

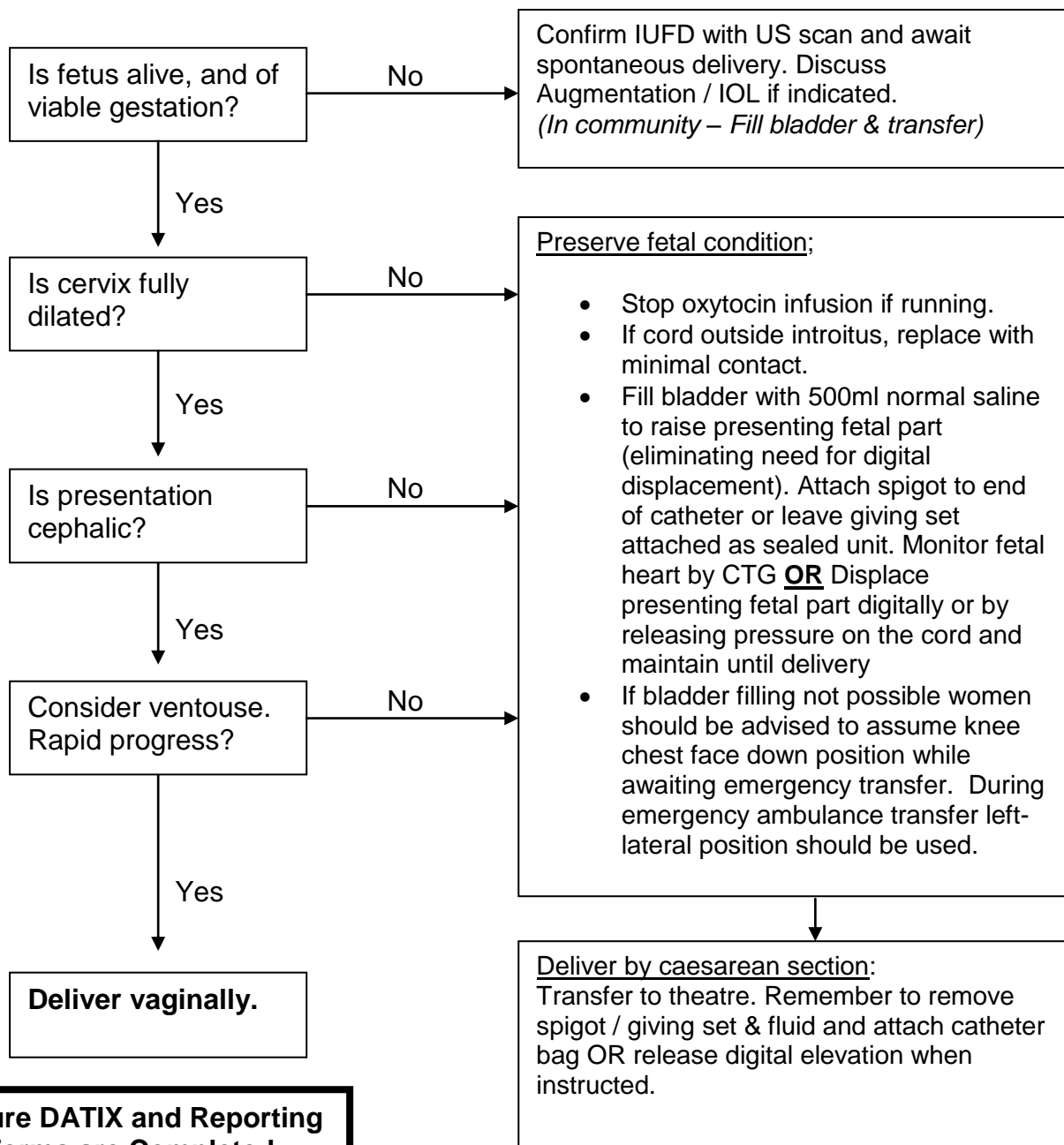
**Cord Prolapse**  
**- Full Clinical Guideline**

Reference No.: IP/02:20/C5

**This is an obstetric emergency.**

Call for help: **Senior Midwife,**  
**Obstetric registrar,**  
**Anaesthetist**  
**Paediatrician**  
**Scribe**  
 (Theatre team on standby)

***In Community – Paramedic assistance for immediate transfer to Consultant Unit***



**Contents**

<b>Section</b>		<b>Page</b>
<b>1</b>	Introduction	2
<b>2</b>	Purpose and Outcomes	2
<b>3</b>	Abbreviations	2
<b>4</b>	Key Responsibilities / Duties	2
<b>5</b>	Incidence	3
<b>6</b>	Significance	3
<b>7</b>	Risk Factors	3
<b>8</b>	Prevention	3
<b>9</b>	Suspecting Cord Prolapse	3
<b>10</b>	Management of Cord Prolapse	4
<b>11</b>	Anaesthesia	4
<b>12</b>	Management in the Community Settings	4
<b>13</b>	Management of Cord Prolapse before Viability	4
<b>14</b>	Clinical Governance	4
<b>15</b>	Monitoring Compliance and Effectiveness	5
<b>16</b>	References	5
<b>Appendix A</b>	PROMPT Algorithm for management of Umbilical Cord Prolapse	6
	Documentation Control	7

**1. Introduction**

Cord prolapse has been defined as the descent of the umbilical cord through the cervix alongside (occult) or past the presenting part (overt) in the presence of ruptured membranes. Cord presentation is the presence of the umbilical cord between the fetal presenting part and the cervix, with or without membrane rupture.

**2. Purpose and Outcomes**

The purpose of this guideline is to describe methods to prevent, diagnose and manage cord prolapse. It addresses pregnant women at high risk of or with a diagnosis of cord prolapse in hospital and community settings.

To support Obstetricians, Midwives, Anaesthetists and allied professionals involved in the emergency management in the event of a cord prolapse.

**3. Abbreviations**

ECV	-	External Cephalic Version
IOL	-	Induction of Labour
IUFD	-	Intrauterine Fetal Death
IV	-	Intravenous
SOAPS	-	Senior midwife, Obstetric registrar, Anaesthetist, Paediatrician, Scribe
US	-	Ultrasound

**4. Key Responsibilities and Duties**

On recognition of this obstetric emergency instigate SOAPS team:

- S** - Senior midwife
- O** - Obstetric registrar
- A** - Anaesthetist
- P** - Paediatrician
- S** - Scribe

## 5. Incidence

The overall incidence of cord prolapse ranges from 0.1% to 0.6% with slightly higher incidence with breech presentation i.e. 1%. and as high as 18% in footling breech presentations.

## 6. Significance

The risk to the fetus of cord prolapse is asphyxia as a result of mechanical compression of the cord between the presenting part and bony pelvis and/or vasospasm of the umbilical vessels on contact with lower extra-uterine temperature or manipulations. The perinatal mortality is 36-162/1000 live births.

## 7. Risk Factors

Many of these factors predispose to cord prolapse by preventing close application of the presenting part to the lower part of the uterus and / or pelvic brim.

- **General:** Breech presentation, transverse/oblique/unstable lie, prematurity, unengaged presenting part, second twin, polyhydramnios, grandmultiparity, low lying placenta, pelvic mass.
- **Procedure related:** About 50% of the cases of cord prolapse are preceded by obstetric manipulation, artificial rupture of membranes, vaginal manipulation of the fetus with ruptured membranes, external cephalic version (ECV), internal podalic version, stabilising induction of labour.

## 8. Prevention

1. With transverse, oblique or unstable lie, elective admission to hospital after 37+6 weeks of gestation should be discussed and women should be advised to present quickly if there are signs of labour or suspicion of membrane rupture.
2. Women with non-cephalic presentations and prelabour rupture of the membranes should be offered admission.
3. Artificial membrane rupture should be avoided whenever possible if the presenting part is mobile. If it becomes necessary to rupture the membranes, this should be performed with arrangements in place for immediate caesarean delivery.
4. Vaginal examination and obstetric intervention in the context of ruptured membranes and a high presenting part carry the risk of upward displacement and cord prolapse. Upward pressure on the presenting part should be kept to a minimum in such women.
5. Rupture of membranes should be avoided if, on vaginal examination, the cord is felt below the presenting part. When cord presentation is diagnosed in established labour, caesarean section is usually indicated.

## 9. Suspecting Cord Prolapse

Cord presentation and prolapse may occur without outward physical signs and with a normal fetal heart rate pattern.

1. The cord should be examined for at every vaginal examination in labour and after spontaneous rupture of membranes if risk factors are present or if cardiotocographic abnormalities begin soon thereafter.
2. With spontaneous rupture of membranes in the presence of a normal fetal heart rate patterns and the absence of risk factors for cord prolapse, routine vaginal examination is not indicated if the liquor is clear.

3. Cord prolapse should be suspected where there is an abnormal fetal heart rate pattern (bradycardia, variable decelerations etc), particularly if such changes commence soon after membrane rupture, spontaneously or with amniotomy.
4. Speculum and/or digital vaginal examination should be performed at preterm gestation when cord prolapse is suspected.

#### 10. **Management of Cord Prolapse**

Management is centered on rapid delivery by the safest means possible. Other measures described are to buy time until delivery can be achieved. (See Appendix A)

#### 11. **Anaesthesia**

- Regional anaesthesia may still be appropriate in cases of cord prolapse, if the fetal condition allows. Displacement of the presenting part and continuous fetal monitoring should be continued during institution of regional blockade, i.e. a spinal would be performed with the patient in the lateral position.
- If serious concerns over fetal condition general anaesthesia is preferred for quickest delivery.

#### 12. **Management in the Community Settings**

In the case of a home birth, once cord prolapse is diagnosed:

- Attempt to elevate the presenting part by bladder filling or manually ( bladder filling is the recommended method of management for transfer)
- If bladder filling is not possible advise the woman to assume knee position, chest/face down while awaiting emergency transfer
- The woman (as assessed by a competent professional) continue preparations for transfer and summon emergency support
- Pre-alert the consultant led maternity unit

During emergency ambulance transfer lateral position should be used.

#### 13. **Management of Cord Prolapse before Viability**

Expectant management should be discussed for cord prolapse complicating pregnancies with gestational age at limits of viability.

Women should be counselled on both continuation and termination of pregnancy following cord prolapse at the thresholds of viability. Delivery should be considered if there are signs of severe fetal compromise, once viability is reached or a gestational age associated with reasonable neonatal outcome is achieved.

#### 14. **Clinical Governance**

- **Debriefing:** Postnatal debriefing should be offered to every woman with cord prolapse as the woman might be psychologically affected after this obstetric emergency.
- **Training:** As a part of CNST all staff involved should receive annual training in the management of cord prolapse.
- **Clinical Incident reporting:** Both a Datix and a Cord Prolapse reporting form must be completed.

**15. Monitoring Compliance and Effectiveness**

Monitoring requirement	All cases of cord prolapse to be reviewed on individual basis through DATIX reporting and completion of a trigger form
Monitoring method	Continuous reporting process via Trigger form & DATIX

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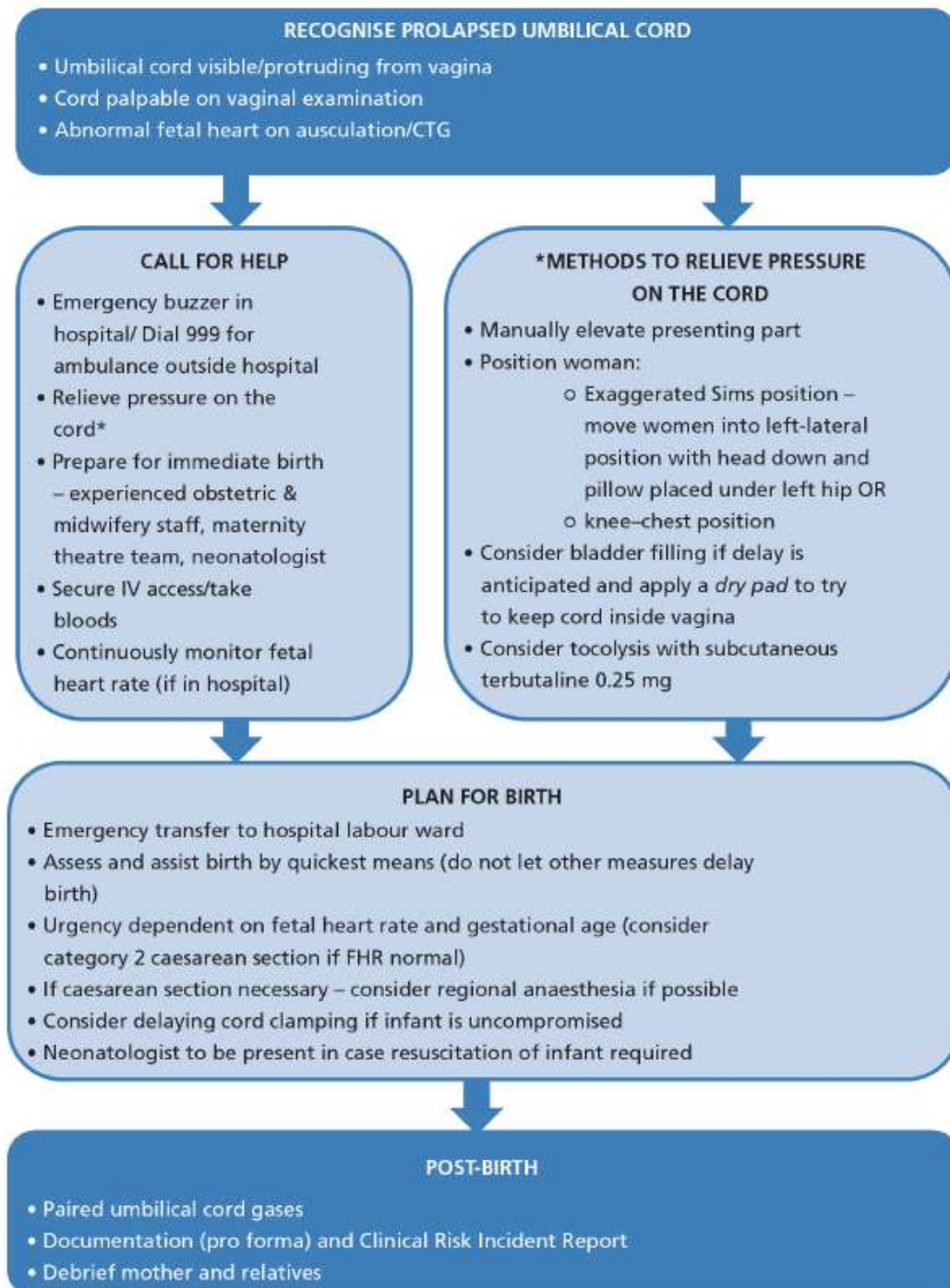
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RCOG Green-top Guideline [Number 50] Umbilical Cord Prolapse. Royal College of Obstetricians & Gynaecologists November 2014



### Algorithm for the management of umbilical cord prolapse



**Documentation Control:**

<b>Reference Number:</b> IP/02:20/C5	<b>Version: 5</b>		<b>Status:</b> <b>FINAL</b>	
Version / Amendment	Version	Date	Author	Reason
	1	March 2003	Miss R Hamilton Consultant Obstetrician	New
	2	Sept 2008	Mr J R Allsop - O&G Consultant , Dr K Allen	Review
	3	March 2012	Miss S Raouf Consultant Obstetrician Dr M Kurni - Specialist Registrar	Review
	4	March 2016	Miss S Raouf Consultant Obstetrician	Review
	5	Nov 2019	Sarah Smith – Senior Clinical Educator	Review
<b>Intended Recipients:</b> All staff with responsibility for caring for pregnant women				
<b>Training and Dissemination:</b> Cascaded electronically through lead sisters/midwives/doctors; Published on Intranet, Article in Business unit newsletter; emailed via NHS.net				
<b>To be read in conjunction with:</b> Caesarean Section (C7), Operative Vaginal Delivery (I2)				
Development of Guideline:	Sarah Smith – Practice Development Midwife			
Consultation with:	Obstetricians/Maternity staff			
Approved By:	12/11/19: Maternity Guidelines Group: Miss S Rajendran – Chair 24/02/2020 Maternity Development & Governance Committee / ACD - Miss S Raouf  Director of Midwifery: Mrs J Haslam 27/02/2020: Divisional Governance: Mr A Bali - Chair			
Implementation date:	13/03/2020			
Review Date:	February 2023			
Key Contact:	Cindy Meijer			