

Placenta praevia/accreta



Target audience	Maternity staff in NHS Lanarkshire
Patient group	Pregnant women in NHS Lanarkshire

Summary

The purpose of this guideline is to describe the diagnostic modalities used for diagnosing placenta praevia and placenta accreta, the clinical management and planning of delivery. The management of the condition vasa praevia is not covered in this local guideline and we refer to the national guidance for the diagnosis and management of this complex condition (1).

The guideline is not intended to cover all aspects of care and should be used in conjunction with the Royal College of Obstetricians and Gynaecologists green-top guideline entitled “Placenta Praevia and Placenta Accreta: Diagnosis and management” (1).

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Definition

Placenta praevia exists when the placenta is inserted wholly or in part to the lower segment of the uterus. If the placenta lies over the internal os, it is considered a major praevia. If the leading edge of the placenta is in the lower uterine segment but not covering the cervical os, it is considered a minor, or partial, praevia. Placental 'migration' occurs during the second and third trimesters owing to development of the lower uterine segment so the majority of women who have a low-lying placenta at 20 weeks will not do so by the time they get to the third trimester. This is less likely to happen if the placenta is posterior, if the woman has previously delivered a baby by caesarean birth or if it is a major placenta praevia.

Clinical importance

Maternal and fetal morbidity and mortality from placenta praevia and placenta accreta are considerable and, as a result, they are associated with high demands on health resources. With the rising incidence of caesarean birth, the number of cases of placenta praevia and its complications, including placenta accrete, continues to increase (2).

A morbidly-adherent placenta includes placenta accreta, increta and percreta (referred to as placenta accreta spectrum or PAS) as it penetrates through the decidua basalis into and then through the myometrium.

The following table is useful when counselling women with one or more previous caesarean births and a placenta overlying the scar (3).

Number of previous caesarean sections	Number of women	Number of women with placenta accreta	Chance of placenta accreta if placenta praevia	Number of hysterectomies
0	6201	15 (0.24%)	3%	40 (0.65%)
1	15808	49 (0.31%)	11%	67 (0.42%)
2	6324	36 (0.57%)	40%	57 (0.9%)
3	1452	31 (2.13%)	61%	35 (2.4%)
4	258	6 (2.33%)	67%	9 (3.49%)
5	89	6 (6.74%)	67%	8 (8.99%)

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Antenatal screening and diagnosis

Whilst clinical acumen remains vitally important in suspecting and managing placenta praevia, definitive diagnosis relies on ultrasound (3).

The routine fetal anomaly ultrasound scan at approximately 20 weeks of gestation should include placental location (2). Where the placenta is $\leq 2\text{cm}$ from, reaches or overlaps the cervical os, a further ultrasound will be required. Transvaginal ultrasound (TVUSS) is safe in the presence of placenta praevia and is more accurate than transabdominal ultrasound (TAUSS) in locating the placenta, particularly for a posterior placenta. Using TAUSS alone is associated with false positives (3).

In asymptomatic women, repeat ultrasound should be performed at 32 weeks of gestation. If a placenta praevia is diagnosed, the patient should be referred to their named obstetric consultant for a delivery plan. If the placenta remains low a further scan at 36 weeks of gestation is advised to further assess placental location and to assist delivery planning (1).

If there is any doubt, a TVUSS is more accurate in measuring the distance from the internal os to the leading edge of the placenta, particularly if it is posterior.

Women who bleed should be managed individually in accordance with the clinical picture which would often include a repeat ultrasound scan for placental localisation.

Clinical suspicion should be raised in all women irrespective of previous imaging results with:

- vaginal bleeding after 20 weeks of gestation
- a high presenting part
- an abnormal lie
- painless or provoked bleeding

Women with an anterior placenta praevia and a previous caesarean birth or other uterine surgery that has breached the endometrial cavity are at increased risk of the placenta accrete spectrum. Features of this can often be seen at the fetal anomaly scan and, if suspected, should be scanned by a consultant. These women should be scanned by a consultant at 32 weeks of gestation if the praevia is still present (or earlier if antepartum haemorrhage occurs) who will then arrange further imaging if required (this may include colour flow doppler and/or magnetic resonance imaging (MRI) scanning).

In women with 3 or more previous caesarean births, a further scan at 32 weeks of gestation should automatically be arranged for further placental localisation check, independent of findings at the fetal anomaly scan.

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Antenatal management

As with all women, prevention and treatment of anaemia during the antenatal period is of utmost importance.

Women with a major placenta praevia who have previously bled should be offered admission and managed as an inpatient from 34 weeks of gestation. Those with a major placenta praevia who remain asymptomatic, having never bled, require careful counselling before contemplating outpatient care. This is the discretion of the woman's named consultant. Any home-based care requires:

- Full informed consent from the woman
- Close proximity to the hospital
- The constant presence of a companion
- Telephone
- Transport

It should be made clear to any women being managed at home that she should attend hospital immediately if she experiences:

- Any bleeding (including 'spotting')
- Any contractions
- Any other pain (including vague suprapubic, period-like aches)

Prior to delivery, all women with a placenta praevia and their partners should have had documented antenatal discussions regarding:

- Delivery
- Anaesthesia and potential need for a general anaesthetic
- Haemorrhage
- Possible blood transfusion
- Major surgical interventions, such as hysterectomy
- Prevention and treatment of anaemia.

Blood availability during inpatient antenatal care is informed by clinical factors relating to individual cases, as well as local blood bank services. Women with atypical antibodies form a particularly high-risk group and discussion in these cases should involve the local haematologist and the blood bank. For women without atypical antibodies, a group and save specimen should be obtained every 7 days whilst the

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woman remains an inpatient. Routine cross matching is not required if there are no significant atypical antibodies.

Tocolytics are not to be used for treatment of bleeding due to placenta praevia without consultant approval.

Prolonged inpatient care can be associated with an increased risk of venous thromboembolism. Thus, gentle mobility and adequate hydration should be encouraged together with the use of prophylactic thromboembolic stockings. Prophylactic anticoagulation should be reserved for those at high risk of thromboembolism.

Anticipatory care for delivery

Delivery planning for these patients needs to be in a multidisciplinary team setting and should involve:

- named midwife
- named obstetric consultant
- consultant anaesthetist
- maternity co-ordinator
- theatre manager
- operating surgeon
- interventional radiology (if applicable)

Mode of delivery

The mode of delivery should be based on clinical judgment supplemented by sonographic information. A placental edge less than 2cm from the internal os on scan will require delivery by caesarean birth. In cases of planned caesarean birth for placenta praevia or low-lying placenta, a senior obstetrician (usually a consultant) and senior anaesthetist (usually a consultant) should be present within the unit or theatre when the surgery is being performed. When an emergency case arises, consultant staff should be alerted and should attend urgently. When elective delivery is possible, the named consultant should liaise with the operating obstetrician (if different) and the theatre manager to discuss the anticipated length of time for caesarean birth.

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Timing of delivery

The timing of emergency surgery will be influenced by individual clinical circumstances but, where possible, elective caesarean birth should be considered between 36+0 and 37+0 weeks of gestation to minimise neonatal morbidity. A course of steroids can be given one week prior to planned delivery (or earlier if there are risks of preterm delivery), if no previous course has been given.

Location of delivery

When placenta accreta spectrum is suspected or confirmed, a detailed discussion is needed regarding a plan for delivery, including having access to interventional radiology and site of delivery. Placenta praevia deliveries can be performed locally.

Surgical considerations

When the surgeon suspects placenta accrete spectrum, they should consider opening the uterus at a site distant from the placenta and attempting to deliver the baby without disturbing the placenta. Going through the placenta at delivery is associated with an increased risk of bleeding and a higher chance of hysterectomy and should be avoided. In an emergency, where there is a suspicion of placenta accrete and following the delivery of the baby, the placenta should be left in situ and hysterectomy performed (1).

When the extent of the placenta accreta is limited in surface area and depth then uterine-sparing surgery may be appropriate, including partial myometrial resection. Uterine-sparing surgery should only be attempted by surgeons working in teams with the appropriate expertise and after appropriate counselling regarding risks and with informed consent. However, there is limited evidence to support uterine-sparing surgery, and women should be informed of the high risk of peripartum and secondary complications including the need for hysterectomy.

For some women, hysterectomy may be unacceptable or considered inappropriate by the surgical team. In such cases, and within the context or MDT discussion, informed consent and risk assessment of leaving the placenta in-situ may be considered. In such cases, regular review, ultrasound examination and access to emergency care is mandatory (1).

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Anaesthetic assessment

The choice of anaesthetic technique for caesarean birth for placenta praevia must be made by the anaesthetist in consultation with the obstetrician and the mother. The category of caesarean birth, the site of the placenta praevia and the experience of the anaesthetist will be factors that are considered. There is increasing evidence to support the safety of regional blockade. All women with major placenta praevia should be reviewed by an anaesthetist by 34 weeks of gestation.

Blood products

Blood should be readily available for the entire peripartum period. When women have atypical antibodies, direct communication with the local blood bank should enable specific plans to be made to match the individual circumstances. Caesarean birth for cases of placenta praevia should be cross-matched four units. Women with placenta praevia who decline blood transfusion should have their care discussed in the MDT setting and consideration of delivery in a unit with access to an interventional radiology service (1).

There is no evidence to support the use of autologous blood transfusion for placenta praevia. Cell salvage, if available, may be considered in cases whereby the risk of massive haemorrhage is high such as those with multiple pregnancy or placenta accreta and especially in women who would refuse blood transfusion.

Massive haemorrhage

Please also see the 'Anaemia in Pregnancy and Iron Transfusion Protocol' and the 'Major Obstetric Haemorrhage' guideline.

The surgical manoeuvres required in the face of massive haemorrhage associated with placenta praevia caesarean birth should be performed by appropriately experienced surgeons. Calling for extra help early should be encouraged and not seen as "losing face".

The following may help as single measures or in combination:

- prophylactic intravenous tranexamic acid

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- uterotonic agents may help in reducing the blood loss associated with bleeding from the relatively atonic lower uterine segment
- bimanual compression
- hydrostatic balloon catheterisation
- uterine packing
- aortic compression
- B-lynch suture
- uterine or internal iliac artery ligation
- hysterectomy
- arterial embolisation is useful in selected cases as long as the iliac vessels have not been tied off (involve interventional radiologists early)

It is important that the major obstetric haemorrhage (MOH) protocol is put in place when there is:

- blood loss greater than 1500ml or any signs of circulatory collapse
- blood loss greater than 150ml/min or more than 5 litres in 24 hours
- any worrying or uncontrolled bleeding

It is important to realise that visual blood loss estimation often underestimates the true extent of the haemorrhage so decision-making should be based on clinical signs and the most accurate methods such as blood collection drapes and weighing swabs.

Risk management

As in all high-risk cases, particular attention should be paid to careful documentation of all issues surrounding clinical discussion and decision-making. The names of all clinical staff involved should be recorded legibly and signed in the notes, together with the content of any discussions, advanced directives and decisions. InPhase reports should be completed. Postnatal review by the named consultant should be offered to the patient.

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References

- 1) Management and diagnosis of vasa praevia GTG No 27b, 2018.
- 2) Placenta Praevia and Placenta Accreta: Diagnosis and management GTG No 27a, fourth edition 2018.
- 3) Placenta Praevia, Placenta Praevia Accreta and Vasa praevia: Diagnosis and Management GTG No 27, 3rd edition, 2011.

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