Document No: **2651616**

TITLE: Placenta Praevia & Accreta Spectrum (incl. Vasa Praevia)

Contents

1. Purpose

To provide guidance to staff on the management of the care of women diagnosed with, or who present with, abnormalities of placental implantation.

2. Scope

All Lakes District Health Board medical and midwifery staff, Lead Maternity Carers (LMC), and nursing staff working in the Emergency Department, Birthing Unit, or Perinatal Unit at both Rotorua and Taupo Hospitals.

3. Definitions

Low Lying Placental	When pregnancy is more than 16 weeks gestation and the placental edge is less than 20 millimetres (2 centimetres) from the internal cervical os on transabdominal or transvaginal ultrasound scan.
Placenta Praevia	When the placenta lies directly over the internal cervical os.
Placenta Accreta	When the placenta is morbidly adhered to the uterine wall; includes the spectrum of placenta accreta, increta and percreta as it penetrates through the decidua basalis then through the myometrium and potentially into surrounding organs. For ease of description the term 'accreta' is used in this guideline for all these conditions. Occurs when the placenta is located over a previous scar and is therefore increasingly common due to the number of previous caesarean sections. Has increased risk of massive obstetric haemorrhage at birth and associated morbidity and mortality.
Vasa Praevia	Fetal vessels coursing through the membranes over or within 2 centimetres of the internal cervical os and below the fetal presenting part, unprotected by placental tissue or the umbilical cord.

4. Screening and Diagnosis

Clinical Suspicion – Placenta Praevia

While a definitive diagnosis of the position of a placenta is now achieved with ultrasound imaging, clinical acumen remains vitally important in suspecting and managing placenta praevia.

- Placenta praevia should be considered in any woman with painless and unprovoked vaginal bleeding after 20 weeks' gestation.
- At term, a high presenting part or an abnormal lie with painless and unprovoked bleeding should raise a high suspicion of placenta praevia.

This should be suspected irrespective of previous imaging results.

Where possible prior imaging should be reviewed and, if possible, undertake further imaging to confirm the location of the placenta.

Ultrasound Imaging

Requests for USS should include relevant clinical information i.e. previous caesarean section or uterine scar.

The location of the placenta should be included in the 20 week anatomy scan. If there is suspicion of low-lying placenta or an anterior placenta over a previous uterine scar, then a further trans-abdominal ultrasound scan using the full bladder technique should be performed.

Condition	Test
• If a woman is symptomatic: ⇒	perform imaging as appropriate
• Low lying placenta with no symptoms: ⇒	follow-up scan at 36 weeks
• Placenta praevia with no symptoms: ⇒	follow-up scan at 32 – 36 weeks to clarify the diagnosis and allow time to plan for third trimester management and birth
• Placenta located over previous caesarean or other uterine scar: ⇒	refer to High Risk USS Clinic 26 - 28 weeks to rule out accreta, especially if anterior placenta praevia

A transvaginal ultrasound scan may be required for all women diagnosed at the anatomy scan as having a placenta that reaches or covers the cervical os to enable visualisation of the lower placental edge.

Morbidly Adherent Placenta

Antenatal imaging by Colour Flow Doppler Ultrasonography should be performed in women with placenta praevia who are at increased risk of placenta accreta i.e. previous uterine scar.

Magnetic Resonance Imaging (MRI) and Doppler Ultrasound are equally effective in detecting the morbidly adherent anterior placenta. MRI is helpful in detecting the depth of placental infiltration and the adherence of a posterior placenta.

Definitive diagnosis of the type of the morbidly adherent placenta can only be made intraoperatively and histologically.

5. Antenatal Management

Consultant review and ongoing input

Women who are found to have the placenta lying over the old scar or who have placenta praevia should be seen in antenatal clinic after confirmation via USS and have a documented antenatal discussion with a **Consultant Obstetrician** after the second scan (i.e. approximately 32 weeks) to;

- make plans for antenatal care and further imaging
- outline the possible implications for birth – mode of birth, bleeding, blood transfusion, anaesthetic and surgical measures
- determine the woman's wishes for future fertility and discuss the risk of requiring a hysterectomy
- enable multidisciplinary preparation for birth
- preparation for the birth itself

Since it is possible that birth may need to take place as an emergency caesarean section, **a clear care plan needs to be placed in the clinical notes, preferably using the Placenta Praevia and Accreta Clinical Pathway (See Appendices.).**

Avoid/treat anaemia

All women should have their full/complete blood count checked, but it is particularly important for those at increased risk of obstetric haemorrhage. Be aware that serum Vitamin B12 is commonly low despite normal tissue levels in pregnancy. Treat any anaemia according to the Lakes Maternal Iron Optimisation Guideline (1401933).

Timing of follow-up scan and further imaging

Placenta praevia at 32 weeks' gestation is likely to persist in 90 per cent of cases therefore a scan should be performed around 36 weeks' gestation, and prior to birth to exclude the cases where the placenta has migrated.

Location for birth

Consideration should be given to the appropriate location for birth based on the clinical situation (e.g. BMI, location and severity of placenta praevia, previous surgeries, any suspicion of placenta accreta).

If there are any safety concerns, birth should take place in a tertiary hospital after referral by the Lakes Obstetric team;

- Women with other or multiple co-morbidities and are therefore at high risk of complications and heavy bleeding should be managed in a tertiary unit.

- Cell salvage is not available in Rotorua. Consideration should be given to referral to a tertiary hospital for any patient at high risk of needing cell salvage and for women who may decline blood products.
- All known cases of placenta accreta/increta/percreta should be planned to be managed in a tertiary unit – Urology and Interventional Radiology services are not available at Rotorua Hospital.

Mode of birth

This will depend on the degree and location of the placenta praevia, ultrasound scan findings, other clinical factors and the woman's preference.

- Women with a low lying placenta in the third trimester are recommended to have birth by caesarean section, especially if the placenta is thick.
- Vaginal birth may be considered in specific cases of low lying placenta, with caution, if the woman is motivated and depending on ultrasound scan findings and after discussion with a Consultant Obstetrician.
- In cases of placenta praevia, elective caesarean section should be offered as the preferable mode of birth.
- Where there is suspected placenta accreta/increta/percreta elective caesarean section at a tertiary unit should be offered as the preferable mode of birth.

Gestational age of elective birth

- **Low Lying Placenta**: plan for elective caesarean section at 38 weeks.
- **Placenta Praevia**: plan for elective caesarean section at 36 – 38 weeks' gestation
- **Placenta Accreta**: Although there is no international agreement on the timing, in cases of known placenta accreta, an elective caesarean section between 36 and 37 weeks' gestation, at tertiary unit, is advised to avoid labour and an emergency procedure.
- **Complicated, High Risk Praevia or Accreta**: If high risk of bleeding (e.g., previous self-limited episodes of antepartum haemorrhage or contractions) or higher levels of surgical difficulty (i.e. percreta), planning caesarean section at 34-35 weeks or earlier, at a tertiary unit, is reasonable.

Overall, timing needs to be individualised depending on the clinical picture and resources available.

Inpatient management

Inpatient management is recommended for patients with placenta praevia with antepartum haemorrhage (APH) in the third trimester.

- A current group and hold should be available for all women admitted with APH and known placenta praevia.
- Women should be encouraged to stay hydrated, remain mobile, and wear TED stockings. Prophylactic low molecular weight heparin should be considered for women at high risk of thromboembolism.

Antepartum haemorrhage should be managed in accordance with the Lakes Antepartum Haemorrhage Guideline 2499506.

6. Multidisciplinary pre-operative planning

This should be planned and coordinated by the Consultant Obstetrician.

Antenatal steroids for fetal lung maturation

There should be good communication with the Paediatric team to ensure antenatal steroids are offered and recommended if any episodes of bleeding at <34+6 weeks' gestation.

Repeated doses of steroids are appropriate if recurrent episodes of bleeding occur <32 weeks or birth is planned <35 weeks.

Blood availability

There should be consultation with a Haematologist and communication with Blood Bank to allow cross-matched red cells to be available during an antenatal inpatient admission or for birth, and other products as necessary.

If there are known blood antibodies, a referral at 28-32 weeks to Blood Bank with the date of the caesarean section is needed.

7. Surgical Procedures

An experienced Obstetrician and Anaesthetist should be present for any woman going to the operating theatre with a known placenta praevia. Consideration should be given to having another Obstetrician available to assist should the need arise.

Unexpected diagnosis of placenta accreta/increta/percreta

In the case of an unexpected diagnosis of placenta accreta/increta/percreta at the time of surgery, consideration should be given to the safety of continuing surgery versus cessation of surgery and transfer to a tertiary unit. Involvement of a second Obstetrician and additional anaesthetic support in decision making is recommended.

In the case of an emergency surgical procedure being required for a woman at high risk of bleeding, where transfer is not possible due to patient instability, appropriate personnel should be called and be present in theatre;

- On-call Obstetrician and consider a second Obstetrician
- On-call Anaesthetist and consider a second Anaesthetist
- Consider General Surgeon
- Blood Bank
- Theatre Coordinator (with appropriate staff requested)
- Paediatric Consultant

8. Massive Postpartum Haemorrhage

Should be dealt with in accordance with the recommendations as for primary postpartum haemorrhage – see the Ministry of Health 'Treating Postpartum Haemorrhage Poster' and the Lakes Adult Massive Transfusion Protocol (MTP) – Rotorua 585349.

In the event of life-threatening haemorrhage, appropriate and timely recourse to a peripartum hysterectomy is a life-saving measure.

9. Vasa Praevia

Prenatal Diagnosis and Care

- Ultrasound detection of vasa praevia at the time of the anatomy scan has a high diagnostic accuracy and a low false positive rate
- To avoid unnecessary admission, anxiety, iatrogenic preterm birth, and caesarean section, persistence of vasa praevia must be confirmed on ultrasound in the third trimester
- The ultimate goal in vasa praevia cases is to facilitate birth prior to rupture of membranes whilst minimising the impacts of prematurity. Based on available data, planned birth via caesarean section is recommended at 34-36 weeks of gestation in asymptomatic women
- Women with known vasa praevia at 32 weeks should be given prophylactic corticosteroids due to the increased risk of fetal compromise and preterm birth
- Women with confirmed vasa praevia should be admitted to a tertiary hospital from 32 weeks' gestation as decided on a case-by-case basis and combination of risk factors, including multiple pregnancy etc.
- Women with resolved vasa praevia (>2cm from os) should receive ongoing monitoring

See the Prenatally Diagnosed Vasa Praevia Care Pathway (Appendix 2.)

Intrapartum Diagnosis

- Birth via emergency caesarean section and neonatal resuscitation, including the use of blood transfusion if required, are the standard of care for management of vasa praevia diagnosed during labour.
- Birth should not be delayed whilst trying to confirm the diagnosis.

Suspected Ruptured Vasa Praevia

- The paediatric team, including the on-call Paediatrician, should be requested to be present at birth and the blood bank should be urgently contacted to ready red blood cells for neonatal transfusion
- Placental pathological examination should be requested to confirm the diagnosis, especially when stillbirth has occurred or when there has been acute fetal compromise

10. Audit Indicators

- Percentage of women with placenta praevia or suspected placenta accreta whose care has followed this guideline
- Percentage of women with placenta praevia or suspected placenta accreta who have the Placenta Praevia & Accreta Clinical Pathway available in their notes from 32 weeks onwards
- Percentage of women with placenta praevia or suspected placenta accreta that required emergency birth prior to the planned procedure, who had plans for both emergency and planned birth discussed and documented

11. Related Documentation

- Antepartum Haemorrhage Guideline - 2499506
- Adult Massive Transfusion Protocol (MTP) – Rotorua - 585349
- Maternal Iron Optimisation Guideline - 1401933
- Placenta Praevia and Accreta Spectrum Clinical Pathway
- Prenatally Diagnosed Vasa Praevia Clinical Pathway

12. References

Canterbury DHB, 2019. Placenta praevia and accreta. https://www.cdhb.health.nz/wp-content/uploads/5d39a5f1-glm0002-placenta-praevia-placenta-accreta.pdf

Ministry of Health (2022). Treating Postpartum Haemorrhage Poster. https://www.health.govt.nz/system/files/documents/publications/treating_postpartum_haemorrhage_1april22.pdf

Royal College of Obstetricians & Gynaecologists. 2018 Placenta praevia, placenta praevia accreta and vasa praevia: diagnosis and management. Green-top Guideline No. 27. https://obgyn.onlinelibrary.wiley.com/doi/full/10.1111/1471-0528.15306 [Accessed October 2022].

Waikato DHB, 2020. Management of Suspected Placenta Accreta, Percreta or Increta Guideline

Authorised by: Maternity Clinical Quality Improvement Meeting

13. Appendices

See over page……..

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MATERNITY SERVICES

Placenta Praevia & Accreta Spectrum Clinical Pathway

20w USS Diagnosis:	☐ Placenta : ☐ *Praevia* ☐ *Low Lying* *Distance from Os:……..cms* ☐ Suspected Placenta Accreta
History:	☐ Previous Caesarean Section or other uterine surgery: ☐ Yes : *Arrange*: ☐ *Colour Flow Doppler Ultrasound Scan* ***+/-*** ☐ *MRI Scan*
USS / MRI Results:	☐ Placenta: ☐ *Praevia* ☐ *Low Lying* *Distance from Os:……..cms* ☐ Suspected Placenta: ☐ *Accreta* ☐ *Increta* ☐ *Percreta*
Advice to Patient:	☐ Informed of implications – risk of bleeding, blood transfusion, hysterectomy ☐ Discussed anaesthetic & other surgical measures and contingencies ☐ Must seek early, urgent assistance if bleeding, pain or any other concerns ☐ May need inpatient stay if ongoing episodes of bleeding ☐ Accreta Spectrum: must be within 30 mins of hospital after 32 weeks, or earlier if bleeding
Future Fertility:	Ascertain the patient's wishes for future fertility.
Tertiary Referral:	Refer to Tertiary Unit if: Complicated Placenta Praevia, suspected Accreta/Increta/Percreta, high BMI, previous surgery, need for cell salvage or patient declines blood products.

If continuing with local / secondary unit care;	
Birth Planning:	☐ Vaginal Birth – specific case of low lying placenta, Obstetrician discussed risks ☐ Caesarean Section booked for 36-38 weeks ☐ Anaesthetic referral sent ☐ Pre-admission clinic assessment arranged ☐ If antibodies, inform Blood Bank, incl. date of C Section
Bloods:	***Avoid anaemia: Recheck Hb and Ferritin*** ☐ 32 weeks: ☐ 36 weeks:
36w USS	***Recheck placenta position if placenta praevia;*** ☐ Placenta: ☐ *Praevia* ☐ *Low Lying* *Distance from Os:……..cms*

Day of Birth:	☐ Inform Blood Bank ☐ Consider additional Obstetric Consultant on standby:
Bleeding Prior to Planned Surgery:	***If profuse bleeding prior to day of planned surgery;*** ☐ IV Access – X2 cannula's ☐ Consent for C Section +/- Hysterectomy ***Inform the following asap;*** ☐ On call Obstetric Consultant ☐ On call Anaesthetist ☐ Clinical Midwife Coordinator OR Midwife in Charge ☐ Theatre Coordinator ☐ SCBU ☐ Blood Bank: * specify if antibodies ☐ request cross match 6 units

Placenta Praevia & Accreta Clinical Pathway

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MATERNITY SERVICES

Prenatally Diagnosed Vasa Praevia Care Pathway

(To be read in conjunction with the Antepartum Haemorrhage Guideline 2499506)

All cases of vasa praevia and resolved vasa praevia are to be referred to the High Risk Clinic at Rotorua Hospital.

20w USS Diagnosis:	☐ Vasa Praevia : ☐ Traversing region of internal os ☐ Located within 2cms of the internal os
Advice to Patient:	☐ Not to stand for prolonged periods ☐ Present to hospital immediately if any signs or symptoms of labour and/or bleeding ☐ Not to engage in coitus ☐ Avoid moderate or strenuous exercise ☐ If it persists will require transfer to tertiary facility from 30-32weeks, birth at 34-36 weeks ☐ If unable to get to tertiary facility, birth in Rotorua by caesarean section at 34-36 weeks
28w USS:	☐ Referral to Lakes High Risk USS Clinic: For transabdominal and transvaginal Colour Flow Doppler USS & assess growth.

28w USS Results:	☐ Vasa Praevia : ☐ Traversing region of internal os: *Refer to Tertiary Unit* ☐ Located within 2cms of the internal os: *Refer to Tertiary Unit* ☐ Resolved (>2cm from os): *Advise risk remains, plan mode of birth*
Tertiary Referral:	☐ Referral sent to Tertiary Unit
Steroids @ 32wks:	☐ Assess need for antenatal steroids for fetal lung development ☐ Steroids required & prescribed Date Given: …… ☐ Steroids not required

Vasa Praevia Resolved (>2cm from os)	
32w USS	☐ Arrange transabdominal and transvaginal Colour Flow Doppler USS, assess growth
36w USS	☐ Arrange transabdominal and transvaginal Colour Flow Doppler USS, assess growth
Advice to Patient:	☐ Continued risk of rupture of the exposed and unprotected vessel
Birth Planning:	Birth Options: ☐ Elective Caesarean Section at …….weeks OR ☐ Vaginal Birth with; ☐ Pre-emptive plan for emergency caesarean section in place ☐ Advise early admission once in labour or after rupture of membranes ☐ Continuous CTG monitoring while in labour ☐ Caution on birth of the placenta to avoid cord avulsion ☐ Inform LMC

Prenatally Diagnosed Vasa Praevia Care Pathway