MANAGEMENT OF ANTEPARTUM HAEMORRHAGE

WOMEN'S HEALTH AND PAEDIATRICS

MATERNITY UNIT

Amendments			
Version	**Date**	**Comments**	**Approved by**
1	August 2021	New guideline	Perinatal Guidelines Group

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In consultation with: Perinatal Governance Group

Ratified by: Perinatal Governance Group

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Target audience: All health professionals within the maternity services

Equality impact assessment: Perinatal Governance Group

Comments on this document to: Perinatal Governance Guideline Group

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Fig 1. Management of spotting in pregnancy

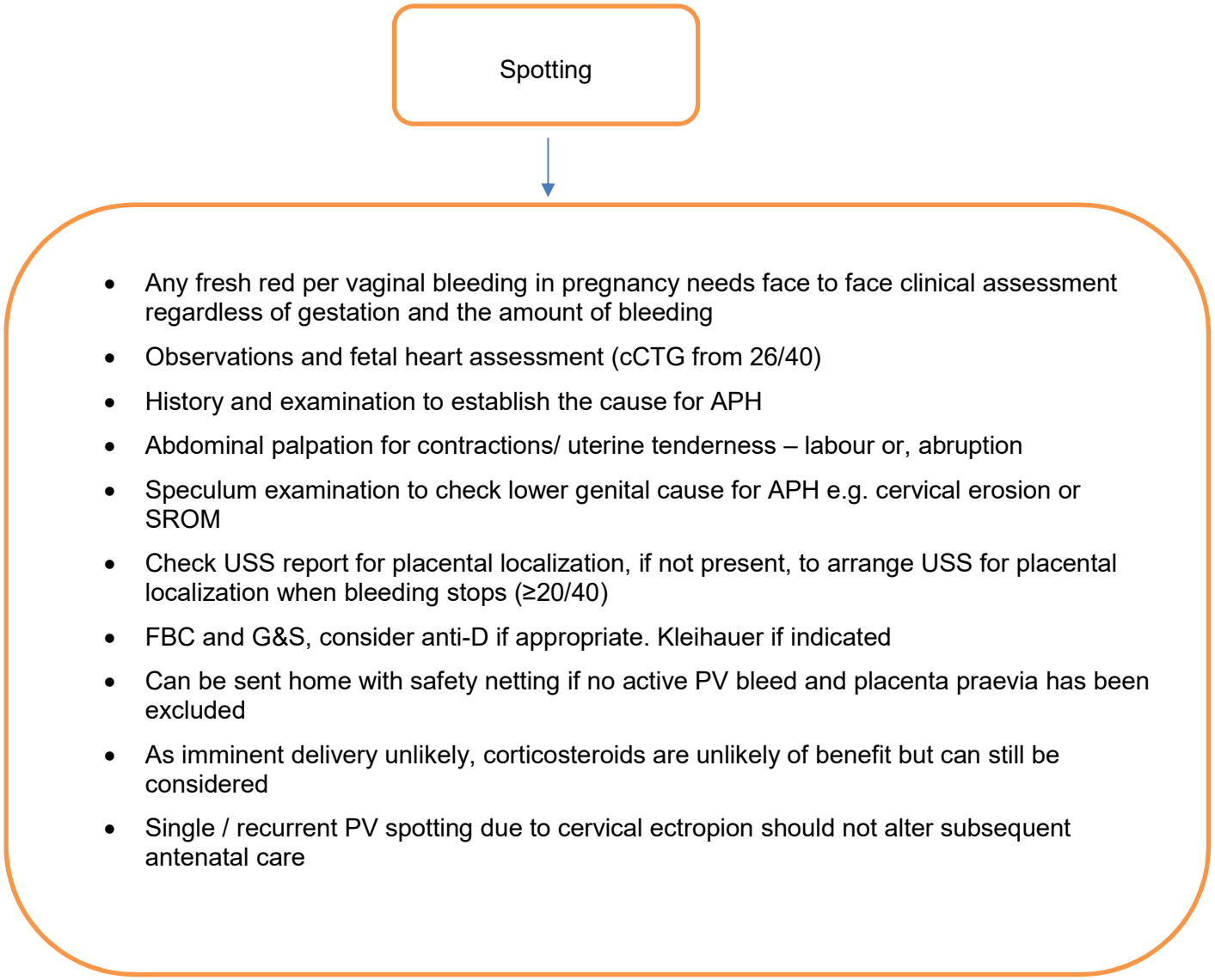


Fig 2. Management of minor APH or major APH in pregnancy (no hypovolemic shock)

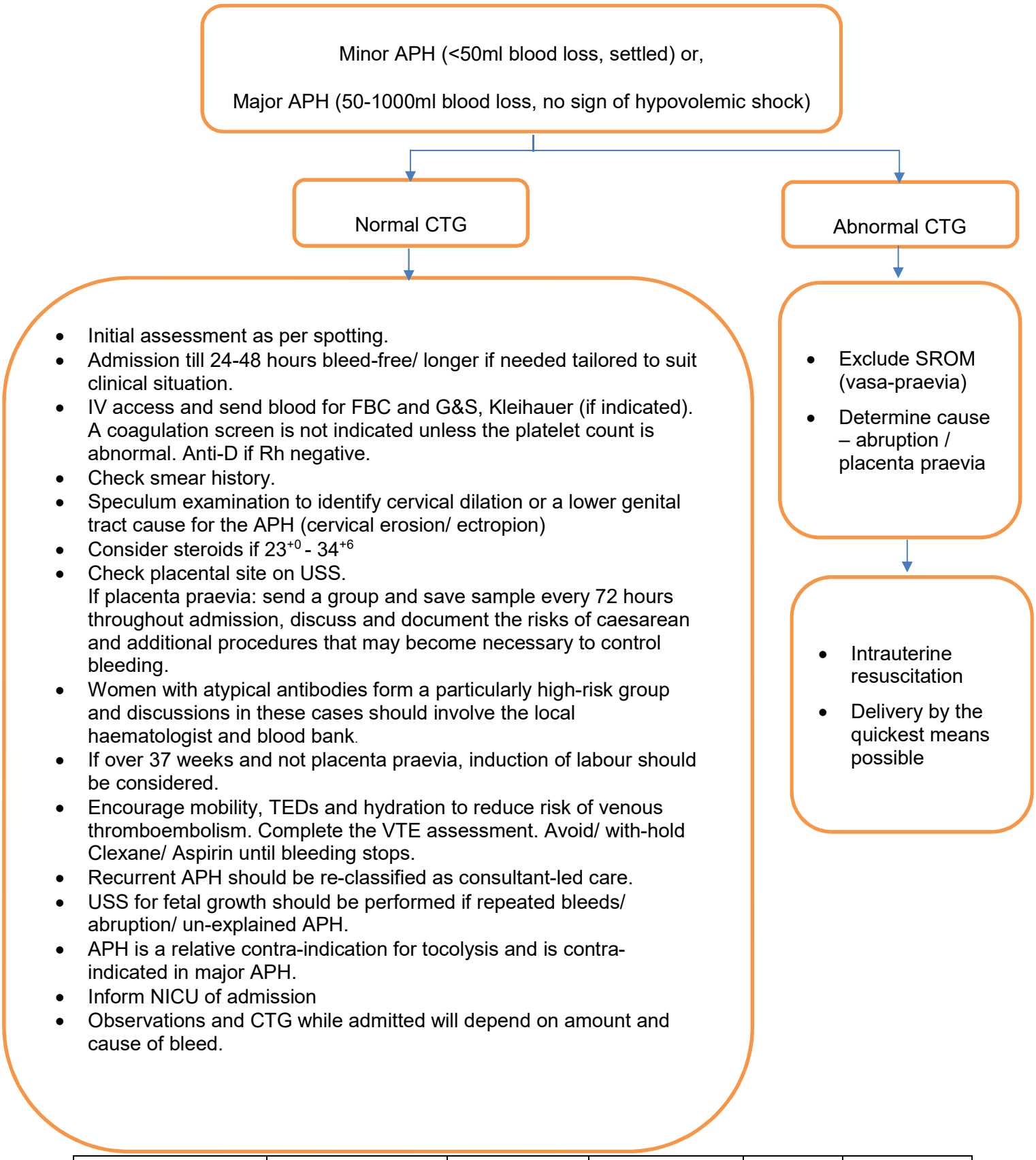
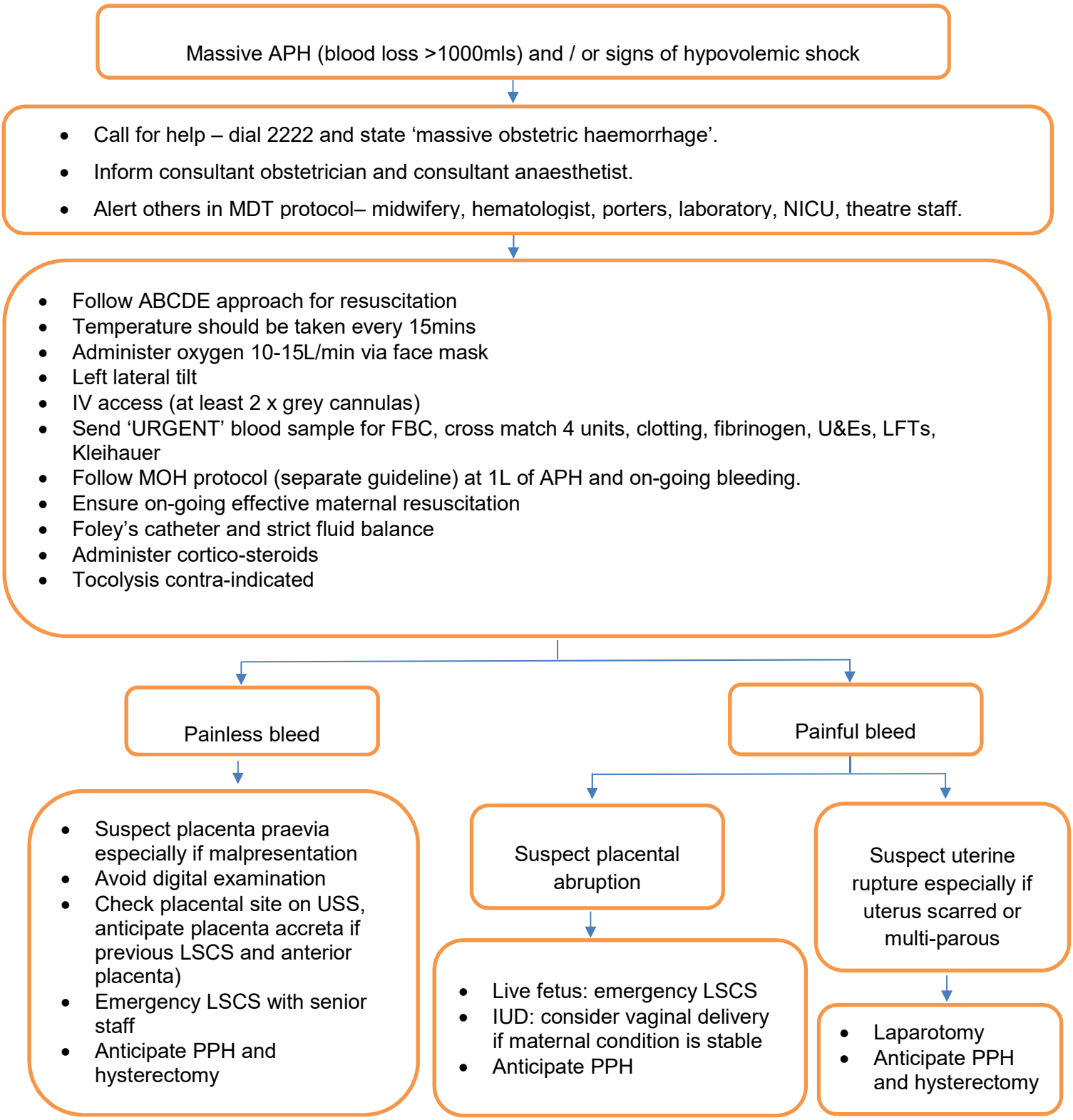


Fig 3. Management of massive APH in pregnancy +/- hypovolemic shock



Antepartum Haemorrhage

1.0 Definition: Bleeding from or into the genital tract, occurring after 24^{+0} weeks of pregnancy till the birth of the baby.

2.0 Incidence: 3-5%.

3.0 Etiology:

Main causes	Other causes
• Placenta praevia • Placental abruption or abruptio placentae	• Show • Cervical cause e.g. erosion/ ectropion • Vasa praevia • Unexplained APH

4.0 Classification of APH (RCOG):

- Spotting
- Minor APH - <50mls, settled
- Major APH – 50-1000mls, no hypovolemic shock
- Massive APH - >1000mls, +/- hypovolemic shock

- Recurrent APH: >1 APH episodes

5.0 APH prediction

- Cannot be reliably predicted as heterogenous pathophysiology.
- 70 % of abruption occurs in low-risk pregnancy.
- Some modifiable risk factors can however be changed such as, smoking and drug misuse.

6.0 Risk factors for APH

Placenta praevia	Placental abruption

• Previous placenta praevia
• Previous caesarean section (risk increases with increasing number of CS)
• Previous termination of pregnancy
• Multiparity
• Advanced maternal age
• Multiple pregnancy
• Smoking
• Deficient endometrium due to h/o:
  ○ uterine scar
  ○ endometritis
  ○ manual removal of placenta
  ○ curettage
  ○ submucous fibroid
• Assisted conception
	• Previous abruption (risk higher with increasing number of abruptions)
	• Pre-eclampsia
	• Fetal growth restriction
	• Non-vertex presentation
	• Polyhydramnios
	• Advanced maternal age
	• Multiparity
	• Low BMI
	• Assisted reproductive techniques
	• Intra-uterine infections
	• PROM
	• Abdominal trauma (accident/DV)
	• Smoking
	• Drug misuse in pregnancy (cocaine, amphetamine)

7.0 Complications of APH:

Maternal complications	Fetal complications
• Anaemia • Infection • Maternal shock • Renal tubular necrosis • Consumptive coagulopathy • Postpartum haemorrhage • Prolonged hospital stay • Psychological sequelae • Blood transfusion complications	• Fetal hypoxia • Small of gestational age and growth restriction • Prematurity (iatrogenic and spontaneous) • Fetal death

8.0 APH management:

8.1 All APH should be assessed in a hospital.

8.2 Multi-disciplinary team approach (midwife and obstetric staff, laboratory access, theatre, neonatal and anaesthetic services).

8.3 History taking:

- A through history should be taken (maternal condition permitting) to ascertain cause of bleed.
- Placenta praevia is usually associated with painless PV bleed.
- Causes for painful PV bleed could be – labour or abruption.
- Vasa praevia should be considered in case of PV bleed following SROM and subsequent fetal compromise.
- Cervical erosion or ectropion can present with bleed following sexual intercourse or h/o abnormal smears in the past can point towards a cervical neoplastic cause.
- Domestic violence should be always ruled out incase of presentation with APH.
- Enquiry should be made about fetal movements.
- Current medications. If on anti-coagulants, will need to with-hold, may need IV unfractionated heparin till bleeding controlled.

8.4 Examination to assess the amount and cause of APH:

- Observations and amount of blood loss.

  Observed loss may be underestimated as haemorrhage may be concealed.

  Observations (including temperature) should be repeated every 15 minutes in case of major haemorrhage with ongoing bleed / hypovolemic shock.
- Auscultation for fetal heart sound +/- cCTG (from 26^{+0}).

  Vasa praevia should be suspected where APH is following spontaneous or artificial rupture of membranes and associated with CTG abnormality.
- Abdominal palpation: to check for contractions / uterine tenderness (woody hard feel in case of abruption).
- Speculum examination: to check cervix/ to look for rupture of membranes.
- Digital vaginal examination should not be performed unless placenta praevia has been ruled out.

8.5 Investigations:

- Blood tests:
  1. Full blood count
  2. Group and save
  3. Kleihauer, if rhesus negative or IUD to quantify feto-maternal haemorrhage
  4. Coagulation profile, if major/ massive blood loss or abnormal platelet count.
  5. Anti-D (1500 IU IM) to be given to all non-sensitised Rhesus negative women, irrespective of routine antenatal anti-D prophylaxis and at 6 weekly intervals after 20^{+0} weeks if recurrent APH.
- Ultrasound scan is not routinely indicated at first presentation where a previous departmental scan has confirmed placental location e.g. anomaly scan. USS for assessing growth in case of recurrent APH (not for cervical erosion). USS has poor sensitivity for diagnosis of abruption which is mainly a clinical diagnosis.

8.6 Management of APH based on the amount of bleeding - see flowcharts above.

8.7 Timing and mode of delivery:

- Any woman admitted with an APH will have a consultant review and individual plan of care within 14 hours of admission
- Placenta not low lying:

>39 weeks	Any APH would prompt consideration of delivery usually by induction of labour if no contraindication. This decision can be made at the time of presentation by the obstetric registrar with input from the on-call consultant as needed.
37-39 weeks	Individual decision considering degree of bleeding, previous history, and assessment of maternal and fetal wellbeing.
<37 weeks	In the absence of any objective evidence of fetal or maternal compromise expectant management would usually be advised to optimise perinatal outcomes with advancing gestation.

- A diagnosis of abruption or clinical concern about maternal or fetal wellbeing would usually prompt consideration of delivery. The mode of birth to be decided by the consultant on-call. At extremes of gestation expectant management may be advised, taking on board the wishes of the family.
- Placenta praevia / low lying placenta (within 20mm of cervical os):

Delivery would normally be indicated at >36 weeks with any degree of APH. At gestations less than 36 weeks a consultant plan should be made taking in to account the relative risks and benefits of expectant management.

8.8 Intra-partum monitoring:

APH is an indication for undertaking continuous fetal monitoring in labour. Please refer to intra-partum fetal monitoring guidelines for further information on this.

8.9 Obstetric anaesthesia:

- The decision about mode of anaesthesia should be a multi-disciplinary decision taking into consideration the seniority of staff and maternal and fetal wellbeing.
- Where in doubt, early consultant involvement is advised.

8.10 Post-partum management:

- Anticipate post-partum haemorrhage
- Active management of third stage of labour – 5U oxytocin or syntometrine + 40U oxytocin infusion
- Consider syntometrine, unless hypertensive.
- Risk assess for post-natal thromboprophylaxis
- Debriefing
- Clinical incident reporting

9. References

- Royal College of Obstetricians and Gynaecologists. Green Top guideline No.63 - Antepartum Haemorrhage. 2011
- Royal College of Obstetricians and Gynaecologists. Green Top guideline No 27a - Placenta praevia, placenta praevia accreta diagnosis and management. 2018
- Royal College of Obstetricians and Gynaecologists. Green Top guideline No 27b - Vasa praevia: diagnosis and management. 2018
- Royal College of Obstetricians and Gynaecologists. Green Top guideline No 52 - Postpartum Haemorrhage, Prevention and Management. 2016
- MBRRACEUK report. Saving Lives, Improving Mothers' Care 2020: Lessons to inform maternity care from the UK and Ireland Confidential Enquiries in Maternal Death and Morbidity 2016-18.

10. Abbreviations:

- APH: Antepartum haemorrhage
- PPH: Post-partum haemorrhage
- FBC: Full blood count
- G&S: Group and save
- MOH: Massive obstetric haemorrhage
- CTG: cardiotocography
- MDT: Multidisciplinary team
- VTE: venous thromboembolism