Government of Western Australia
North Metropolitan Health Service
Women and Newborn Health Service

OBSTETRICS AND GYNAECOLOGY
CLINICAL PRACTICE GUIDELINE

Antepartum haemorrhage

Scope (Staff):	WNHS Obstetrics and Gynaecology Directorate staff
Scope (Area):	Obstetrics and Gynaecology Directorate clinical areas at KEMH, OPH and home visiting (e.g. Community Midwifery Program)

This document should be read in conjunction with this Disclaimer

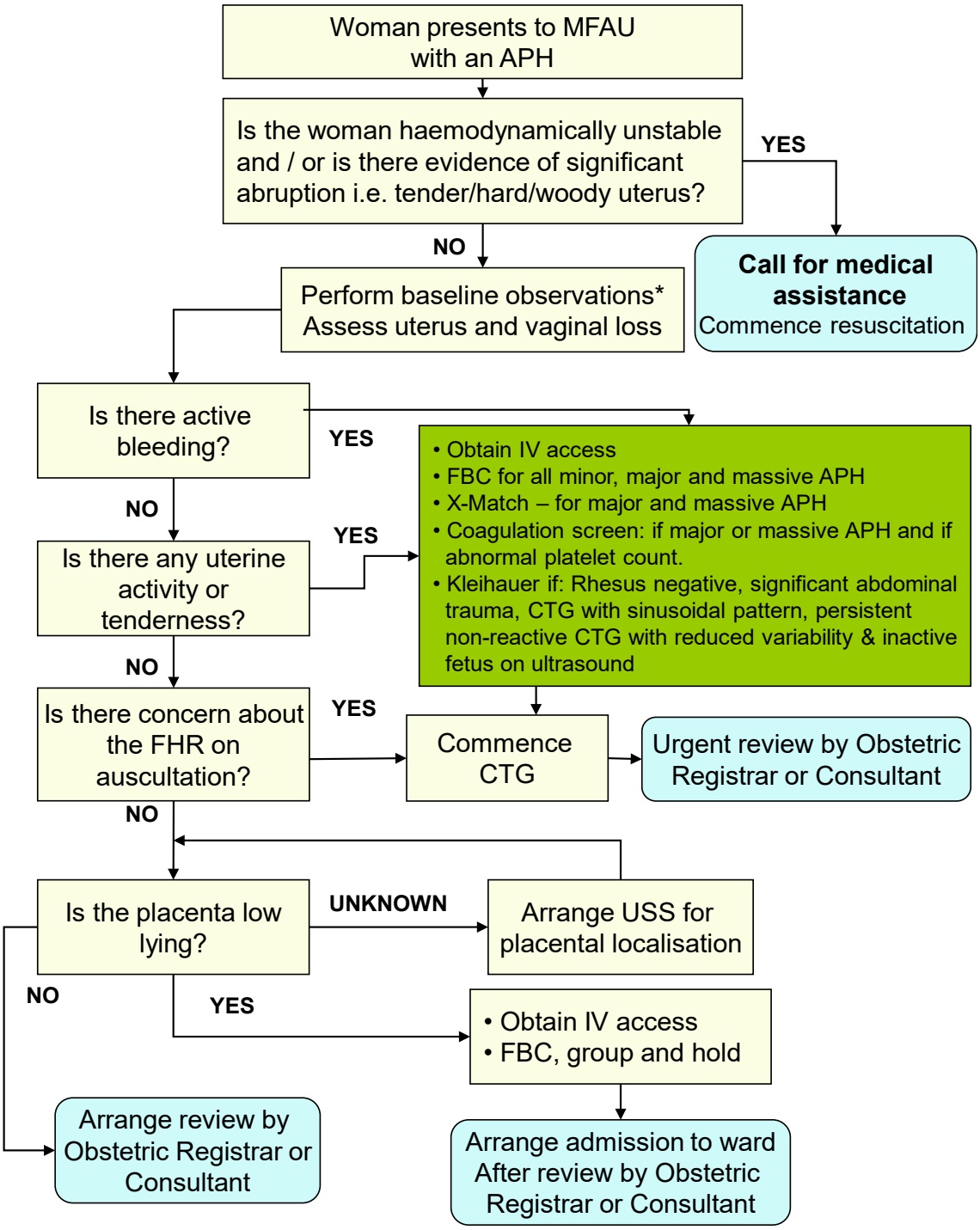
Contents

Initial management: MFAU APH QRG

This Quick Reference Guide must be used in conjunction with the full guideline. Medical and midwifery staff should be familiar with the contents of the full guideline.

All women presenting to the Family Birth Centre with either a suspected or confirmed APH must be transferred immediately to MFAU for assessment.

FLOW CHART OF INITIAL ASSESSMENT OF WOMAN PRESENTING WITH APH



* Respiratory rate, oxygen saturation, heart rate, blood pressure (BP), temperature, conscious state, pain, urine output

Criteria for referral

- Bleeding from the genital tract after 20 completed week's gestation
- All women with APH require medical review at Registrar level following initial assessment

Definitions

Spotting:	Staining, streaking, or blood spotting.
Minor haemorrhage:	Blood loss less than 50 mL, settled.
Major haemorrhage:	Blood loss 50-1000 mL, **no** signs of clinical shock
Massive haemorrhage:	Blood loss greater than 1000 mL, **and/or** signs of clinical shock.

In hospital assessment

If the woman is haemodynamically unstable then dial 55 'CODE BLUE MEDICAL', initiate resuscitation & inform the Haematology Consultant. See also KEMH Clinical Guidelines, Obstetrics & Gynaecology, Acute Deterioration: Basic Life Support: Adult & Advanced Life Support.

1. Follow the flow chart on the previous page of this guideline for 'Initial assessment of a woman presenting with an APH'.
2. Document history to include reference to the following:
    - onset of vaginal bleeding (e.g. spontaneous, post coital, following trauma); amount and rate of blood loss; and type of bleeding – fresh, old, watery, or mucoid
    - pain and uterine activity – e.g. location and type of pain or strength and frequency of contractions
    - continued active bleeding
3. Perform baseline maternal observations (temperature, pulse, BP, respiratory rate,[1] oxygen saturations, conscious state, pain, urine output), observe blood loss and gently assess the uterus/abdomen (e.g. contractions, tenderness, tone).
4. Fast the woman, and position her on her side during clinical assessment.
5. Auscultate the fetal heart rate (FHR). Commence cardiotocography (CTG) if >25 weeks gestation and:
    - Actively bleeding and / or
    - Any uterine activity or tenderness and / or
    - Concern about the FHR on auscultation

    Note: If the woman is 23- 25 weeks gestation, consultation with the Obstetric Registrar is necessary before commencement of the CTG.
6. Insert a 16 gauge cannula for intravenous (IV) access:
    - if active bleeding continues

- uterine activity or tenderness is present
- for major haemorrhage and massive haemorrhage

  Note: If massive haemorrhage, insert **2** large bore cannulas.

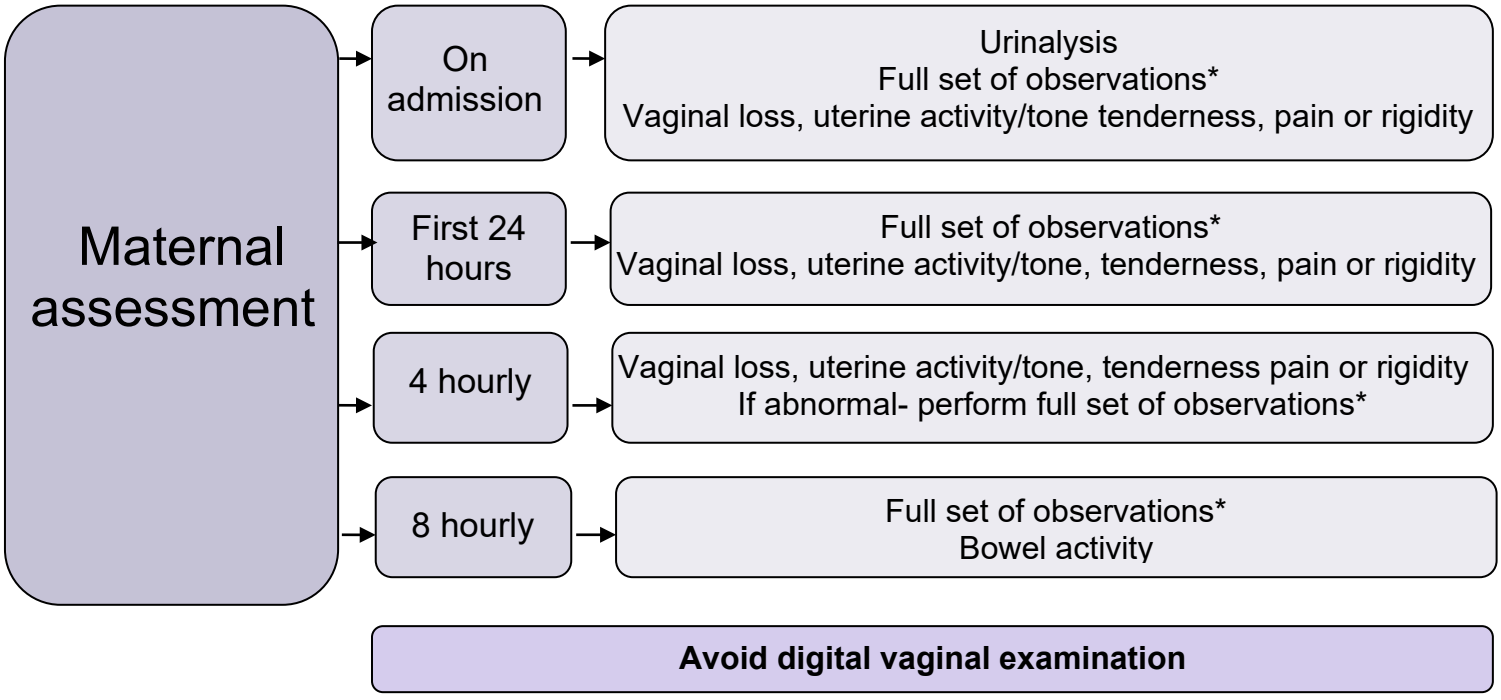
7. Order and perform the following blood tests:
   - **Minor APH** – Full blood picture (FBP), group and hold. If abnormal platelet count, perform a coagulation screen
   - **Major or Massive APH** – FBP, Cross-match **4** units, coagulation screen, Urea and electrolytes (U&E's), liver function tests (LFT's)
   - **Placenta Praevia** – Management according to blood loss. A Group & hold should be performed weekly, and/or after each readmission to hospital
8. Request a Kleihauer on women in the following circumstances:
   - if Rhesus **negative**
   - if experienced significant abdominal trauma
   - have a CTG showing a sinusoidal pattern
   - have a persistently abnormal CTG with reduced variability and an ultrasound showing an inactive fetus. See Fetal Heart Rate Monitoring
9. Check recent ultrasound reports for placental location.
10. Attend a speculum examination to assess vaginal bleeding. Note: No digital examinations should be performed.[1]
11. Arrange medical review at Registrar level.
12. Perform ultrasound for placental location, fetal wellbeing and presence of retroplacental clot.
13. Provide maternal education as appropriate (e.g. risks). See section in this document.
14. Discharge:
    - After assessment and medical review, women with spotting and no complications or presence of placenta praevia and no further bleeding may go home with a follow up antenatal clinic appointment.
    - Women with minor or major APH require hospitalisation. See section in this document for discharge criteria for these women.
15. Hospital admission (if appropriate):
    - Administer a course of corticosteroids if at risk of preterm birth between 24 - 36+6 weeks gestation and not previously administered
    - Provide anti-embolic (TED) stockings
    - Encourage bed rest with toilet privileges until no bleeding for 24 hours
    - Arrange paediatric consultation if preterm birth is expected
    - Arrange anaesthetic review if significant bleeding and / or delivery expected
    - Assess for iron infusion and arrange if low iron stores

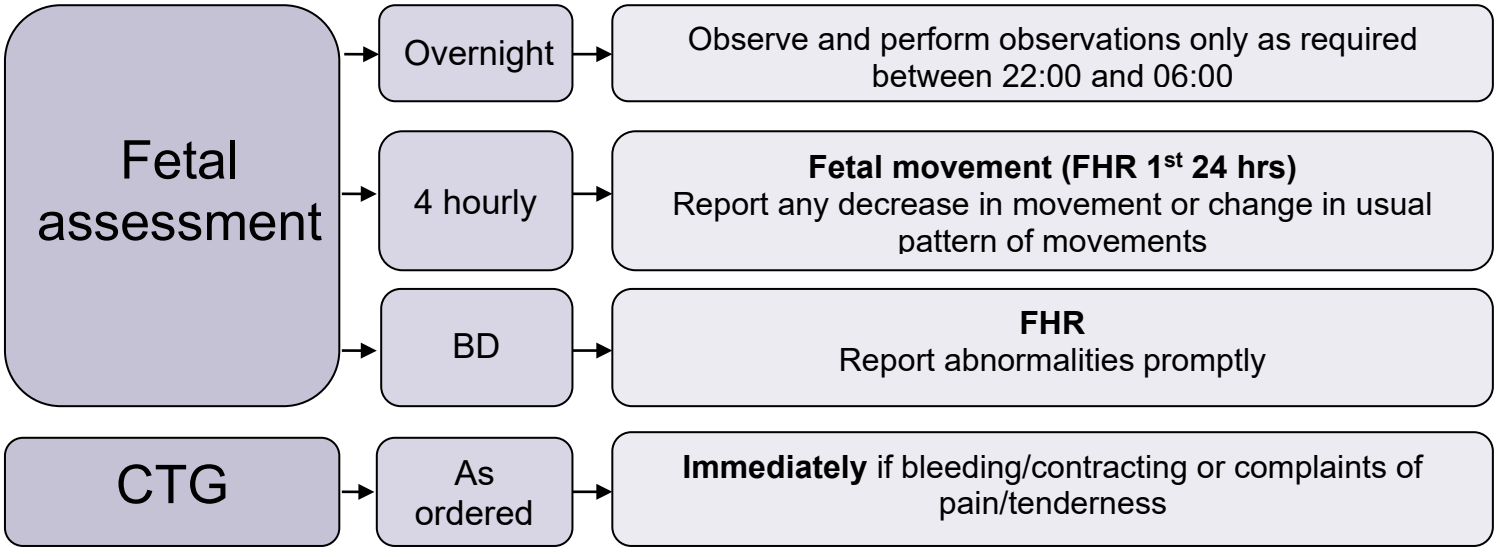
Subsequent management of APH: QRG

This Quick Reference Guide must be used in conjunction with its respective section in this document: Antepartum Haemorrhage (APH). It pertains to care of women who have had an APH and are no longer actively bleeding.

Assessments and care recommended in this guideline must be re-evaluated and adjusted if required, in **the event of a change in maternal or fetal condition.**

Document and report any change to the medical team.





* Full set of observations includes respiratory rate, oxygen saturation, heart rate, blood pressure, temperature and conscious state.

Procedures to be considered

- IV bung with 6 hourly normal saline flushes until no fresh bleeding for 24 hours. Medical review prior to removal.
- Blood taken for group and hold OR cross-match 4 units
- Corticosteroids
- Anti- D
- Iron infusion

Education

- Antepartum Haemorrhage
- Plan of care, tests and procedures
- Caesarean birth
- Preterm birth
- Special Care Nursery
- Breastfeeding

Activity

- Rest in bed with toilet privileges until there is no fresh bleeding for 24 hours
- Encourage compression stocking until fully mobile

Documentation

- MR 004- Obstetric Special Instruction Sheet
- MR 285 - Observation Chart
- MR 810 - Medication Chart
- MR 250 - Progress Notes
- MR 410 - Neonatal History Sheet
- Baby notes prepared
- Perinatal Database record (Stork) updated

Referrals to be considered

- Neonatologist
- Anaesthetic Department
- Psychological Medicine
- Dietician
- Physiotherapist
- Social Worker
- Diabetes Educator
- Parent Educator
- Aboriginal Liaison Officer
- Activities Coordinator

Management of an APH

Key points

1. On admission the Triage Midwife in the Maternal Fetal Assessment Unit (MFAU), the Co-ordinator of the Labour and Birth Suite and the Obstetric Registrar/Consultant should be advised of any women who present with an APH which may lead to maternal or fetal compromise.
2. A **'CODE BLUE – MEDICAL'** call should be initiated if a woman presents with an APH and is haemodynamically unstable, or if significant haemorrhaging is occurring which can lead to clinical shock.
3. Speculum examination shall be used to assess the vagina and cervix and identify cervical dilatation. Digital examination should be avoided for women with an APH until placenta praevia is excluded.
4. All women presenting with an APH should not be discharged home until review by the Registrar or Consultant.

Background information

Antepartum haemorrhage (APH) complicates 2-5% of pregnancies and is defined in some literature as any bleeding from the genital tract after the 20th week of pregnancy and before labour.[1, 2] An APH may also be concealed within the uterus.[3] Identifiable causes of APH are recognised in 50% of cases, and in the other 50% of cases the cause for the APH is indeterminate or unknown.[4, 5] Blood loss if often underestimated and the amount visible may only be a portion of the total volume of the haemorrhage (e.g. with a concealed placental abruption), therefore clinicians immediately need to assess not only the amount of blood loss, but also observe for signs of maternal clinical shock and fetal compromise or demise.[2]

Women with a history of APH are at increased risk for adverse perinatal outcomes including small for gestational age and growth restricted fetuses, therefore initiation of serial ultrasounds is recommended. Other risk factors include increased risk for oligohydramnios, premature rupture of membranes, preterm labour and increased rates of caesarean section. Women diagnosed with placental abruption[2, 4] or placental praevia[2] are at increased risk for postpartum haemorrhage.[1, 2]

APH from unknown causes before 34 weeks gestation is associated a 60% risk of birth within a week if accompanied by contractions. Without accompanying contractions the risk is still 13.6%, therefore administration of corticosteroids is important.[4]

Causes of APH

Causes include:

- Placental site bleeding[1]
- Local causes from the genital tract[1]
- Unknown causes[5]

Placental site causes	Local genital tract and other causes	Cord insertion cause
• Placenta praevia[1, 4] • Placenta abruption[1, 4] • Marginal[1]: Sinus rupture[4]	• Show[1, 4] • Cervical - Cervicitis[1, 4], cervical polyp, cervical ectropion, carcinoma of the cervix[6] • Trauma[1] (e.g. sexual intercourse)[4] • Vulvovaginal varicosities[1, 4] • Genital tract tumours[1] – benign and malignant[4] • Genital infections[1, 4] • Haematuria[1]	• Vasa Praevia[1, 4]

Defining the severity of an APH

There are no consistent definitions of severity of an APH, however RCOG defines blood loss by a combination of volume and signs of clinical shock to guide management[2]:

Spotting – staining, streaking or blood spotting noted on underwear or sanitary protection

Minor Haemorrhage – blood loss less than 50 mL that has settled

Major Haemorrhage – blood loss of 50 – 1000 mL, with **no** signs of clinical shock

Massive Haemorrhage – blood loss greater than 1000 mL **and/or** signs of clinical shock

Initial assessment

If a woman presents with an APH and is haemodynamically unstable call 'CODE BLUE MEDICAL' – prevents delay in management.

Initiate immediate resuscitation measures.

Inform the Haematology Consultant.

Initial assessment will indicate if urgent intervention is required[1] and includes:

- emergency management
- blood loss; presence of pain or contractions; uterine tone
- maternal cardiovascular condition (observe pulse, blood pressure, respiratory rate, oxygen saturation, temperature, conscious state)

- fetal wellbeing
- triggering factors
- pathology or ultrasound results which may indicate probable cause

For assessment and management of women in the Community Midwifery Program (CMP)- see CMP section

Emergency management

If initial assessment indicates the woman is haemodynamically unstable or the blood loss indicates potential maternal and fetal compromises initiate a 'CODE BLUE MEDICAL'.

See KEMH Recognising and Responding to Acute (Physiological) Deterioration policy and O&G Guideline Acute Deterioration (Adult): Resuscitation and Life Support

Resuscitation may include:

- Insertion of two large bore 16gauge cannula[7]
- Monitoring of O_2 saturation levels and application of oxygen as required
- Collection of venous blood samples e.g. full blood picture(FBP)[2], group & cross-match 4 units (or more if required)[2, 7], coagulation studies[7], urea & electrolytes (U&Es) and liver function tests (LFTs)[2], and may include arterial blood gases
- Commencement of fluid replacement e.g. intravenous therapy / blood products / plasma expanders[7]
- Analgesia
- Insertion of an indwelling catheter (IDC)[7]
- Preparation for theatre & birth.[7] Severe bleeding requires immediate caesarean birth regardless of the placental location.[1]
- Informing the haematologist[7]
- Inform the paediatrician if birth is anticipated

Maternal well-being

Perform baseline observations on admission:

- Temperature, blood pressure (BP), pulse, respiratory rate,[1] oxygen saturations, conscious state
- Blood loss[1]
- Uterine activity / abdominal tone[1]
- Observe for pallor / restlessness[1]
- Pain
- Urine output – perform urinalysis, and commence measurement of output if significant blood loss. An indwelling catheter may be considered if accurate hydration and elimination measurements are required.

History taking

Blood loss

- Documentation should include the amount,[1] colour, consistency, and pattern of bleeding.
- Apply a clean sanitary pad. Weighing the pad before use and following changing the pad provides a more accurate measurement of ongoing blood loss
- Note absence of blood clots in the presence of significant bleeding– can indicate clotting abnormalities.[6]

Pain assessment

- Note the pattern of pain including the site, time of commencement, frequency, strength and duration.
- Assess if contractions are present.[1]

Uterine tone

- Note the uterine tone[1] – a soft, non-tender uterus may suggest a lower genital tract cause, bleeding from the placenta or vasa praevia.[2] Increased uterine tone (e.g. tense, rigid or 'woody') may indicate placental abruption.[4, 6] Only gentle abdominal pressure should be used,[1] to prevent stimulating further bleeding or uterine activity.[6]

Triggering factors

- Note any triggering factors e.g. sexual activity, trauma, exertion.
- If bleeding occurs with rupture of the membranes then a ruptured vasa praevia should be considered.[2]

Fetal wellbeing

- On admission assess the fetal heart rate (FHR) with a doptone as soon as possible. Assess history of fetal movements.[1]
- Commence continuous fetal cardiotocograph (CTG) monitoring[2] if greater than 25 weeks gestation when:
  - signs of fetal compromise are noted from initial auscultation with doptone
  - there is active bleeding
  - uterine activity is present
  - uterine tenderness is present
- If the gestation is 23 – 25 weeks consult with the Obstetric Registrar prior to commencing CTG monitoring.
- The decision for duration and frequency of CTG monitoring is dependent on maternal and fetal condition. Liaise with the Registrar or Consultant for ongoing management.

- In the above gestations, if unable to auscultate the fetal heart externally, an ultrasound can be used to assess fetal viability.[2]

Review of ultrasounds and pathology tests

Ensure all ultrasound and pathology results are available as soon as possible – this may require contacting other facilities or medical practitioners and faxing of results. The results should include blood tests, ultrasounds, and cervical pap smears.

Ongoing management

Maternal and fetal observations

The frequency of maternal and fetal observations is determined by the maternal and fetal condition, ongoing bleeding or other problems. Perform more frequently as required.

Maternal observations

If ongoing bleeding, or signs of maternal or fetal compromise:

- Maintain 4 hourly observations (adjust frequency as per maternal and fetal condition, Maternal Observation and Response Chart MR285.01 escalation actions or observation modifications). See also KEMH Clinical Guidelines, Obstetrics & Gynaecology, Standard Protocols: Recognising and Responding to Clinical Deterioration.

If no ongoing bleeding or signs of maternal or fetal compromise:

- Blood pressure (BP), pulse, temperature, respirations, oxygen saturation & conscious state:
  - 4 hourly for 24 hours, then 8 hourly.
- Vaginal discharge/loss, uterine activity, abdominal tenderness/pain or rigidity:
  - 4 hourly for 24 hours, then continue 4 hourly (omit between 2200 and 0600 if the woman is sleeping).
- Urinalysis – perform weekly.
  - If there is significant blood loss, measure and record the urinary output until the maternal condition is stable and medical review determines it is no longer required. Insertion of an indwelling catheter may be considered in some cases.
- Bowels – monitor daily. Significant blood loss may cause dehydration and lead to constipation.

Fetal observations

If no ongoing bleeding or signs of maternal or fetal compromise:

- FHR - 4 hourly in the first 24 hours (omit between 2200 and 0600 if the woman is sleeping), then perform twice daily thereafter.
- Fetal movements – 4 hourly (omit between 2200 and 0600 if the woman is sleeping)
- CTG monitoring – as ordered by the Medical Obstetric Team.

Intravenous access

- Site at least one large bore 16 gauge intravenous (IV) cannula if:
  - active bleeding continues
  - uterine activity or tenderness is present
  - a major haemorrhage
- **Two** large bore cannulas should be inserted in the event of massive haemorrhage.
- Commence monitoring and documentation of fluid intake/output when IVT is commenced, if ongoing blood loss, or if a significant blood loss has occurred.

Removal of the IV cannula

If there is no fresh blood loss and IVT has not been administered, the IV cannula should remain in situ for 24 hours. Discuss with the medical obstetric team prior to removal of the IV cannula. Timing of removal or replacement will depend on the cause and the clinical situation.

Blood tests

For **all** women with an APH:

- If a woman is **Rhesus negative** a Kleihauer test should be performed to quantify the magnitude of the feto-maternal haemorrhage, and ensure an adequate dose of RhD immunoglobulin has been given.[2]
- Do not perform a Kleihauer for an APH in a **Rhesus positive** woman, except in the following circumstances:
  - Significant abdominal trauma
  - A CTG with a sinusoidal pattern
  - Persistently abnormal CTG with reduced variability and an ultrasound showing an inactive fetus.

  Note: the Kleihauer test is not sensitive for diagnosing placental abruption.[2]
- Ensure copies of all booking blood results are available. If the blood test results are not able to be sourced, then collect additional blood for these tests.

Minor APH:

- Perform a FBP and Group and Hold. If the platelet count is abnormal, perform a coagulation screen.[2]

Major or massive APH:

Perform:

- FBP[2]
- Cross-match 4 units[2]
- Coagulation Screen[2]
- U&Es, LFTs[2]

Placenta praevia:

- May require a cross-match to be done weekly depending on the clinical situation.

Note: If a woman has been given a blood transfusion the cross-match and group and hold sample will expire after 72 hours.

Fasting

Women with a major or massive APH shall be fasted until medical review. Women with a known placenta praevia or abruption who have had a minor APH should also be reviewed by medical staff prior to allowing diet and fluids.

Ultrasound assessment

- Check recent ultrasound reports for placental location.
- Perform ultrasound examination[1] to determine placenta location, fetal well-being and presence of retroplacental clot.
- Serial ultrasound appointments for fetal growth should be commenced for women with an APH caused by placental abruption or unexplained APH.[2]
- Note: Sensitivity of ultrasound for detection of retroplacental clot is poor. However, when the ultrasound suggests abruption, the likelihood is high.[2]

Vaginal assessment

- Speculum examination may be used to assess vaginal bleeding.[1]
- No vaginal or rectal digital examination, or suppository administration, should be performed on a woman with an APH as severe haemorrhage may occur.[1]
- Digital examination to assess the vagina and cervix must only be performed after placenta praevia is excluded.

Corticosteroid administration

- Administer a single course of antenatal corticosteroids to women at risk of preterm birth between 24 and 34 (consider to 36+6) weeks gestation.
- See Clinical Guideline Complications of Pregnancy: Corticosteroids: Antenatal

Maternal position and activity

- On admission position the woman on her side during clinical assessment.
- Clinically stable women - advise maternal bed rest with toilet privileges until there has been no fresh bleeding for 24 hours.
- Initiate measures to prevent thrombosis e.g. wearing knee high compression stockings continuously until fully mobile.[8] Promote frequent leg exercises until fully mobile.

Paediatric consultation

- Arrange Paediatric consultation if preterm birth is anticipated.

Discharge

All women prior to discharge should be informed to contact KEMH immediately if any further bleeding or abnormalities present.[2] Provide advice as discussed in 'Maternal Education' within this document.

All women with an APH - diagnosed placental abruption[2], unexplained APH[2], placenta praevia, or a cervical abnormality are not suitable to attend a low risk midwives clinic. Future antenatal appointments should be adjusted accordingly.

Spotting

- Provided the clinical assessment reassures there are no complications or the presence of a placenta praevia, and the woman is no longer bleeding, she may return home.[1]
- Ensure a follow-up antenatal clinic appointment is made.

Minor APH

- Women with ongoing bleeding should remain in hospital.[2] If there is no bleeding for 24 hours the woman may usually be discharged home with antenatal clinic follow-up. However, the decision for timing of discharge is made on an individual basis with obstetric team Consultant review.

Major or massive APH

- Timing of discharge depends on diagnosis and the individualised clinical situation. The obstetric team Consultant shall review the woman and decide timing for discharge. Follow-up arrangements will depend on the outcome of the APH e.g. GP or antenatal clinic follow-up.

Community Midwifery Program (CMP)

CMP Clinical assessment via phone or in person

1. Take a comprehensive history (via phone if not in attendance) noting:
    - The onset, amount, colour, consistency, and pattern of the bleeding
    - Any precipitating events (e.g. post coital), including evidence of pain, trauma and any concerns of maternal compromise.
    - Whether the membranes may have ruptured
    - Uterine tone and activity noting frequency, intensity and duration
    - If the client is aware that she has a low lying placenta
    - Fetal movements
    - Document findings
    - If not in attendance (and consulting via phone), recommend immediate referral to the client's support hospital if clinically indicated (see management below)
2. If in attendance – perform an assessment to include:
    - Take a comprehensive history as outlined above
    - Review blood loss on clothing, pad or linen
    - Perform baseline maternal observations (BP, pulse, respirations, temperature, conscious state)
    - Pain score
    - Observe pallor/restlessness
    - Review any pathology and USS reports noting the placental location.
    - Perform gentle abdominal palpation noting:
        - fundal height
        - fetal lie
        - presentation
        - uterine tone
        - maternal guarding
        - presence of uterine contractions, noting intensity, frequency & duration.
    - Fetal activity and fetal heart rate (with a doptone), noting FH range and the presence of accelerations and/or decelerations
    - DO NOT PERFORM a digital vaginal examination
    - Document all findings in the Pregnancy Health Record or Birth book (CMP MR 08).

CMP Management

If the woman is asymptomatic of haemorrhage and vaginal blood loss is minimal:

- Continue to manage as for normal labour if the pregnancy is at term and determined to be a show.

In all other cases consult, refer and transfer to support hospital for obstetric review

1. Arrange for appropriate transfer to hospital according to severity of maternal condition (refer to guideline 'Transfer from home to hospital (VMS/MGP/CMP)').
2. Ensure the woman remains fasted until a formal assessment of maternal and fetal wellbeing has been made.
3. Ensure that all antenatal notes and all blood test results accompany the woman.
4. Document all management and findings.
5. Consider accompanying the woman to hospital with relevant support person, for obstetric assessment.

CMP Management for moderate or severe haemorrhage / collapse

1. Ask support person to call for an ambulance immediately
2. Take a quick history from the woman or the significant other person present to determine the nature of the incident and the duration of time since the onset of the bleed. Concealed placental abruption will present with severe abdominal pain and no visible bleeding.
3. Lay the woman on her left side
4. Monitor maternal vital signs (respiratory rate, BP, pulse, conscious state, colour) frequently
5. Commence maternal resuscitation as required
6. Ensure airway is patent and administer oxygen therapy for maternal resuscitation
7. Gain IV access, take bloods for FBC and Group and Hold and commence IV fluid resuscitation immediately using Hartmann's solution 1000 mL (following verbal order)
8. Monitor the fetal heart rate using a doptone once woman's condition is stable/ if possible
9. Keep the woman fully informed of all findings and remain calm and supportive
10. Prepare for immediate hospital transfer
11. Inform the receiving hospital of imminent emergency admission
12. Estimate the total blood loss on all clothing, pads and linen
13. Document all findings and emergency management
14. Accompany the woman and support person to hospital and give a formal handover to the obstetric team. Ensure that the pregnancy health records and all test results accompany woman.
15. Continue to provide continuity of care as either the primary or support midwife where possible

Maternal education

- If KEMH is contacted by a woman experiencing an APH, the telephone assessment should include evaluation of the risk of maternal and fetal compromise. If it is determined the risk is significant, she should be advised to come to hospital by ambulance. Advise her to bring any soiled clothing or sanitary pads with her. This will enable a more accurate assessment of the volume of blood loss.[6]
- Women who smoke, use cocaine or amphetamines should be counselled as to their increased risk for placental abruption when using these substances.[2] Intervention strategies and referrals to support services should be offered.
- Arrange for 'Parent Education' staff to provide antenatal education for women with long term hospital admission or as required.
- Advise women with placenta praevia to avoid penetrative sexual intercourse, and that vaginal and rectal examinations should be avoided.[2]
- Inform all women who are discharged home to immediately contact KEMH if:
  - further bleeding occurs[2]
  - abdominal pain occurs[2]
  - reduced fetal movements occur[2]
  - any abnormalities or concerns
- Confirm follow-up arrangements. Antenatal appointments may need to be readjusted if review is required earlier or if the woman has been attending a low risk midwives clinic.
- Women should be informed that APH is an antenatal risk factor for fetal compromise and therefore intrapartum CTG will be recommended. See WNHS Obstetrics & Gynaecology guideline: Fetal Heart Rate Monitoring

Documentation

- Prepare 'Baby Notes' if birth is expected. Update the perinatal database record (STORK).
- Complete documentation on the:
  - MR 004 Obstetric Special Instruction sheet
  - MR 250 Progress Notes
  - MR 285.01 Observation Sheet and Response Chart
  - MR 810.05 Medication Chart
  - MR 410 Neonatal History

References

1. Crafter H, J B. Common problems associated with early and advanced pregnancy. In: Marshall J, Raynor M, editors. Myles textbook for midwives. 16th ed. Edinburgh: Churchill Livingstone Elsevier; 2014. p. 221-42.
2. Royal College of Obstetricians and Gynaecologists. Antepartum Haemorrhage. **Green-top Guideline No 63**. 2011 (reviewed 2014).
3. World Health Organization. Managing complications in pregnancy and childbirth: A guide for midwives and doctors. Geneva, Switzerland: WHO. 2007. Available from: http://whqlibdoc.who.int/publications/2007/9241545879_eng.pdf?ua=1
4. Krishna A, Chandraharan E. Management of Massive Obstetric Haemorrhage. **Current Women's Health Review**. 2011 (7):136-42.
5. Bhandari S, Raja EA, Shetty A, Bhattacharya S. Maternal and perinatal consequences of antepartum haemorrhage of unknown origin. **BJOG**. 2014;121(1):44-52. Available from: http://onlinelibrary.wiley.com/doi/10.1111/1471-0528.12464/pdf
6. Hutcherson A. Bleeding in pregnancy. In: MacDonald S, Magill-Cuerden J, editors. Mayes' Midwifery. 14th ed. Sydney: Bailliere Tindall; 2011. p. 753-70.
7. Su LL, Chong YS. Massive Obstetric haemorrhage with disseminated intravascular coagulopathy. **Best Practice & research Clinical Obstetrics and Gynaecology**. 2012;26:77-90.
8. Sachdeva A, Dalton M, Amaragiri S, Lees T. Graduated compression stockings for prevention of deep vein thrombosis (Review). **Cochrane Database of Systematic Reviews**. 2014 (12). Available from: http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD001484.pub3/pdf

Related policies, procedures and guidelines

Department of Health WA: MP 0171/22 Recognising and Responding to Acute Deterioration Policy

WNHS Policy: Recognising and Responding to Acute Physiological (Clinical) Deterioration

WNHS Clinical Guidelines, Obstetrics and Gynaecology:

- Acute Deterioration (Adult): Resuscitation and Life Support
- Medical Disorders in Pregnancy: Abdominal Pain: Non Specific in Pregnancy; Abdominal Trauma
- Admission: Antenatal Admission [under review – moving to Patient Flow documents]
- Fetal Surveillance: Fetal Heart Rate Monitoring

Version history

Version number	Date	Summary
1	July 2018	First version. Amalgamation of three individual guidelines on APH dating from May 2004 into one guideline. Superseded: 1. Antepartum Haemorrhage (date amended April 2016) 2. APH MFAU QRG (date amended April 2016) 3. APH- Subsequent Management (date reviewed May 2016)

		Evidence on this topic was reviewed and overall guidance remains unchanged. Minor changes and formatting have been made.
2	April 2021	• CMP section added. • Hospital admission (if appropriate) also consider- ➢ Corticosteroids if not previously administered ➢ Arrange anaesthetic review if significant bleeding and / or delivery expected ➢ Assess for iron infusion and arrange if low iron stores Supersedes: 1. V 1.0 (by the same title) dated July 2018 and 2. CMP Antepartum Haemorrhage guideline (dated October 2016) Endorsed by Medical and Midwifery Co-Directors 29/04/2021
3	August 2024	Clinical decision by Executive to extend review date by 12 months

Keywords:	Antepartum haemorrhage, APH, bleeding in pregnancy, MFAU, quick reference guide, QRG, quick reference guide, haemorrhage, management of APH, placenta, abruption, vaginal bleeding, placenta praevia, vasa praevia, spotting		
Document owner:	Obstetrics and Gynaecology Directorate		
Author / Reviewer:	Head of Department- Obstetrics; CMP CMC		
Date first issued:	July 2018 (v1)	Version	3
Reviewed:	July 2018; Apr 2021, August 2024	Next review date:	August 2025
Approved by:	Head of Department, Obstetrics	Date:	07/01/2021
Endorsed by:	Obstetrics and Gynaecology Executive	Date:	27/08/2024
NSQHS Standards (v2) applicable:	☒ 1: Clinical Governance ☐ 2: Partnering with Consumers ☐ 3: Preventing and Controlling Healthcare Associated Infection ☐ 4: Medication Safety	☐ 5: Comprehensive Care ☐ 6: Communicating for Safety ☐ 7: Blood Management ☒ 8: Recognising and Responding to Acute Deterioration	
Printed or personally saved electronic copies of this document are considered uncontrolled. Access the current version from WNHS Healthpoint.			

This document can be made available in alternative formats on request for a person with a disability.

www.nmhs.health.wa.gov.au