Royal Berkshire NHS
NHS Foundation Trust

Shoulder Dystocia guideline (GL913)

Approval

Approval Group	Job Title, Chair of Committee	Date
Maternity & Children's Services Clinical Governance Committee	Chair, Maternity Clinical Governance Committee	3rd October 2014

Change History

Version	Date	Author, job title	Reason
5.0	Feb 2012	Dr V Marsden, P Street	Review due
5.1	May 2012	P Street (Consultant Obstetrician)	RCOG flowchart added
5.2	Oct 2013	N Benns (Maternity Clinical Risk Manager)	Shoulder dystocia proforma changed
6.0	May 2014	N Benns, P Street	Review due and report form amended
6.1	March 2016	N Benns (Clinical Risk Mngr), S Sengupta (Consultant Obstetrician)	Pg 6 – Updated proforma

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 downward 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
- Syntocinon augmentation

Management of shoulder dystocia (HELPPERRR)

H Call for help. Push emergency button, ask for experienced obstetrician, paediatrician, plus additional midwifery support staff. Each member of staff should be allocated a role. Remember to ask someone to time events and someone to scribe.

E Evaluate for episiotomy. Will episiotomy allow greater access for manoeuvres required? If yes, an episiotomy may be performed. The mother should be laid flat with bottom at edge of the bed. Expulsive efforts should be stopped.

L Legs: McRobert's manoeuvre. 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. Legs supported by one person each side. Moderate traction should be applied to fetal head.

P Suprapubic pressure should be applied in order to adduct and internally rotate the anterior shoulder. Pressure should be applied from the side of the fetal back, and using a cardiac massage grip, pressure is applied to the posterior aspect of the shoulder with the heel of the hand. Traction is again applied to the fetal head.

P If constant pressure is unsuccessful then a rocking movement can be tried. (*Rubin 1* manoeuvre)

E Enter vagina. The hand of the operator should be passed to the fetal axilla and posterior shoulder hooked down. This should bring the posterior arm within reach and should be delivered by sweeping it across the fetal chest and face.

R Rotatory manoeuvres. *Rubin 2* operator inserts fingers of one hand into maternal vagina and positions fingertips behind anterior fetal shoulder; this is then pushed towards the fetal chest. If successful this adducts the shoulder and rotates the bisacromial diameter into the oblique. If unsuccessful *Rubin 2* should be combined with *Woods' screw* manoeuvre, where the fingers of the opposite hand are inserted vaginally and positions fingertips in front of the posterior fetal shoulder. The aim is to rotate the shoulder towards the symphysis pubis. Combining the two manoeuvres should rotate the shoulders 180 degrees. DO NOT TWIST THE FETAL HEAD OR NECK.

R Roll mother onto all fours position (*Gaskin'* manoeuvre) and repeat manoeuvres.

R 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 and obstetric emergency study day 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:

1. Confidential Enquiry into Stillbirths and Deaths in Infancy. (1998). 5th Annual Report. London: Maternal and Child Health Research Consortium. Available at: www.cemach.org.uk
2. Confidential Enquiry into Stillbirths and Deaths in Infancy. (1999). 6th Annual Report. London: Maternal and Child Health Research Consortium. Available at: www.cemach.org.uk
3. King's Fund. (2008). Safe Births: Everybody's business – Independent Inquiry into the Safety of Maternity Services in England. London: King's Fund. Available at: www.kingsfund.org.uk
4. Royal College of Anaesthetists, Royal College of Midwives, Royal College of Obstetricians and Gynaecologists, Royal College of Paediatrics and Child Health. (2007). Safer Childbirth: Minimum Standards for the Organisation and Delivery of Care in Labour. London. RCOG Press. Available at: www.rcog.org.uk
5. Royal College of Obstetricians and gynaecologists, Royal College of Anaesthetists, Royal College of Midwives, Royal College of Paediatrics and Child Health. (2008). Standards for Maternity Care: Report of a Working Party. London: RCOG Press. Available at: www.rcog.org.uk
6. Royal College of Obstetricians and Gynaecologists. (2005). Shoulder Dystocia. Guideline number 42. London: RCOG. Available at: www.rcog.org.uk.

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

Royal Berkshire Hospital Foundation Trust - Maternity
Shoulder Dystocia Report Form

Situation	**Name of patient**	**Hospital No**	**Date**	**Incident No**
	Place of birth: D/S ☐ Mat theatre ☐ Rushey ☐ Home☐ Other ☐			
	Mode of del: SVD ☐ AVD ☐	**Gestation:**	Primip ☐ Multip ☐	
	Labour: Spont ☐ Augmented ☐ IOL ☐ PG2 ☐ ARM ☐ Synto ☐			
	History: None ☐ BMI >35 ☐ Diabetes ☐ Prev baby >4kgs ☐ Prev Sh/dystocia ☐			
	H **Help Called at:**	**Emergency call to Switch at:**		

Staffing	**Staff**	**Name**	**Desig**	**Time of arrival**
	Person conducting del			
	Most senior Midwife			
	Most senior obstetrician			
	Neonatologist/ANNP *(if not called or did not attend give reason)*			
	Scribe			

Procedure used to assist delivery	**Manoeuvre**	**Order**	**Time**	**By Whom**	**Reason if not performed**
E	Episiotomy				
L	McRoberts' position				Leg Right Leg
P	Suprapubic pressure				From maternal L or R
P	Suprapubic rocking				From maternal L or R
E	Delivery of post arm				
R	Description of Internal rotation				
	Description of traction				
R	All Fours				

Outcome						
	Perineal Trauma: Intact ☐ 1st deg ☐ 2nd deg ☐ 3rd deg ☐ 4th deg ☐ Episiotomy ☐					
	Length of labour:	1st stage		2nd stage		
	Time of Del of head:	**Time of del of baby:**		**Head to body interval:** mins		
	Fetal Position during dystocia	Head facing maternal **LEFT** **LEFT** fetal shoulder anterior ☐		Head facing maternal **RIGHT** **RIGHT** fetal shoulder anterior ☐		
	Birth weight: kgs	Apgars: 1 min: 5 mins: 10 mins:				
	Paired cord gases	pHv:	BE:	pHa:	BE:	
	Baby examined by: Arm weakness Sign of fracture Baby admitted to NICU	 Yes Yes Yes	 No No No	 L or R L or R	**If yes to any of these questions for review & follow up by a neonatologist**	
	Discussion with parents	Yes	No	By whom		

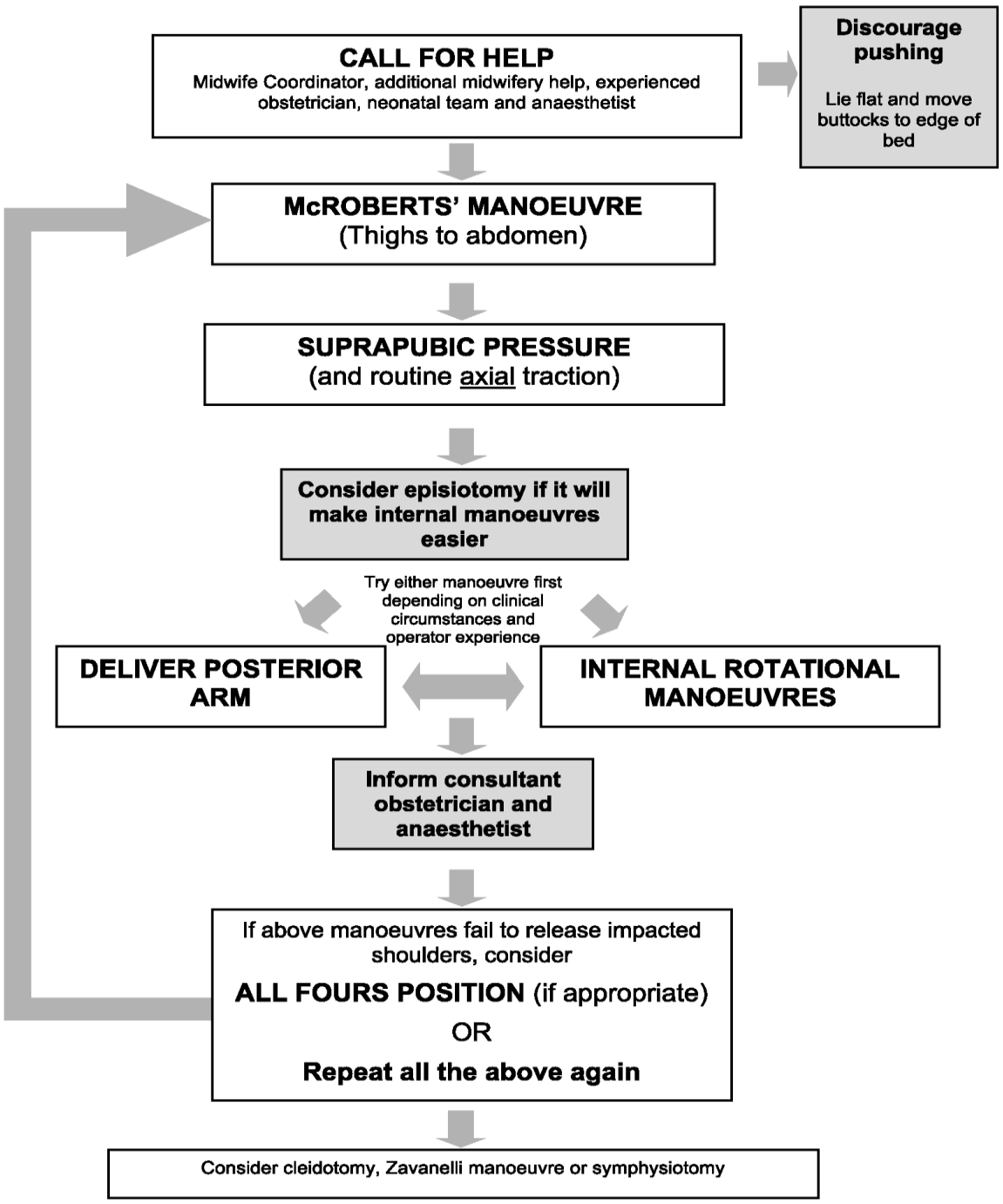
Name of person completing form: Signature Designation

Please photocopy: place original next to delivery summary in maternal notes. Copy in top drawer of ward clerk's desk in D/Suite

Shoulder Dystocia Report (NB/PS) March 2016 Ref RCOG, 2012
Review date: March 2018

Appendix 2 – RCOG GTG 42 flowchart

Algorithm for the management of Shoulder Dystocia



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.

Author:	Sunetra Sengupta, N Benns	Date:	March 2016
Job Title:	Consultant Obstetrician, Mat Clinical risk Manager	Review Date:	October 2016
Policy Lead:	Group Director Urgent Care	Version:	6.1 March 2016 6.0 ratified 3rd Oct 2014 Mat CG mtg
Location:	Policy hub/ Clinical/ Maternity/ Intrapartum/ GL913		