Policy for the Management of Cord Presentation and Prolapse

Name and Title of Policy author: Karen Morton – Lead Obstetrician
Helen Arcari – Year 1 Specialist Trainee

Name of Review/Development Body: Clinical Practice Policy Group

Ratification Body: Maternity Risk Management Group (MRMG)

Date of Ratification: January 2012

Review Date: January 2015

Reviewing Officer: Anne Carvalho, Clinical Governance midwife

Effective From: January 2012

Signed

………………………………… ……………..
Jacqui Tingle
Chair of the MRMG
### Example of a Version Control Sheet

<table>
<thead>
<tr>
<th>Date</th>
<th>Review Type (please tick)</th>
<th>Version No.</th>
<th>Author of Review</th>
<th>Date Ratified</th>
<th>Ratification Body</th>
<th>Page Numbers (where amended)</th>
<th>Line Numbers (where amended)</th>
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* Where there is a full review, amendment details are not required in the version control sheet.
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<td></td>
</tr>
<tr>
<td>• Appendix B; Cord Prolapse Pro Forma</td>
<td></td>
</tr>
<tr>
<td>• Appendix C; Equality Impact Assessment</td>
<td></td>
</tr>
</tbody>
</table>

Policy for the Management of Cord Presentation and Prolapse

January 2012
1. Introduction/background
This policy relates to all pregnant women presenting with a cord presentation or cord prolapse. It sets out the agreed approach to the diagnosis and management of cord presentation and prolapse and applies to all clinical staff.

2. Purpose and objectives
The purpose of this policy is to provide evidence based guidance for all staff on the significance and management of cord presentation and prolapse.

3. Scope
This policy applies to all clinical staff.

4. Duties and Responsibilities

Designated Lead for Risk
The Clinical director is responsible for implementing this policy, this role has been delegated to the Designated Lead for Risk. It is the responsibility of the Clinical Directors, or their delegates, to ensure that all relevant staff under their management (including bank agency, contracted, locum and volunteers) are aware of and meet their individual responsibilities under this policy, including monitoring compliance by subordinate staff.

Clinical Staff
All clinical staff have a duty to be familiar with this policy and to use it to guide their practice.

Local Policy Officer
The Local Policy Officer has a duty to ensure the policy is compliant with the Trust Policy on Policies. The Local Policy Officer must ensure this policy is reviewed within the designated time period or as changes in national guidance arise. The policy should comply with the current base of evidence and best practice guidance and be current and in date.

5. Policy For The Management of Cord Presentation and Prolapse

5.1 Introduction and Background

Cord presentation - when the umbilical cord is between the presenting part and the cervix, with or without membrane rupture.

Cord prolapse - is the decent of the umbilical cord through the cervix, past the presenting part (overt) in the presence of ruptured membranes. Occult cord prolapse and cord expression are terms used to indicate that the cord is alongside but not below the presenting part. (Bender, S. 1976)

Policy for the Management of Cord Presentation and Prolapse

January 2012
5.1.1 Predisposing Factors

- Long cord
- Ill fitting presenting part as occurs with a malposition or malpresentation of the fetus.
- Polyhydramnios
- ARM if presenting part ill fitting or high
- Malformation of pelvis
- Small fetus
- Cephalopelvic disproportion
- Multiple pregnancy after delivery of first twin.
- Fetal congenital malformations
- Multiparity
- Prematurity <37/40
- Low lying placenta
- External cephalic version / internal podalic version
- Stabilising induction of labour
- Insertion of intrauterine pressure transducer

5.1.2 Risks

- Reduced oxygen supply to fetus when the cord is compressed between the presenting part and the maternal pelvis. In addition the umbilical vessels may go into spasm due to cooling, drying or handling cord. The resulting asphyxia to the fetus may result in hypoxic ischaemic encephalopathy and cerebral palsy.
- Associated with emergency operative delivery.
- Prematurity

5.1.3 Incidence

- Incidence ranges between 0.1 to 0.6% (RCOG)

5.2 Signs of cord prolapse

Cord presentation and prolapse may occur without any outward signs.

Bradycardia or variable fetal heart rate decelerations may indicate cord prolapse, especially if these changes commence soon after rupture of membranes.

Prompt vaginal examination is the most important aspect of diagnosis:

- 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 fetal heart rate abnormalities occur soon thereafter.
- If there are no risk factors of cord prolapse and the fetal heart rate pattern is normal, routine vaginal examination is not needed following spontaneous rupture of membranes providing the liquor is clear.
- If cord prolapse is suspected preterm a speculum or digital vaginal examination should be performed
5.3 Prevention of cord prolapse

- Transverse/oblique/unstable lie: consider elective admission to hospital after 37+6 weeks and advise these women to attend hospital as soon as possible if suspected rupture of membranes or signs of labour.
- If the presenting part is not engaged in the pelvis avoid artificial rupture of membranes if possible. If unavoidable, ensure access to immediate caesarean section if it becomes necessary.
- Women with premature prelabour rupture of membranes where the presentation is not cephalic should be offered admission.
- When examining a woman with a high presenting part vaginally, upward pressure should be kept to a minimum.
- Avoid artificial rupture of membranes if the umbilical cord is felt below the presenting part on vaginal examination.

5.4 Management of Cord Prolapse in the maternity unit

Depends on whether fetus is alive or dead and on the stage of labour.

If there is no pulsation in the cord and no fetal heart is heard or seen on the scan - the fetus is dead and there is no treatment. Delivery is awaited.

If the fetus is known or expected to be alive:
- Keep the fetus in good condition
- Deliver mother as quickly as possible.

5.4.1 First Stage

- Inform woman/partner of findings and reassure them.
- Do not remove your fingers from vagina, keep compression off cord by pushing presenting part away.
- Turn woman into kneeling position, head tilted down.
- Summon assistance – emergency bell.
- Ask for medical aid by asking someone to phone 2222 and requesting '05' team.
- Ask assistant to listen to FH.
- If cord outside: vagina keep warm and moist use sterile towel and warmed sterile water to prevent vessels going into spasm.
- Transfer woman to theatre on bed.
- Perform LSCS.
  - If associated with a suspicious or pathological fetal heart rate pattern this should be under category 1. If the CTG is normal a category 2 caesarean is appropriate.
  - Verbal consent is satisfactory.
- Alternatively rapid installation of 500-700ml of Saline into the bladder via a Foley catheter will provide effective elevation of the presenting part and removes the urgency of immediate caesarean section. Satisfactory outcomes have been obtained using this method despite diagnosis-delivery intervals of 1 hour (Kean et al 2000).
  - NB it is essential to empty this before any delivery attempt
- Tocolysis can be considered when preparing for caesarean if there are persistent fetal heart rate abnormalities despite attempts to prevent compression mechanically and when delivery is likely to be delayed.
  - Suggested tocolysis is terbutaline 0.25mg subcutaneously.

January 2012
- NB. The latter 2 points are potentially useful but must not result in unnecessary delay.

### 5.4.2 Second stage

- Summon aid.
- Fast bleep on call Obstetric Registrar.
- Ask assistant to prepare for ventouse or forceps, if appropriate.
- Expedite delivery.
- Breech extraction can be performed under some circumstances, e.g. after internal podalic version for second twin.

### 5.4.3 At delivery

- Paediatrician must be present.
- Take paired cord blood samples for pH and base excess.

### 5.4.4 Post delivery

- Post natal debriefing should be offered to every woman with a cord prolapse.
- Clinical incident form must be completed for all cases of cord prolapse.

### 5.5 Management of Cord Prolapse in Community

**Immediate action is required** - Follow Guidelines as above

**Call 999 for ambulance transfer to hospital - ensure that a paramedic unit is asked for**

- Advise the woman to assume knees to chest face down position while waiting for transfer.
- Minimal handling of any loops of cord lying outside the vagina to prevent vasospasm.
- The presenting part should be elevated for transfer either manually or via inflation of bladder with 500ml of saline via Foley catheter.
- During emergency ambulance transfer left lateral is the recommended position as it is safer than knees to chest face down.

### 6. Training

All clinical staff must attend an annual Obstetric Skills day (PROMPT) to participate in a simulation of cord prolapsed and associated complications. Refer to Training policy for further information.

### 7. Implementation

The implementation of this policy will be monitored as below.

### 8. Monitoring compliance and effectiveness of the document

<table>
<thead>
<tr>
<th>Audit criteria</th>
<th>Tool</th>
<th>Audit Lead</th>
<th>Frequency of audit</th>
<th>Responsible committee</th>
<th>How changes will be implemented</th>
<th>Responsibility for Actions</th>
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</thead>
<tbody>
<tr>
<td>Perinatal outcome of cases of cord prolapse</td>
<td>Audit</td>
<td>Audit MW</td>
<td>Bi-annually</td>
<td>Risk management</td>
<td>Through training, Governance Newsletter</td>
<td>Practice development team, DS matron</td>
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</tbody>
</table>

Policy for the Management of Cord Presentation and Prolapse

January 2012
9. Review, Approval/Ratification and Archiving
Previous versions of this policy can be found in the Maternity Archive on the shared drive. This policy will be reviewed prior to its third anniversary in accordance with the Maternity Policy Development and Ratification Policy January 2009.

10. Dissemination and Publication
- Circulated to all Matrons and Consultants via email
- Circulated to the Local Policy officer for publishing the document on the Department policy library on the shared drive.
- Circulated to the Central Policy officer for publishing the document on the Trust’s Central Library (intranet).

11. A statement in relation to its Equality Impact Assessment
See Appendix C

12. Details of any associated documents
NHSLA (2011) Maternity Clinical Risk Management Standards

13. References
Bender, S. (1976), *Obstetrics for Midwives*, Heinemann
Mayes, G. (1982), *Midwifery*, Bailliere Tindall
Royal College of Obstetricians and Gynaecologists (2008) *Umbilical cord prolapse*, Green top guideline No.50

14. Appendices
Appendix A; Management of Cord Prolapse
Appendix B; Cord Prolapse Pro Forma
Appendix C; Equality Impact Assessment
Appendix A: Management of Cord Prolapse in the maternity unit

Depends on whether fetus is alive or dead and on the stage of labour.

If there is no pulsation in the cord and no fetal heart is heard or seen on the scan - the fetus is dead and there is no treatment. Delivery is awaited.

if the fetus is known or expected to be alive:
  - Keep the fetus in good condition
  - Deliver mother as quickly as possible.

First Stage

- Inform woman/partner of findings and reassure them.
- Do not remove your fingers from vagina, keep compression off cord by pushing presenting part away.
- Turn woman into kneeling position, head tilted down.
- Summon assistance – emergency bell.
- Ask for medical aid by asking someone to phone 2222 and requesting '05' team.
- Ask assistant to listen to FH.
- If cord outside: vagina keep warm and moist use sterile towel and warmed sterile water to prevent vessels going into spasm.
- Transfer woman to theatre on bed.
- Perform LSCS.
  - If associated with a suspicious or pathological fetal heart rate pattern this should be under category 1. If the CTG is normal a category 2 caesarean is appropriate.
  - Verbal consent is satisfactory.
- Alternatively rapid installation of 500-700ml of Saline into the bladder via a Foley catheter will provide effective elevation of the presenting part and removes the urgency of immediate caesarean section. Satisfactory outcomes have been obtained using this method despite diagnosis-delivery intervals of 1 hour (Kean et al 2000). NB it is essential to empty this before any delivery attempt
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  - Suggested tocolysis is terbutaline 0.25mg subcutaneously.
- NB. The latter 2 points are potentially useful but must not result in unnecessary delay.

Second stage

- Summon aid.
- Fast bleep on call Obstetric Registrar.
- Ask assistant to prepare for ventouse or forceps, if appropriate.
- Expedite delivery.
- Breech extraction can be performed under some circumstances, e.g. after internal podalic version for second twin.

At delivery

- Paediatrician must be present.
• Take paired cord blood samples for pH and base excess.

**Post delivery**
- Post natal debriefing should be offered to every woman with a cord prolapse.
- Clinical incident form must be completed for all cases of cord prolapse.

**Management of Cord Prolapse in Community**

**Immediate action is required** - Follow Guidelines as above

**Call 999 for ambulance transfer to hospital** - ensure that a **paramedic unit is asked for**

- Advise the woman to assume knees to chest face down position while waiting for transfer.
- Minimal handling of any loops of cord lying outside the vagina to prevent vasospasm.
- The presenting part should be elevated for transfer either manually or via inflation of bladder with 500ml of saline via Foley catheter.
- During emergency ambulance transfer left lateral is the recommended position as it is safer than knees to chest face down.
Appendix B; **Cord Prolapse Pro Forma**

Patients name:…………………………………… Number:………………………….. Drill: Yes† No†

Person in charge of delivery………………………… Date and time of diagnosis:…………… FHR……..

Cervical dilatation at diagnosis……… ...Place of diagnosis: Home† Hospital†

Presenting part: cephalic† breech† Gestation:………………

<table>
<thead>
<tr>
<th>Called for Help</th>
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<th>Name</th>
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<th>Time arrived</th>
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</tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>SHO</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>ODP</td>
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<td></td>
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<td></td>
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<tr>
<td>Paediatrician</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scribe</td>
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<td></td>
<td></td>
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<tr>
<td>Consultant Obstetrician</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who else involved? (Please List):</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<table>
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<tr>
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<th>Performed By</th>
<th>Time Performed</th>
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<tbody>
<tr>
<td>Exagerrated left lateral</td>
<td>N/A</td>
<td>Yes</td>
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<td></td>
</tr>
<tr>
<td>Knee-chest/ Head down</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Digital examination to elevate the presenting part</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>FHR</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bladder filled</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mode and of delivery: SVD† Forceps† Ventouse† Breech† Time of delivery:………………

Mode of anaesthesia: Spinal† GA† Epidural† Time of anaesthesia:………………

Time of diagnosis to delivery:……………………

**Fetal Condition**

Resuscitation required: Yes† No† Birth Injury noted at delivery: Yes† No†

Weight:……………… Apgar: 1 minute ………. Apgar: 5 minutes ………. Apgar:10 minutes ………

Cord PH: Arterial pH……..BE……..Venous pH……..BE……..Baby to SCBU: Yes† No†

Number of completed Incident form:……………………….. Document and debrief: Yes† No†

Signed:…………………………………… Print Name…………………………………..

Policy for the Management of Cord Presentation and Prolapse

January 2012
Form A

Equality and Diversity Screening Checklist

<table>
<thead>
<tr>
<th>Care Group/ Department</th>
<th>Obstetrics and Gynaecology Service Business Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title of Person Auditing Policy/Service</td>
<td>Anne Carvalho, Clinical Governance midwife</td>
</tr>
<tr>
<td>Policy Title/Service</td>
<td>Policy for the Management of Cord Presentation and Prolapse</td>
</tr>
<tr>
<td>Policy/Service Purpose</td>
<td>This policy relates to all pregnant women presenting with a cord presentation or cord prolapse. It sets out the agreed approach to the diagnosis and management of cord presentation and prolapse and applies to all clinical staff.</td>
</tr>
</tbody>
</table>

The checklist below will help you to see any strengths and/or highlight improvements required to ensure that the policy/service is compliant.

<table>
<thead>
<tr>
<th>Check for discrimination</th>
<th>DIRECT discrimination against any minority group of SERVICE USERS or EMPLOYEES</th>
<th>INDIRECT discrimination against any minority groups of SERVICE USERS or EMPLOYEES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Response (Yes/No)</td>
<td>Action Required? (Yes/No)</td>
</tr>
<tr>
<td>Age?</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Gender? (Female, Male, Transsexual)</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Disability?</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Race or ethnicity?</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Religion/Faith/Spiritual belief?</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Sexual Orientation?</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

All policies will be placed on the intranet/internet to ensure flexibility of access under the Freedom of Information Act 2000. Efforts will be made to make policies and information available in alternative mediums or by alternative means to meet individual needs on request to departments or via the PALs Department (ext 2059).

Level of Impact:

<table>
<thead>
<tr>
<th>Total number of items answered ‘yes’ indicating discrimination</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Score: High/Medium/Low</strong></td>
</tr>
</tbody>
</table>

Policy for the Management of Cord Presentation and Prolapse

January 2012
1. **Is this a new or revised policy / function?**  
*Revised policy*

2. **What is the main purpose of the policy / function?**  
*See above for purpose of the policy*

3. **How will it be put into practice?**  
*Through the management of cord presentation and prolapse by all clinical staff at RSCH*

4. **Who will be the main stakeholders/users?**  
*Pregnant women and maternity staff*

5. **What are the expected benefits/outcomes of the policy/function?**  
*Evidence based care for all women with cord presentation and prolapse*

6. **Have you already consulted with people about this work? If yes, briefly describe what you did and with whom.**  
*Maternity unit staff have been consulted.*

7. **What data is available about the impact the policy/function has or could have on equality groups?**  
*No evidence is available.*

**Age**

**Gender (male/female/transgender)**

**Sexual Orientation**

**Disability**

**Race**

**Deprivation**

**Religion**
The following supplementary questions are to be answered for an impact assessment of employee policies/patient services – if there is a negative response to any of the questions a full impact assessment should be completed.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Yes/No</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there any access issues for disabled people eg physically, entry criteria, complexity of access</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Are there any recorded complaints relating to equality issues in the last three months?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Has a patient/staff survey highlighted any issues?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Does analysis of the take up of services raise any issues when studied against local statistics? / Does analysis of the application of policies raise any issues when studied against the employee statistics for the whole Trust?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Do outcome statistics compromise any group?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Is there a non attendance issue in any particular group?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Is the service/policy focused on any particular group and is that 'justified'?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Are any special services/policy available or in place to accommodate specific groups? Is there a need for them?</td>
<td>No/No</td>
<td>Privacy is guaranteed during certain parts of the care pathway but cannot be guaranteed at all times (e.g. if admitted may be on a 6 bedded ward)</td>
</tr>
<tr>
<td>Is privacy available if requested? (services only)</td>
<td>Possibly</td>
<td>Privacy is guaranteed during certain parts of the care pathway but cannot be guaranteed at all times (e.g. if admitted may be on a 6 bedded ward)</td>
</tr>
</tbody>
</table>

Signatures of authors/auditors:

Name of author/auditors:

Anne Carvalho

Date of signing: