This section covers: bleeding during early and late pregnancy (including miscarriage and ectopic pregnancy)

For **POST PARTUM HAEMORRHAGE** refer to birth imminent (normal delivery and delivery complications) guideline.

For complications associated with **ABORTION** refer to vaginal bleeding: gynaecological causes (including abortion).

**INTRODUCTION**

Haemorrhage during pregnancy is broadly divided into two types.

Haemorrhage occurring in ***early*** pregnancy:

1. miscarriage (previously known as spontaneous abortion)
   - ectopic pregnancy / ruptured ectopic pregnancy.

2. Haemorrhage occurring in ***late*** pregnancy ('Antepartum Haemorrhage'):
   - placenta praevia
   - placental abruption

Haemorrhage may be:

<table>
<thead>
<tr>
<th>REVEALED</th>
<th>CONCEALED</th>
</tr>
</thead>
<tbody>
<tr>
<td>With evident vaginal loss of blood (e.g. miscarriage and placenta praevia).</td>
<td>Where bleeding occurs within the abdomen or uterus. This presents with little or no external loss, but pain and signs of hypovolaemic shock (e.g. ruptured ectopic pregnancy and placental abruption). <strong>REMEMBER</strong>, pregnant women may appear well even with a large amount of concealed blood loss. Tachycardia may not appear until 30% or more of the circulating volume has been depleted.</td>
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</table>

**NOTE:** placental abruption may be a combination of revealed and concealed bleeding

**HISTORY**

The following should assist with assessing the most common causes of haemorrhage in pregnancy:

**Miscarriage**

Can sometimes give rise to significant haemorrhage, and is most commonly seen at between 6-14 weeks of gestation, i.e. 6-14 weeks after the first day of the last menstrual period. However, although less usual, it can also occur after 14 weeks. Crampy, supra-pubic pain, backache and blood loss, often with clots, characterises miscarriage. Significant symptoms (including hypotension) without obvious external blood loss may indicate 'cervical shock' due to retained miscarriage tissue stuck in the cervix.

**Ectopic Pregnancy**

Pregnancy usually presents earlier, at around 6-8 weeks gestation, so usually only one period has been missed. Ectopic pregnancy is more likely if a woman has a history of:

a. having a coil in the uterus
b. having an ectopic pregnancy before
c. is sterilised
d. has had a previous pelvic infection.

Acute lower abdominal pain, slight bleeding or brownish vaginal discharge and signs of blood loss within the abdomen with tachycardia and skin coolness characterise a ruptured ectopic pregnancy. Other suspicious symptoms include: unexplained fainting, shoulder-tip pain or unusual bowel symptoms.

**Antepartum haemorrhage**

Bleeding in later pregnancy before delivery is described as ‘antepartum haemorrhage’ and is of two main types:

1. **Placenta praevia**

   This is where the placenta develops low down in the uterus and completely or partially covers the cervical canal. When labour begins, this can cause severe haemorrhage. It occurs in 1 in 200 pregnancies and usually presents at 24-32 weeks with small episodes of painless bleeding. You may be able to check the patient-carried notes for scan results which may confirm a ‘low-lying’ placenta.

2. **Placental abruption**

   Any vaginal bleeding in late pregnancy or during labour which is accompanied by severe continuous abdominal pain and signs of shock may be due to **placental abruption**. This is where bleeding occurs between the placenta and the wall of the uterus,
detaching an area of the placenta from the uterine wall. It can be associated with severe pregnancy induced hypertension (PIH). Placental abruption causes continuous severe abdominal pain, tightening of the uterus, signs of hypovolaemic shock and puts the baby at immediate risk. There may be some external blood loss, but more commonly the haemorrhage is concealed behind the placenta. Where there is a combination of revealed (external) blood loss and concealed haemorrhage, this can be particularly dangerous, as it can lead to an under-estimation of the amount of total blood lost. The woman’s abdomen will be tender when felt and the uterus will feel rigid or ‘woody’ with no signs of relaxation.

OVERALL, ABRUPTION IS USUALLY MORE OMINOUS THAN BLEEDING FROM PLACENTA PRAEVIA (because the true amount of bleeding is concealed). It is also associated with Disseminated Intravascular Coagulation (DIC) which can worsen the tendency to bleed.

**ASSESSMENT**

Assess ABCD’s

Evaluate whether the mother has any **TIME CRITICAL** features

Specifically assess:

- **volume of blood loss** is important to assess. Remember a large sanitary towel can absorb about 50ml of blood, and blood loss will appear greater if mixed with amniotic fluid. Take any blood soaked pads to hospital

- **check for signs of shock** – If the mother is tachycardic (pulse >100 beats per minute), hypotensive (Systolic Blood Pressure (SBP) <90 mmHg), with cool sweaty skin, she is clearly shocked and in need of volume replacement (see below). Remember the value of a capillary refill test (CRT). In otherwise fit young women, symptoms of hypovolaemic shock occur very late, by which stage they are very unwell.

It is important to ask,

**“When did you last feel the baby move?”**

Be particularly tactful, so as not to cause alarm, as anxiety in the mother will only exacerbate the situation.

En-route – continue mother MANAGEMENT (see below)

Transfer of patients with haemorrhage during pregnancy:

<table>
<thead>
<tr>
<th>At&lt;20 weeks’ gestation</th>
<th>The mother should be transported immediately to the NEAREST EMERGENCY DEPARTMENT OR GYNAECOLOGICAL DEPARTMENT AS APPROPRIATE.</th>
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</thead>
<tbody>
<tr>
<td>At &gt;20weeks’ gestation</td>
<td>The mother should be transferred immediately to the NEAREST OBSTETRIC UNIT. Transfer to further care must be preceded by a Hospital Alert Call via Control.</td>
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</tbody>
</table>

Follow Medical Emergencies Guideline, remembering to:

Ensure ABC’s.

- administer high concentration oxygen (O₂) (refer to oxygen protocol for administration and information) via a non-re-breathing mask, using the stoma in laryngectomee and other neck breathing patients, to ensure an oxygen saturation (SpO₂) of >95%

- obtain IV access (large bore cannulae 16G).

‘Some hospitals use other cut offs. Check with Control who will find out about local arrangements.

Specifically consider:

**Fluid therapy**

Obtain IV access (large bore cannula).

Although current research in non-pregnant women shows little evidence to support the routine use of IV fluids in adult trauma patients,’ IN PREGNANCY, the uterus, and thus the fetus, will often become ‘under-perfused’ **PRIOR** to the women becoming tachycardic or hypotensive. Hypovolaemia is manifested late in pregnant women, thus the fetus may be compromised if adequate fluid replacement is **NOT** given; therefore fluid replacement should be given earlier.

If there is visible external blood loss greater than 500mls, fluid replacement should be commenced with a 250ml bolus of crystalloid.

Central pulse **ABSENT**, radial pulse **ABSENT** – is an absolute indication for urgent fluid.

Central pulse **PRESENT**, radial pulse **ABSENT** – will normally need fluid replacement in the pregnant patient.
Central pulse PRESENT, radial pulse PRESENT – DO NOT commence fluid replacement, unless there are other signs of poor central tissue perfusion (e.g. altered mental state, abnormal cardiac rhythm) or in the pregnant patient a high index of suspicion of significant blood loss.

Reassess vital signs prior to further fluid administration.

In later pregnancy, if the mother is transported on her back, the uterus will compress the abdominal vena cava, causing extreme hypotension and worsening shock. Either manually displace the uterus to the left side of the abdomen, or turn the mother into the left lateral position to avoid this problem.

Provide suitable analgesia in the form of Entonox if required (refer to Entonox protocol for administration and information). Opioids may be administered as indicated by the patient’s condition (refer to specific drug protocols).

Key Points – Haemorrhage During Pregnancy (including miscarriage and ectopic pregnancy)

- Haemorrhage during pregnancy is broadly divided into two categories, occurring in early and late pregnancy.
- Haemorrhage may be revealed (evident vaginal blood loss) or concealed (little or no loss).
- Pregnant women may appear well even when a large amount of blood has been lost.
- Obtain venous access with large bore cannulae (16G).
- Tachycardia may not appear until 30% of circulating volume has been lost.
- In otherwise fit young women, symptoms of hypovolaemic shock occur very late, by which stage the patient is very unwell.

REFERENCES


METHODOLOGY

Refer to methodology section.