are due to PPH.

PPH can be either primary or secondary. Primary PPH occurs within 24 hours of the birth of a baby. Secondary PPH occurs between 24 hours and 6 weeks postpartum.

An understanding of the potential causes of PPH allows for simultaneous assessment and management of the woman with PPH, especially in those who are haemodynamically unstable. These are often described as the 4 Ts of PPH.

- Tone (70%) – Abnormalities of uterine contraction
- Trauma (20%) – Episiotomy or laceration of perineum, vagina, cervix/genital tract trauma
- Tissue (10%) – Retained placental tissue
- Thrombin (1%) – Abnormalities of coagulation

A STEP WISE APPROACH TO MANAGEMENT of PPH

- Call for help - obstetrics and anaesthetics back up
- Insert 2 large bore IVC (16G)
- FBC, Blood Group & Hold, Cross match, Venous blood gas including Hb.
- Personal protective equipment on staff, gloves and masks advised.
- Apply monitoring - BP, ECG, Pulse Oximetry
- Treat hypovolaemia with crystalloids and blood product replacement.
- Perform uterine fundal massage
- Oxygen - high flow initially
- Consider IDC insertion to improve massage ability

- Administer oxytocins as soon as possible - IM syntocinon 10 units
- Consider the 4 Ts further for tone, trauma, tissue, thrombins.
- Obstetric advice may include further drug therapy or physical techniques which are outlined below.

The NSW policy on management of PPH is a useful and widely available resource which should be referred to.

DRUG THERAPY for PPH

All drug therapy for PPH should only be given after excluding a twin pregnancy.

Oxytocins (Syntocinon) - stimulates the smooth muscle of the uterus, producing rhythmic contractions, particularly towards the end of pregnancy, during labour, after delivery and in the puerperium. Advised doses are 10 units IM, and once the placenta has been delivered an infusion of 40 units in 1L Hartmann's at 250ml/hr should be started for its steady effect.

Ergometrine - stimulates contractions of uterine and vascular smooth muscle. It increases the amplitude and frequency of uterine contractions and uterine tone, which in turn impedes uterine blood flow. Contraction of the uterine wall around bleeding vessels at the placental site produces haemostasis. Ergometrine also increases contractions of the cervix. The advised dose is 250 micrograms IM or slow IV.

Prostaglandin F2 Alpha (Dinoprost; maximum 3 mg) - should be considered in the presence of an atonic uterus and intractable haemorrhage. It should be used with caution in women with asthma, hypertension, active cardiac, renal or hepatic disease and hypersensitivity. Side effects include nausea, vomiting, diarrhoea, headache, flushing, pyrexia, uterine rupture and cardiac arrest. The patient should be on monitoring and both an obstetrician and anaesthetist should be present.

BIMANUAL COMPRESSION

Bimanual compression may need to be performed to control the bleeding where there is reduced uterine contraction, which is required to reduce blood flow to the uterus. One hand is inserted into the vagina and the other hand is used to externally compress the uterus between the two hands.

BAKRI BALLOON

A Bakri balloon provides balloon tamponade and is indicated for women where PPH is not responding to uterotonics and uterine massage. It is used to control haemorrhage due to uterine atony in the upper segment of the uterus and to control bleeding in the lower uterine segment secondary to placental implantation in the lower uterine segment. In the emergency department an indwelling catheter may need to be used as a substitute with sterile water used to "over inflate" the balloon in order to tamponade the bleeding.

References

- NSW Health Policy, Prevention, early recognition and management of post partum haemorrhage. 2010
- Advanced Life Support in Obstetrics Manual, 4th
- FIGO Safe Motherhood and Newborn Health Committee Prevention and treatment of post partum haemorrhage in low-resource settings International Journal of Gynecology and Obstetrics 117 (2012)