ANTEPARTUM HAEMORRHAGE

CLINICAL GUIDELINE MCSA.MBC.2.1

Definition

Bleeding from or into the genital tract, occurring from 24w0d of pregnancy and prior to the birth of the baby.

Causes

- Abruptio Placentae
- Placenta praevia / vasa praevia
- Local causes (from cervix, vagina or vulva)
- Uterine Rupture, scar dehiscence
- Unknown origin
- Show

Risk factors for placental abruption

- Previous abruption placentae
- Pre-eclampsia
- Fetal growth restriction
- Non-vertex presentations
- Polyhydramnios
- Advanced maternal age
- Multiparity
- Low BMI
- Pregnancy following assisted reproduction
- Intrauterine infection
- Premature rupture of membranes
- Abdominal trauma
- Smoking/ drug misuse

Risk factors for placenta praevia

- Previous placenta praevia
- Previous caesarean section(s)
- Previous uterine surgery
- Previous termination of pregnancy
- Multiparity
- Advanced maternal age (> 40y)
- Smoking
- Deficient endometrium (previous endometritis, uterine scar, manual removal of placenta, curettage, submucous fibroid)
- Assisted conception

Assessment of Antepartum Haemorrhage

1. MATERNAL STATUS:

Unstable/shocked

- BP(BP ≤ 90/60mmHg)
- Pulse (≥120bpm)
- HB (≤ 8g/dl)

- **Call for help!!**
  - Obstetrician (emergency doctor if no obstetrician on site)
  - Anaesthetist, ICU team, Lab Blood bank
- **Call-a-C A B**
  - **Circulation - IV access by 2 large bore cannulas (one should be a blood giving set in Cubital fossa)**
  - **Send off blood samples (FBC, U&E, LFT, ABG, Coagulation profile and cross-match for blood and blood products)**
  - **Give IV fluids, and blood once available**
  - **Oxygen via face mask**
  - **Catheterise the patient and monitor output**
  - **Be aware of potential coagulation disorders**
  - **Nurse in left lateral position**
  - **Keep patient warm, elevate legs**

Stable

- Check for fetal heart and if alive
  - If at viable gestation according to institution criteria: perform CTG – if no fetal distress, continue with assessment and CTG, consider steroids and MgSO4 for neuroprotection
  - If pre-viable but close to viability (24w – 26w6d): await doctor's orders before doing CTG and administration of steroids and MgSO4 for neuroprotection

2. QUICK HISTORY

- Placental position (check antenatal history)
- Associated pain, continuous or intermittent
- Any fetal movements felt?
- Risk factors of both praevia or abruption placentae
- If ruptured membranes: consider vasa praevia
- Ask about coitus last 24hrs
- Check Rhesus status

3. CLINICAL ASSESMENT

- First establish whether urgent intervention is required to manage maternal or fetal compromise
- Record vitals (temperature, heart rate, respiratory rate, blood pressure and saturation)
- Abdomen palpation (Hard/painful? Contractions felt? High presenting part?)
- Carefully do a vaginal speculum examination to identify cervical dilatation or visualise a lower genital tract cause or bleeding from placenta praevia.
- Perform ultrasound to confirm this is NOT placenta praevia or vasa praevia BEFORE digital examination to assess cervical status (even if placental position previously recorded as high),
- Fetal heart rate should be determined once mother is stable. CTG monitoring is indicated where knowledge of the fetal condition will influence the timing and mode of delivery

4. BLOOD TESTS

If major bleeding:

- FBC
- Coagulation screen (INR, PTT, Fibrinogen)
- U + E
- LFT
- Cross match and order 2 Units of packed cells and 2 Units of FFP.
- Activate the major transfusion protocol at blood bank
- If mother known to be unsensitised RH negative: do Kleihauer-Betke test to quantify Fetomaternal Haemorrhage (FMH) in order to gauge the dose of anti-D required

If minor bleeding:

- FBC
- Type and screen
- If mother known to be unsensitised RH negative do Kleihauer-Betke test to quantify Fetomaternal Haemorrhage (FMH) in order to gauge the dose of anti-D required

Further condition-specific management

Abruptio Placentae (confirmed or clinically suspected)

If patient RH negative and not sensitised, administer 500 IU Anti-D immune globulin and await Kleihauer-Betke test result. Additional Anti D immune globulin should be administered according to recommendation from Blood bank

Peri-viable fetus (short of institutional viability criteria)

- Mother compromised – deliver with senior paediatrician/neonatologist present
- Mom and baby stable and bleeding subsided – discharge with proper counselling and further follow up as high-risk patient

Viable fetus (if borderline, discuss viability with parents and neonatologist/paediatrician)

Stable mom and baby and bleeding has subsided

- Not in active labour – admit in antenatal ward.
- Any APH except that from local lesion:
    - consider steroids < 34w
    - If < 32 weeks: consider MgSO4 for neuroprotection of the fetus if high risk for delivery within 24 hours (See BetterObs protocol).
- Keep on continuous CTG monitoring for at least 12 hours and await doctor for further investigation
- If fetal and maternal status normal and CTG normal for 12 hours, continue with 4 hourly vitals, 6 hourly CTG's
- If irritable uterus, keep on CTG longer – individualise
- APH after > 37w gestation, and both fetus and mom are stable:
    - Consider delivery to avoid adverse consequences potentially associated with a placental abruption.
    - If induction of labour, avoid prostaglandins if possible.
    - Continuous CTG in labour.
- APH before 37w gestation, without any sign of maternal or fetal compromise and bleeding has settled:
    - No evidence to support elective preterm delivery.
    - If no bleeding for 24hrs and CTGs remain normal: discharge the patient with proper counselling
    - Reclassify the patient as high risk. Antenatal care should include serial fetal growth monitoring.

Unstable mom and/or baby

Live and viable fetus:

- If mom or fetus compromised – stabilise mother and take for urgent delivery (often caesarean section unless vaginal delivery is imminent and not contraindicated) No need for MgSO4 or CTG, just confirm fetal heart beat is still present in theatre, if not: convert to induction of labour if appropriate
- Obstetrician to contact neonatologist/paediatrician (or ask the midwife to contact paediatrician)

Intrauterine fetal demise

- Aim for vaginal delivery if no contraindications
- Attempt artificial rupture of the membranes ASAP, even with unfavourable Bishop score
- If there is maternal compromise and delivery is not imminent: Stabilise mother, resuscitate aggressively, optimise blood results and expedite induction of labour
- Get help of haematologist to manage potential coagulopathy

Placenta praevia and Vasa praevia

(Also see guidelines related to placenta accreta spectrum (PAS) disorders)

Asymptomatic:

- Placenta NOT covering the os and no PAS suspected: reassess with transvaginal scan at 36 weeks – allow NVD if > 2 cm away from os
- Placenta os at 36 weeks and no PAS suspected: elective Caesarean Section at 37-38w gestation
- Confirmed of high risk for PAS – elective Caesarean Section/Hysterectomy at 34 – 36w gestation (see PAS guideline)
- Confirmed vasa praevia
    - Admit between 28w -32w, administer steroids
    - Deliver via Caesarean Section at 35w – 37w gestation
    - Outpatient management to be considered if no preterm delivery, long cervix, no vaginal bleeding or uterine irritability, and patient stays close to the hospital

Symptomatic (antepartum haemorrhage):

If patient RH negative and not sensitised, administer 500 IU Anti-D immune globulin and await Kleihauer-Betke test result. Additional Anti D immune globulin should be administered according to recommendation from Blood bank

- Administer steroids if <34w6d
- Admit
- If bleeding stops or not life threatening
    - keep in hospital till delivery
    - Caesarean Section at 37w if placenta not adherent
    - Caesaerean Section at 34-36 weeks if placenta morbidly adherent (PAS), or anytime when excessive bleeding is encountered
- Life-threatening bleed – deliver immediately via Caesarean Section
    - Request cell saver, Bakri balloon, hysterectomy set
    - Uterine artery embolization team on standby if available

Postpartum care

- Prevent postpartum haemorrhage
- Active management of 3rd stage labour. Administer Syntometrine® stat (if no hypertensive disease or cardiac disease contra-indication), or Oxytocin (Syntocinon®) IMI/IVI stat and continuous infusion of Oxytocin 20units in 1 litre saline at 100ml per hour.
- Regularly check for uterine atony by rubbing up uterus and keeping bladder empty.
- If patient RH negative and not sensitised, administer 500 IU Anti- D immune globulin and await Kleihauer-Betke test. Additional Anti D immune globulin should be administered according to recommendation from Blood bank.
- Record vitals and pad checks half hourly x 2hrs, if stable then hourly for 4 hours. If stable, convert to routine vital checks.
- Repeat Hb 6 hours after delivery.
- Debrief patient and family and in case of adverse outcome for baby, offer formal support. (psychologist/social worker)

Antepartum haemorrhage – local causes

Cervicitis

- Send urine for MC&S
- Do cervical swab for gonococcus, chlamydia, etc.
- Administer oral antibiotics specific to suspected pathogen
- Advise no coitus for at least 2 weeks

Definitions

Term, Acronym or abbreviation	Definition
Vitals	This includes vital signs – temperature, heart rate, respiratory rate, blood pressure and saturations
SROM	Spontaneous Rupture of Membranes
AROM	Artificial Rupture of Membranes
CTG	Cardiotocograph

References

1. Adam, S. Soma-Pillay, P. Obstetric Essentials. 2018. 3rd Edition. University of Pretoria
2. Antepartum Haemorrhage. RCOG Green-top Guideline No. 63
3. Placenta Praevia and Placenta Accreta. Diagnosis and Management. RCOG Green-top Guideline No. 27a
4. Vasa Praevia. Diagnosis and Management. RCOG Green-top Guideline No. 27b

Authorship

These guidelines were drafted by a clinical team from Mediclinic and were reviewed by a panel of experts from SASOG and the BetterObs™ clinical team in 2019 and revised by the scientific committee of BetterObs™ in 2023. All attempts were made to ensure that the guidance provided is clinically safe, locally relevant and in line with current global and South African best practise. Succinctness was considered more important than comprehensiveness.

All guidelines must be used in conjunction with clinical evaluation and judgement; care must be individualised when appropriate. The writing team, reviewers and SASOG do not accept accountability for any untoward clinical, financial or other outcome related to the use of these documents. Comments are welcome and will be used at the time of next review.

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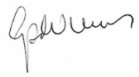
History and version control

Author	Version	Details of update	Effective date
Cape Gate Obstetrician Working group	1	Initial Release	2017 10 01
External Expert Obstetrician	1.1	Validated	2017 01 01
A. Hall	1.2	Rebranded and edited to Mediclinic Clinical Guideline All drug names changed to active ingredient	2020 01 21
Scientific Committee of SASOG/ Dr C. Groenewald	2.1	Reviewed 1. Based on the existing guideline with few changes to text and format 2. More detail included about management of Rh negative mother 3. Added following for patients with confirmed vasa praevia: Outpatient management to be considered if no previous preterm delivery, long cervix, no vaginal bleeding or uterine irritability, and patient stays close to hospital 4. Added the following for Life Threatening Haemorrhage: a. Request cell saver, Bakri balloon, hysterectomy set b. Uterine artery embolization team on standby if available	2023 01 20

Approval and sign-off

Department/ Area/ Group/ Forum	Representative name	Signature	Designation	Date
Clinical Department	Dr Gerrit De Villiers		Chief Clinical Officer	2023 04 26