Shoulder Dystocia guideline (GL913)

Approval

<table>
<thead>
<tr>
<th>Approval Group</th>
<th>Job Title, Chair of Committee</th>
<th>Date</th>
</tr>
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<tbody>
<tr>
<td>Maternity &amp; Children’s Services Clinical Governance Committee</td>
<td>Chair, Maternity Clinical Governance Committee</td>
<td>1st September 2017</td>
</tr>
</tbody>
</table>

Change History

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Author, job title</th>
<th>Reason</th>
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<tr>
<td>5.0</td>
<td>Feb 2012</td>
<td>Dr V Marsden, P Street</td>
<td>Review due</td>
</tr>
<tr>
<td>5.1</td>
<td>May 2012</td>
<td>P Street (Consultant Obstetrician)</td>
<td>RCOG flowchart added</td>
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<td>5.2</td>
<td>Oct 2013</td>
<td>N Benns (Maternity Clinical Risk Manager)</td>
<td>Shoulder dystocia proforma changed</td>
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<td>N Benns, P Street</td>
<td>Review due and report form amended</td>
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<tr>
<td>6.1</td>
<td>March 2016</td>
<td>N Benns (Clinical Risk Mngr), S Sengupta (Consultant Obstetrician)</td>
<td>Pg 6 – Updated proforma</td>
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<td>S Fleming, William Mania</td>
<td>Reviewed – amended to reflect current practice which has changed since last review</td>
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**Overview:** Shoulder dystocia is defined as failure of the fetal shoulders to spontaneously traverse the maternal pelvis after delivery of the fetal head and is recognised by either difficult delivery of face and chin, the head retracting into or tightly applied to the vulva, failure of head restitution or failure of the shoulders to descend after standard axial traction has been applied.

Shoulder dystocia occurs most commonly when the anterior fetal shoulder impacts on the maternal symphysis pubis, but can involve the posterior shoulder impacting upon the maternal sacral promontory. Incidence in the UK is 0.6%.

When managed appropriately there is still significant perinatal mortality and morbidity associated with shoulder dystocia (cerebral hypoxia, cerebral palsy, fracture clavicle/humerus, brachial plexus injury), plus increased maternal morbidity including postpartum haemorrhage (11%) and forth degree perineal tears (3.8%).

Fetal brachial plexus injuries (Erb’s palsy, Klumpke’s paralysis) complicate 4-16% of deliveries complicated by shoulder dystocia with less than 10% resulting in permanent disability. This is the most common cause for litigation in relation to shoulder dystocia and the incidence of brachial plexus injury in the UK is 1 in 2300 live births. Both excess downwards traction and maternal expulsive efforts contribute to causing these injuries.

Factors associated with shoulder dystocia can be split into antenatal and intrapartum

**Antenatal:**
- Previous shoulder dystocia (reoccurrence 1-16%)
- Suspected macrosomia (although 48% of shoulder dystocia occurs in babies less than 4000g. Fetal weight estimation has about 10% error margin)
- Diabetes
- Maternal BMI>30kg/m²
- Induction of labour

**Intrapartum:**
- Prolonged first stage
- Secondary arrest and prolonged second stage
- Instrumental delivery
- Oxytocin augmentation
Management of shoulder dystocia

1) Recognition of shoulder dystocia
Timely management of shoulder dystocia requires prompt recognition, the birth attendant should routinely observe for:
- Difficult delivery of face and chin
- The head remaining tightly applied to the vulva or even retracting
- Failure of restitution of fetal head
- Failure of shoulders to descend

Routine traction in the axial direction (traction in line with the fetal spine) can be used to diagnose shoulder dystocia but any other traction should be avoided.

2) Call for help and declare the emergency (declaring the emergency early has been associated with improvement in outcomes in shoulder dystocia)
- On the delivery suite pull the emergency bell and consider putting out a Neonatal emergency call
- On Rushey or Iffley Ward pull the emergency bell and put out an Obstetric and Neonatal emergency call
- In the home call 999 and request 2 TIME CRITICAL, DUAL PARMEDIC ambulances if rotation to all fours, McRoberts and supra pubic pressure fail.

In the unit help/assistance is required from an Obstetrician, Senior Midwife, Neonatologist and a scribe, with additional support from midwives or MCA / MSW. A minimum of 6 appropriately trained staff is required.

3) Assist the woman into the McRoberts position
   a. Lie the woman flat, remove any pillows
   b. With one assistant either side hyperflex the woman’s legs, knee to chest and rotated outwards. If mother was in lithotomy at time of delivery of the fetal head then her legs should be brought down together then sharply flexed, abducted (knees to chest) and rotated outwards.
   c. Routine traction (the same degree of traction used during a normal delivery) in the axial direction should be used to assess whether shoulders have been released.
4) **Suprapubic pressure with McRoberts’**
   a. Suprapubic pressure is applied by assistant on the same side as the fetal back in a downward and lateral direction using a cardiac massage grip just above the maternal symphysis pubis
   b. Only one routine traction should be applied to assess if shoulder has been released

5) **Consider episiotomy to aid access for internal manoeuvres**

6) **Delivery of Posterior arm or other Internal manoeuvres, or all-fours position** – Any of these options can be tried next dependant on clinical circumstance and operator experience. The individual circumstances should guide the healthcare professional as to whether to try the all-fours position before or after attempting internal rotation and delivery of the posterior arm. The all fours position is a useful option in the community setting.
   - Access for internal manoeuvres should be gained by inserting the whole hand into the sacral hollow.
   - The woman should be brought to the end of the bed, or the end of the bed removed.

**Delivery of the posterior arm**
   - The fetal wrist should be grasped and the posterior arm should be gently withdrawn from the vagina in a straight line.

**Internal rotational manoeuvres**
   - Press on the anterior or posterior aspect of the posterior shoulder.
   - Rotate the shoulders into the oblique
   - If unsuccessful apply pressure on the posterior aspect of the anterior shoulder to adduct and rotate the shoulders into the oblique diameter.

7) **If all the described manoeuvres fail to release the impacted shoulder consider the fours position if appropriate or repeat all the manoeuvres again.**

8) **If the shoulder remains impacted try Cleidotomy, Zavanelli manoeuvre or Symphysiotomy**
9) **Management of the woman and baby after shoulder dystocia**

Birth attendants should be aware of the increased possibility of:
- Postpartum haemorrhage
- Severe perineal tears
- The need for neonatal resuscitation
- Fetal injury (brachial plexus injury, fractures, pneumothoraces and hypoxic brain damage)

10) **Records**

- **Record details into maternal and neonatal records**
- Detail delivery in the neonatal record and any signs of limb weakness so that this can be checked at the first neonatal examination
- Fill out shoulder dystocia report form found on Datix under stationery.
- Complete a clinical incident form and enter its number onto the shoulder dystocia report form.
- The report form & incident form allows shoulder dystocia deliveries to be easily identified and follow up of both mother and baby.
- Information on the shoulder dystocia report form includes all the maternal details, together with times of and manoeuvres used, apgars, birth weight, cord gases and evidence of fractures or limb weakness.
- The report form should be signed and dated by person completing it.
- The **original** report form should be placed in the intrapartum section of the maternal health record. A copy to be left in top drawer of ward clerks’ desk.
- The report form will be used to continuously audit these deliveries, and to report quarterly to the audit forum/clinical governance committee. This will also provide the paediatric team to follow an accessible form of data, when following up babies with suspected or actual limb/brachial plexus injury.

All cases of suspected brachial plexus injury or fracture will be discussed at Maternity Clinical Risk committee and reported to the Head of Legal Services.

### Maintaining Standards of Practice

All staff in attendance to births must have yearly training in obstetric emergencies including shoulder dystocia. This can be in the form of unit run skills drills, PROMPT and/or...
ALSO/MOET course. Evidence of attendance will be required as detailed in the Maternity Training Needs Analysis.

**Review of neonate**

In cases where there has been shoulder dystocia, if there is suspected or actual brachial plexus injury to the neonate, the neonate should be referred by the paediatrician to the Orthopaedic Department & Orthopaedic Physiotherapist.

**References:**


**Auditable standards:**

1. Risks factors for shoulder dystocia, if present, will be identified and documented in the shoulder dystocia report form for all cases of shoulder dystocia. *(it should be: in the antenatal / intrapartum risk assessment)*

2. Shoulder dystocias will be managed systematically as stated in guideline.

3. The shoulder dystocia report form will be fully completed and filed in the intrapartum section of the maternal healthcare record.

4. In all cases of shoulder dystocia where there is actual or suspected brachial plexus injury or any other injury associated with the complications of the delivery, the neonate will be referred to the Orthopaedic department & orthopaedic physiotherapist or any other paediatric specialist.
## Appendix 1 – Shoulder dystocia report form

### Shoulder Dystocia Report Form

<table>
<thead>
<tr>
<th>Name of patient</th>
<th>Hospital No</th>
<th>Date</th>
<th>Incident No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place of birth:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFS □ Matthere □ Rushley □ Home □ Other □</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mode of del:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SVD □ AVD □</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gestation:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Premio □ Multi □</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labour:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sport □ Augmented □ IOL □ PG2 □ ARM □ Synto □</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None □ BMI &lt;35 □ Diabetes □ Prev baby &gt;4kg □ Prev Sh/dystocia □</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Help Called at:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency call to Switch at:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Staff

<table>
<thead>
<tr>
<th>Name</th>
<th>Design</th>
<th>Time of arrival</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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### Manoeuvre

<table>
<thead>
<tr>
<th>Order</th>
<th>Time</th>
<th>By Whom</th>
<th>Reason if not performed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Procedure used to assist delivery

<table>
<thead>
<tr>
<th>Perineal Trauma:</th>
<th>1st deg □ 2nd deg □ 3rd deg □ 4th deg □ Episotomy □</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of labour:</td>
<td>1st stage: □ 2nd stage: □</td>
</tr>
<tr>
<td>Time of Del of head:</td>
<td>Time of del of baby: □ Head to body interval: min(s)</td>
</tr>
<tr>
<td>Fetal Position during dystocia:</td>
<td>Head facing maternal LEFT □ RIGHT □</td>
</tr>
<tr>
<td>Birth weight:</td>
<td>kgs □ Appx: 1 min □ 5 min □ 10 min(s)</td>
</tr>
<tr>
<td>Failed cord gases:</td>
<td>pH: □ BE: □ pHa: □ BE: □</td>
</tr>
</tbody>
</table>

### Baby examined by:

| Arm weakness: | Yes □ No □ L or R □ |
| Sign of fracture: | Yes □ No □ L or R □ |
| Baby admitted to NICU: | Yes □ No □ |
| Discussion with parents: | Yes □ No □ By whom |

### Outcome

<table>
<thead>
<tr>
<th>Name of person completing form:</th>
<th>Signature:</th>
<th>Designation:</th>
</tr>
</thead>
</table>

Please photocopy, place original tool to delivery summary in maternal notes. Copy in top drawer of midwifery desk in D Suite.

**Shoulde Dystocia Report (NBPS) March 2016, Sept 2017**

**Ref: RCOG, 2012**

**Review date: September 2019**

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Author: William Mania, Sam Fleming

Job Title: Practice Development MW

Policy Lead: Group Director Urgent Care

Location: Policy hub/ Clinical/ Maternity/ Intrapartum/ GL913

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Appendix 2 – RCOG GTG 42 flowchart

Algorithm for the management of Shoulder Dystocia

CALL FOR HELP
Midwife Coordinator, additional midwifery help, experienced obstetrician, neonatal team and anaesthetist

Discourage pushing
Lie flat and move buttocks to edge of bed

McROBERTS' MANOEUVRE
(Thighs to abdomen)

SUPRAPUBIC PRESSURE
(and routine axial traction)

Consider episiotomy if it will make internal manoeuvres easier
Try either manoeuvre first depending on clinical circumstances and operator experience

DELIVER POSTERIOR ARM
INTERNAL ROTATIONAL MANOEUVRES

Inform consultant obstetrician and anaesthetist

If above manoeuvres fail to release impacted shoulders, consider
ALL FOURS POSITION (if appropriate)
OR
Repeat all the above again

Consider clidotomy, Zavanelli manoeuvre or symphysiotomy

Baby to be reviewed by neonatologist after birth and referred for Consultant Neonatal review if any concerns

DOCUMENT ALL ACTIONS ON PROFORMA AND COMPLETE CLINICAL INCIDENT REPORTING FORM.