Placenta Praevia and Placenta Accreta Spectrum

Unique Identifier	NMP200/SSM/109 - v01.00
Document Type	Clinical Guideline
Risk of non-compliance	may result in significant harm to the patient/DHB
Function	Clinical Practice, Patient Care
User Group(s)	Auckland DHB only
• Organisation(s)	Auckland District Health Board
• Directorate(s)	Women's Health, Perioperative
• Department(s)	Maternity, Level 9 Theatres
• Used for which patients?	Pregnant patients at risk of or with confirmed placenta praevia / placenta accreta spectrum
• Used by which staff?	All clinical staff in Maternity and Level 9 Theatre
• Excluded	
Keywords	
Author	Maternity Quality and Safety Leader - Women's Health
Authorisation	
• Owner	Service Clinical Director - Secondary Maternity Services
• Delegate / Issuer	Service Clinical Director - Secondary Maternity Services
Edited by	Document Control
First issued	20 December 2021
This version issued	20 December 2021 - issued
Review frequency	3 yearly

Contents

Back to Contents

1. Purpose of guideline

The purpose of this guideline is to promote and facilitate standardisation and consistency of practice, using a multidisciplinary approach. Furthermore, to ensure that all maternity women who are at risk of Placenta Praevia and/or Placenta Accreta Spectrum (PAS) are screened, diagnosed and have management plans developed to reduce their morbidity and mortality.

2. Guideline management principles and goals

It is ideal to identify patients at risk of morbid placental adherence in advance, so that a timely and planned birth can occur to minimise adverse maternal and neonatal outcomes.

3. Definitions

Term	Definition
Placenta praevia	When the placenta extends wholly or partly into the lower segment of the uterus.
Placenta praevia minor	Placenta within 2cm but not covering the internal cervical os
Placenta praevia major	Placenta covering or encroaching upon the internal cervical os
Morbidly adherent placenta	Any abnormal placentation on the accreta spectrum, including placenta accreta, increta and percreta.
Placenta accreta	Abnormal invasion of the chronionic villi to the myometruim
Placenta increta	Abnormal invasion of the chronionic villi through into the myometruim
Placenta percreta	Abnormal invasion of the chronionic villi through the myometrium, with potential involvement of surrounding structures

Practically, a placenta can have normal, adherent, and invasive portions at the same time in different locations. The diagnosis is suspected via ultrasound or placenta MRI, confirmed clinically at delivery by the surgeons and by histopathology in the case of hysterectomy.

4. Incidence

Placenta praevia occurs in 1 in 200 of all pregnancies. PAS occurs in 1 in 300 to 1 in 2000 pregnancies. The wide variation in prevalence is secondary to difficulty in diagnosing the condition in the absence of histopathological confirmation.

5. Risk factors

There are two major and linked risk factors for PAS - caesarean section and placenta praevia. Previous caesarean section in itself increases the risk of praevia.

Any low lying placenta over a caesarean section scar should be considered for placental invasion and undergo appropriate imaging.

Other risk factors include:

- Myomectomy
- Uterine curettage
- Endometrial ablation
- Hysteroscopic surgery
- Pelvic irradiation
- Uterine embolization
- Uterine anomalies
- Smoking (increases risk of praevia)
- Advanced maternal age (increases risk of praevia)
- Parity more than five (increases risk of praevia)

6. Diagnosis

Antenatal diagnosis is associated with reduced maternal morbidity in terms of:

- Reduction of peri-partum blood loss and the need for blood transfusion
- Planned delivery in an appropriate setting, by a skilled multi-disciplinary team
- Reduced attempts to remove placenta
- Reduced emergency hysterectomies

6.1 Clinical Suspicion

When requesting anatomy scan, ensure that any history of previous CS is included on the request. A low lying anterior placenta with history of CS should be referred as soon as possible to secondary services.

Women who have had a previous caesarean section who also have either placenta praevia or an anterior placenta underlying the old caesarean section scar at 32 weeks of gestation are at increased risk of placenta accreta and should be managed as though they have placenta accreta.

Placenta praevia should be considered in any woman with painless and unprovoked vaginal bleeding after 20 weeks of gestation. Suspicion of placenta praevia should be raised where there is a high presenting part or an abnormal lie with painless and unprovoked bleeding at term.

6.2 First line - ultrasound

Ultrasound should be the first line of investigation when looking for PAS. If suspicion is raised on ultrasound, initiate further imaging comprising of repeat ultrasound studies or MRI.

6.3 Second line - MRI

MRI may provide greater detail regarding the depth and topography of invasion of a placenta. MRI may also provide a greater level of information with a posterior placenta or in the obese patient.

Back to Contents

7. Management

Women with features of, or a confirmed diagnosis of, PAS should be referred by a member of the obstetric team, for discussion at a multidisciplinary meeting (MDM). Complete, scan and email section A of the 'Placental Accreta Spectrum MDM Referral & Delivery Plan' form (CR4127, see example in Appendix 1) to Placenta Accretas (ADHB) Placentaaccrete@adhb.govt.nz by 32 to 34 weeks gestation or as soon as possible upon diagnosis. The Preoperative Antepartum plan (section B of CR4127) will be completed by the Chairperson of the MDM.

The MDM is part of the Benign Gynaecology meeting with other specialists invited such as representatives from Anaesthetics, Vascular and Urology. A copy of the completed form (CR4127) will be placed in the labour and birth 'high risk folder' as well as a copy sent for uploading to Chartview™. The risk sheet on the maternity electronic system will also be updated following the multidisciplinary team meeting.

The referrer and LMC will be updated with the result of the MDM. Where the LMC is a private obstetrician they will be responsible for completing the referral form to PAS team and ensuring they are available to attend the multidisciplinary team meeting. On the referral form they need to provide the name of a second surgeon for delivery with them otherwise one will be allocated by the multidisciplinary team.

Where the patient is booked to deliver at another DHB, the DHB of domicile is welcome to refer to the MDM in the usual way, and the discussion would include consideration of best place to deliver. If clinically more appropriate to deliver at Auckland City Hospital, the DHB of domicile should ensure that the maternity booking is transferred to Auckland DHB at an appropriate gestation, and that appropriate postnatal care arrangements are in place.

The multidisciplinary team includes:

- Experienced senior obstetrician
- Gynae oncologist/Urogynaecologist
- Obstetric anaesthetists
- Urologist
- Vascular surgeon
- Interventional radiologist
- Neonatologist
- Imaging expert
- Charge Nurse-Level 9 Theatre
- Charge Midwife-Labour and Birthing suite
- LMC

7.1 Practice points

- Counsel the woman and her family about the suspected diagnosis, the need for operative birth, the implication in terms of massive blood loss, blood transfusion and possible/definite hysterectomy. Include discussion of management options (hysterectomy, conservative,

Back to Contents

placenta removal attempt, partial uterine resection, urology, vascular, interventional radiology).

- Encourage the woman to remain close to Auckland Hospital for the duration of the third trimester.
- There is little evidence of advantage of home versus hospital care.
- Prolonged inpatient care is associated with an increased risk of thromboembolism, gentle mobilisation and TEDs stockings are recommended in all hospitalised women. Anticoagulation is reserved for high-risk cases only, and unfractionated heparin should be used.
- There is an association between placenta praevia and intra uterine growth restriction.
- Antenatal corticosteroids should be administered at 32 to 34 weeks gestation.
- Steps should be taken to ensure optimisation of haemoglobin and iron stores.
- Consideration of ureteric stenting should be made when there is a suspicion of placenta percreta. Interventional radiology can be useful in the management of haemorrhage from abnormal placentation after delivery.

7.2 Timing of birth

- The timing of the elective caesarean section needs to be decided individually, taking into account type and location of placental abnormality, maternal and fetal wellbeing, gestation and the occurrence and frequency of any antepartum haemorrhages throughout the pregnancy.
- Birth is generally considered between 34 to 36 weeks gestation with steroid cover in the uncomplicated woman, with extension up to 37 weeks recommended (as in the UK) for uncomplicated women with no history of antepartum haemorrhage.

7.3 On day of planned delivery

- All preoperative preparation should be performed in accordance with the Acute Caesarean section-pre, peri and post-op care guideline.
- A hard copy of the 'Placental Accreta Spectrum MDM Referral & Delivery Plan' form (CR4127) will be available in the clinical records prior to entering theatre.
- Check all members of the 'Multidisciplinary team for day of surgery' are either present in theatre or available in the hospital. Those members required in theatre will attend the pre-surgery briefing which is led by the primary surgeon
- Ensure at least four units of cross matched blood are available on the floor and that the Cell Saver is set up.
- If iliac occlusion balloons are to be utilised, ensure urinary catheter has been inserted prior to transfer to Interventional Radiology Department.

7.4 Acute presentation and delivery

A small number of these women may present with bleeding and require emergency surgery. It is expected much of the preparation would have been completed. Refer to the 'Placental Accreta Spectrum MDM Referral and Delivery Plan' form (CR4127) in the labour and birth 'high risk folder' or on Chartview™.

Back to Contents

1. Inform the DU and WAU on call Obstetric SMOs as soon as possible so that they can attend.
2. Inform the on call Anaesthetic SMO
3. Inform the Level 9 OR Nursing theatre co-ordinator
4. Notify Level 2 Paediatric staff
5. Inform the blood bank
6. Alert the on-call urologist, vascular surgeon and gynae oncologist
7. Notify DCCM of potential post-op admission

See Appendix 2 for flowchart for intraoperative suspicion of adherent placenta.

7.5 Massive haemorrhage

Massive haemorrhage should be dealt with in accordance with the recommendations as for primary postpartum haemorrhage. See the Postpartum haemorrhage - Prevention and Management guideline.

8. Supporting evidence

- King Edward Memorial Hospital Obstetrics & Gynaecology. (2018). *Clinical practice guideline placenta accreta spectrum.* Women and Newborn Health Service, Government of Western Australia North Metropolitan Health Service. https://www.kemh.health.wa.gov.au/For-health-professionals/Clinical-guidelines/OG
- Royal College of Obstetricians and Gynaecologists. (2018). *Placenta praevia and placenta accreta: diagnosis and management (Green-top Guideline No. 27a)*. https://www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg27a/
- South Australia Maternal, Neonatal & Gynaecology Community of Practice. (2018). *South Australian perinatal practice guideline morbidly adherent placenta management.* Department for Health and Wellbeing, Government of South Australia. https://www.sahealth.sa.gov.au/wps/wcm/connect/8b2ae494-c697-4347-983a-fc0df581155a/Morbidly+Adherent+Placenta+Management_PPG_v1.0_25.10.18.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-8b2ae494-c697-4347-983a-fc0df581155a-mSUpVDg
- The Royal Australian and New Zealand College of Obstetricians and Gynaecologists. (2015). *Placenta Accreta C-Obs 20*. https://ranzcog.edu.au/statements-guidelines?searchtext=placenta+accreta&searchmode=exactphrase&sortby=#SCORE
- Women's Health Service, Christchurch Women's Hospital. (2019). *Placenta praevia and placenta accreta.* Canterbury District Health Board. https://edu.cdhb.health.nz/Hospitals-Services/Health-Professionals/maternity-care-guidelines/Documents/GLM0002-Placenta-Praevia-Placenta-Accreta.pdf

9. Associated documents

Auckland DHB guidelines

- Postpartum Haemorrhage (PPH) - Prevention and Management
- Acute Caesarean Section - Pre, peri and post-op care

Back to Contents

Clinical Forms

- CR4127 Placental Accreta Spectrum MDM Referral & Delivery Plan

10. Disclaimer

No guideline can cover all variations required for specific circumstances. It is the responsibility of the health care practitioners using this Auckland DHB guideline to adapt it for safe use within their own institution, recognise the need for specialist help, and call for it without delay, when an individual patient falls outside of the boundaries of this guideline.

11. Corrections and amendments

The next scheduled review of this document is as per the document classification table (page 1). However, if the reader notices any errors or believes that the document should be reviewed ***before*** the scheduled date, they should contact the owner or Document Control without delay.

Appendix 1: Placental Accreta Spectrum MDM Referral & Delivery Plan (CR4127)

AUCKLAND DISTRICT HEALTH BOARD Te Toka Tumai

Placental Accreta Spectrum MDM Referral and Delivery Plan

MUST ATTACH PATIENT LABEL HERE

SURNAME: _____ NHI: _____

FIRST NAMES: _____ DOB: _____

Please ensure you attach the correct visit patient label

PLACENTAL ACCRETA SPECTRUM MDM REFERRAL & DELIVERY PLAN

SECTION A: REFERRAL INFORMATION REQUIRED: *REFERRER PLEASE COMPLETE SECTION A IN FULL*

Name:	
NHI:	Height:
DoB:	Current Weight:
Age:	Current BMI:
Ethnicity:	
LMC:	Referring SMO:
Bloods Date taken:	Hb: _____ Creat: _____ Hct: _____ Plts: _____ Ferritin: _____ Other: _____
Blood Group & Antibody status:	
Allergies:	
Jehovah's Witness? JW Documentation Complete?	☐ No ☐ Yes _____ ☐ No ☐ Yes
Obstetric History:	Gest age at referral: _____ EDD: _____ G: _____ P: _____
Current Pregnancy – Maternal or Fetal. Concerns including APH/SGA/GPH	
Suspected Placental Invasion:	☐ Accreta ☐ Bladder involvement ☐ Increta ☐ Other organ involvement ☐ Percreta
Imaging:	☐ USS Date: _____ Location: _____ ☐ MRI Date: _____ Location: _____
Past Obstetric History:	
Social History:	
Medical History:	
Post-Natal Contraception Plan:	☐ Hysterectomy ☐ Tubal Ligation ☐ Jadelle ☐ OCP ☐ Barrier method ☐ IUCD ☐ Vasectomy

Example

PAGE 1
10/21

CR4127

Back to Contents

PLACENTAL ACCRETA SPECTRUM MDM REFERRAL & DELIVERY PLAN

CR4127

AUCKLAND DISTRICT HEALTH BOARD Te Toka Tumai

Placental Accreta Spectrum MDM Referral and Delivery Plan

MUST ATTACH PATIENT LABEL HERE

SURNAME: _____ NHI: _____

FIRST NAMES: _____ DOB: _____

Please ensure you attach the correct visit patient label

Additional information

PAGE 2

AUCKLAND DISTRICT HEALTH BOARD Te Toka Tumai

Placental Accreta Spectrum MDM Referral and Delivery Plan

MUST ATTACH PATIENT LABEL HERE

SURNAME: _____ NHI: _____

FIRST NAMES: _____ DOB: _____

Please ensure you attach the correct visit patient label

PLACENTAL ACCRETA SPECTRUM MDM REFERRAL & DELIVERY PLAN

SECTION B: PREOPERATIVE ANTEPARTUM PLAN

Multidisciplinary Meeting

MDM Chair: Date:

Attendees:

Antepartum Blood Profile Trend:

Date:				
Hb:				
Hct:				
Plt:				
Ferritin:				
Creat:				

Blood Group & Antibody status:

Kleihauer Required: ☐ No ☐ Yes

Iron Infusion Required Pre-delivery? (LMC to arrange) ☐ No ☐ Yes _____

Radiology Review

Ultrasound Findings:

MRI Findings:

Radiological Opinion:

Interventional Radiology Required: ☐ No ☐ Yes _____

PAGE 3

CR4127

PLACENTAL ACCRETA SPECTRUM MDM REFERRAL & DELIVERY PLAN

AUCKLAND DISTRICT HEALTH BOARD Te Toka Tumai

Placental Accreta Spectrum MDM Referral and Delivery Plan

MUST ATTACH PATIENT LABEL HERE

SURNAME: _____ NHI: _____

FIRST NAMES: _____ DOB: _____

Please ensure you attach the correct visit patient label

Surgical Considerations

Surgical MDT Opinion:

Urology:	☐ Cystoscopy	☐ Ureteric Stents		
Abdominal Incision:	☐ Pfannenstiel	☐ Vertical		
Planned Uterine Incision:	☐ Low Transverse	☐ Classical	☐ Fundal	
	☐ Other _____			
	☐ USS required in OR for mapping			
Placenta Management:	☐ Planned hysterectomy without CCT			

Contingency Plan if Placenta Delivers Spontaneously:

Multidisciplinary Team for day of surgery

	Name:	Contact:	Present in OR:	Avaliable in Hospital:
Anaesthetist:			☐	☐
O&G:			☐	☐
Gynae Oncologist:			☐	☐
Urologist:			☐	☐
Vascular Surgeon:			☐	☐
General Surgeon:			☐	☐
Interventional Radiologist:			☐	☐
DCCM/MCCA:			☐	☐
Neonatologist:			☐	☐
Other:			☐	☐

CR4127

PAGE 4

Back to Contents

AUCKLAND DISTRICT HEALTH BOARD Te Toka Tumai

Placental Accreta Spectrum MDM Referral and Delivery Plan

MUST ATTACH PATIENT LABEL HERE

SURNAME: _____ NHI: _____

FIRST NAMES: _____ DOB: _____

Please ensure you attach the correct visit patient label

PLACENTAL ACCRETA SPECTRUM MDM REFERRAL & DELIVERY PLAN

Neonatal Considerations

Neonatal Opinion:

Antenatal Steroid Plan: ☐ No ☐ Yes

Neonatal team informed of surgery date: ☐ Yes ☐ No

Anaesthetic Management

Elective Case Plan:

Regional: ☐ CSE ☐ Spinal (ITM) ☐ Other: _____

GA: ☐ Yes ☐ No (as back-up) _____

IV Access: _____

IA: ☐ Yes ☐ No

CVL: ☐ Quad Lumen ☐ Triple Lumen ☐ No CVL

CV Pressure Monitoring: ☐ Yes ☐ No

Swann Sheath: ☐ Yes ☐ No

RiCC: ☐ Yes ☐ No

Airway stratergy: *(may change on day of surgery due to individual preference)*

A.
B.
C.
D.

Cell Saver Required? ☐ Yes ☐ No Comments: _____

Contraindiation to Tranexamic acid? ☐ No ☐ Yes _____

Rapid Fluid Infuser: ☐ Yes ☐ No

Other Anaesthetic Concerns/Medications: ☐ No ☐ Yes _____

Required/Comments: _____

Any Blood Product Avaliability Concerns:

Antibodies? ☐ No ☐ Yes _____

Have blood bank been contacted/plan? _____

Blood Bank extn: **24015:** ☐ Blood required for OR fridge

Number of units to request: _____

Further Comments:

PAGE 5

CR4127

PLACENTAL ACCRETA SPECTRUM MDM REFERRAL & DELIVERY PLAN

AUCKLAND DISTRICT HEALTH BOARD Te Toka Tumai

Placental Accreta Spectrum MDM Referral and Delivery Plan

MUST ATTACH PATIENT LABEL HERE

SURNAME: _____ NHI: _____

FIRST NAMES: _____ DOB: _____

Please ensure you attach the correct visit patient label

Birth Partner

Name: _____

☐ Can attend in OR until point of GA

☐ To Not be present in the OR

☐ Alternative plan _____

Acute – Emergency Presentation

Surgical Plan:

Anaesthetic Plan:

* RMO on duty to call anaesthetic SMO immediatly to be present
* Consider contacting 2nd oncall SMO/Obstetric Anaesthetic Fellow/PAS anaesthetist

- Setup for major haemorrhage laparotomy
- Widebore IV access
- Rapid, aggressive rescusitation prior to induction.
- Massive Transfusion Protocol Activation
- Consider IA prior to induction
- GA
- Rapid Fluid Infuser device is priority
- Cellsaver only if time and support staff
- When able consider RiCC line/Swann Sheath+/- CVL
- Will likely need DCCM postoperatively
- Debrief should be offered with woman post natally

Comments: _____

Other Issues

Consent:

☐ Surgical

☐ Blood products

☐ Anaesthetic

☐ Sterilisation

Surgical Booking Form Sent*? ☐ Yes ☐ No *By whom _____

Requires Admission Preop? ☐ No ☐ Yes _____

Date requested for surgery: _____

MDM Chair to complete the following:

☐ Contact referrer and LMC with MDT outcome

☐ Hard copy to be placed in DU high risk management folder

☐ Send MDM outcome for scanning

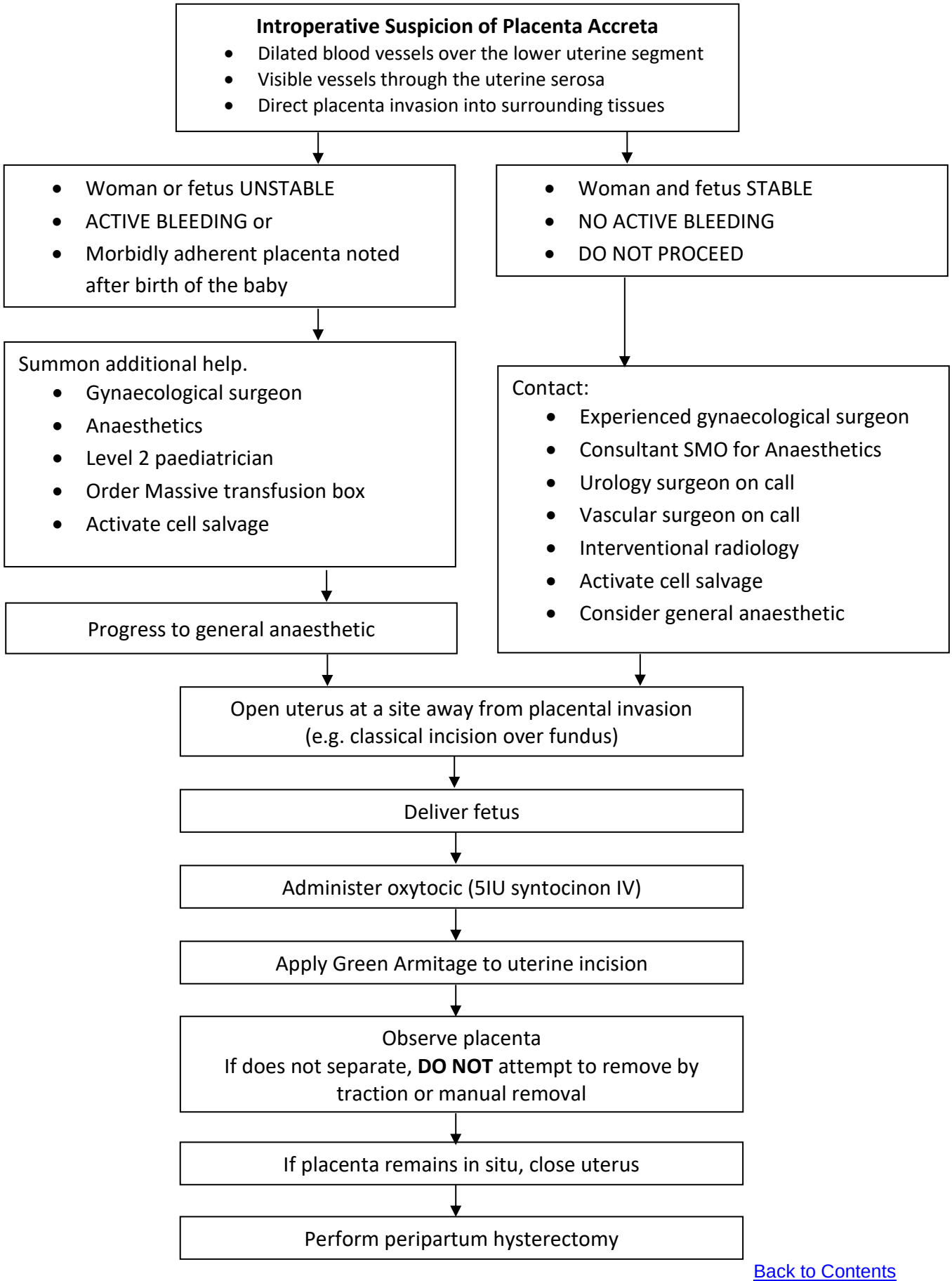
☐ Womans details to be added to daily high risk handover

☐ Notify Operations manager for Maternity (> 20 weeks gestation) or Gynaecology (< 20 weeks gestation) of MDM outcome

CR4127

PAGE 6

Appendix 2: Flowchart for intraoperative suspicion of adherent placenta



Back to Contents