Barnsley Hospital NHS
NHS Foundation Trust

Title	**Guideline for the Management of Cord Prolapse or Cord Presentation**	
Author/Owner	Practice Educator Midwife/ Labour ward lead obstetric consultant/ Maternity Guideline Group	
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Approved by	CBU 3 Overarching Governance meeting	Date:13/11/2020
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Table of Contents

1.0 Introduction

The overall incidence of cord prolapse ranges from 0.1–0.6%. In the case of breech presentation, the incidence is higher at 1% (RCOG 2014)

The perinatal outcome largely depends on:

- The location where the prolapse occurred (with higher mortality rate when it happens outside hospital)
- The gestational age of the fetus
- The birth weight of the fetus

2.0 Objective

To ensure the timely recognition and management of a cord prolapse or a cord presentation.

3.0 Scope

This guideline applies to all medical and midwifery staff working on the maternity unit and in the community setting.

4.0 Main body of the document

4.1 Definitions

A cord prolapse is defined as the descent of the umbilical cord through the cervix either alongside or in front of the presenting part with ruptured membranes.

A cord presentation is defined as the presence of the umbilical cord between the presenting part and the cervix with intact membranes.

4.2 Risk factors associated with cord prolapse

- Multiparty
- Low birth weight (<2.5kgs)
- Prematurity (< 37 weeks)
- Fetal congenital anomalies
- Breech presentation
- Transverse, oblique or unstable lie
- Second twin
- Polyhydramnios
- Unengaged presenting part
- Low-lying placenta

4.3 Procedure related risk factors

- Artificial rupture of the membranes (AROM)
- Vaginal manipulation of the fetus (e.g.) rotational forceps delivery
- External cephalic version
- Internal podalic version
- Stabilising induction of labour

- Large balloon catheter induction of labour

4.4 Diagnosis

The umbilical cord is felt on examination within the vagina or is seen protruding out of the vagina. It may also be indicated by changes to the CTG tracing such as fetal bradycardia or variable decelerations, particularly following rupture of the membranes.

4.5 Management of umbilical cord prolapse in a hospital setting

Immediate Actions

Do not handle cord unnecessarily	**Call for help** - Activate emergency buzzer	Dial 2222 and summon Obstetric registrar, Anesthetist, Theatre team and the Neonatal team **(Code yellow)**	Briefly explain to the patient what has happened and the need for urgent delivery

- Elevate the presenting part to reduce pressure on the cord. Place the mother on all fours in knee chest position or left lateral with head down and a pillow under the left hip. **Do not remove fingers –continue to manually elevate the presenting part away from the cord.**
- Check the fetal heart rate. Where possible commence continuous electronic fetal monitoring.
- Gain IV Access and obtain bloods for FBC and Group and save.

<u>Mode of Delivery</u>

The obstetrician will determine the mode of delivery.

- Expectant management should be discussed where cord prolapse occurs at the threshold of viability (gestation 23+0 – 24+6 weeks). Women should be counselled regarding continuation or termination of the pregnancy.
- If fetal heart is absent, opt for vaginal delivery and follow the Guideline for the Management of Fetal /Early Neonatal Loss.

Vaginal Delivery *Consider if the cervix is fully dilated and the presenting part is deep in the pelvic cavity*
Instrumental delivery should be considered if it can be accomplished quickly and safely.
Breech extraction is appropriate in some circumstances such as internal podalic version for the second twin.

Caesarean Section *If a timely uncomplicated vaginal delivery is not possible*
A Category 1 Caesarean section will be performed in most cases but consideration can be given to performing a category 2 caesarean section if the CTG is normal. There will be a low threshold for moving to a category 1 section if there is evidence of fetal compromise.
Discussion with the anaesthetist should be undertaken to determine whether general or regional anesthesia is appropriate.
Tocolysis may be considered whilst preparing for caesarean section in cases of fetal heart rate abnormalities or where delivery is likely to be delayed – give Terbutaline 0.25 mg subcutaneously.
Transfer to theatre maintaining the position described above and where possible manually elevating the presenting part.

Following Delivery

- Obtain paired umbilical cord blood samples.
- Report the cord prolapse following the Trust incident reporting system.
- Offer debriefing to the woman and her birth partner
- Ensure contemporaneous records are maintained:

Contemporaneous records should include
Time of cord prolapse
Fetal heart rate - every 5 minutes
Time of emergency request for and arrival of staff
Methods used to elevate the presenting part
Maternal position
Time of transfer to theatre
Fetal heart rate prior to knife of skin
Time of knife to skin, time of knife to uterus and time of delivery
Apgar score
Blood gas results

4.6 Management of umbilical cord prolapse in a community setting

Arrange immediate transfer to hospital by ambulance

If midwife not present	If midwife present
Advise the woman to adopt a knee chest position whist awaiting assistance.	Elevate the presenting part manually and place the woman in a knee chest position.
	Where possible auscultate the fetal heart rate.
Transfer the woman to hospital via ambulance in a left lateral position with a pillow under her hips **(knee to chest position is not safe for the transfer).**	

4.7 Management of a cord presentation

If the umbilical cord is felt or suspected to be present below the presenting part with intact membranes – **the membranes must be left intact**. Avoid accidental or intentional rupture of the membranes.

Monitor the fetal heart rate and commence continuous electronic fetal monitoring using external toco lead.	The Obstetric Registrar should be contacted and asked to attend **immediately.**	Arrangements should be made for delivery by Caesarean section.

5.0 Roles and responsibilities

Staff involved in the management of a cord prolapse will maintain contemporaneous and accurate records.

Midwives

To provide the best evidence-based care for women in accordance with appropriate guidance from diagnosis to delivery.

Obstetricians

To provide care for women in accordance with appropriate guidance from diagnosis to delivery.

Paediatricians

To attend delivery when their presence is requested.

Anaesthetists

To attend when their presence is requested and provide anaesthesia to the women for operations and procedures as appropriate.

6.0 Associated documents and references

RCOG Green top guideline No. 50 Umbilical Cord Prolapse November 2014
https://www.rcog.org.uk/globalassets/documents/guidelines/gtg-50-umbilicalcordprolapse-2014.pdf

Murphy DJ, MacKenzie IZ. The mortality and morbidity associated with umbilical cord prolapse. *Br J Obstet Gynaecol* 1995;102:826–30.

Myles TJ. Prolapse of the umbilical cord. *J Obstet Gynaecol Br Emp* 1959;66:301–10.

Woo JS, Ngan YS, Ma HK. Prolapse and presentation of the umbilical cord. *Aust N Z J Obstet Gynaecol* 1983;23:142–5.

Panter KR, Hannah ME. Umbilical cord prolapse: so far so good? *Lancet* 1996;347:74.

7.0 Training and resources

Training will be given as documented in the Maternity Training Needs Analysis. This is updated on an annual basis.

8.0 Monitoring and audit

Any adverse incidents relating to the Management of Cord Prolapse or Cord Presentation will be monitored via the incident reporting system. Any problems will be actioned via the case review and root cause analysis action plans. The action plans are monitored by the risk midwife to ensure that improvements in care are made. The trends and any root cause analysis are discussed at the monthly risk meetings to ensure that appropriate action has been taken to maintain safety.

The guideline Management of Cord Prolapse or Cord Presentation will be audited in line with the annual audit programme, as agreed by the CBU. The audit action plan will be reviewed at the monthly risk management meetings on a quarterly basis and monitored by the risk midwife to ensure that improvements in care are made.

9.0 Equality and Diversity

The Trust is committed to an environment that promotes equality and embraces diversity in its performance as an employer and service provider. It will adhere to legal and performance requirements and will mainstream equality, diversity and inclusion principles through its policies, procedures and processes. This guideline should be implemented with due regard to this commitment.

To ensure that the implementation of this guideline does not have an adverse impact in response to the requirements of the Equality Act 2010 this policy has been

screened for relevance during the policy development process and a full equality impact assessment is conducted where necessary prior to consultation. The Trust will take remedial action when necessary to address any unexpected or unwarranted disparities and monitor practice to ensure that this policy is fairly implemented.

This guideline can be made available in alternative formats on request including large print, Braille, moon, audio, and different languages. To arrange this please refer to the Trust translation and interpretation policy in the first instance.

The Trust will make reasonable adjustments to accommodate any employee/patient with particular equality, diversity and inclusion requirements in implementing this guideline. This may include accessibility of meeting/appointment venues, providing translation, arranging an interpreter to attend appointments/meetings, extending policy timeframes to enable translation to be undertaken, or assistance with formulating any written statements.

9.1 Recording and Monitoring of Equality & Diversity

This section is mandatory for all Trust Approved Documents and must include the statement below:

The Trust understands the business case for equality, diversity and inclusion and will make sure that this is translated into practice. Accordingly, all guidelines will be monitored to ensure their effectiveness.

Monitoring information will be collated, analysed and published on an annual basis as part of Equality Delivery System. The monitoring will cover the nine protected characteristics and will meet statutory employment duties under the Equality Act 2010. Where adverse impact is identified through the monitoring process the Trust will investigate and take corrective action to mitigate and prevent any negative impact.

Appendix 1

Version	Date	Comments	Author
1			Maternity guideline group
2			Maternity guideline group
3			Maternity guideline group

Review Process Prior to Ratification:

Name of Group/Department/Committee	Date
Reviewed by Maternity Guideline Group	06/08/2020
Reviewed at Women's Business and Governance meeting	26/08/2020

Approved by CBU 3 overarching Governance	13/11/2020
Approved at Trust Advancing Practice and Nursing procedures Group	14/01/2021

Archived	**Date**