



Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Guideline for the Management of Shoulder Dystocia
HSE Home Birth Service

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1. Guideline Statement

This guideline shall support and guide midwifery practice for the HSE Home Birth Service based on the green top guideline of the Royal College of Obstetricians and Gynaecologists (RCOG) and PROMPT (Practical Obstetrical and Multi-Professional Training) training on shoulder dystocia.

2. Purpose

To standardise and provide guidance to the Self-Employed Community Midwives (SECMs) providing home birth services on behalf of the HSE on the management of shoulder dystocia.

3. Scope

This practice guideline applies to all Self-Employed Community Midwives providing a home birth service on behalf of the HSE

4. Legislation, Codes of Practice, Standards and Guidance

- 4.1 Health Acts, 1947 to 2015 and regulations made thereunder
- 4.2 Nurses and Midwives Act, 2011
- 4.3 The Scope of Nursing and Midwifery Practice Framework (NMBI 2015)
- 4.4 The Code of Professional and Ethical Conduct (NMBI 2014)
- 4.5 Practice Standards for Midwives (NMBI 2015)
- 4.6 Recording Clinical Practice (NMBI 2015)
- 4.7 Guidance for Nurses and Midwives on Medication Management (ABA 2007)
- 4.8 NICE Clinical Guideline 190 – Intrapartum Care: Care of Healthy Women and their Babies during Childbirth (NICE 2014)
- 4.9 Evidence Based Guidelines for Midwifery Care in Labour (RCM 2008)
- 4.10 The Irish Maternity Early Warning System (IMEWS) NCEC (DOH 2014)
- 4.11 Communication (Clinical Handover) in Maternity Services NCEC (DOH 2014)
- 4.12 Sepsis Management NCEC (DOH 2014)
- 4.13 HSE Policy and Procedure for Notification of Home Births to the National Ambulance Service (National Ambulance Service HSE 2015)
- 4.14 Green-top Guideline No. 42 Shoulder Dystocia (RCOG 2012)
- 4.15 Standards and Recommended Practices for Healthcare Records Management (HSE 2011)
- 4.16 National Consent Policy (HSE 2013)
- 4.17 Safety Incident Management Policy (HSE 2014)
- 4.18 National Maternity Strategy 2016-2026 (DOH 2016)

This list is not exhaustive and reference should be made at all times to the guideline for reference sources or the database of legislation, codes of practice, standards and guidance (Clinical Governance Group for the HSE Home Birth Service 2018).

5. Definition & Background

- 5.1 Shoulder dystocia is the failure of the shoulders to spontaneously deliver following delivery of the baby's head, due to impaction of the shoulders behind the symphysis pubis (RCOG, 2005). Additional manoeuvres are required to complete the delivery of the baby, after routine downward traction has failed to deliver the shoulders during the delivery.
- 5.2 Shoulder dystocia is a mechanical problem that is an obstetric emergency affecting up to 1% of all vaginal deliveries (Ouzounian and Gherman, 2005). This serious emergency requires early recognition and the prompt involvement of skilled staff to deliver the baby safely and without delay. This emergency is often unpredictable and unanticipated (Kwek and Yeo, 2006).
- 5.3 In the process of a normal vaginal delivery, the ominous sign of retraction of the foetal chin backwards into the birth canal from the perineum (turtle sign) should be the point at which help is urgently sought. There are a number of risk factors associated with shoulder dystocia; however, there is little consensus about predicting the event. This illustrates the need to be vigilant at all times (Gherman et al, 2006).

Terms and definitions are also outlined in the Quality and Risk Taxonomy Governance Group Report on Glossary of Quality and Risk Terms and Definitions (HSE 2009).

6. Roles and Responsibilities

6.1. The Director of Primary Care shall ensure:

- 6.1.1 The provision of appropriate systems and structures to support the SECM to provide emergency midwifery care for women and their families availing of the HSE Home Birth Service.

6.2. The Chief Officer or delegate shall:

- 6.2.1 Ensure the implementation of systems and structures for the SECM to provide emergency midwifery care for women and their families availing of the HSE Home Birth Service.
- 6.2.2 Request that the SECM and DMO report any adverse incidents to the National Incident Management System (NIMS) as per HSE Safety Incident Management Policy 2014.

6.3. The Designated Midwifery Officer (DMO) shall:

- 6.3.1 Ensure that the appropriate systems and structures are in place to implement this guideline.
- 6.3.2 Ensure that the SECMs have submitted up-to-date certificates in PROMPT or obstetric emergency skills training.
- 6.3.3 Ensure that the SECM receives and adheres to this guideline and records same.
- 6.3.4 Ensure that completed incident forms are received from the SECM and forwarded to the National Incident Management System (NIMS) as per HSE Safety Incident Management Policy 2014.

6.4. The Self-Employed Community Midwife (SECM) shall:

- 6.4.1 Ensure competence in managing obstetric emergencies and have up-to-date PROMPT or obstetric emergency skills training.
- 6.4.2 Identify and highlight risk factors at booking history.
- 6.4.3 Refer to consultant obstetrician if any risk factor is suspected, i.e. large baby.
- 6.4.4 Ensure that he/she has the equipment required for obstetric emergencies.
- 6.4.5 Ensure that the woman and her partner are prepared during pregnancy for the possibility of emergency transfer to hospital maternity care before, during or after the home birth.
- 6.4.6 Ensure that he/she has a second SECM in attendance at the birth.
- 6.4.7 Liaise with Ambulance Control as per National Policy for Communication with National Ambulance Service (HSE 2015) and Transfer Policy, HSE Home Birth Service (HSE 2016)
- 6.4.8 Report any adverse incidents via the DMO to the National Incident Management System (NIMS) as per HSE Safety Incident Management Policy 2014.
- 6.4.9 Sign that he/she has read, understood and shall comply with this guideline.

7. Procedure

7.1. Identify known risk factors for shoulder dystocia

- 7.1.1. Antenatal
 - a. Previous shoulder dystocia
 - b. Diabetes mellitus
 - c. Maternal obesity BMI>30kg/m²
 - d. Short stature of the mother
 - e. Foetal abnormalities
 - f. Foetal macrosomia in current pregnancy
 - g. Previous large baby
 - h. Induction of labour
- 7.1.2. Intra-partum
 - a. Prolonged first stage of labour
 - b. Prolonged second stage of labour, especially in the multiparous woman
 - c. Assisted vaginal delivery (forceps/vacuum) (following transfer to maternity unit/hospital)
 - d. Oxytocin augmentation of labour (following transfer to maternity unit/hospital)
 - e. Secondary arrest of contractions/labour
- 7.1.3. When risk factors are identified in the antenatal period, they must be documented in the healthcare record and the woman must be referred for obstetric review in accordance with Policy to Support Self-Employed Community Midwives to Assess the Eligibility and Suitability of Women for Inclusion/Exclusion for Planned Home Birth with the HSE Home Birth Service

- 7.1.4. Recognising the condition and implementing proper interventions and timely delivery are the goals for maternity care. The severity of shoulder dystocia cannot be predicted by current or previous obstetric factors. Hurried or undue traction of the baby's head or fundal pressure frequently results in skeletal and peripheral nerve injury (Olugbile and Mascarenhas, 2000).
- 7.1.5. Shoulder dystocia can result in a major disruption in oxygen transfer to the baby, resulting in impaired neurological development (Simpson and Knox, 2003).
- 7.1.6. Shoulder dystocia may be recognised:
 - a. When there is difficulty with delivery of the face and chin
 - b. When the chin may retract and depress the perineum, which is known as the 'turtle-neck sign'.
 - c. If the anterior shoulder of the baby fails to deliver with normal routine traction.
 - d. Failure of restitution of the head.

7.2. Management of shoulder dystocia

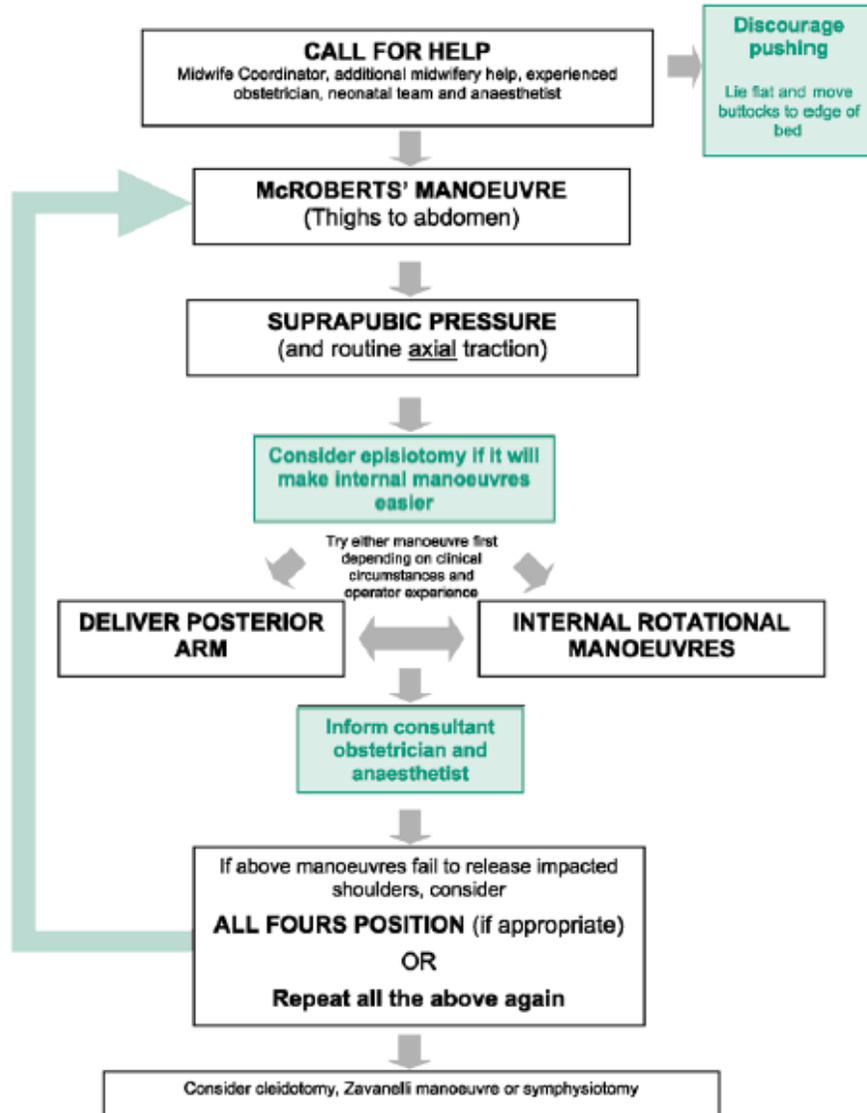
- 7.2.1. A team approach is essential for a successful outcome; do not attempt to manage the situation on your own or waste time on a protracted attempt of a single manoeuvre. The condition must be managed systematically.
- 7.2.2. The second SECM is to call for help:
 - a. Call an ambulance to attend immediately
 - b. Alert receiving maternity unit of the emergency and the anticipated need for senior midwives, obstetrician, anaesthetist, paediatrician and neonatal team.
- 7.2.3. Note time of delivery of the baby's head. Timekeeping is essential as the baby may suffer from hypoxemia and acidosis quickly. It is estimated that a newborn can survive for approximately five minutes before irreversible brain and organ damage occurs (Leung, 2011).
- 7.2.4. Explain to the woman the need for her co-operation, the reason to stop pushing unless instructed to, and for a change of maternal position for delivery of the baby.
- 7.2.5. The SECM is to be mindful of the surroundings at home once a diagnosis of shoulder dystocia is made:
 - a. Pool
 - b. Bath
 - c. Floor
 - d. Bed
 - e. Birthing stool
- 7.2.5. Remove all pillows but one and assist the woman to lie flat on the floor or near the end of her bed
- 7.2.6. Initiate McRoberts manoeuvre by flexing and abducting the woman's legs in order to position the maternal thighs on her abdomen.
- 7.2.7. This manoeuvre is the single most effective intervention, with a reported success rate as high as 90% (O'Leary & Leonetti, 1990).

- 7.2.8. Routine traction in an axial direction should then be applied to the foetal head to see if the anterior shoulder has been released.
- 7.2.9. If the anterior shoulder is not released with the McRoberts position and routine traction, suprapubic pressure should be applied. **Never apply fundal pressure or exert any force or angle the baby's head.**
- 7.2.10. The midwife must be positioned on the side of the foetal back, hands CPR-style above the woman's symphysis pubis. Apply pressure downwards and forwards to adduct the foetal shoulders into the oblique diameter. The delivering midwife applies gentle traction. If delivery is not accomplished, a rocking motion is recommended to dislodge the shoulder.
- 7.2.11. Suprapubic pressure can be employed together with the McRoberts manoeuvre to improve the success rate (Gherman et al, 2006).
- 7.2.12. Never continue with a manoeuvre for more than 30-60 seconds without clear evidence of success.
- 7.2.13. Do not repeat a manoeuvre at this time – move on to the next one.
- 7.2.14. Internal manoeuvres or 'all fours' position should be used if the McRoberts manoeuvre and suprapubic pressure fail.
- 7.2.15. **Prior to moving on to internal manoeuvres**, assess if an episiotomy will be of advantage. If not already performed, an episiotomy will not relieve the bony obstruction of shoulder dystocia but will assist in providing more space to facilitate internal vaginal manoeuvres.
- 7.2.16. **Proceed to** internal rotational manoeuvres (Woods and Rubin).
- 7.2.17. Rubin II: the SECM inserts two fingers into the vagina to find the foetal back and pressure is exerted on the posterior aspect of the anterior shoulder in an attempt to rotate the baby into the oblique diameter; attempt delivery once this is done.
- 7.2.18. If 7.2.17 is unsuccessful, the SECM maintains the above position. The SECM inserts two fingers of the other hand into the vagina to locate the anterior aspect of the posterior shoulder and attempts to rotate the shoulders into the oblique diameter. Attempt delivery.
- 7.2.19. The main aim of internal rotation is to move the foetal shoulders out of the narrowest diameter of the mother's pelvis (anterior-posterior) and into the wider pelvic diameter (oblique or transverse). Rotation can most easily be achieved by gently pressing on the anterior or posterior aspect of the posterior shoulder. This should rotate the shoulders into an oblique diameter, resolving the shoulder dystocia and birth of the baby will follow.
- 7.2.20. If delivery does not occur, rotate the shoulders a complete turn (180 degrees). This manoeuvre substitutes the anterior shoulder for the posterior shoulder and should resolve the problem of dystocia.
- 7.2.21. If pressure on the posterior shoulder is unsuccessful, apply gentle pressure on the posterior aspect of the anterior shoulder to adduct and rotate the shoulders into the oblique diameter (Gurewitsch et al, 2005).

- 7.2.22. While attempting to rotate the foetal shoulders from inside the pelvis, external suprapubic pressure can be performed to aid rotation. However, it is crucial to ensure that the person applying the pressure is not working against the person attempting to deliver the baby.
- 7.2.23. If delivery does not occur, attempt to deliver the posterior arm of the baby.
- 7.2.24. The midwife should make their hand as small as possible; keeping the thumb in the middle as if putting on a tight bracelet, insert hand into the vagina posteriorly at 6 o'clock and follow the posterior arm of the foetus up until the wrist is felt.
- 7.2.25. Take hold of the foetal wrist and gently take the posterior arm out of the vagina in a straight line.
- 7.2.26. If on attempting to deliver the posterior arm of the baby it is not possible to grasp the foetal wrist, do not pull on the upper arm as this can result in injury to the baby. In this instance the foetal arm is lying straight against its body, which is more difficult to deliver.
- 7.2.27. To attempt to flex the posterior arm, follow the straight arm down to the elbow. Place thumb in the ante-cubital fossa and apply gentle pressure to the back of the baby's forearm just below the elbow. This should flex the posterior and the arm can then be delivered in the method described above.
- 7.2.28. Once the posterior arm is delivered, apply normal traction to the head. If the shoulder dystocia is resolved with the delivery of the posterior arm the body of the baby will deliver without further manoeuvres. However, if despite delivering the posterior arm the shoulder dystocia has not resolved, support the posterior arm of the baby and gently rotate the baby through 180 degrees. The posterior shoulder will then become the new anterior shoulder below the symphysis pubis, thus resolving the shoulder dystocia.
- 7.2.29. If not already attempted, consider the all-fours position (Gaskin's manoeuvre) if appropriate by rolling the woman onto her hands and knees so that the maternal weight is distributed more evenly on the four limbs. This change may dislodge the anterior shoulder. However, this manoeuvre may be unsuitable for women who are very obese.
- 7.2.30. **Third-line manoeuvres should be considered very carefully to avoid unnecessary maternal morbidity and mortality, particularly by inexperienced practitioners.** If standard measures fail, extreme measures rarely used include: Cleidotomy (by applying pressure with a thumb on the baby's clavicle to fracture it), symphysiotomy (dividing the anterior fibres of symphyseal ligament) and the Zavenelli manoeuvre (pushing back the foetal head in to the birth canal in anticipation of CS).
- 7.2.31. Prepare the receiving maternity unit/hospital clinicians for the transfer using the ISBAR communication tool (Transfer Policy, HSE Home Birth Service (HSE 2016))
- 7.2.32. Active third stage of labour is essential to reduce the risk of a post-partum haemorrhage.

- 7.2.33. If shoulder dystocia was diagnosed during the birth the baby should be transferred without delay to a maternity unit.
- 7.2.34. The baby should be examined for injury by a neonatal paediatrician.

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.

RCOG Green Top Guideline No. 42 (RCOG 2012)

7.3. Documentation

- 7.3.1. Write clear, comprehensive, contemporaneous notes describing:
- a. Antenatal/intrapartum risk factors

- b. Time of delivery of the baby's body and head
- c. Direction of the head following restitution
- d. Time of emergency call alert
- e. Personnel involved and time of arrival in the maternity/delivery unit
- f. Manoeuvres carried out, timing and sequence and person who carried out the procedures
- g. Condition of the baby at birth, including Apgar score and resuscitation required.
- h. Condition of mother following delivery including vaginal/perineal tears/episiotomy and estimated blood loss
- i. Complete shoulder dystocia documentation
- j. Complete clinical incident form ASAP and send to DMO.

7.4. Postpartum management of the mother

- 7.4.1. If ambulance personnel are not already in attendance, await ambulance arrival and arrange for the transfer of mother and baby to an obstetric-led maternity unit for obstetric and paediatric review. Prepare to remain in attendance with mother and baby on transfer.
- 7.4.2. Monitor mother's vital signs and document on IMEWS.
- 7.4.3. Promote skin-to-skin contact between mother and baby if possible.
- 7.4.4. Anticipate/manage post-partum haemorrhage by active management of the third stage of labour.
- 7.4.5. Please refer to guideline on 'Management of Postpartum Haemorrhage'
- 7.4.6. This can be a very traumatic experience so careful inspection is required to determine vaginal tears or extension of episiotomy, third/fourth-degree tears.
- 7.4.7. Ensure that adequate pain relief is provided
- 7.4.8. Debriefing and psychological care for the mother and partner is arranged as this is an extremely traumatic experience
- 7.4.9. A physiotherapy appointment shall be offered to assess the mother's pelvic floor
- 7.4.10. Discharge of the mother from hospital is by senior registrar only
- 7.4.11. A follow-up appointment should be offered in the hospital at six weeks with either a consultant obstetrician or registrar.

7.5. Neonatal care of baby

- 7.5.1. Immediate resuscitation measures at delivery as per Neonatal Resuscitation Programme.
- 7.5.2. Assessment for bony injuries such as fractured humerus/clavicle
- 7.5.3. Physiotherapy referral
- 7.5.4. Hospital paediatric follow-up will be required for neurological development
- 7.5.5. Document all care given to baby
- 7.5.6. Keep baby warm
- 7.5.7. Monitor vital signs before, during and after transfer to maternity unit/hospital

7.5.8. Put baby to the breast, if appropriate.

7.6. Risk management

7.6.1. The SECM must be aware of existing risk factors and in the event of shoulder dystocia occurring the SECM must arrange for immediate transfer to maternity unit/hospital.

7.6.2. Shoulder dystocia can occur in any delivery; SECMs must always be alert to the possibility of this complication.

7.6.3. In the absence of reliable predictive signs of shoulder dystocia, SECMs should keep updated in emergency drills including the management of shoulder dystocia (Cluver and Hofmeyr, 2009).

7.6.4. There is no evidence that the use of McRoberts manoeuvre before delivery of the foetal head prevents shoulder dystocia (Poggi et al, 2004). Therefore, prophylactic use of the McRoberts position before delivery of the foetal head is not recommended to prevent shoulder dystocia.

8. Monitoring and Audit

8.1 Monitoring of compliance with this policy shall be undertaken by the DMO.

8.2 Audit of compliance with this policy shall be undertaken by HSE professionals.

9. Training

The SECM shall ensure that she/he has sourced appropriate education and training to support the implementation of this policy.

10. Implementation Plan

The Clinical Governance Group for the HSE Home Birth Service developed this document, which has been approved for implementation by the National Implementation Steering Group for the HSE Home Birth Service. This document will be piloted for a year from the approval date. It will be disseminated by the Designated Midwifery Officers to relevant healthcare personnel and to all Self-Employed Community Midwives who provide home birth services on behalf of the HSE.

11. References

- Gherman R, Chauhan S, Ouzounian J, Lerner H, Gonik B, and Goodwin T (2000). Shoulder dystocia: the unpreventable obstetric emergency with empiric management guidelines. *Am J Obstet Gynecol*, 195(3), 657-72.
- Goodwin T (1999). Clinical implications of perinatal depression. *Obstetrics and Gynaecologic Clinics of North America*, 26,711-723.,
- Gurewitsch E, Kim E, Yang J, Outland, K, McDonald M, and Allen R. (2005). Comparing McRoberts' and Rubin's manoeuvres for initial management of shoulder dystocia: an objective evaluation. *American Journal of Obstetrics and Gynaecology*,153-160.
- Kwek K and Yeo G.(2006). Shoulder dystocia and injuries: prevention and management. *Current Opinions in Obstetrics and Gynaecology*, 18(2) 123-128.
- O'Leary J and Leonetti H, (1990). Shoulder dystocia: prevention and treatment. *Am J Obstet Gynecol*, 162,5-9,
- Olugbile A and Mascarenhas L (2000). Review of shoulder dystocia at the Birmingham Women's Hospital. *Journal of Obstetrics and Gynaecology*, 20 (3),267-270.
- Ouzounian J and Gherman R (2005). Shoulder dystocia: are historic risk factors reliable predictors? *Am J Obstet Gynecol* *OuHealth Service Executive/S*, 6(192), 1933-5.
- RCOG (2005). *Shoulder Dystocia. Guideline No 42*. London: Royal College of Obstetricians and Gynaecologists.
- Simpson KR and Knox GE. Common areas of litigation related to care during labour and birth: recommendations to promote patient safety and decrease risk exposure. *Journal of Perinatal and Neonatal Nursing* 17 (2003):110-118

12. Membership of Working Group

The Clinical Governance Group (CGG) for the HSE Home Birth Service commissioned a Sub-Group (members below) to develop this document which was then reviewed by the Quality Assurance Sub Group (members below). A final draft was produced by the CGG members and recommended for approval to the National Implementation Steering Group for Home Births (NISG). Following a 12 month pilot of this document, the NISG have approved its revision and implementation.

Sub-Group Members:

Ms Janet Murphy Advanced Midwife Practitioner WRH (Sub-group chair)
Ms Siobhan Sweeney, Designated Midwifery Officer, HSE South & Project Manager
CGG
Ms Triona Cowman, Director Centre of Midwifery Education, Dublin

Quality Assurance Sub-Group:

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Ms Virginia Pye, National Lead for Public Health Nursing (ONMSD)
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