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## Shoulder Dystocia Policy

Hutt Maternity Policies provide guidance for the midwives and medical staff working in Hutt Maternity Services. Please discuss policies relevant to your care with your Lead Maternity Carer.

### **Purpose**

The purpose of this policy is to

- establish a local approach to care that is evidence based
- inform good decision making
- provide safe and consistent care to women presenting with shoulder dystocia and their babies

### **Scope**

- Obstetric staff employed by the Hutt Valley DHB
- Midwifery staff employed by the Hutt Valley DHB
- Hutt Valley DHB maternity access agreement holders.
- Anaesthetic staff
- Neonatal staff

### **Definitions**

#### **Shoulder Dystocia**

Shoulder Dystocia is when additional manoeuvres are required to complete the delivery of the baby. The anterior shoulder impacts on the maternal symphysis pubis /the posterior shoulder impacts on the sacral promontory (Draycott, T., Winter, C et al, 2008)

### **Risks**

#### **Maternal**

Soft tissue injury  
Third and fourth degree tears  
Postpartum haemorrhage  
Uterine rupture  
Psychological stress

#### **Foetal**

Brachial plexus injuries  
Clavicular fractures/ damage to the humerus  
Hypoxia  
Death

## **Risk Assessment**

Women with known antenatal risk factors should have a well-documented care plan. Practitioners should follow the guidelines as per Section 88 and refer such women for consultation as appropriate. Appendix 1 describes the referral criteria for shoulder dystocia.

## **Risk factors for Shoulder Dystocia**

### **Antenatal**

- Any maternal diabetes
- Foetal macrosomia due to different body shape of babies.
- Maternal obesity
- Previous shoulder dystocia

### **Intrapartum**

- Instrumental vaginal delivery
- Labour dystocia in the first and second stage
- Head bobbing during the second stage

However in a many cases there are no known risk factors so practitioners must be alert and recognise shoulder dystocia when it occurs. Shoulder dystocia is therefore an unpredictable and an unpreventable event (Draycott, Winter et al, 2008).

## **Recognition**

Shoulder dystocia is recognised when the head is born and then retracts up against the perineum and an initial attempt to deliver the baby is unsuccessful.

## **Management**

### **1. Call for help**

Ring 777 and state this is a **CODE 2 EMERGENCY**: **shoulder dystocia, delivery suite and room number.**

Note the time the baby's head was delivered.

### **2. McRoberts Position**

At this time the woman's legs should be placed in the McRoberts position. Research has shown that the use of McRoberts alone relieves shoulder dystocia in 40 – 90% percent of cases (RCOG, 2008).

- Flatten the bed this includes removing any pillows.
- Move the woman to the edge of the bed, to make vaginal access easier
- Flex the maternal thighs up onto the maternal abdomen, thereby abducting the legs at the hip joint.

Women who are on their hands and knees can assume this position by assuming a knee to chest position.

The McRoberts position achieves the following:

- Simulates a squat position and thereby increasing the inlet diameter

- Flexes the fetal spine which may push the posterior shoulder over the sacral promontory allowing it to fall into the hollow of the sacrum.

**NB: McRoberts is not lithotomy.**

### 3. Supra pubic Pressure

External pressure can then be applied while attempts are made to deliver the baby. This manoeuvre is sometimes known as the Rubins 1 manoeuvre. Pressure should be applied from the side of the foetal back over the posterior aspect of the anterior fetal shoulder.

The woman remains in the McRoberts position and an assistant applies pressure:

- A. Hands should be in a 'CPR' type grip.
- B. Pressure should be in a **downward** and **lateral** direction
- C. There is no evidence to support an optimal length of time for this or whether rocking is more successful than continuous pressure. Aim is to continue manoeuvres if not successful. (RCOG, 2007).

It is hoped that these manoeuvres will adduct the fetal shoulder and allow it to pass under the symphysis.

### 4. Internal manoeuvres

Enter the vagina posteriorly the space in the pelvis is in the sacral hollow; therefore vaginal access should be gained posteriorly into the sacral hollow. To access the sacral hollow scrunch your hand up (as if you are putting on a tight bracelet, performing a manual removal of a placenta or wanting to reach the last Pringle in the packet) and enter the pelvis posteriorly. Internal rotation or delivery of the posterior arm can be attempted once access into the vagina has been gained with the whole hand.

Remember to ask for suprapubic pressure to be stopped whilst you gain internal vaginal access

#### Correct Vaginal Access



(Draycott, T., Winter, C., Crofts, J. & Barnfield, S. 2008 p. 109)

### **Delivery of the posterior arm**

Delivery of the posterior arm will reduce the diameter of the foetal shoulders by the width of the arm. This will usually provide enough room to resolve the shoulder dystocia.

Often babies lie with their arms flexed across their chest, as you enter the pelvis posteriorly and you will therefore encounter the fetal hand and forearm of the posterior arm. In this case take hold of foetal wrist (with your fingers and thumb) and gently pull the posterior arm out in a straight line. Once the posterior arm is delivered apply gentle traction to the foetal head, if the shoulder dystocia has resolved the baby should be easily delivered.

However, if despite delivering the posterior arm, the shoulder dystocia has not resolved support the head and posterior arm and gently rotate the baby through 180°. The posterior shoulder will become the new anterior shoulder and will be below the symphysis pubis resolving the dystocia.

If the baby is lying with a straight, rather than a flexed, posterior arm, the posterior arm will be much more difficult to deliver. In this situation it may be easier to perform internal rotational manoeuvres instead. To deliver a straight posterior arm, the arm needs to be flexed so that the wrist can be grasped. Follow the straight posterior arm down to the elbow. Place your thumb in the antecubital fossa and apply pressure with your fingers to the back of the forearm just below the elbow. This should flex the posterior arm. The wrist can then be reached and the arm delivered as previously described. If you can not reach the wrist, do not simply pull on the upper arm; this is likely to result in a humeral fracture.

(Draycott, T. Winter, C., Crofts, J. & Barnfield, S. 2008)

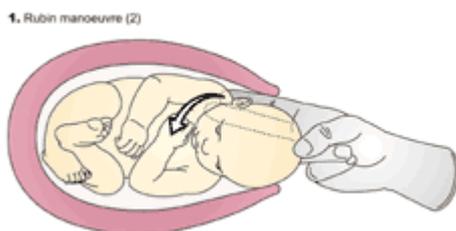
### **Internal Manoeuvre**

Slide the fingers as far as possible along the fetal back toward the anterior shoulder and attempt to apply pressure here thereby pushing the shoulders towards the baby's chest.

Attempt to deliver the baby.

The woman can remain in the McRoberts position

Internal pressure may reduce the fetal shoulder diameter and allow the baby to be born.



(RWH, 2005)

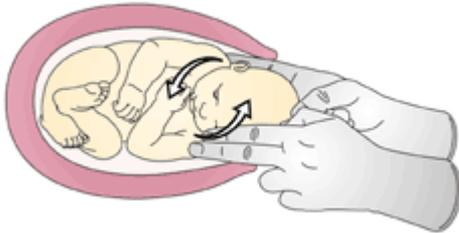
- ***Woods Screw manoeuvre***

With the first fingers remaining behind the anterior shoulder as above, insert second hand into the woman's vagina. This time pressure is applied to the anterior aspect of the fetal posterior shoulder. Pressure is applied in the same direction as for the Rubins 2 manoeuvre with the aim and to aid rotation.

Attempt to deliver the baby.

Again it is hoped that these manoeuvres will reduce the fetal shoulder diameter and allow the baby to be delivered. Rubins 2 adducts the anterior shoulder and at the same time Woods screw abducts the posterior shoulder.

2. Wood screw manoeuvre



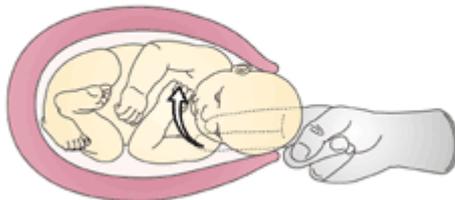
(RWH, 2005)

- **Reverse Woodscrew manoeuvre**

Remove the second hand that was inserted for the Woods Screw. Lower the original hand to the posterior aspect of the fetal posterior shoulder. Pressure is then applied to this aspect of the shoulder and an attempt is made to rotate the shoulders in the opposite direction.

In this situation an attempt is being made to try and rotate the baby in the opposite direction to the previous manoeuvres. This may remove the baby from its impacted position.

3. Reverse Wood screw manoeuvre



(RWH, 2005)

Acknowledgement to the Royal Women's Hospital, Melbourne for permission to use their pictures showing the "Enter" and Remove posterior arm manoeuvres.

#### 4. **Roll Over**

The woman is rolled over onto her hands and knees and an attempt is made to deliver the baby. Manoeuvres that can be attempted with the woman on her hands and knees are:

- McRoberts
- Enter: All three components
- Remove the posterior arm

Unless the woman has a dense epidural block, she can be rolled over at any time, this does not need to occur as the last manoeuvre.

- Documentation is essential. It may be useful to use a pre formatted record to assist you (appendix 2).

## **If manoeuvres are unsuccessful:**

### **A. Midwives only in attendance:**

Keep on attempting the manoeuvres and to deliver the baby until medical help arrives.

### **B. Medical staff**

Assess situation and contemplate manoeuvres of last resort:

- Zavanelli manoeuvre: Cephalic replacement followed by caesarean section
- Symphysiotomy: High maternal morbidity
- Cleidotomy: deliberate fracture of the clavicle

## **Case Review**

- A case review should be arranged following shoulder dystocia.

## **Communication with the mother/parents**

It is imperative that the LMC or a designated practitioner involved with the birth discusses the birth and answers any questions that the mother/parents may have. Paediatric communication will be vital and requested at this time.

## **References**

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### **Associated protocols and guidelines**

Labour induction guidelines

Active management of the third stage of labour

Massive Obstetric haemorrhage

Primary postpartum haemorrhage management and treatment

### **Informed Consent**

The right of a consumer to make an informed choice and give informed consent, including the right to refuse medical treatment, is enshrined in law and in the Code of Health and Disability Consumers' Rights in New Zealand. This means that a woman can choose to decline treatment, referral to another practitioner, or transfer of clinical responsibility. If this occurs follow the process map on page 18 of the Referral Guidelines (Ministry of Health, 2012).

## Appendix 1

### Section 88 Guidelines for referral for women for shoulder dystocia

<b>Risk</b>	<b>Referral Category</b>
Previous Obstetric History	
<ul style="list-style-type: none"><li>• Previous shoulder dystocia</li></ul>	Consultation

#### Consultation

The LMC must recommend to the woman that a consultation with a specialist is warranted given that her pregnancy, birth, labour and puerperium is or may be affected by the condition.

Where consultation occurs, the decision regarding ongoing care, advice to the LMC on management, and any recommendation to subsequently transfer care must involve three way conversations between the specialist, the LMC and the woman. This should include discussion on any need for and timing of specialist review.

The specialist will not automatically assume responsibility for on going care. This will vary with the clinical situation and the wishes of the woman.

A consultation may result in a transfer of clinical responsibility. In this event, the consulting specialist formally notifies the LMC of the transfer and documents it in the woman's record.

Current labour and birth	
<ul style="list-style-type: none"><li>• Shoulder dystocia</li></ul>	Emergency

An emergency situation necessitates the immediate transfer of clinical responsibility to the most appropriate practitioner available. Responding to an emergency situation may include emergency transport by road or air to a facility able to provide the necessary level of care.

In such circumstances the clinical roles and responsibilities are dictated by the immediate needs of the mother and/or baby and the skills and capabilities of practitioners available including those involved in providing emergency transport if it is required. The LMC is likely to have an ongoing role through out the emergency depending on the circumstances.

**Date**      **Time of Emergency call 777**

Delivery of head   Spontaneous      Instrumental  

Obstetrician called      Time .....      Arrived .....

Midwives called      Time .....      Arrived .....

Paediatric RMO called      Time .....      Arrived .....

Anesthetist called      Time .....      Arrived .....

**PROCEDURE USED TO ASSIST DELIVERY OF THE SHOULDERS**

	TICK	ORDER	TIME	PERFORMED BY (print name)
McRoberts Manoeuvre	<input type="radio"/>	<input type="radio"/>	<input type="text"/>	
Suprapubic pressure Rubens 1	<input type="radio"/>	<input type="radio"/>	<input type="text"/>	
Episiotomy	<input type="radio"/>	<input type="radio"/>	<input type="text"/>	
Rubens 2	<input type="radio"/>	<input type="radio"/>	<input type="text"/>	
Wood screw manoeuvre	<input type="radio"/>	<input type="radio"/>	<input type="text"/>	
Reverse Wood screw	<input type="radio"/>	<input type="radio"/>	<input type="text"/>	
Delivery of posterior arm	<input type="radio"/>	<input type="radio"/>	<input type="text"/>	
Mother on all fours/other	<input type="radio"/>	<input type="radio"/>	<input type="text"/>	

Time of birth of head      Time of birth of baby

At birth: Head facing mothers   left      Head facing mothers right  

Anterior shoulder of baby   left      right  

**Foetal Condition**

Weight      kg      Apgar   1 minute      5 minutes      10 minutes  

Cord pH      Arterial      Venous

Paediatric assessment at birth

Sign

Print Name