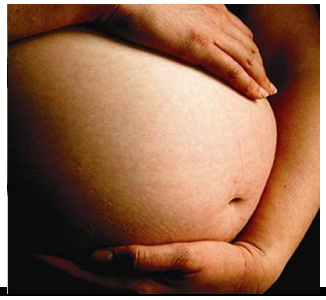
Plymouth Hospitals NHS
NHS Trust

Intrapartum Guidelines



No. 28 Shoulder Dystocia

1. Background

Shoulder Dystocia is defined as a delivery that requires anything other than normal manoeuvres i.e. additional obstetric manoeuvres to release the shoulders after gentle downward traction has failed.

2. Identification of factors associated with SD

Table 1: Factors associated with shoulder dystocia

Pre-labour	*Intrapartum*
Previous shoulder dystocia	Prolonged 1st stage of labour
Macrosomia	Secondary arrest
Diabetes mellitus	Prolonged 2nd stage of labour
Maternal BMI >30 kg/m^2.	Oxytocin augmentation
Induction of labour	Assisted vaginal delivery

In the event that a patient presents within the antenatal period with any of the above risk factors, this must be documented accordingly within the Pregnancy Notes and a management plan included.
High-risk cases are those described in Table 1. An experienced obstetrician that is on the 2nd tier of an on call-rota should be available on the labour ward for the 2nd stage of labour when shoulder dystocia is anticipated. However, it is recognised that not all cases can be anticipated therefore all birth attendants should be conversant with the techniques required to facilitate delivery complicated by shoulder dystocia

Timely management of shoulder dystocia requires prompt recognition. 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.

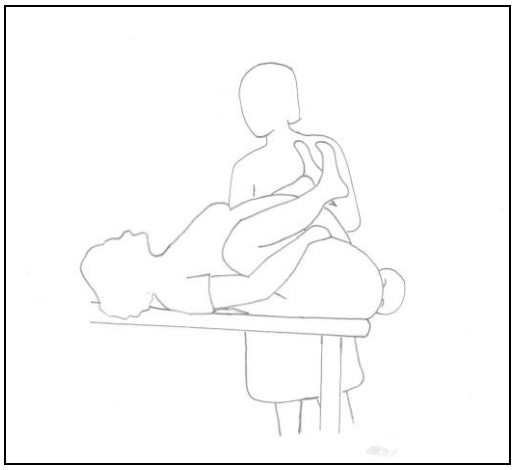
3. Emergency Management of Shoulder Dystocia

Help should be summoned immediately.

- In a hospital setting summon assistance by pulling the emergency call bell (if in maternity theatres, use the call bell behind the resuscitaire.

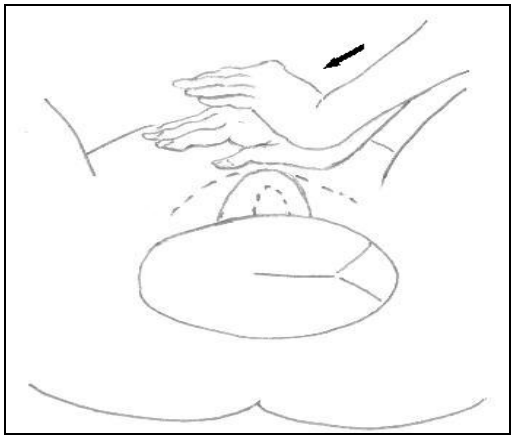
- To place an obstetric emergency call and request further midwifery assistance, obstetrician and anaesthetist call **2222**.
- The neonatal resuscitation team are also requested via **2222**.
- In a community setting, dial 999. Inform labour ward (01752 430993).
- Follow Proforma (see appendix 1) and document times accordingly.

McRoberts' manoeuvre As a first line of management, changing the maternal position can be an effective method of overcoming shoulder dystocia.
The McRoberts' Manoeuvre is the preferred position over left lateral, and increases the pelvic diameters.



Lie mother supine (back rest flattened). If at home, use bed, sofa or chair. Flex and abduct maternal thighs to increase the functional pelvic diameters. Apply downward/ backward traction to the baby's head which should deliver the impacted shoulder (avoid excessive lateral traction on the fetal head).

Suprapubic pressure can be employed together with McRoberts' manoeuvre to improve success rates.



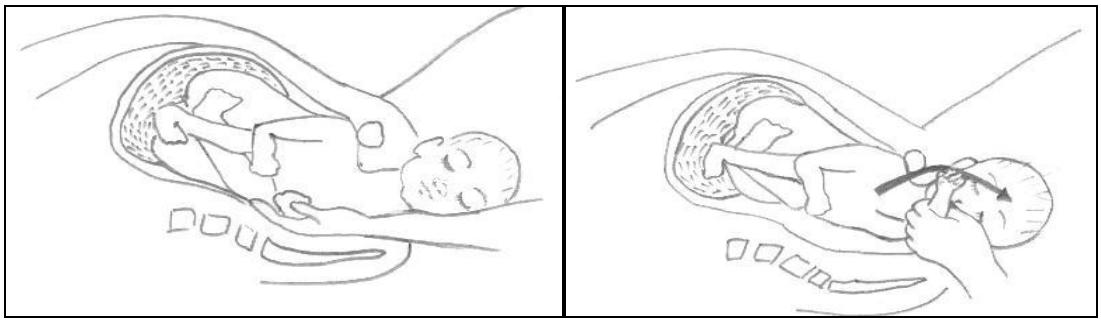
External manual supra pubic pressure can be applied by the delivering midwife, but, is more commonly applied by an assistant standing on the side of the fetal back and using the heel of the hand over the posterior aspect of the anterior shoulder presses down and forward to decrease the shoulder diameter to assist in the rotation of the shoulders into the larger oblique diameter. ***Ask the mother not to push (if necessary give Entonox to breathe) until shoulder displacement is achieved.***

NB: Supra pubic pressure should be applied in between contractions.

Episiotomy
Consider an episiotomy. This issue has proved contentious, but the rationale is not to expedite delivery, but facilitate room to perform the necessary internal manoeuvres. Perform abdominal palpation to determine where the fetal back lies.

Internal manipulation

If these simple measures (McRoberts' & suprapubic pressure) fail, internal manipulation manoeuvres must be commenced. The end of the delivery bed should be removed and the woman encouraged to bring her buttocks to the edge to assist the accoucher with manoeuvres. There is no advantage between **delivery of the posterior arm** and **internal rotation manoeuvres to deliver the anterior shoulder** and therefore clinical judgement and experience can be used to decide their order**.**



Enter the vagina posteriorly i.e. at 5 o'clock or 7 o'clock dependant on where the fetal back lies. During the internal procedures it ***may be*** helpful to stop the woman pushing to enable you to carry out disimpaction of the shoulder. The aim is to rotate the fetal shoulders out of the narrow anterior-posterior diameter into the oblique or transverse diameters. The internal manoeuvres may be adopted in any sequence. If one manoeuvre fails, move on to the next one.

Consider:

- **Rubin 2**

Apply internal manual pressure on the posterior aspect of the anterior shoulder, creating enough force to rotate the foetus into an oblique position.

- **Wood Screw Manoeuvre**

Apply pressure to posterior aspect of anterior shoulder and insert second hand to apply pressure to the anterior aspect of the posterior shoulder and attempt further rotation. Continue to rotate shoulder further round to become anterior.

- **Reverse wood screw manoeuvre.**

Apply pressure to posterior aspect of posterior shoulder & rotate.

'All fours' position
Placing the woman in the 'all fours' position i.e. hands and knees, may dislodge the anterior shoulder and facilitate delivery. The all fours position offers evenly distributed weight on all four limbs and maximises the pelvic diameters when adequate room is available along the curve of the sacrum to allow a hand to be inserted up to the fetal waist to deliver the posterior shoulder or arm.

Third line manoeuvres
Symphysiotomy and Zavanelli require careful consideration to avoid unnecessary maternal morbidity and mortality.

4. Contra-indicated manoeuvres

Fundal pressure should not be used for the treatment of shoulder dystocia it is associated with an unacceptably high neonatal complication rate and may result in uterine rupture.

Maternal pushing should be discouraged as it may lead to further impaction of the shoulders thereby exacerbating the situation.

5. Management

- One person should be instructed to keep accurate records.
- Documentation is always extremely important, especially so in cases where shoulder dystocia has occurred.
    - Cord gases must be obtained
- Communication with the woman and her birth attendant is vital. Briefly & clearly explain to her the different manoeuvres adopted to help deliver the shoulder at the time of occurrence. In depth de-briefing is required after delivery.

6. After delivery

After a shoulder dystocia delivery, it is important to remember that the Mother is at increased risk of:-

- PPH
- Vaginal lacerations, and
- Haematoma

Baby to be examined by a paediatrician and observed for asphyxia & suspected injuries

- Cord blood samples **must** be taken for blood gases
- Observe for:
- Brachial plexus injury
- Fractured clavicle and/or
- Fractured ribs
- Fractured humorous.

In cases of suspected or confirmed brachial plexus injury the baby should be reviewed by the consultant paediatrician.

7. Documentation and record keeping

It is expected that every episode of care be recorded clearly, in chronological order and as contemporaneously as possible by all healthcare professionals as per Hospital Trust Policy. This is in keeping with standards set by professional colleges, i.e. NMC and RCOG.
All entries must have the **date and time** together with **signature and printed name.**

The green shoulder dystocia proforma (see appendix 1) must be completed by the lead clinician (midwife or obstetrician) together with accurate and contemporaneous record keeping of the delivery in the patient notes.

It is important to record all sections of the proforma accurately and particularly:

- The time of delivery of the head
- The direction the head is facing after restitution
- The manoeuvres performed, their timing and sequence

- The time of delivery of the body
- The staff in attendance and their arrival time
- Condition of the baby at delivery (Apgar score)
- Umbilical cord blood acid-base measurement

The incident must be reported via the Trust Datix risk management process. As part of the risk management process, the neonatal notes together with maternal notes will be reviewed to ensure any on-going problems are appropriately managed and all cases of shoulder dystocia are subjected to continuous audit.

8. Management of newborn with suspected/actual injury

Please refer to neonatal guideline: Brachial plexus traction injuries

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Flow chart for management of shoulder dystocia

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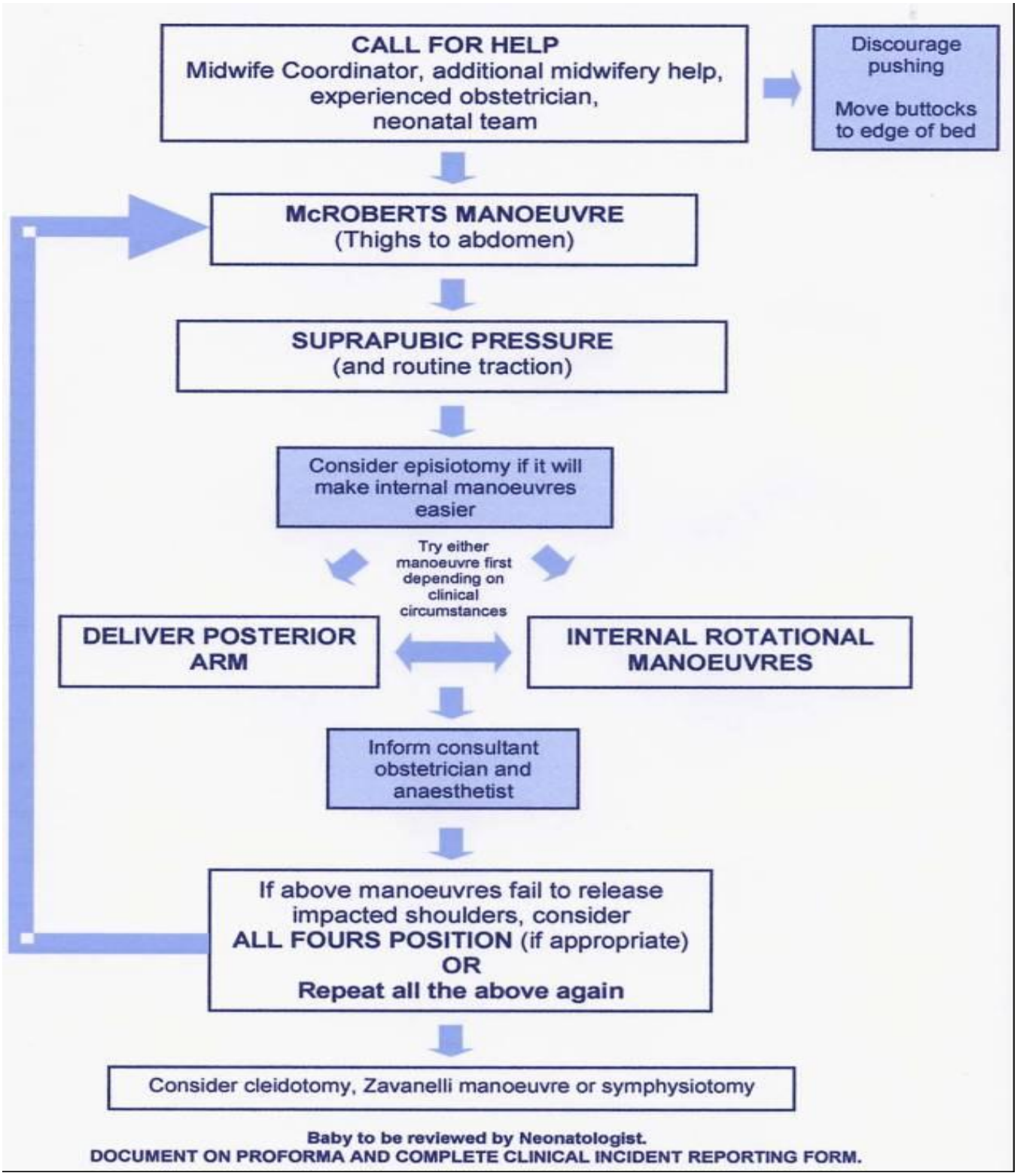

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Shoulder Dystocia Documentation

Consultant:……
Date:……
Time: ……

Mother's Name:……
Date of Birth:……
Hospital Number:……
NHS Number ……..

Called for help at:		Emergency call via switchboard **2222** at:		
Staff present at delivery of head		Additional staff attending for delivery of shoulders		
Name	Role	Name	Role	Time arrived

Procedures used to assist delivery	By whom	Time	Order	Details	Reason if not performed
McRoberts' position					
Suprapubic pressure					
Episiotomy				Enough access/tear present/already performed (circle as appropriate)	
Delivery of posterior arm				Right/Left arm (circle as appropriate)	
Internal rotational manoeuvre					
Description of rotation					
Description of traction	Routine axial (as in normal vaginal delivery)	Other -	Reason if not routine axial:		
Other manoeuvres used					

Mode of delivery of head	Spontaneous		Instrumental – vacuum/forceps	
Time of delivery		Time of delivery of baby	Head-to-body delivery interval	
Fetal position during dystocia	Head facing maternal left Left fetal shoulder anterior		Head facing maternal right Right fetal shoulder anterior	
Birth weight Kg	Apgar	1 min:	5 mins:	10 mins:
Cord gases	Art pH:	Art BE:	Venous pH:	Venous BE:
Explanation to parents	Yes	By:	AIMS form completed	Yes

Neonatologist called? Yes Neonatologist arrived:……
Name:……
If neonatologist not called or didn't arrive, give reason:……

Baby assessment after birth (maybe done by MW):			
Any sign of arm weakness?	Yes	No	If yes to any of these questions for review and follow up by consultant neonatologist
Any sign of potential bony fracture?	Yes	No	
Baby admitted to Neonatal Intensive Care Unit?	Yes	No	
Assessment by……			

Person Completing form:……Designation:…… Signature:

Monitoring and Audit

Auditable standards:
Process of using proforma with RCOG minimum data set
Follow-up of newborn where there is actual / suspected brachial plexus injury

Please refer to audit tool, location: 'Maternity on cl2-file11', Guidelines

Reports to:
Clinical Effectiveness Committee – responsible for action plan and implementation of recommendations from audit

Frequency of audit:
Continuous

Responsible person:
CDS Manager

Training requirements

Audit of training needs compliance – please refer to TNA policy

Training needs analysis:
Please refer to 'Training Needs Analysis' guideline together with training attendance database for all staff

Cross references

Antenatal Guideline 31 - Maternity Hand Held Notes, Hospital Records and Record Keeping

Antenatal Guideline 44 – Guideline development within the maternity services

References

Royal College of Obstetricians and Gynaecologists (RCOG) 2012, evidenced based guideline no 42 **Shoulder Dystocia,** RCOG London (authors Draycott, Fox & Montague**)**

Author	Guideline Committee		
Work Address	Maternity Unit, Derriford Hospital, Plymouth, Devon, PL6 8DH		
Version	6		
Changes	Change of emergency number from 3333 to 2222 Additional information re emergency measures		
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