

CORD PRESENTATION AND PROLAPSE IN LABOUR

This Clinical Business Rule (CBR) is developed to guide clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this CBR.

1. AIM

- Prompt detection and appropriate management of cord presentation/prolapse

2. PATIENT

- A woman in labour
 - with intact membranes where the umbilical cord lies in front of the presenting part
 - with ruptured membranes where the umbilical cord lies beside the presenting part
 - with ruptured membranes where the umbilical cord lies in front of the presenting part

3. STAFF

- Medical, midwifery, and nursing staff

4. EQUIPMENT

- Ultrasound machine
- Cardiotocograph (CTG) machine
- Cord prolapse box:
 - Blood giving set
 - Foleys 14 gauge urinary catheter
 - Catheter pack
 - Spigot x2
 - 250ml bag normal saline
 - 500ml bag of normal saline
 - 10ml syringe
 - Chlorhexidine wash
 - 10ml water for injection
 - Water based lubricant
 - Identification band x2

5. CLINICAL PRACTICE

Cord Presentation

- Identify cord presentation by sensation of pulsation behind membranes on vaginal examination, or beside presenting part with ruptured membranes
- Inform medical team
- Confirm on ultrasound scan where appropriate
- Confirm fetal viability
- Monitor continuously with CTG
- Consider tocolysis if the woman is contracting
- Cease any oxytocin infusion
- Do **NOT** perform an artificial rupture of membranes with a viable fetus
- Expedite delivery in the viable fetus. Mode of delivery will depend on stage of labour but should be within one hour. Urgency will depend on gestational age, and CTG

Cord Prolapse

- Identify cord prolapse (cord lying in front of presenting part) by visual inspection or vaginal examination (see appendix 1 flow chart)

- Call for immediate obstetric team review, activate a Rapid Response
- Confirm fetal viability
- Monitor fetal heart rate continuously with CTG
- Use emergency cord prolapse box (located in birthing unit and antenatal ward)
- Decrease pressure on cord by:
 - Manually elevating the presenting part until bladder is filled
 - Filling bladder if immediate vaginal birth not possible
 - insert 14 gauge urinary catheter
 - allow bladder to drain
 - inflate balloon with 10mls of sterile water for injection so catheter remains insitu
 - connect intravenous (IV) giving set and fill bladder with 500-750mls of normal saline and spigot
 - It is the responsibility of the person who fills the bladder to communicate directly with the operating obstetrician about the full bladder and need to empty prior to commencement of surgery
 - Placing woman in exaggerated Sims position, knee chest, or Trendelenburg (see appendix 2)
- Consider tocolysis if the woman is contracting
- Cease any oxytocin infusion
- Consider instrumental vaginal birth if appropriate
- Call 2222 and ask for '30 minute Caesarean Section' and organise urgent transfer to the operating theatre
- Reassess once in operating theatre around urgency, mode of birth, mode of anaesthesia and need for bladder to be emptied prior to commencement of caesarean
- Remove spigot and attach urinary catheter bag prior to the commencement of surgery, to ensure bladder is emptied
- Notify neonatal team and request team to be present for birth
- Keep woman and family informed of events to ensure emergency management occurs quickly and with cooperation
- Collect cord blood gases at time of birth
- Debrief woman and family at an appropriate time during postnatal stay
- Debrief staff involved at an appropriate time

6. DOCUMENTATION

- Medical record

7. EDUCATIONAL NOTES

- Incidence is 0.1% - 0.6%¹
- Most widely accepted risk factor is where the presenting part is not engaged in the maternal pelvis¹
- Cord vasospasm from the cooler temperature may occur which may lead to perinatal hypoxic ischaemic encephalopathy (HIE) or death¹
- Other risk factors^{1,2,3}:
 - Malpresentation
 - Prematurity
 - Multiple pregnancy
 - Abnormal placentation
 - Grand multiparity
 - Fetal anomaly
 - Polyhydramnios
 - External Cephalic Version (at time of procedure)
- Bladder filling is the preferred method for elevation of the presenting part
- Bladder filling is more practical if there is an anticipated delay in delivery¹
- Simulation training in all clinical areas should be undertaken regularly to maintain skills
- Current beds used in birth unit have a weight limit of 150 kilograms, which may preclude staff from being on the bed for transfer to theatre at the same time as woman

8. RELATED POLICIES/PROCEDURES/CLINICAL BUSINESS RULES

- Caesarean Birth – Maternal Preparation and Receiving the Neonate(s)
- Assisted vaginal birth guideline – SESLHD GL/050
- Terbutaline for uterine hypertonus or acute fetal distress
- Clinical Emergency Response System (CERS) – Management of the deteriorating patient
- Australian Commission on Safety and Quality in Health Care. Clinical care standard. Stillbirth. (under consultation for publishing October 2022)

9. RISK RATING

- Low

10. NATIONAL STANDARD

- Standard 2 - Partnering with Consumers
- Standard 5 - Comprehensive Care
- Standard 8 - Recognising and Responding to Clinical deterioration

11. REFERENCES

1. Royal College of Obstetricians and Gynaecologists (2014) updated 2017. Umbilical Cord Prolapse Green Top Guideline Number 50.
2. SA Maternal & Neonatal Clinical Network (2019). South Australian Perinatal Practice Guidelines – Cord presentation and prolapse
3. The Royal Women's Hospital (2020). Cord Prolapse guideline. Victoria Australia

REVISION & APPROVAL HISTORY

Approved Quality and Safety Committee

Reviewed and endorsed by Maternity Services CBR committee 22/8/2022

Amended August 2019 – change to PACE

Reviewed and endorsed Maternity Services LOPs 26/9/16

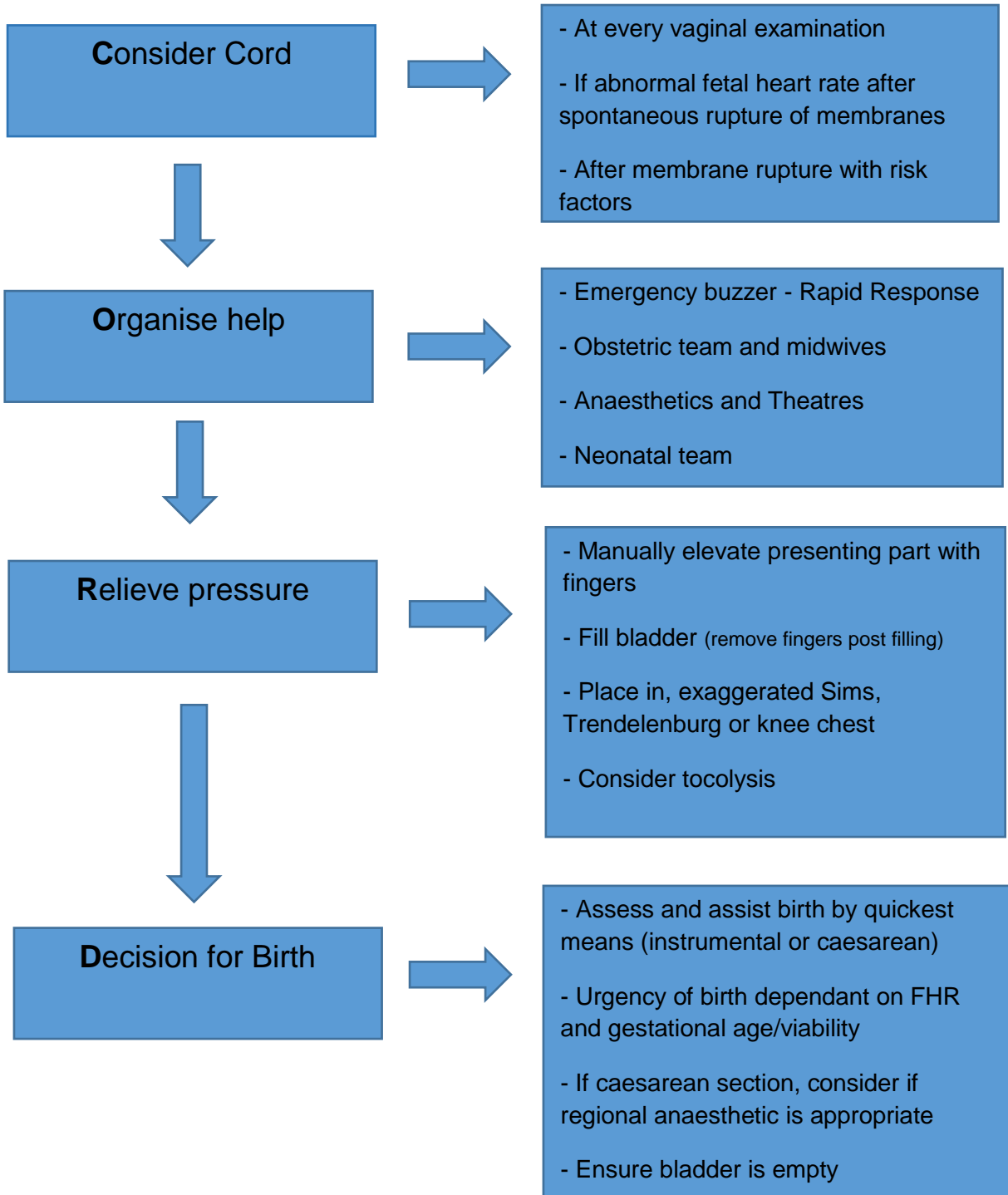
Approved Patient Care Committee 3/4/08

Maternity Services Clinical Committee 11/308

FOR REVIEW: September 2027

CORD

Cord Prolapse



Appendix 2

Figure 1. Exaggerated Sims' position



Figure 2. Knee Chest position



Figure 3. Trendelenburg position

