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Secondary post-partum haemorrhage (SPPH) is abnormal or excessive bleeding from the birth canal occurring between 24 hours and 12 weeks postpartum, with most presentations occurring before day 14. There is no standard volume of blood for the diagnosis of SPPH, however, more than one heavily soaked pad per hour should be considered excessive blood loss, requiring investigation. The incidence of SPPH is estimated to be between one and three percent of births, with approximately ten percent of these cases presenting with massive SPPH that can result in severe maternal morbidity.

Vigilance is required to recognise signs of a deteriorating patient, and accurate appraisal of both apparent and concealed blood loss. The aetiologies of SPPH are diverse, however the most common cause of secondary postpartum haemorrhage is subinvolution (a failure of the fundal height to return to a pre-pregnancy state), often as a result of endometritis and retained products of conception.

In the event of continued or uncontrolled haemorrhage, the aim of management by the ambulance clinician is to achieve haemostasis by applying basic cares and appropriate pharmacological management.

Risk factors of SPPH:
- Prolonged rupture of membranes
- Prolonged labour
- Emergency caesarean section
- Vaginal birth after cesarean (VBAC)
- Ragged membranes or incomplete placenta (unlikely after a caesarean section).
- Manual removal of the placenta

Other causes of SPPH:
- Perineal trauma / Perineal repair infection
- Uterine Abnormalities
  - Fibroids
- Vascular anomalies
  - arteriovenous malformation or pseudoaneurysm
- Caesarean section wound dehiscence / infection
- Bleeding disorders or coagulopathies

Clinical features

Common signs of SPPH:
- Increase in volume of lochia (more than one pad soaked per hour).
- Change in lochia colour, from dark red or brown to bright red
- History of offensive lochia odour
- Fever (greater than 38°C)
- Uterine tenderness
- Poor fundal tone / fundal tone above the umbilicus
Risk assessment

- Research indicates that clinical reports of blood loss are frequently underestimated.
- Be aware that a flaccid uterus can conceal a significant volume of blood and clots. Every effort should be made to expel this using fundal massage and to encourage uterine contraction.
- It is important to note that usually only severe SPPH cases present to health services.\(^6\)

Additional information

- Fundal massage must only be performed after the placenta has been delivered.
- Fundal massage on a birthing parent who has had a caesarean section is likely to be very painful – consider analgesia.
- Lochia is the discharge from the uterus in the post-partum period. Normal lochia progresses through three stages:\(^3\)
  - **Lochia rubra** is the first discharge occurring at 3 to 4 days after birth. It is bright red in colour due to the presence of blood and clots.
  - **Lochia serosa** is the term for lochia that has thinned and turned brownish or pink in colour. This usually occurs between day 4 and day 10 after birth and contains few to no blood clots.
  - **Lochia alba** typically occurs 10 to 28 days post birth and the discharge is white or yellowish-white in colour. It contains little if any blood and no clots or odour.
- The patients legs must not be raised in the event of hypotension, due to the risk of concealing further haemorrhage.
- In an active SPPH the ambulance clinician’s objective is to ‘Manage the Ts’:
  - **Tone** – Subinvolution of the uterus resulting in significant hemorrhage.
  - **Tissue** – Endometritis, infection and urinary retention causing an astatic uterus resulting in haemorrhage.\(^4\)
  - **Trauma** – Perineal trauma repair can become infected or break down resulting in haemorrhage and pain. In rare cases caesarean section wound dehiscence can cause SPPH.\(^5\)
  - **Thrombin** – Obese postpartum parents post caesarean section will often be prescribed anti-coagulant medication that may contribute to SPPH. Post-partum parents with known blood disorders are also at increased risk of SPPH.\(^6\)
  - **Temperature** – Consider sepsis for all hyperthermic birthing patients.\(^1\)
  - **Theatre/Transport** – The vast majority of postpartum parents with a SPPH will require ultrasound, the administration of anti-biotics and surgical investigation.\(^1\)
More than 1 pad used per hour or haemodynamic instability greater than 24 hour post-partum

- Commence fundal massage until firm and central
- Encourage postpartum parent to empty bladder

Haemorrhage controlled?

MANAGE CAUSE(S) OF HAEMORRHAGE:

TONE – fundus firm and central?
- Continue fundal massage
- Oxytocin (subsequent dosing and commencement of infusion)

TRAUMA – evidence of perineum repair breakdown?
- Control external haemorrhage
- Analgesia

TISSUE, TEMPERATURE & THROMBIN – placenta reported to be intact? Evidence of clots? Known clotting disorder or patient anticoagulated?
- Continue fundal massage to assist with expulsion of clots
- Inspect clots for membranes or pieces of placenta
- Transport to an appropriate medical facility - consider the need for a facility with surgical capabilities
- Consider CPG: Medical/Sepsis

Haemorrhage controlled?

Y

Consider:
- Sodium chloride 0.9%
- Packed red blood cells
- External aortic compression
- Bimanual compression

N

Transport to hospital
Pre-notify as appropriate
Reassess fundal tone and PV loss every 15 minutes during transport

Note: Clinicians must only perform procedures for which they have received specific training and authorisation by the QAS.