



the women's  
the royal women's hospital

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26 February 2020

Ms Sanchia Nigli  
Coroner's Registrar  
Coroner's Court of Victoria  
65 Kavanagh Street  
Southbank VIC 3006

By email:

[cpuresponses@coronerscourt.vic.gov.au](mailto:cpuresponses@coronerscourt.vic.gov.au) (sent electronically)

Dear Ms Nigli

### **Investigation into the death of Finn Moser – Hospital's Response to Coroner's Recommendations**

Thank you for your letter of 18 November 2019 (received on 26 November 2019) that accompanied Coroner McGregor's *Finding without Inquest* into the death of Finn Moser, who died at the Royal Women's Hospital on 11 January 2017 from 'Head injury in the setting of labour'.

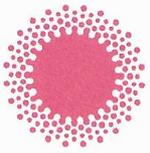
The Royal Women's Hospital (**RWH**) is grateful for the recommendations made by the Coroner, and the opportunity to respond to them. I provide the following information in response from the Hospital:

#### **Recommendation 1:**

*'I recommend that the RWH ensure their guidelines and current practices are aligned with College's guideline, **Delivery of the fetus at caesarean section**; and that final vaginal examination just prior to an emergency caesarean should be conducted by the most experienced obstetrician present'.*

I confirm that the following RWH guidelines are aligned with the various issues covered by the Royal Australian and New Zealand College of Obstetrics and Gynaecology (RANZCOG) guideline **Delivery of the fetus at caesarean section**:

1. *Code Green Immediate Caesarean Birth*
2. *Escalation to Senior Medical Staff rostered to the Birth Centre*
3. *Fetal compromise and caesarean section*
4. *Impacted fetal head at caesarean section - management*



The RWH guideline *Impacted fetal head at caesarean section – management* includes the following statement:

*'The practice of disimpacting the fetal head during a final vaginal examination just prior to commencement of the caesarean section is encouraged and must be performed by a senior medical officer who has undergone training in the technique'.*

I attach the four RWH guidelines listed above for the Coroner's information.

**Recommendation 2:**

*'I recommend the RWH and the College refresh their education resources covering the following issues:*

- (a) *early identification and escalation to consultant obstetric staff of obstructed labour or potentially difficult fetal head extractions during caesareans.*

The RWH clinical guideline – *Impacted Fetal Head at Caesarean section – management*, includes the requirement for the attendance of senior staff and the techniques to be used for potentially difficult head extractions during caesareans. This guideline was developed and circulated in April 2018;

- (b) *multi-disciplinary scenario based training, such as Practical Obstetric Multi Professional Training (PROMPT) that includes techniques to be adopted for safe delivery of the baby where the head is deeply impacted in the pelvis. This should be targeted to obstetric medical staff as part of all obstetric training programs;*

RWH provides access to multi-disciplinary scenario based training for clinical staff. This training is similar in design and content to training in PROMPT. The component of the training for obstetric medical staff includes techniques to be adopted for safe delivery of the baby where the head is deeply impacted in the pelvis;

- (c) *the risk of head injuries, particularly skull fractures and significant bleeding, in relation to obstructed labour and vaginal disimpaction.*

RWH developed and implemented the clinical guideline – *Impacted Fetal Head at Caesarean section – management*, in April 2018, specifically to address the risks of head injuries (which includes both skull fractures and bleeding) in relation to obstructed labour and vaginal disimpaction; and



- (d) *continuous fetal monitoring, particularly in theatre and up until the time of caesarean. The RWH should ensure continuous fetal monitoring is part of their clinical guidelines'.*

The requirement for continuous fetal monitoring is included in the RWH *Code Green Immediate Caesarean Birth* guideline. This document was revised and recirculated in September 2018, and requires the use of continuous CTG monitoring up until the commencement of surgery.

**Recommendation 5:**

*'I recommend the RWH ensure compliance with the College's November 2017 guideline, RANZCOG Training Registrar Supervision Guideline. The Guideline was published after Finn's death and addresses issues of supervision and credentialing'.*

I confirm that RWH's credentialing and supervision processes for junior medical staff comply with the *RANZCOG Training Registrar Supervision Guideline* (Nov 2017). Our training/credentialing register for obstetrics and gynaecology junior medical staff is available on the RWH intranet. This document is accessible to doctors, midwives and operating theatre staff.

I hope that the information provided in and attached to this letter will assure the Coroner and Finn's family about the seriousness with which the Hospital has treated Finn's death. After this event, the Hospital took, and continues to reinforce, appropriate action to prevent the possibility of a similar event in the future.

On behalf of the RWH Board and staff, I extend my sincere condolences to Finn's family.

If you require any further information, please contact Damian Gibney, Executive Director - Clinical Excellence and Systems Improvement at [damian.gibney@thewomens.org.au](mailto:damian.gibney@thewomens.org.au).

Yours sincerely

Dr Sue Matthews  
Chief Executive

# Code Green Immediate Caesarean Birth



## Immediate Action Blue Box

The principle of this procedure is to get the woman to theatre as quickly as possible and to alert the right people to be present.

All CODE GREEN emergency caesarean births are performed in the Operating Suite on the 3rd floor at the Women's.

- Medical or midwifery / nursing staff dial 2222 and state/advise:  
**"CODE GREEN, Ward / Department XX, bed no. XX, floor level XX"**
- Midwifery staff transfer the woman on a **patient trolley**. DO NOT wait for a theatre technician or ISS.
- Place woman in left lateral position, or knee-chest position if cord prolapse and proceed immediately to Operating Department.

Consent must be obtained. Verbal consent is acceptable.

Tocolysis should be considered prior to transfer.

A midwife/doctor with knowledge of the woman's story must go to the theatre to hand over.

Clinicians to attend- click [hyperlink](#).

## 1. Purpose

This document outlines the procedure details for the Code Green, Immediate Caesarean Section procedure at the Women's.

The Code Green/Immediate Caesarean procedure differentiates the different classifications of emergency caesarean in order to avoid confusion in determining between **Code Green - Immediate** and **Urgent Caesarean Birth**. Clarity around emergency caesarean avoids delays in preparation and transfer of the woman to the Operating Department, thereby improving outcomes for both fetus and mother.

## 2. Definitions

**Code Green:** Immediate Caesarean Birth: this classification of caesarean is used when there is an immediate threat to the life of a woman or fetus e.g. cord prolapse, severe persistent fetal bradycardia. There should be no planned delay in expediting the birth. Relevant staff are informed of the decision by pager and overhead paging. The woman is transferred immediately by midwifery staff without waiting for a theatre technician.

The Code Green classification includes Frances Perry House (FPH) women. Women's staff may need to attend.

Clinical Note: Tocolysis should be considered prior to transfer if cessation of contractions would allow intrauterine recovery of the fetus prior to birth. See the procedure [Tocolysis \(Acute\) – Management of Hypertonus](#) for guidance on administration and monitoring.

**Urgent Caesarean Birth:** this classification is used when there is no immediate threat to the woman or fetus but the clinical situation is deteriorating to a degree that increases the likelihood of immediate threat. The caesarean must be performed as soon as possible in relation to the clinical situation. Categories and time frames of urgent caesareans are determined by the clinical situation and may change abruptly.

# Code Green Immediate Caesarean Birth



Category	Clinical examples
Code Green caesarean- birth must be expedited without delay	Cord prolapse, severe persistent fetal bradycardia
Emergency- birth must be expedited within 30 minutes of the decision	Deteriorating fetal or maternal condition but no immediate threat to maternal/fetal wellbeing but likelihood of same developing
Urgent- birth must be expedited within 60 minutes	Slow progress of labour with no immediate threat to maternal/fetal wellbeing
Scheduled- birth may be expedited more than 60 minutes	Ruptured membranes or early labour in a woman with a planned caesarean

## 3. Responsibility

**Obstetric medical staff** are responsible for determining the classification of caesarean required relative to the clinical situation and communicating this decision to relevant staff members.

**Midwifery staff** are responsible for the midwifery care of the woman and her fetus/baby and support people.

**Operating department staff** are responsible for the theatre care of the woman.

**Anaesthetic staff** are responsible for anaesthetic care of the woman.

**Neonatal staff** are responsible for neonatal care.

**ISS staff** are responsible for the transfer of the woman to the Operating Department from clinical areas other than the Birth Centre.

**Team Leader/After Hours Manager** are responsible for staff resources.

**Switchboard staff** are responsible for initiating the Code Green Switchboard Response.

## 4. Procedure

### 4.1 Equipment

- Operative birth theatre paperwork (prepared bundle), consisting of:
  - Consent Form MR/43027
  - Anesthetic record MR/43005
  - Perioperative Passport MR/1556B
  - Perioperative Record and Observations Chart MR/4/1602
  - Fluid Balance Assessment Chart MR/2054
  - Postnatal Observations Chart MR/1850
  - Postnatal Education Plan MR/90963
  - Caesarean Section 'paper towel'
  - Home Visiting Assessment Form MR/2200.
- 'Baby bundle' (1 baby blanket, 2 wraps)
- Baby's identification bands x2
- Baby's medical record (the Women's, not FPH) and ID labels
- Woman's medical record and a sheet of ID labels.

# Code Green Immediate Caesarean Birth



## 4.2 Process for calling a Code Green

All CODE GREEN emergency caesarean births are performed in the Operating Suite on the 3rd floor at the Women's.

- Medical or midwifery / nursing staff dial 2222 and state/advise:  
**"CODE GREEN, Ward / Department XX, bed no. XX, floor level XX"**
- Switchboard operator will confirm they have all details including:  
**"CODE GREEN, Ward / Department XX, bed no. XX, floor level XX"**
- Switchboard operator will:
  1. Activate the PA and broadcast overhead 2 times:  
**"CODE GREEN"**
  2. Activate Zone 24 (Operating Suite) and state:  
**"CODE GREEN, Ward / Department XX, bed no. XX"**
  3. Group page to state:  
**"CODE GREEN, Ward / Department XX, bed no. XX"**

Group page includes the following personnel:

### IN-HOSPITAL STAFF

- Obstetric Registrar
- Obstetric Residents 1 & 2
- Anaesthetic Registrar
- NICU Fellow, NICU Registrar, Neonatal Registrar, NICU Nurse
- Operating Theatre Suite staff
- Duty Consultant, Birth Centre
- The Access Manager (during hours)
- After Hours Manager (the Women's and Frances Perry House)
- ISS Distribution Officer

### OUT-OF-HOSPITAL STAFF

- Obstetric Consultant (after hours)
- Anaesthetic Consultant (all hours)
- Other staff as required and requested.

### ALL AREAS:

**Note:** emergency lift is accessed via staff ID/security card

- Take baby bundle, baby medical record, ID labels, baby identification bands, woman's medical record, labels and other relevant paperwork.
- The Associate Unit Manager (AUM) for the area where the Code Green has been initiated from is responsible for organizing a midwife to escort the woman to the operating theatre. In the event of staff shortage, the AUM will contact the Access Manager (ext. 2020) between 0730 -1530 or out of hours the After Hours Manager (ext. 2020). The AUM of the given area will also liaise with the Postnatal AUM for a post natal bed or escalate to the Access Manager/ After Hours Manager as needed.

# Code Green Immediate Caesarean Birth



- Cross-match blood only if clinically indicated. Transfer the specimen to Laboratory Services via the [Pneumatic Tube System](#).
- **Note: for all departments outside of Birth Centre, transport assistance is arranged by the ISS Distribution Officer (included in group page)**
- If the partner/support person is to attend the caesarean birth, he/she must change into theatre scrubs on the Birth Centre / ward / department and then be directed to wait in the Day Surgery Unit, public waiting area (Birth Centre) or holding bay (all other areas).

**Important note:** women undergoing caesarean section called under a Code Green must not be left in Holding Bay or PACU, but transferred directly into the allocated theatre. In the rare occasion when there is a delay in accessing the theatre or another case has suddenly taken priority, the woman must be transferred (back) to the Birth Centre for continuous assessment of maternal and fetal wellbeing.

### 4.3 Birth Centre transfers

- Midwifery staff transfer the woman on a **patient trolley**, place woman in left lateral position, or knee-chest position if cord prolapse and proceed immediately to Operating Department.
- Do not wait for theatre technician with trolley. Proceed directly from Birth Centre to Theatre 1 (emergency theatre) unless directed to another theatre by In-charge AUM for theatres.
- The Associate Unit Manager / Midwife in-Charge will coordinate caesarean births from the Birth Centre and organize a postnatal bed.

### 4.4 Inpatient Areas - 5 South, 4 East and 4 South Pregnancy Day Care Centre (PDCC) and Women's Emergency Care/Assessment Centre (WEC/AC) transfers

- Midwifery / nursing staff place woman in left lateral position, or knee-chest position if cord prolapse, and proceed immediately to Operating Department on 3rd floor on the **woman's bed**.
- Proceed directly via emergency lift to 3rd floor Operating Department where you will be directed to a theatre via the main theatre doors (not via holding bay).
- PDCC and WEC/AC midwifery staff transfer the woman to Operating Department and provide a handover to the perioperative nurse and designated midwife. They may then return to the unit.

### 4.5 Pauline Gandel Women's Imaging Centre

- For women undergoing an intra-uterine blood transfusion, ensure that a baby medical record and ID labels (from Health Records and Information) is available prior to the procedure.
- Follow the process as above
- Trolley is returned to the department by imaging staff.
- **Unbooked women** presenting to the Women's requiring immediate caesarean birth are allocated to a Maternity team according to their postcode.

### 4.6 Frances Perry House (FPH) process:

FPH midwifery staff will transfer the woman directly via emergency lift to 3rd floor Operating Suite via the main theatre doors (not via holding bay), where they will be directed to the emergency theatre by a perioperative staff member. Refer to [Appendix 1](#).

# Code Green Immediate Caesarean Birth



## 4.7 Consent

Written consent should be obtained whenever possible. If it is not possible to obtain written consent, documentation that verbal consent was given and by whom it was given, must be recorded in the woman's medical record and countersigned by another clinician who witnessed the verbal process. Refer to the Women's guideline: [Consent for Treatment](#).

## 5. Evaluation, monitoring and reporting of compliance to this procedure

Compliance to this procedure will be monitored, evaluated and reported through clinical incident reporting.

## 6. References

- [Consent for Treatment Guideline](#).
- [Fetal Compromise and Caesarean Section](#).
- [Pneumatic Tube System Guidelines](#).

## 7. Legislation/Regulations related to this procedure

Not applicable.

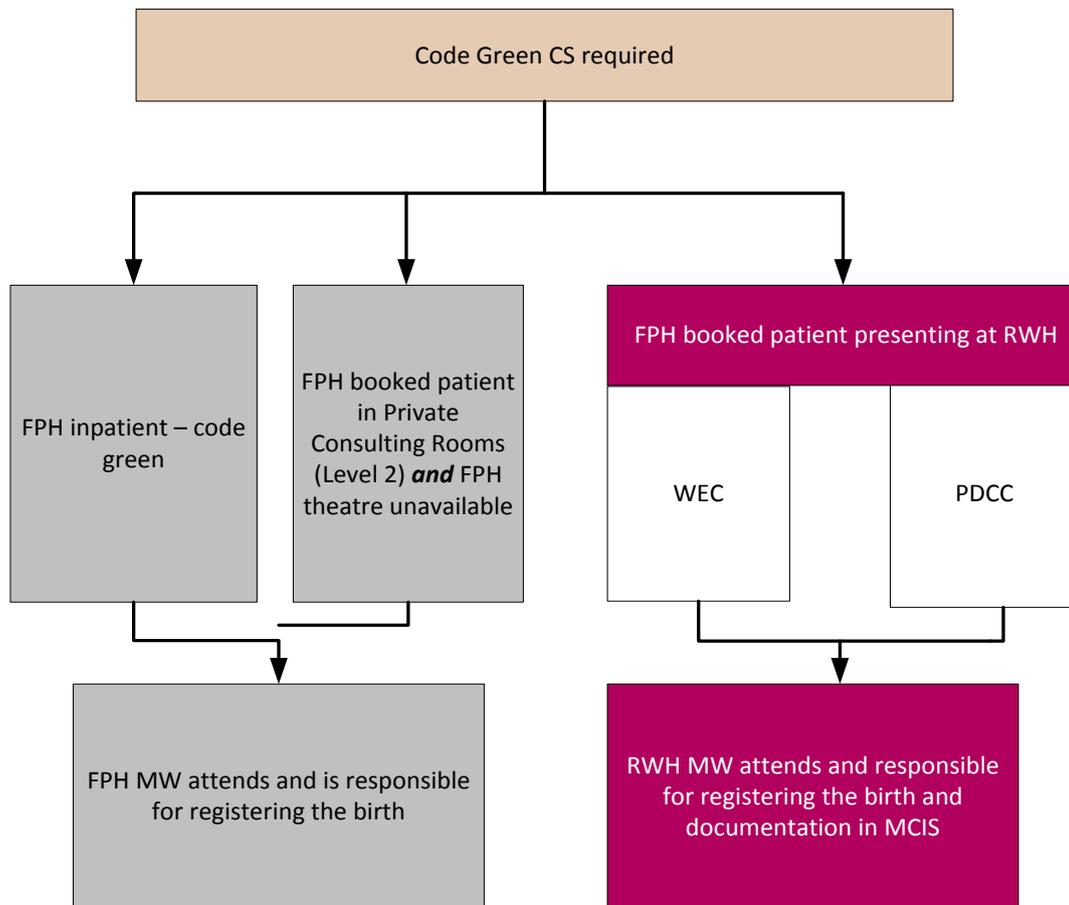
## 8. Appendices

Appendix 1 – [Frances Perry House patient requiring CS in RWH Theatre Attendance/ Birth Registration Responsibilities](#).

# Frances Perry House patient requiring CS in RWH Theatre Attendance/ Birth Registration Responsibilities



## Frances Perry House patient requiring CS in RWH Theatre Attendance/Birth Registration Responsibilities



*Note:*

*FPH booked patient birth occurring in WEC – RWH MW registers birth*

*FPH booked patient birth occurs outside hospital, i.e BBA FPH registers birth*

*Private patient (not FPH booked) CS – RWH MW registers birth*

# Escalation to Senior Medical Staff Rostered to Birth Centre



## Immediate Actions

- Medical and Midwifery staff on the Birth Centre are authorised to contact the on-call consultant in the face of concerning clinical developments.
- All staff, including midwives and/or HMOs are required to escalate concerns to a Consultant directly if a Registrar is not immediately available due to conflicting clinical demands.
- Registrars are required to discuss with the rostered Birth Centre Obstetrician any proposal to perform an Emergency Caesarean Section prior to discussing the proposal with the patient (or their support person)
- The rostered Birth Centre obstetrician is required to attend any procedure where a JMO has not been credentialed

## 1. Purpose

This document outlines the procedure details for escalating to senior medical staff rostered to the Birth Centre at the Women's.

### Key points

- Appropriate Consultant Obstetrician support and supervision of doctors in training is available throughout the 24 hours,
- Doctors in training are supported to escalate significant clinical issues to the rostered Birth Centre Obstetrician<sup>1</sup>
- Birth Centre staff are supported, through the standardisation of escalation (i.e. notification and expected attendance), to the rostered Birth Centre obstetrician.
- Medical and Midwifery staff on the Birth Centre are authorised to contact the on-call consultant in the face of concerning clinical developments.

## 2. Definitions

**Notification** is the verbal communication to the rostered Birth Centre obstetrician, regarding a specific case / woman. The mode of this communication may be in person or via telephone.

**Attendance** is the presence of the rostered Birth Centre obstetrician to review a specific case / patient / woman.

**Escalation** is the notification or request for attendance of the rostered Birth Centre obstetrician.

## 3. Responsibilities

**Junior Medical Staff** involved in the care of women in labour are required to escalate in accordance with this procedure to the rostered Birth Centre consultant obstetrician.

**Birth Centre Consultant Obstetrician rostered on duty and/or on-call for the Birth Centre** is required to provide clinical leadership and lead by example, and to take an active role by:

- Participating in Birth Centre handovers
- Providing direct clinical care when clinically indicated or during periods of peak activity
- Training and educating staff in the multidisciplinary team
- Ensuring effective teamwork
- Participating in risk management
- Bringing experience to clinical diagnosis and opinion.

**Any midwife, in consultation with the Midwife in Charge of the shift** has the authority to escalate to the

# Escalation to Senior Medical Staff Rostered to Birth Centre



rostered Birth Centre obstetrician where an indication is present and JMS are unable to escalate, or there is concern about management.

## 4. Procedure

### 4.1 Indications for escalation

#### Indications for notification of rostered Birth Centre obstetrician

All staff, including midwives and/or HMOs are required to escalate concerns to a Consultant directly if a Registrar is not immediately available due to conflicting clinical demands.

Registrars are required to discuss with the rostered Birth Centre Obstetrician any proposal to perform an Emergency Caesarean Section prior to discussing the proposal with the patient (or their support person).

The rostered Birth Centre consultant obstetrician must be advised of the following:

- if a CTG is abnormal or of concern

**Note:** all circumstances in which an abnormal trace is identified, the notification includes discussion on the appropriate response, timely delivery of the baby by the most appropriate means, or further fetal assessment including fetal blood sampling for measurement of lactate and documentation of the discussion and decisions.

- Refer to the [Clinical Photography Guideline](#) for advice on taking photographs to text for a consultant/second opinion
  - If fetal lactate sampling is being considered by the trainee junior doctor the on-site or on-call obstetric consultant must be notified of the intention to conduct the sampling, and the clinical indicators for sampling
  - Postpartum Haemorrhage when blood loss is 1000mL but has now been controlled.
- Antenatal admissions

The following new antenatal admissions must be discussed with the on-call consultant:

- Antepartum haemorrhage of > 200mls and/or any volume in combination with a tender uterus.
- Antenatal admission requiring higher level of care (CCU or ICU) or needing to be transferred for specialized care at another institution (usually RMH.)
- Severe preeclampsia.
- Severe sepsis, including any suspected chorioamnionitis
- Antenatal admission of a patient with multiple gestations in labour
- Antenatal patients who require multiple doses of narcotic analgesia
- Admission requiring urgent referral to another craft group ( e.g. physician/surgeon).
- Refusal of treatment: Admission of a patient refusing what would be regarded as e.g. a woman labouring with a breech presentation refusing a caesarean section; a woman with a pathological CTG refusing a caesarean section).
- Obesity: Antenatal admission of a woman in labour with an extremely elevated BMI ( e.g. BMI  $\geq$  50).
- Deterioration: Significant deterioration in a patient, e.g. recurrent MET calls.
- Clinical concern: Any complexity not covered by the above but in the registrars opinion needs consultant input or awareness.

#### Indications for attendance of rostered Birth Centre obstetrician

The rostered Birth Centre obstetrician is required to attend any procedure where a JMO has not been credentialed (i.e. assessed as competent to perform the procedure without supervision)

The rostered Birth Centre obstetrician is required to attend for the following :

- i. Post Partum Haemorrhage when blood loss is 1000mL and not controlled

## Escalation to Senior Medical Staff Rostered to Birth Centre



- ii. Blood loss is greater than 1500mL
- iii. Woman going to/returning from theatre
- iv. Caesarean birth:
  - o Code Green
  - o at full dilatation
  - o at gestational ages < 32 weeks
  - o of multiple pregnancy
  - o of patients with a history of  $\geq 2$  C/S
  - o for placenta praevia
  - o for placental abruption
  - o of a patient weighing > 120kg
  - o for malpresentation
  - o where it is anticipated there will be more than average blood loss
  - o where it is anticipated there might be difficulties due to previous surgery.
- v. Instrumental birth:
  - o rotational births in theatre
  - o instrumental birth on a woman with a history of shoulder dystocia.
- vi. Vaginal birth:
  - o of multiple pregnancy
  - o of a breech presentation.
- vii. Perineal Repair
  - o Fourth degree tear.

The rostered Birth Centre obstetrician is required to review in person those women in whom antenatal risk factors add complexity to the decision making concerning ongoing intrapartum management of women.

### 4.2 Handover

The rostered Birth Centre obstetrician is required to attend the relevant handover in the Birth Centre at 0800 and 1700. In circumstances where the Consultant is unable to be present at the handover due to conflicting clinical demands, a formal telephone briefing will be provided by the Registrar.

If the Birth Centre Consultant is not present at the 0800 handover Monday to Friday, the Midwifery Manager of Birth Centre or the Director of the Birth Centre will confirm Consultant is rostered on for the day. In the interests of patient safety, and to ensure adequate supervision in the Birth Centre, escalation will then be to the Clinical Director of Maternity Services, or the Executive on call as necessary.

If the Birth Centre Consultant is not present at the 0800 weekend handover, the Senior Registrar will notify the After Hours Manager.

In the interests of patient safety, and to ensure adequate supervision in the Birth Centre, the AHM will determine the level of escalation needed to the Director of Birth Centre, Clinical Director of Maternity Services, or the Executive on call as necessary. Absenteeism from Handover needs to be emailed to Director of Birth Centre

At 2200, and in circumstances where the Consultant is unable to be present at the handover due to conflicting clinical demands, a formal telephone briefing will be provided by the Registrar.

Access the roster for the Birth Centre obstetrician via the Intranet under 'medical rosters' or access via the following link: [Senior Medical Staff Rosters](#).

# Escalation to Senior Medical Staff Rostered to Birth Centre



The rostered Birth Centre obstetrician can be contacted via switchboard or Lanpage.

Clinical handover, using the structured process as outlined in the [Clinical Handover – Birth Centre](#) procedure should be used.

There is an expectation that the weekend/public holiday on-call consultant obstetrician will be present between 08.00 and 11.00 to attend to Birth Centre and Antenatal ward rounds.

## 4.3 Documentation in the patient record

Doctors in training must document any escalation in the relevant patient record:

- date / time
- purpose of escalation
- outcome of discussion / involvement of rostered Birth Centre Obstetrician.
- The rostered Birth Centre Obstetrician is required to record in the patient medical record during attendance to review the woman.
- 

### Background Notes

Senior Medical Staff (SMS) are rostered on call to support the provision of safe quality care to women and their babies, and to provide appropriate support, teaching and supervision to doctors in training and to nursing / midwifery staff.

There is some evidence that the presence of a rostered Birth Centre Obstetrician will reduce less favourable outcomes<sup>1</sup>.

The UK Healthcare Commission recommends the rostered Birth Centre obstetricians are informed prior to an emergency caesarean birth<sup>2</sup>. It is expected that lower emergency caesarean birth rates result when advice is sought from the rostered Birth Centre obstetrician before a decision for caesarean birth can be made OR the rostered Birth Centre obstetrician is present in theatre for specified caesarean sections<sup>3</sup>.

## 5. Evaluation, monitoring and reporting of compliance to this procedure

Compliance to this procedure will be monitored, evaluated and reported through clinical incidents notified via VHIMS and in the case of PPH, by clinical audit of PPH with blood loss greater than 1500mL.

## 6. References

1. Royal College of Obstetricians and Gynaecologists, Royal College of Midwives, Royal College of Anaesthetists, Royal College of Paediatrics and Child Health (2007) Safer Childbirth, Minimum standards for the organisation and delivery of care in labour.
2. Commission for Healthcare Audit and Inspection (2008). Towards better births: A review of maternity services in England.
3. National Collaborating Centre for Women's and Children's Health (2004) Caesarean section, NHS.
4. Responsibility of Consultant on Call. Royal College of Obstetricians and Gynaecologists. Good Practice Guide No.8. March 2009.

## 7. Legislation/Regulations related to this procedure

Not applicable.

## 8. Appendices

Not applicable.

## 1. Purpose

This procedure informs the care of women when a fetus is suspected of or has been identified as compromised and the most appropriate mode of birth is caesarean. Urgent caesareans generally relate to the Women's patients however, in extenuating circumstances the Women's may undertake Frances Perry House Urgent Caesarean Sections. Generally Frances Perry House (FPH) call in their own staff, including the consultant anaesthetist.

This documents aims to:

- clarify the distinction between Code Green - Immediate Caesarean Section and Urgent Caesarean Section
- To avoid delays in preparation and transfer of patient to the Perioperative Department.
- To improve outcome for both fetus and mother.

## 2. Definitions

**Code Green:** Immediate Caesarean Section: Must deliver immediately because of impending fetal / maternal death, e.g. cord prolapse, severe persistent bradycardia.

**Urgent Caesarean Section:** Must deliver as soon as possible but there is no immediate threat to fetus or mother.

## 3. Responsibilities

**Obstetric medical staff** are responsible decision-making and informing the anaesthetist and perioperative staff of the impending caesarean. The registrar is responsible for informing the on-call Birth Centre consultant and obtaining written consent.

**Midwifery staff** are responsible for assisting in the preparation for and organisation of the transfer to the perioperative department. This may involve informing paediatric and other staff/departments as required.

## 4. Procedure

### 4.1. Equipment

Paperwork includes:

- Perioperative Passport MR/1556B
- Consent form MR/43027
- Print screen of the electronic Fluid Balance Chart and Maternal Vitals
- Non-analgesic IV Infusion Chart MR/90165
- Medicines Chart MR/190 Medical record
- ) Adult Analgesic Epidural Chart MR/43004A if in use
- "Baby Bundle" (1 baby blanket, 2 wraps).
- Baby identification labels x 2.
- Baby Registration pack: Baby registration form MR/1102, Newborn Examination MR/170, Baby Observations Chart MR/1712, Feeding Plan MR/1825, Newborn Medicines Chart MR/19052, Progress Notes MR/1750, Baby's medical record.

### 4.2. Contact details

Obstetric or midwifery staff are responsible for contacting:

- Anaesthetic Registrar (DECT phone)- dial 2373
- Perioperative department - dial 3330
- Neonatal Registrar – Lanpage 53311
- Dial 93 and ask Switchboard to inform any other specified clinicians as requested.

Midwifery staff are responsible for contacting:

- Maternity Support Manager/After Hours Manager - dial 2020
- Special Care Nursery - dial 93 and ask Switchboard

- Postnatal ward: 4 East- extension 2470 or 4 South- extension 2489.

All urgent cases are to proceed to Theatre One (or designated theatre) as soon as possible.

- Transfer is only to occur when the theatre is available.
- **It is inappropriate for labouring women to be left waiting in the Holding Bay or PACU whilst a theatre is made available.**

A midwife must stay with the woman at all times and is responsible for maintaining observation of the fetal well-being by CTG or Doppler.

- Fetal monitoring must be performed using the Flying Workstation or hand held Doppler if this is unavailable.
- Where the Doppler is used, fetal heart rates must be documented in the electronic record (MCIS).
- If CTG paper is used as an alternative to electronic archiving via the MCIS, the paper must be appropriately labelled and stored in the woman's medical record.

Cross-match blood only if clinically indicated.

### 4.3. Consent

Written consent should be obtained whenever possible. If it is not possible to obtain written consent, documentation of verbal consent must be made. This should be documented in the woman's medical record and countersigned by another clinician who witnessed the verbal process.

### 4.4. Caesarean Section - Frances Perry House

Urgent Caesarean Sections from Frances Perry House should be undertaken in their Operating Suite with their own staff, including the Anaesthetic Consultant on-call for Frances Perry House.

Only if there are extenuating circumstances may the Women's staff undertake FPH urgent caesareans. The Anaesthetic consultant on-call for the Women's must be informed and consulted if this situation arises.

Women's staff may undertake FPH Code Green cases if necessary. Refer to the procedure [Code Green- Immediate Caesarean Birth](#).

## 5. Evaluation, monitoring and reporting of compliance to this procedure

### Performance Indicators

- Theatre access delays are minimised where fetal compromise has been diagnosed or is suspected
- Labouring women requiring urgent caesarean section are cared for in the Birth Centre until the designated theatre is available for immediate transfer.

## 6. References

Not applicable.

## 7. Legislation/Regulations related to this procedure

Not applicable.

## 8. Appendices

Not applicable.



## 1. Purpose

This document outlines the guideline details for managing the delivery of an impacted fetal head at caesarean, at the Women's.

This guideline outlines a considered approach to the difficult problem of the impacted fetal head at caesarean section. It is designed to give a structured approach aimed at both prevention and timely stepwise management. The recommended measures are designed to minimise maternal (lateral and inferior tearing of the uterine incision) and neonatal morbidity (physical injury and or acidosis).

This guideline covers emergency caesarean section for women in the advanced stages of labour (usually at or near full dilation of the cervix).

This guideline must be read also with reference to, but not limited to, other clinical guidelines: Escalation to Senior Medical Staff Rostered to Birth Centre and Code Green Immediate Caesarean Birth.

## 2. Definitions

**Push technique:** Intraoperatively, with the patient in the modified lithotomy position, and after opening of the gravid uterus at caesarean section, the fetal head is elevated from below by an assistant (see picture 1).

**Reverse breech extraction:** with the uterus open, the operator's hand grasps a fetal leg and performs the usual manoeuvres of a breech extraction (see picture 2).

**Patwardhan Method:** With the uterine incision at the level of the fetal shoulders, first one then the other fetal shoulder and upper limb are delivered. The operator then places downward pressure in both axillae with simultaneous fundal pressure to deliver the fetal body. With the body of the fetus delivered, the head can be gently disimpacted from the pelvis (see picture 3).

**Fetal pillow ® (Safe Obstetric Systems©)** A vaginally inserted balloon system, applied below the fetal head prior to commencement of an anticipated difficult caesarean section (see picture 4).

**Failed instrumental delivery:** At full dilation, either forceps or vacuum delivery device has been applied to the presenting part and traction initiated but failed to effect delivery of the fetus.

**Modified lithotomy position:** A small degree of flexion and abduction at the hip joint.

## 3. Responsibilities

Obstetric medical staff

## 4. Guideline

### 4.1 Prevention:

All efforts should be made to perform caesarean sections in a timely manner once the decision has been made to proceed with this course of action. All fully dilated caesarean sections will be either urgent (within 30 minutes) or Code Green (immediate) caesarean categorisation.

Appropriate senior staff must attend all anticipated difficult deliveries. All caesarean sections performed at full dilation require consultant presence.

Depending on the preference of the operator, adjustments are made to routine caesarean positioning, e.g. the placement of a fetal pillow ® device, or modified lithotomy position.



- If the fetal pillow is to be used then this must be placed prior to the commencement of the procedure.

Glyceryl trinitrate (GTN) should be immediately available in the theatre.

The practice of disimpacting the fetal head during a final vaginal examination just prior to commencement of the caesarean section is encouraged and must be performed by a senior medical officer who has undergone training in this technique.

#### **4.2 *Difficulty encountered during caesarean section:***

Evidence in the literature supports the use of the following techniques:

- i ) reverse breech extraction
- ii ) the push technique
- iii) The fetal pillow® (available at The Women's from February 2018)

These techniques are not listed in order of preference. They should be used according to the most senior clinician's experience.

In addition to the above, administration of GTN may help to relax the uterus and facilitate the above manoeuvres.

#### **4.3 *Good Practice notes:***

The reverse breech extraction technique may require modification of the uterine incision in either an inverted T (midline) or a J (lateral) extension. The latter is preferred although ideally neither will be required.

Preparation for postpartum haemorrhage after the delivery of the fetus is recommended.

There is limited evidence to recommend the Patwardhan technique over the above techniques but it is an option for clinicians experienced with the procedure to consider.

Training will be performed locally in the form of drills, simulation and traditional tutorials.

For patients with significant broad ligament extension / injury or other concern of possible ureteric injury, this should be objectively excluded. Methods available to exclude urological injury include, immediate cystoscopy or imaging (ultrasound or contrast study) within 48 hours.

## **5. Evaluation, monitoring and reporting of compliance to this guideline**

Compliance to this guideline will be monitored, evaluated and reported through clinical incident reporting via VHIMS.

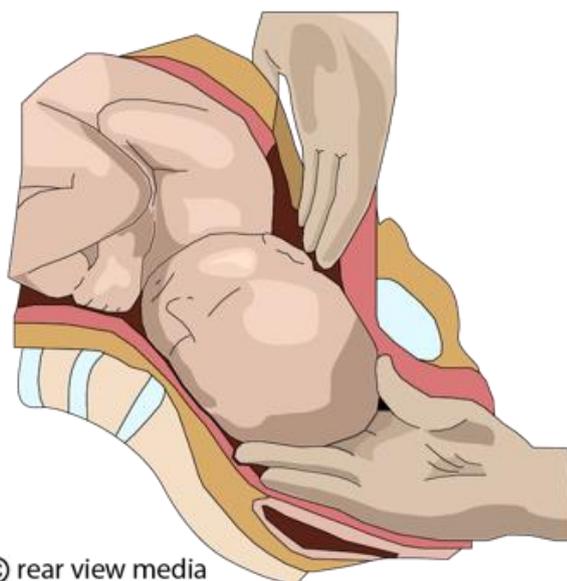
## **6. References (evidence, best practice, professional codes, websites, etc.)**

1. Safa H, et al Int J Gynaecol Obstet. 2016 Dec; 135 (3): 281-284.
2. Jeve YB, et al. BJOG, Feb 2016; 123 (3): 337-345
3. Seal S et al. Int J Gynaecol Obstet 2016 May; 133 (2): 178-182



## 7. Appendices

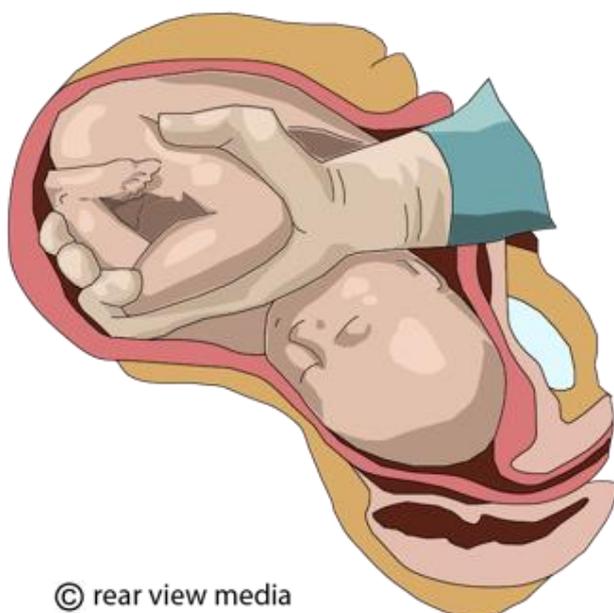
Picture 1



Push Technique

© rear view media

Picture 2



Reverse breech  
extraction technique

© rear view media

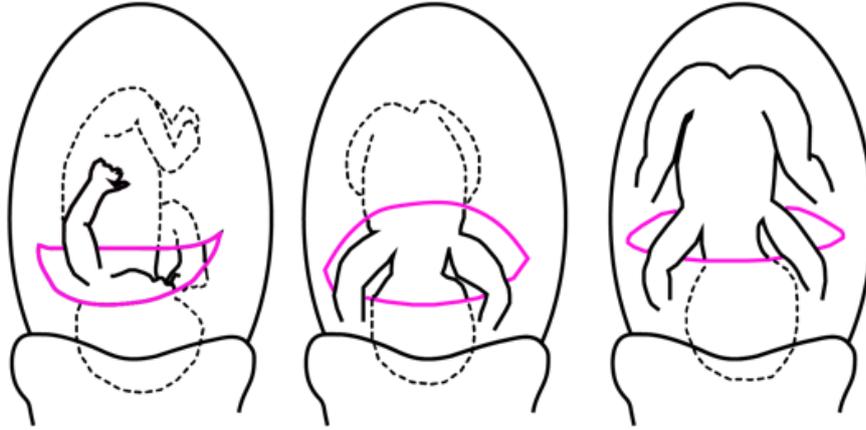


# Impacted Fetal Head at Caesarean Section – management

the women's  
the royal women's hospital

Picture 3

© rear view media



Patwardhan Method

Picture 4

