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External aortic compression and bimanual compression are used only in cases of torrential primary postpartum haemorrhage (PPH), as a last resort when all else has failed to control the haemorrhage. Primary PPH occurs within 24 hours of delivery and constitutes bleeding from or into the genital tract involving a blood volume of greater than 500 millilitres, or sufficient to cause hypovolaemic shock.[1]

**Indications**
- significant bleeding from the vagina
- enlarged soft uterus upon abdominal palpation
- tachycardia
- restlessness
- profound hypotension

**Contraindications**
- Nil in this setting

**Complications**
- Trauma
- Pain

**PROCEDURE**

**Management**
- Urgent transport to definitive care.
- Make a thorough physiological assessment, including an estimate of blood loss.
- If trauma is suspected, try to locate the source of the bleeding and apply pressure to the traumatised area externally with a sterile dressing.
- Actively manage the third stage of labour (See CPG: Physiological cephalic birth management of the third stage of labour).
- If haemorrhage is secondary to uterine hypotonicity and the placenta has been delivered, massage the uterus with a cupped hand over the fundus to stimulate uterine contractions. This may assist to expel blood and blood clots. Blood clots trapped in the uterus will inhibit effective uterine contractions.
- Encourage the patient to empty her bladder, as uterine contractions are inhibited when the urinary bladder is full.
- If possible, encourage newborn to suckle.
- Consider appropriate fluid resuscitation.
- Consider medical retrieval for blood products and oxytocic drugs.
In the case of **torrential/uncontrollable haemorrhage** the following methods should be attempted in the following order:\(^2\)

1) **External aortic compression (EAC)**

EAC is an effective treatment for severe PPH and should be attempted before bimanual compression as it is less invasive.

The procedure is carried out as follows:

a) Downward pressure is applied through the abdominal wall with a closed fist placed over the abdominal aorta; the point of compression is just above the umbilicus and slightly to the patient’s left. Aortic pulsations can often be felt easily through the abdominal wall in the immediate postpartum period.

b) With the other hand, palpate the femoral pulse to check the adequacy of the compression. If the femoral pulse is palpable during compression, it is not effective. Check the position of the fist and exert more pressure until the femoral pulse is no longer palpable.

c) Maintain compression until bleeding is controlled. If not controlled, quickly (30 seconds) move to bimanual compression.
Procedure – External aortic compression and bimanual compression

2) Bimanual compression

a) Wash and scrub hands.
b) Don sterile gloves.
c) Lubricate the surface of the glove with water-soluble lubricant.
d) Insert hand into the vagina and form a fist in the anterior vaginal fornix.
e) Apply pressure against the anterior wall of the uterus.
f) At the same time, the other hand is pushed deeply into the abdomen behind the fundus of the uterus and pressure is applied against the posterior wall of the uterus.
g) Maintain compression until bleeding is controlled and the uterus contracts.
h) Do not remove hand until arrival at hospital and instructed by a midwife.