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Placenta Accreta Spectrum (PAS) is associated with significant maternal and neonatal morbidity and mortality. Morbid adherence of the placenta to the uterine wall is a potentially life threatening obstetric complication that frequently leads to caesarean hysterectomy, surgical complications and blood transfusion. With the rising caesarean delivery rate and increasing maternal age, the incidence of abnormally invasive placenta has significantly increased. Recent cohort studies have shown that women managed by MDT care were less likely to require...
large-volume blood transfusion, intensive care unit admission, and reoperation within 7 days of delivery compared with management by standard obstetric care without a specific protocol. The aim of the guidelines is to provide clinicians at King Edward Memorial Hospital with a management plan for women who are diagnosed with a suspected invasive and/or adherent placenta. KEMH aims to match the requirement of Centers of Excellence for placenta accreta spectrum (PAS) disorders as defined by FIGO Consensus Guidelines on Placenta Accreta Spectrum 2018.

2. Clinical definitions
PAS can either be accreta (abnormal adherence with a possibility of placental separation at birth) or increta/percreta (abnormal invasion into and beyond the myometrium, unlikely to separate spontaneously at birth).

The diagnosis is suspected via ultrasound or placenta MRI, confirmed clinically at delivery by the surgeons and by histopathology in case of hysterectomy.

Practically, a placenta can have adherent, normal and invasive portions at the same time in different locations, hence the denomination of Placenta Accreta Spectrum and the need for appropriate surgical expertise to provide optimal treatment options at the time of the surgery.

The histopathological classification is always retrospective on patients who required hysterectomies.

3. Risk Factors
The most common risks factors are:
- Previous Caesarean deliveries
- Current placenta praevia
- Previous placenta accreta
- Previous myomectomy
- Previous endometrial ablation

For further details see FIGO consensus guidelines on placenta accreta spectrum disorders: Epidemiology: Table 3: Primary and secondary uterine pathologies reported to be associated with placenta accreta spectrum (PAS) disorders.2

4. Diagnosis
Prenatal diagnosis is associated with reduced maternal morbidity in terms of:
- Reduction of peri-partum blood loss and the need for blood transfusion3,4
- Planned delivery in an appropriate setting5,6
Reduced emergency hysterectomies

Abnormally invasive placentation may be clinically suspected when there is a placenta praevia in a woman with a history of caesarean section or other uterine surgery. The diagnosis is usually established by ultrasonography and occasionally supplemented by magnetic resonance imaging (MRI).

**Prenatal diagnosis**
The most common detection signs are:
- Placental lacunae
- Loss of hypoechoic space
- Abnormalities of uterus–bladder interface
- Color Doppler abnormalities
- and MRI signs (e.g. uterine bulging, tenting of the bladder)

See also: Table 1 ‘Summary estimates of sensitivity and specificity of different ultrasound and MRI signs for the detection of PAS disorders’ in FIGO consensus guidelines on placenta accreta spectrum disorders: [Prenatal diagnosis and screening](#).

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### 5. Procedure and management

In general, features of placenta percreta would warrant referral to the PAT, optimisation, and elective preterm surgical delivery. Deferral of delivery beyond 36+6 weeks is not recommended. Antenatal corticosteroids should be administered prior to delivery at all gestations less than 34 weeks, and considered prior to elective caesarean delivery up to 36+6 weeks.

**Referral to the PAT**
The internal referrals to PAT are via email, pager, phone call or hospital paper based referral letter. The external referrals are via the Ambulatory Clinic Manager to PAT. The Red and the Blue Team are members of the PAT.

The PAT membership includes:
- Consultants Obstetricians, urogynaecologists, gynae oncologist, urologist, vascular surgeon MFM, Sonologist, Anaesthetist, haematologist, radiologist, pathologist, neonatologist and psychiatrist.
- Head of Department Obstetrics
- Haematology Clinical Nurse Consultant (CNC)
- CNC- Anaesthetics
- Clinical Midwifery Manager (CMM)- Adult Special Care Unit (ASCU)
- Clinical Nurse Manager (CNM)- Theatre
- Clinical Midwives with interest in PAS
- Perioperative Accreta Nursing Team
- Specialist O&G trainees with interest in Placenta Accreta

**Optimisation**

Includes:

- KEMH ultrasound consultation with a senior sonologist.
- Multidisciplinary management plan ([Appendix 1](#)) completed by the lead Obstetrician and printed in a MR250 form for filling in the notes
- Communication to the PAT and any other required staff by the lead Obstetrician
- Information support to patient and relatives (KEMH data, leaflets, videos…)
- Hb and iron optimisation
- Steroids administration planning
- Referrals to high risk anaesthesia, neonates and psychologists as required
- Details (skin and uterine incisions, tubes), consent and date (usually before 37 weeks of gestational age) of surgery by the lead consultant
- Discussion regarding women relocating close to the hospital and when/how to call for help
- Discussions of management options (hysterectomy, conservative, placental removal attempt, partial uterine resection, urology, vascular, interventional radiology)
- Blood (X match 4 units) and cell salvage availability
- Planning of the surgical team composition on the day of surgery, location (including organisation of transfer –[Appendix 2](#) and [Appendix 3](#)) and theatre scheduling are the responsibility of the Lead Consultant.

6. **Governance and research:**

As a relatively new service, the PAT will perform clinical care audit against RCOG/RANZCOG and FIGO guidelines, patient satisfaction survey, staff satisfaction survey, M&M meetings and MDT meetings.

The PAT will develop resources for women and relatives and develop a KEMH weblink. National and International presentations and publications will be encouraged.
References


### Related WNHS policies, procedures and guidelines

**Transfusion Medicine**

### Useful resources (including related forms)

- See Appendix I below for [Multidisciplinary team management plan](#).
- [SCGH Major Procedure Booking Form](#).

### Keywords:

- placenta accreta, abnormally invasive placenta, placenta increta, placenta percreta, adherence of placenta, adherent placentation

### Document owner:

OGID

### Author / Reviewer:

O&G Consultant Obstetricians

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### Endorsed by:

MSMSC

### Date:

Nov 2018

### NSQHS Standards (v2) applicable:

1. Governance, 8. Recognising & Responding to Acute Deterioration

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Appendix 1: Multidisciplinary team management plan

Placenta Accreta Spectrum
Multidisciplinary Team Management Plan

<table>
<thead>
<tr>
<th>Name:</th>
<th>UMRN:</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOB:</td>
<td>Weight:</td>
</tr>
<tr>
<td></td>
<td>BMI:</td>
</tr>
<tr>
<td></td>
<td>Age:</td>
</tr>
</tbody>
</table>

Lead Consultant Obstetrician:

<table>
<thead>
<tr>
<th>G:</th>
<th>P:</th>
<th>EDD:</th>
<th>Planned delivery date:</th>
<th>GA at birth:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Document expected placental invasion</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Accreta / Increta / Percreta</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bladder involvement etc.</td>
<td></td>
</tr>
</tbody>
</table>

Planned surgical approach

| Hysterectomy / Attempt placental removal by gentle CCT / Leave placenta in situ / uterine resection and repair |
| Urology: Cystoscopy / Ureteric stents/catheters / Abdominal incision: Midline / Pfannenstiel |
| Expected complications: e.g. adhesions etc. |
| Specific staff required: urogynaec, vascular surgeon, urologist, gynaecologist |

Consents to blood products and cell salvage?

Yes / No

Emergency management

Call the following clinicians via switchboard in the event of out of hours delivery or advice:

Previous CS/ uterine surgery/abdominal surgery

Document episodes of APH to date

Document date and volume

Antenatal corticosteroids given or planned?

date

Discussion regarding fertility

Document date

Imaging findings

Upload to PACS

<table>
<thead>
<tr>
<th>Optimise Hb</th>
<th>Ferritin (date):</th>
<th>Iron infusion (date):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hb (date):</td>
<td>Blood group and antibody screen:</td>
<td></td>
</tr>
<tr>
<td>Crossmatch ____ units pre-operatively</td>
<td>Blood transfusion (date):</td>
<td></td>
</tr>
</tbody>
</table>

Notifications

PAT

Consent

Date:

Form completed by: Date:
Print to MR250 (Integrated Progress Notes) and filed in patient record for this pregnancy
Document that plan has been made on MR004 (Obstetric Special Instructions)
Appendix 2: Referral pathway to QEII

**Placenta Accreta Team**

**Major Surgical Case Pathway**

- Placenta Accreta Team – PAS Form
- Placenta Accreta Team Planning Meeting
- Decision by team to transfer surgery to SCGH
- Obstetric Consultant is required to:
  - Liaise with SCGH admitting Consultant - Vascular
  - Contact SCGH Duty Anaesthetist
  - Complete SCGH Major Booking Form
  - Contact KEMH Perioperative CNM
  - Contact Paediatrician Neonates / NETS
  - Contact Hospital Clinical Manager

- Liaise with SCGH admitting Consultant - Vascular
  - Accept patient. Book bed via EBM
- Contact SCGH Duty Anaesthetist
  - Inform Anaesthetic technician of Cell Salvage requirement
- Complete SCGH Major Booking Form
  - Fax form & Liaise with Coord of Nursing – Perioperative Services
- Contact KEMH Perioperative CNM
  - Inform Perioperative Placenta Accreta nursing team of case
- Contact Paediatrician Neonates / NETS
  - NETS team informed and booked for transfer to PCH NICU
- Contact Hospital Clinical Manager
  - If interhospital transfer – once SCGH medical team accepts - KEMH HCM & SCGH HCM to liaise regarding bed availability

- Identify surgical list for case to be allocated to. Inform Obstetric Consultant of proposed start time
- Prepare instrumentation & consumables required ready for transport
- Transport cot supplied to SCGH
- Notified of delivery and KEMH HCM to organise VMS
### Appendix 3: PAT – Obstetric Consultant essential planning elements

<table>
<thead>
<tr>
<th>ESSENTIAL ELEMENTS Tick Box</th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Logistics:</strong></td>
<td></td>
</tr>
<tr>
<td>Patient</td>
<td>Transfer to SCGH discussed</td>
</tr>
<tr>
<td>KEMH HCM</td>
<td>Informed of transfer</td>
</tr>
<tr>
<td></td>
<td>Plan for post op VMS</td>
</tr>
<tr>
<td>KEMH CNM Periop</td>
<td>Periop Accreta Nursing team</td>
</tr>
<tr>
<td></td>
<td>Instruments and consumables packed</td>
</tr>
<tr>
<td>SCGH HCM</td>
<td>Informed of transfer</td>
</tr>
<tr>
<td></td>
<td>EBM request by Dr</td>
</tr>
<tr>
<td>SCGH Periop SRN</td>
<td><strong>SCGH Major booking form</strong></td>
</tr>
<tr>
<td></td>
<td>Session allocation</td>
</tr>
<tr>
<td><strong>Surgical:</strong></td>
<td></td>
</tr>
<tr>
<td>Obstetrics</td>
<td>Liaise with SCGH admitting Dr – Vascular</td>
</tr>
<tr>
<td></td>
<td>Contact SCGH DA to inform of pending case</td>
</tr>
<tr>
<td>Vascular</td>
<td>Liaise with SCGH Periop SRN</td>
</tr>
<tr>
<td></td>
<td>re requirements</td>
</tr>
<tr>
<td>Colorectal</td>
<td>Liaise with Vascular</td>
</tr>
<tr>
<td>Urology</td>
<td>Liaise with Vascular</td>
</tr>
<tr>
<td></td>
<td>Plan for stents</td>
</tr>
<tr>
<td></td>
<td>Book II</td>
</tr>
<tr>
<td><strong>Anaesthetics:</strong></td>
<td></td>
</tr>
<tr>
<td>Duty Anaesthetist / Accreta specialist ?</td>
<td>Accept patient</td>
</tr>
<tr>
<td></td>
<td>Book ICU bed</td>
</tr>
<tr>
<td></td>
<td>Book cell salvage</td>
</tr>
<tr>
<td><strong>Paediatrics:</strong></td>
<td></td>
</tr>
<tr>
<td>Paediatrician</td>
<td>Liaise with Obstetrician</td>
</tr>
<tr>
<td>NETS</td>
<td>Transfer cot avail @ SCGH</td>
</tr>
</tbody>
</table>

The **SCGH Major Procedure Booking Form** is located on the Perioperative: Operating Theatre hub page [Healthpoint intranet only]