CLINICAL GUIDELINE FOR THE MANAGEMENT OF
SHOULDER DYSTOCIA

1. Aim/Purpose of this Guideline
1.1. To give guidance to obstetricians and midwives on the identification and management of a shoulder dystocia and subsequent care of a baby following a shoulder dystocia

2. The Guidance

2.1. Definition
Shoulder dystocia is an acute obstetric emergency which requires prompt, efficient action. It is defined as a vaginal cephalic delivery that requires additional obstetric manoeuvres to release the shoulders after gentle downward traction has failed. Shoulder dystocia occurs when either the anterior or, less commonly, the posterior fetal shoulder impacts on the maternal symphysis or sacral promontory.¹

2.2. Incidence:
The overall incidence is 0.3 to 1%, rising to 10% for infants over 4500g

2.3. Risk Factors:
Most cases of shoulder dystocia are unexpected. Occurrence cannot be predicted with any certainty, but can be suspected or anticipated when there is evidence of a large baby, especially in association with maternal obesity or diabetes or of a contracted pelvis. Although most labours preceding shoulder dystocia are normal, there may be warning signs:²

2.4. Pre-labour
- Previous shoulder dystocia
- Macrosomia >4.5kgs
- Diabetes mellitus
- Maternal Obesity BMI >30kg/m2
- Induction of labour

2.5. Intrapartum
- Prolonged first stage of labour
- Secondary arrest
- Prolonged second stage of labour
- Oxytocin augmentation
- Assisted vaginal delivery

2.6. Plan for Delivery
- Women with pre labour risk factors should be considered for delivery in a consultant unit
- Women with intrapartum risk factors should be considered for intrapartum transfer to a consultant unit
• Induction of labour is not an appropriate intervention to lower the risk of shoulder dystocia.
• Planned caesarean section should be considered for the small group of women with diabetes and suspected fetal macrocosmia (estimated fetal weight greater than 4.5 kg).³

2.7. Diagnosis of a shoulder dystocia
Diagnosis is made once an addition obstetric manoeuvre has been used to release the shoulders.
However, timely management of a shoulder dystocia requires prompt recognition, the delivering attendant should routinely observe for:
• Difficulty with delivery of the face and chin
• The head remaining tightly applied to the vulva or even retracting
• Failure of restitution of the fetal head
• Failure of the shoulders to descend.

2.8. Ask the woman to stop pushing

2.9. Call for help.
   In Consultant unit
   • Using emergency buzzer
   • Call for: Senior midwife, additional midwifery staff, Obstetric middle grade or above,
   • paediatrician
   • Consider calling for an anaesthetist

   Community or birth centre
   • 2nd midwife, maternity support worker, birth partner
   • 999 for emergency ambulance

Clearly state ‘shoulder dystocia’ as help arrives
Algorithm for the management of shoulder dystocia

Call for help
Senior midwife, additional midwifery help, Obstetrician, paediatrician
‘999’ – If in community setting

Discourage maternal pushing
Position maternal buttocks to edge of the bed

McRoberts manoeuvre
Legs out of lithotomy

Suprapubic pressure

Evaluate for episiotomy or extension

Internal manoeuvres/rotation

Deliver posterior arm

Call for Consultant Obstetrician, on call anaesthetist, more experienced paediatric support

Consider all fours position or repeat manoeuvres again

Consider Zavanelli, cleidotomy or symphysiotomy

Document on proforma and complete incident form
2.10. Maternal outcomes
Once the baby has been delivered the midwife/Obstetrician should be aware of the increased risk of post partum haemorrhage and the possibility of 3rd/4th degree tears. It is also a very traumatic and frightening experience for the woman and her birth supporters, time should be taken after the event to explain the events and answer any questions.

2.11. Neonatal outcome
Once the baby has been successfully resuscitated it should be examined at a routine time for evidence of brachial plexus injuries and associated injuries, which include: fractured clavicle (10%), fractured humerus (10%), subluxation of cervical spine (5%), cervical cord injury (5-10%), and facial palsy (10-20%).

2.12. Brachial Plexus Injuries in Newborn

**Erb's Palsy** - decreased shoulder abduction, shoulder external rotation, elbow flexion, supination, wrist and finger extension produces the "waiter's tip" posture. The biceps reflex is absent, grasp reflex is preserved, and the Moro is abnormal but with preservation of hand movement. Sensory deficits can also be found.

**Klumpke's Palsy** - involvement of C8 and T1 resulting in weakness in the intrinsic muscles of the hand. Isolated Klumpke's Palsy rarely occurs in the newborn period (0.6% of cases in one study). Total plexus palsy involves both the lower and upper roots.

**Total Plexus Palsy** -- the paralysis described for Erb's Palsy extends into the hand as evidenced by an absent grasp reflex. Sensory loss is worse than in Erb's Palsy. Horner's Syndrome is present in one-third of cases.

2.13. Management
If brachial plexus injuries and associated injuries are diagnosed or suspected by a paediatrician:
- Refer to aftercare physiotherapists
- Arrange paediatric follow up.

2.14. Umbilical paired cord samples
If birth has taken place in the acute unit, umbilical paired cord samples should be taken and tested for acid base measurement and the results documented in both the maternal and neonatal notes and filed in the secure stor envelope.

2.15. Documentation
Should be factual, consistent and accurate and be written as soon as possible after an event has occurred. 
A shoulder dystocia proforma must be completed to ensure the correct information has been documented. (Appendix 2)
If available, a staff member should be asked to note times, manoeuvres and staff present, as the event is occurring.

2.16. Incident reporting
A incident form to be completed for any shoulder dystocia resulting in a poor neonatal outcome. E.g. apgars < 6 at 5 minutes, arterial PH of less than 7.05, suspected fractures/brachial plexus injury, unexpected admission
to the neonatal unit, stillbirth or poor maternal outcome e.g. PPH > 1000mls, 3rd/4th degree tear, Zavanelli manoeuvre or symphysiotomy. These incidents will be reviewed as per the maternity risk management strategy for Royal Cornwall Hospitals NHS Trust.

2.17. Training in shoulder dystocia

All midwives and Obstetricians employed by Royal Cornwall Hospitals NHS Trust attend annual Training in obstetric multidisciplinary emergencies (TOME), as per the maternity services training needs analysis (TNA)

2.18. References


3. Monitoring compliance and effectiveness

| Element to be monitored | • The audit will take into account record keeping by obstetricians and midwives  
|                         | • The results will be inputted onto an excel spreadsheet  
|                         | • The audit will be registered with the Trust’s audit department |
| Lead                    | Maternity risk management midwife |
| Tool                    | • Was a shoulder dystocia proforma completed  
|                         | • Was it filed chronologically in the health records  
|                         | • Were there any antenatal risk factors  
|                         | • Were there any intrapartum risk factors  
|                         | • Were the procedures used to assist delivery clearly documented on the proforma  
|                         | • Was the fetal position during the dystocia clearly documented on the proforma  
|                         | • Was the baby assessment after birth clearly documented on the proforma  
|                         | • Were there any actual or suspected associated neonatal injuries  
|                         | • If Yes: Was there appropriate follow up of the baby |
| Frequency               | • All health records of women who have delivered following a shoulder dystocia will be audited continuously over a 12 month period  
|                         | • All health records of newborns where there was actual or suspected brachial plexus injury, or any other injury associated with the complications of a shoulder dystocia delivery, will be audited continuously over a 12 month period |
| Reporting arrangements  | • A formal report of the results will be received annually at the maternity risk management and clinical audit forum, as per the audit plan  
|                         | • During the process of the audit if compliance is below 75% or
other deficiencies identified, this will be highlighted at the next
maternity risk management and clinical audit forum and an
action plan agreed.

| Acting on recommendations and Lead(s) | • Any deficiencies identified on the annual report will be
discussed at the maternity risk management and clinical audit
forum and an action plan developed
• Action leads will be identified and a time frame for the action to
be completed by
• The action plan will be monitored by the maternity risk
management and clinical audit forum until all actions complete |

| Change in practice and lessons to be shared | • Required changes to practice will be identified and actioned
within a time frame agreed on the action plan
• A lead member of the forum will be identified to take each
change forward where appropriate.
  • The results of the audits will be distributed to all staff
    through the risk management newsletter/audit forum as
    per the action plan |

4. **Equality and Diversity**
   4.1. This document complies with the Royal Cornwall Hospitals NHS Trust service
Equality and Diversity statement.

   **4.2. Equality Impact Assessment**
The Initial Equality Impact Assessment Screening Form is at Appendix 2.
## SHOULDER DYSTOCIA DOCUMENTATION

### Called for help at:
- **Called for help at:**
- **Emergency call via switchboard at:**

### Staff present at delivery of head:
<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Additional staff attending for delivery of the shoulders:
<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Time arrived</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Procedures used to assist delivery

<table>
<thead>
<tr>
<th>Procedures used to assist delivery</th>
<th>By whom</th>
<th>Time</th>
<th>Order</th>
<th>Details</th>
<th>Reason if not performed</th>
</tr>
</thead>
<tbody>
<tr>
<td>McRoberts’ position</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suprapubic pressure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Episiotomy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delivery of posterior arm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal rotational manoeuvre</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Description of rotation
- Routine axial (as in normal vaginal delivery)
- Other:
- Reason if not routine:

### Description of traction
- Routine axial (as in normal vaginal delivery)
- Other:

### Other manoeuvres used

- McRoberts’ position
- Suprapubic pressure
- Episiotomy
- Delivery of posterior arm
- Internal rotational manoeuvre

### Mode of delivery of the head

<table>
<thead>
<tr>
<th>Mode of delivery of the head</th>
<th>Spontaneous</th>
<th>Ventous</th>
<th>Forceps</th>
</tr>
</thead>
</table>

### Time of delivery of head

<table>
<thead>
<tr>
<th>Fetal position during dystocia</th>
<th>Head facing maternal left, left fetal shoulder anterior</th>
<th>Head facing maternal right, right fetal shoulder anterior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth weight (kg)</td>
<td>Apgar score 1 min : Art pH : Vein pH : Art BE : Vein BE :</td>
<td>Discussed with parents YES/NO</td>
</tr>
<tr>
<td>Cord gases</td>
<td>Art pH : Art BE :</td>
<td>discussed with parents YES/NO</td>
</tr>
</tbody>
</table>

### Paediatric team called?
- Yes
- Time paediatric team arrived: .................................................

### Baby assessment after birth (can be completed by a M/W) If yes to any of the questions refer to neonatal team

<table>
<thead>
<tr>
<th>Any sign of arm weakness</th>
<th>Any sign of possible bony fracture</th>
<th>Baby admitted to NNU</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes/no (circle)</td>
<td>yes/no (circle)</td>
<td>yes/no (circle)</td>
</tr>
<tr>
<td>Assessment completed by:</td>
<td>sign: date:</td>
<td></td>
</tr>
</tbody>
</table>

### Mother’s Name _______________________
- Date of birth _______________________
- Hospital Number _____________________
- Consultant _________________________
## Appendix 2. Governance Information

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Clinical guideline for the management of shoulder dystocia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Issued/Approved:</td>
<td>24th September 2012</td>
</tr>
<tr>
<td>Date Valid From:</td>
<td>24th September 2012</td>
</tr>
<tr>
<td>Date for Review:</td>
<td>1st September 2015</td>
</tr>
<tr>
<td>Directorate / Department responsible (author/owner):</td>
<td>Jan Clarkson maternity risk manager Obs and gynae directorate</td>
</tr>
<tr>
<td>Contact details:</td>
<td>01872 252270</td>
</tr>
<tr>
<td>Brief summary of contents</td>
<td>To give guidance to obstetricians and midwives on the identification and management of a shoulder dystocia and subsequent care of a baby following a shoulder dystocia</td>
</tr>
<tr>
<td>Suggested Keywords:</td>
<td>Shoulder dystocia</td>
</tr>
<tr>
<td>Target Audience</td>
<td>RCHT</td>
</tr>
<tr>
<td>Executive Director responsible for Policy:</td>
<td>Medical Director</td>
</tr>
<tr>
<td>Date revised:</td>
<td>September 2012</td>
</tr>
<tr>
<td>This document replaces (exact title of previous version):</td>
<td>Guideline for the management of shoulder dystocia</td>
</tr>
<tr>
<td>Approval route (names of committees)/consultation:</td>
<td>Maternity guidelines group Obs and gynae directorate meeting</td>
</tr>
<tr>
<td>Divisional Manager confirming approval processes</td>
<td></td>
</tr>
<tr>
<td>Name and Post Title of additional signatories</td>
<td></td>
</tr>
<tr>
<td>Signature of Executive Director giving approval</td>
<td>{Original Copy Signed}</td>
</tr>
<tr>
<td>Publication Location (refer to Policy on Policies – Approvals and Ratification):</td>
<td>Internet &amp; Intranet</td>
</tr>
<tr>
<td>Document Library Folder/Sub Folder</td>
<td>Midwifery and obstetrics</td>
</tr>
<tr>
<td>Links to key external standards</td>
<td>CNST 3.6</td>
</tr>
<tr>
<td>Related Documents:</td>
<td></td>
</tr>
</tbody>
</table>
### Version Control Table

<table>
<thead>
<tr>
<th>Date</th>
<th>Version</th>
<th>Summary of Changes</th>
<th>Changes Made by (Name and Job Title)</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 2003</td>
<td>V1.0</td>
<td>Initial document</td>
<td>Sally Budgen Delivery suite coordinator</td>
</tr>
<tr>
<td>April 2009</td>
<td>V1.1</td>
<td>Updated inline with RCOG guidance</td>
<td>Jan Clarkson Maternity risk manager</td>
</tr>
<tr>
<td>May 11</td>
<td>V1.2</td>
<td>Reviewed and compliance monitoring added</td>
<td>Jan Clarkson Maternity risk manager</td>
</tr>
<tr>
<td>September 2012</td>
<td>V1.3</td>
<td>Changes to compliance monitoring tool only</td>
<td>Jan Clarkson Maternity risk manager</td>
</tr>
</tbody>
</table>

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**All or part of this document can be released under the Freedom of Information Act 2000**

**This document is to be retained for 10 years from the date of expiry.**

**This document is only valid on the day of printing**

**Controlled Document**

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Appendix 3. Initial Equality Impact Assessment Screening Form

| Name of service, strategy, policy or project (hereafter referred to as policy) to be assessed: clinical guideline for the management of shoulder dystocia |
| Directorate and service area: Obs anf gynaec directorate | Is this a new or existing Procedure? Existing |
| Name of individual completing assessment: Jan Clarkson | Telephone: 01872 252270 |

1. Policy Aim*

To give guidance to obstetricians and midwives on the identification and management of a shoulder dystocia and subsequent care of a baby following a shoulder dystocia

2. Policy Objectives*

To ensure correct emergency procedures are followed in the case of a shoulder dystocia

3. Policy – intended Outcomes*

Best possible outcome for mother and baby in a shoulder dystocia situation

5. How will you measure the outcome?

Compliance monitoring tool

5. Who is intended to benefit from the Policy?

Pregnant women and their babies

6a. Is consultation required with the workforce, equality groups, local interest groups etc. around this policy?

b. If yes, have these groups been consulted?

c. Please list any groups who have been consulted about this procedure.

*Please see Glossary

7. The Impact

Please complete the following table using ticks. You should refer to the EA guidance notes for areas of possible impact and also the Glossary if needed.

- Where you think that the policy could have a positive impact on any of the equality group(s) like promoting equality and equal opportunities or improving relations within equality groups, tick the ‘Positive impact’ box.
- Where you think that the policy could have a negative impact on any of the equality group(s) i.e. it could disadvantage them, tick the ‘Negative impact’ box.
Where you think that the *policy* has **no impact** on any of the equality group(s) listed below i.e. it has no effect currently on equality groups, tick the 'No impact' box.

<table>
<thead>
<tr>
<th>Equality Group</th>
<th>Positive Impact</th>
<th>Negative Impact</th>
<th>No Impact</th>
<th>Reasons for decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Yes</td>
<td></td>
<td></td>
<td>All pregnant women</td>
</tr>
<tr>
<td>Disability</td>
<td>Yes</td>
<td></td>
<td></td>
<td>All pregnant women</td>
</tr>
<tr>
<td>Religion or belief</td>
<td>Yes</td>
<td></td>
<td></td>
<td>All pregnant women</td>
</tr>
<tr>
<td>Gender</td>
<td>Yes</td>
<td></td>
<td></td>
<td>All pregnant women</td>
</tr>
<tr>
<td>Transgender</td>
<td>Yes</td>
<td></td>
<td></td>
<td>All pregnant women</td>
</tr>
<tr>
<td>Pregnancy/Maternity</td>
<td>Yes</td>
<td></td>
<td></td>
<td>All pregnant women</td>
</tr>
<tr>
<td>Race</td>
<td>Yes</td>
<td></td>
<td></td>
<td>All pregnant women</td>
</tr>
<tr>
<td>Sexual Orientation</td>
<td>Yes</td>
<td></td>
<td></td>
<td>All pregnant women</td>
</tr>
<tr>
<td>Marriage / Civil Partnership</td>
<td>Yes</td>
<td></td>
<td></td>
<td>All pregnant women</td>
</tr>
</tbody>
</table>

You will need to continue to a full Equality Impact Assessment if the following have been highlighted:

- A negative impact and
- No consultation (this excludes any *policies* which have been identified as not requiring consultation).

8. If there is no evidence that the *policy* promotes equality, equal opportunities or improved relations - could it be adapted so that it does? How?

| Full statement of commitment to policy of equal opportunities is included in the policy |

Please sign and date this form.

**Keep one copy and send a copy to Matron, Equality, Diversity and Human Rights,**
c/o Royal Cornwall Hospitals NHS Trust, Human Resources Department, Chyvean House, Penventinnie Lane, Truro, Cornwall, TR1 3LJ

A summary of the results will be published on the Trust’s web site.

Signed jan clarkson

Date 4th September 2012