

Registered Nurse Initiated Activities

Decision Support Tool No. 8B:

Obstetrical Emergencies – Shoulder Dystocia

Decision support tools are evidenced-based documents used to guide the assessment, diagnosis and treatment of client-specific clinical problems. When practice support tools are used to direct practice, they are used in conjunction with clinical judgment, available evidence, and following discussion with colleagues. Nurses also consider client needs and preferences when using decision support tools to make clinical decisions.

The Nurses (Registered) and Nurse Practitioners Regulation:	Regulation: (6)(1)(h.1) authorizes registered nurses to “manage labour in an institutional setting if the primary maternal care provider is absent.”
Indications:	In an nurse-assisted birth there is inability of the baby’s shoulders to deliver spontaneously
Related Resources, Policies, and Standards:	Neonatal Resuscitation Program Provider Course
Definitions and Abbreviations:	<p>Shoulder Dystocia—When the head emerges, it retracts against the perineum (turtle sign) and external rotation does not occur thus the anterior shoulder cannot pass under the pubic arch. The delivery requires additional obstetric maneuvers as there is an inability of the shoulders to deliver spontaneously or with supportive maneuvers, i.e. maternal expulsive effort and gentle downward pressure on the head</p> <p>McRobert’s Maneuver—Supine position, head of bed flat—The woman’s hips and knees are flexed against her abdomen.</p> <p>Suprapubic Pressure—With the heel of the clasped hands, apply firm, continuous downward or lateral suprapubic pressure to disimpact the anterior shoulder</p> <p>Rubin Maneuver—Vaginal—pressure is applied to the scapula of the anterior shoulder to rotate it 180 degrees</p> <p>Woods Screw Maneuver—To rotate the posterior shoulder by 180 degrees anteriorly in a screw like maneuver—where pressure is applied to anterior aspect of posterior shoulder</p>

Assessment

Initial Assessment:

- Assess maternal height, pre-pregnant weight, current weight, BMI and other relevant pelvic assessment during prenatal care
- Assess for maternal history for shoulder dystocia risk factors (see Appendix 1)
- Perform abdominal palpation to assess fetal position, weight and measure fundal height

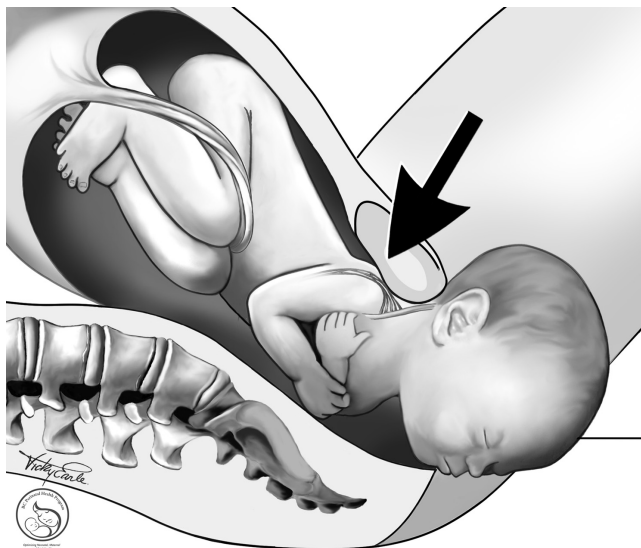
During birth:

- After the birth of the head, be vigilant for signs of shoulder dystocia and be prepared to act
- Signs may include:**
- Slow crowning of the fetal head
 - Difficulty with the delivery of face or chin

- The head recoils against the perineum (turtle sign)
- There is no spontaneous external rotation and restitution
- Failure of the shoulders to descend
- Failure to deliver with maternal expulsive efforts
- Inability to continue the birth of the fetal shoulders with gentle pressure alone

Nursing Diagnosis

- Potential risk of shoulder dystocia
- Shoulder dystocia is diagnosed after the birth of the head with an inability for the shoulders to deliver spontaneously



Special Considerations and Precautions

- A standardized approach to responding to shoulder dystocia should be reviewed and regularly rehearsed by all staff members
- McRobert's Maneuver – is the most effective intervention for shoulder dystocia and should be employed first (RCOG, 2005)
- Avoid fundal pressure or undue traction on the head. The brachial plexus is already under stretch and further traction may result in neurological damage. Fundal pressure can only increase impaction of the shoulder against the pubic bone (RCOG, 2005; Gilbert, 2007)

Interventions

Anticipatory:

- Provide anticipatory guidance to the woman about techniques to stop pushing until the maneuvers to relieve the obstruction are carried out
- Ensure resuscitation personnel is aware of possible complicated delivery
- Check that resuscitation equipment is ready and operational; have ready a step stool or chair for (suprapubic) maneuver
- Communicate plans with other nurses, PCP etc.
- Support and observe labour progress closely. Promote frequent bladder emptying and position changes
- Notify PCP of delayed progress of dilatation and descent in labour (DST No. 4 Evaluation of Progress in Labour/Dystocia)

Once shoulder dystocia is evident:

- The **ALARMER** mnemonic is recommended as a standard approach when a shoulder dystocia is diagnosed (SOGC, ALARM; MORE^{OB}, 2010).

Ask for help

If the PCP is not in attendance, he/she must be summoned immediately, including pediatrician, anesthesiologist, and extra nursing personnel if available. Follow institutional policy to access emergency assistance (e.g. Code Pink)

Provide simple and clear explanation to the woman about actions you are about to undertake

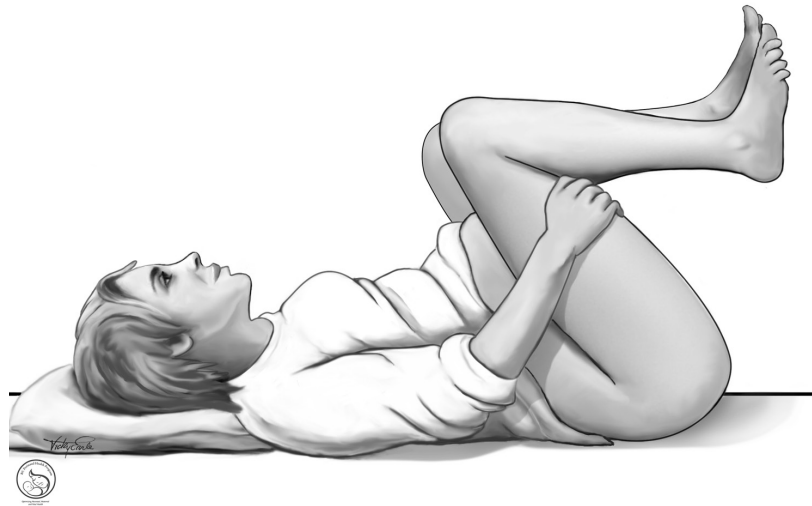
Ask for cooperation from the woman and her partner

Lift/hyperflex woman's Legs

Flatten head of bed, remove extra pillows from under the woman's head

Drop the foot or break the bed

Hyperflex both legs (McRobert's Maneuver), with knees bent to chest, and the head of bed down usually involving two assistants, each of whom grasps a maternal leg

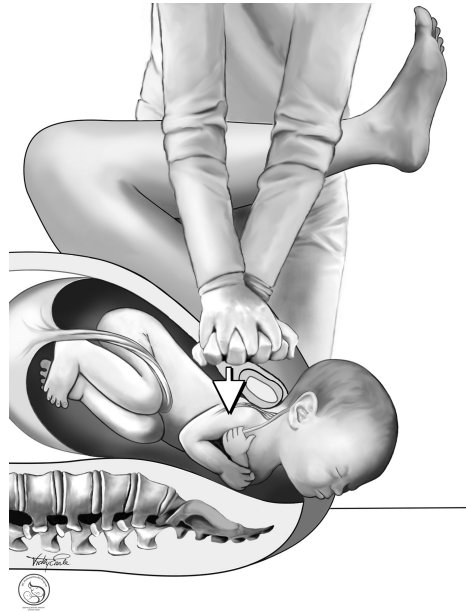
**McRobert's Maneuver**

*Note: Often resolved by this maneuver alone (SOGC, 2007), with a reported success rate of 90% (RCOG, 2005)

Anterior shoulder disimpaction

Suprapubic Pressure - Abdominal Approach

- With the woman in McRobert's positioning
- assume position similar to CPR (may need to use step stool or chair to attain a position above the woman)
- using both hands, apply the heel of clasped hands just above the pubic bone
- With straight arm, use your body to apply pressure downward from the posterior aspect of the anterior shoulder to dislodge it
- DO NOT APPLY FUNDAL PRESSURE



Suprapubic Pressure

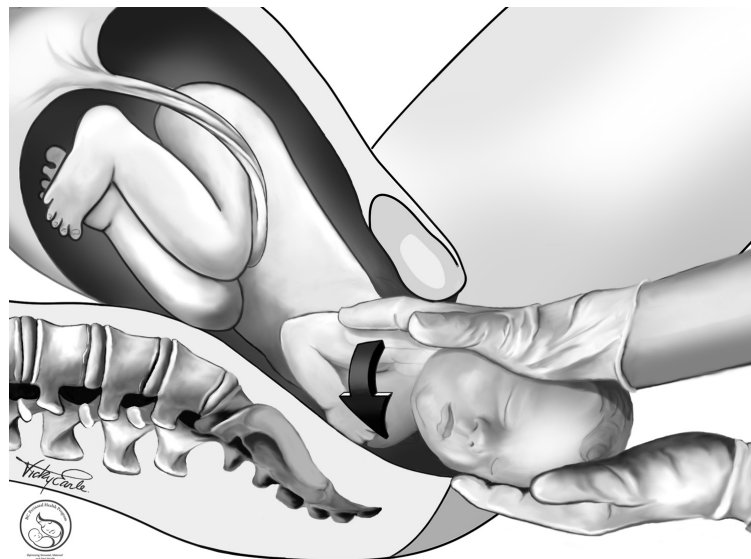
Rotation of the posterior shoulder

Rubin Maneuver – Vaginal Approach (performed by PCP)

This maneuver involves applying pressure to the most accessible part of the fetal shoulder (i.e. either the anterior or posterior shoulder) to effect shoulder adduction.

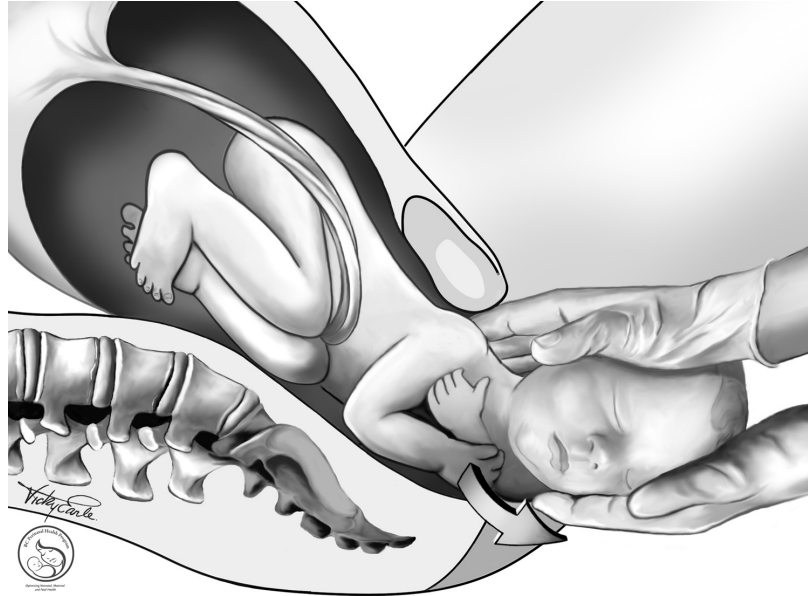
Ask the woman not to push while you

- Push the shoulders from behind the scapula toward the face of the baby; this will rotate the shoulders into oblique diameter



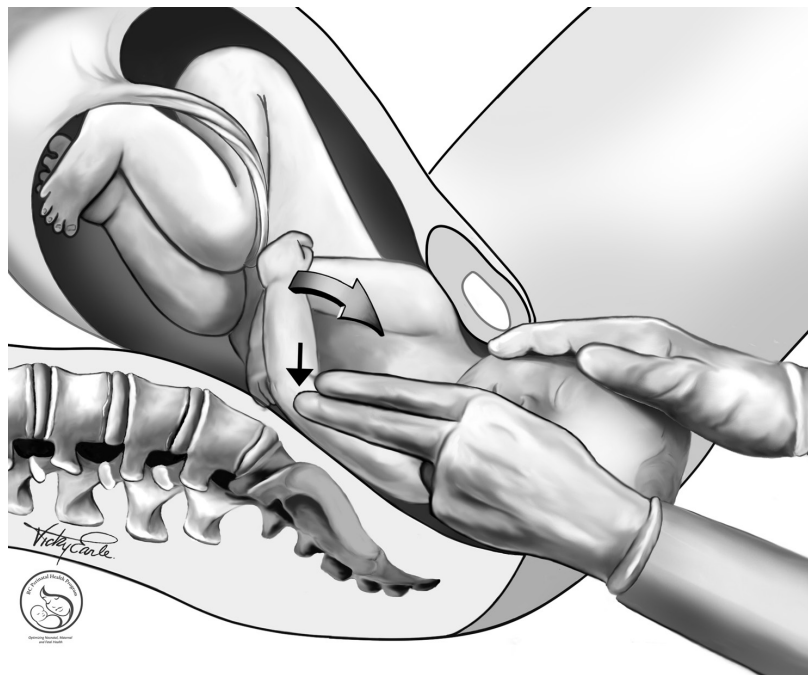
Rotation of the posterior shoulder
(Performed by PCP)

Turn the baby using the Wood's Screw Maneuver. This is a screw-like maneuver. Pressure is applied to the anterior aspect of the posterior shoulder and an attempt is made to rotate the posterior shoulder to anterior position. Curved arrow shows rotation. Success of this maneuver allows easy delivery of that shoulder once it is past the symphysis pubis. In practice, the anterior shoulder disimpaction maneuver and Wood's maneuver may be done simultaneously and repetitively to achieve disimpaction of the anterior shoulder (ALARM, 2009).



Manual removal of posterior arm
(Performed by PCP)

Hand is grasped swept across chest and delivered (if arm is not flexed, flex it by applying pressure at the antecubital fossa)

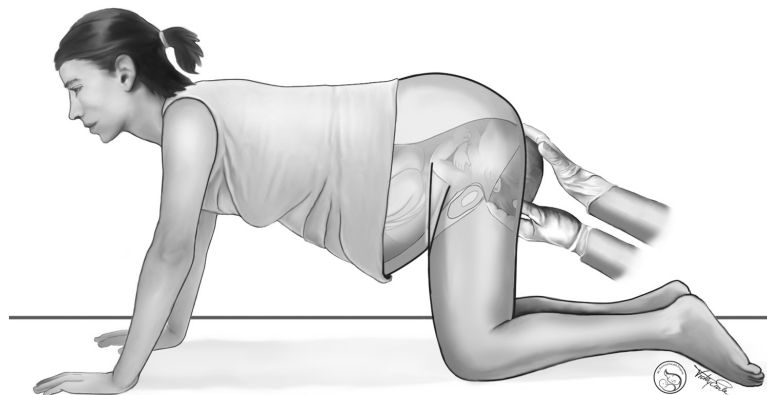


Episiotomy
(Performed by PCP)

Anticipate that episiotomy is only considered if there is not enough room for hand maneuvers as shoulder dystocia is not a soft tissue problem

Roll woman over
onto "all fours"

Hands and knees – appears to increase pelvic dimensions, allowing the fetal position to shift – may disimpact the shoulders. The baby will be born with posterior shoulders first (Gaskin, 1998)



*Adapted from ALARM, 2009, and MORE^{OB}, 2007

1. Be prepared to perform neonatal resuscitation following delivery of the baby
2. Assess the newborn for complications (see Potential Complications)
3. Assess the woman for complications (see Potential Complications)
4. Provide comfort and support to the woman and her support person(s)
5. Collect cord gas specimen

Intended Outcomes

- The woman delivers the baby safely
- The interventions to disimpact shoulders are effective
- There are no adverse maternal and neonatal outcomes

Potential Complications

Maternal

- Postpartum Hemorrhage (most common)
 - Uterine atony
 - 3rd or 4th degree perineal lacerations
 - Vaginal cervical lacerations
- Trauma
 - Uterine Rupture
 - Rectovaginal fistula
 - Vaginal hematoma
 - Bladder injury
 - Pubic symphysis separation with femoral neuropathy
- Infection
 - Endometritis
- Emotional and psychological stress
- Impaired parent-infant attachment

Neonatal:

- Brachial plexus injury
 - Erb-Duchenne Palsy – Fifth and sixth cervical roots
 - Klumpke's Paralysis – Eighth cervical and first thoracic roots
- Fractures
 - Clavicle
 - Humerus
- Fetal asphyxia and sequelae
- Neurological damage
- Fetal demise
(Gilbert, 2007)

Education

- Provide information and support to the woman and her support person(s) regarding shoulder dystocia, plan of treatment, implications and explain the treatment modalities as these are being applied
- Offer postpartum debriefing to the woman and her support person(s)

Documentation

1. Signs and symptoms
 - Time head delivered and when the shoulder dystocia identified
 - Direction the head was facing or position after restitution (e.g. LOA, ROT)
2. Interventions
 - When PCP called and time arrived
 - Staff in attendance and time they arrived
 - Time, sequence, and description of each maneuver used
 - Time of episiotomy, if performed
 - Time of bladder catheterization, if performed
 - Time the baby delivered
3. Responses
 - Results with each maneuver used
 - The condition of the newborn (NRP required, APGAR Score)
 - Results of cord blood gases
 - The condition of the mother

References

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Appendix 1

Risk Factors for Shoulder Dystocia

- Anticipate the shoulder dystocia with every delivery as over 50% are not predictable, and have no risk factors (SGOC, MORE^{OB}, ALARM, 2009)
- There are no accurate methods to predict or prevent shoulder dystocia, and although there is a relationship between fetal size, and shoulder dystocia it is not a good predictor.
- Assess for risk factors as follows:

The Following Conditions Are Known To Carry A Higher Risk for Shoulder Dystocia

Prepregnancy	Antepartum	Intrapartum
<ul style="list-style-type: none"> • Previous shoulder dystocia • Prior macrosomia • Pre-existing diabetes • Maternal obesity • Multiparity • Prior gestational diabetes • Advanced maternal age 	<ul style="list-style-type: none"> • Diabetes mellitus • Excessive maternal weight gain • Suspected macrosomia • Short stature • Post term - induction 	<ul style="list-style-type: none"> • Oxytocin augmentation • Prolonged first stage of labour • Prolonged second stage • Secondary arrest in second stage • Protracted or failure of descent of head • Operative or assisted vaginal delivery