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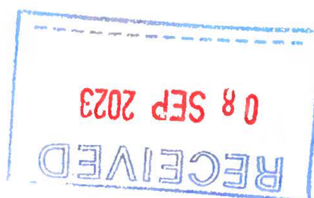

London Ambulance Service
NHS Trust

Clinical Directorate
Headquarters
220 Waterloo Road
London
SE1 8SD

1st August 2023

Ms M Hassell
HM Senior Coroner
St Pancras Coroner's Court
Camley Street
London
N1C 4PP

Private and Confidential

Your Ref: Phoenix Grace CHAPMAN (died 15.07.22)

Dear Ma'am

Thank you for sending a copy of your Prevention of Future Deaths Notice under the Coroners and Justice Act 2009, paragraph 7, Schedule 5, and The Coroners (Investigations) Regulations 2013, regulations 28 and 29 addressed to the Chief Executive of Homerton Healthcare NHS Foundation Trust, dated 14th July 2023.

I would like to initially extend the sincere sympathies of the London Ambulance Service to the parents of Phoenix and his wider family on their tragic loss.

Clinical guidelines for ambulance clinicians are nationally produced by the Joint Royal Colleges Ambulance Liaison Committee (JRCALC). This is a multi-disciplinary team that draws together expert representatives from the Medical Colleges along with senior ambulance clinicians to author guidelines that are both evidence-based and applicable to pre-hospital emergency care. For maternity guidelines, representatives from both the Royal College of Obstetricians and Gynecologists (RCOG) and the Royal College of Midwives (RCM) are formally consulted. The JRCALC Clinical Guidelines are also reviewed and approved by the National Ambulance Service Medical Directors Group (NASMED) prior to publication. There is an active and continual process of evidence review and refresh of the JRCALC guidelines.

As you are aware the national JRCLAC breech birth guidance has been recently reviewed and updated. Along with representation from the RCOG and RCM, there has also been input from the LAS maternity team and senior LAS paramedics to ensure that, as the busiest ambulance service in the UK, key learning from obstetric emergencies has informed the development of this guideline. Recent evidence around recommended timings and advice for 'continuous pushing' following delivery of the buttocks has been included in the new guideline. I have attached the final version of the national guidelines which was formally approved by NASMED on 11th July 2023 and will be published in the next update of the JRCALC guidelines. The JRCALC guidance has been enhanced with the use of diagrams and visual prompts to aid ambulance clinicians in managing the rare occurrence of a breech birth outside of the hospital. There is also a working group developing educational videos to accompany the guidance.

JRCALC always welcomes contributions into future guidance from those with clinical expertise and experience in the application of the guidelines to out-of-hospital emergency care delivered by ambulance clinicians.

We are aware that you heard in evidence reference to a pathway that has been developed with the Local Maternity and Neonatal System in North East London. The pathway was presented in evidence as relating to birth imminent cases and it was presented that the guidance was going to change to recommend ambulance clinicians transport all women with birth imminent straight to hospital. For clarity the pathway referred to has been developed in conjunction with the LAS lead midwives and only relates to 'Birth Before Arrival' cases. When a baby is born prior to the arrival of the ambulance or is delivered by the ambulance clinician, this is known as 'Birth Before Arrival'. Historically, where the baby is physiologically well and of term gestation the LAS clinicians would contact the nearest maternity unit and request a midwife to attend the scene to further assess the baby and mother to facilitate them staying at home. With the increasing demand on maternity services, the ability for a busy maternity unit to send a

midwife to scene has become increasingly challenging in many areas of London. Therefore the pathway that has been developed with North East London is that unless the woman has had a planned homebirth, the woman and baby should be transferred to hospital. If a mother declines conveyance to hospital, a midwife will still be requested to attend the scene. This guideline is explicit in that it applies to babies born prior to arrival at the hospital and does not cover either the management of normal labour or obstetric emergencies, including breech birth which is covered in the JRCALC national guidelines. I have attached the draft North East London pathway. With the continuing pressure on maternity services, the London Ambulance Service anticipates this guideline may be adopted in other areas of London.

The consensus expert view is that if a birth is imminent ambulance clinicians should attempt to deliver the baby on the scene before transporting to hospital. This includes cases of cephalic or breech birth where the baby is imminently delivering and cases of shoulder dystocia. A baby that is visible and advancing would be classed as "birth imminent". There are several reasons why it is safer to provide care on scene prior to extrication and conveyance. Firstly it is practically very difficult to extricate safely and in a timely manner when a patient is 'pushing' and there is a presenting part of the baby either visible, advancing or delivered. Secondly, the time taken to extricate and transport is likely to lead to increased hypoxia especially if part of the baby has already delivered and there is the potential of cord compression occurring. If manoeuvres are attempted and successful then the outcome is likely to be better than if no manoeuvres are attempted and the patient is transported into a hospital for the manoeuvres which is likely to increase the chance of severe hypoxia. Also, securing the patient in the vehicle according to correct driving standards is very challenging in this situation. Furthermore, as you heard in evidence from one of the LAS paramedics, if the baby is delivered in a moving ambulance there is limited space, lighting, heating, and surfaces for resuscitation of the baby or mother if required. The nuance of extrication and transport of patients is understandably not always well understood by clinicians without experience in pre-hospital emergency care. In view of these challenges, national guidelines recommend that there should be appropriate attempts to deliver the baby by ambulance clinicians and then to transport if such manoeuvres have failed.

We will ensure that this case will be shared anonymously for national learning with other ambulance service maternity leads and medical directors group, and the JRCALC development group.

We hope the above assists in providing assurance that the clinical guidelines in place for ambulance clinicians are nationally developed and evidence-based with expert input from the relevant Medical Colleges as well as robust review for their use pre-hospital. Further to this, we are working with maternity units to aim to provide pathways of care that are appropriate and safe. We keep all guidance under review and will ensure that the learning from this case that we have adopted within LAS will feed directly into JRCALC through our maternity and senior paramedic teams as well as through myself as chair of NASMED.

I would like to take this opportunity to invite you to visit the London Ambulance Service; we would very much value the opportunity to share with you some of our improvement work and how we are working to improve pre-hospital clinical care and response times when there are considerable stressors on the Health Service. You would be welcome to view the Emergency Operations Centre and / or spend time with one of our frontl-line crews. If you would like to undertake this please contact my Consultant Paramedic

Finally, I would like again to express the LAS's sympathies to the parents of Baby Phoenix Grace.

Yours faithfully

Chief Medical Officer and Deputy Chief Executive, London Ambulance Service

Chair National Ambulance Service Medical Directors Group

Enc.

cc:

Joint Royal Colleges Ambulance Liaison Committee
, Joint Royal Colleges Ambulance Liaison Committee

Breech birth JRCALC draft revised guideline

Incidence, risk factors and diagnosis

Vaginal breech birth is where the feet or buttocks of the baby are born first, rather than the baby's head.

Breech presentation affects 3-4% of births at term (37 weeks onwards) and is more common in pre-term births.[10]

At onset of labour, breech presentation may be known and reported by the patient or recorded in the pregnancy notes.

In some circumstances, breech presentation is unknown and the first diagnosis is made when the buttocks/ or feet are visible and advancing through the vaginal entrance (introitus)

Breech birth can cause fetal hypoxia. It is therefore likely that the baby will require resuscitation (refer to Newborn Life Support).

Breech babies are more likely to pass meconium during the birth. Presence of meconium does not require different management, but should be documented and handed over to maternity/neonatal staff.

Cord prolapse is more common with a breech presentation (refer to Birth Imminent: Normal Birth and Birth Complications).

Consider seeking senior clinical support and advice as per local procedures. This should not cause further delay on scene if the appropriate decision is to transport rapidly.

Some manoeuvres specific to breech birth require the clinician to insert their fingers into the woman's vagina. It is essential for clinicians to gain appropriate consent prior to performing these manoeuvres.

When to leave scene immediately:

Rapid transport to the nearest hospital with an obstetric service (or alternative as agreed locally), is indicated when:

- The birth is <u>not</u> imminent (i.e. the buttocks/or feet are not visible or not advancing through the vaginal entrance (introitus)
- If manoeuvres are not physically possible, or do not restore progress leading to the birth of the baby.
- You see a presenting body part other than the head or buttocks (e.g. one foot or a hand/arm)
- Footling breech:
  - If a foot or feet are presenting and the buttocks do not immediately follow, this is a footling breech. This is an emergency and must be conveyed immediately to an obstetric unit with a pre alert message. DO NOT encourage pushing.

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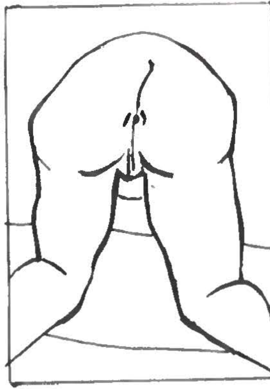

Mother in 'all fours' position

Note: In the all fours position the baby can be delivered on the floor or bed/sofa but ensure a safe landing area.

Timing

When both buttocks are born, the risk of hypoxia is increased as the baby descends further through the birth canal. The woman should be encouraged to push continuously from this point (do not wait for contractions as they may slow down/stop). It is crucial that clinicians recognise (and act upon) any delay in progress.

Allocate someone to start a timer. Where possible, this person should not be involved in the clinical management to aid situational awareness.

→ When both buttocks are born, start the timer - **the baby must be fully born within 5 minutes**

Delay of more than 5 minutes from the birth of the buttocks is associated with poor outcomes. If manoeuvres do not result in the birth of the baby within this time rapid transport to hospital is indicated.

All timings and any manoeuvres performed should be clearly documented.

'Hands poised' approach and when to intervene

Many breech births occur spontaneously without intervention. Use a 'hands poised' approach, with a clinician ready to assist if required. If delay **does** occur at any stage, the baby is at high risk of hypoxia and manoeuvres must be used to assist the birth (see **Figure x.xx**).

Clinicians should observe the condition of the baby throughout the birth. Do not wrap anything around the baby.

If any of the following signs are seen, it may indicate fetal hypoxia so manoeuvres should be performed:

- The parts of the baby that are born are not well perfused, and have no movement or tone
- White, empty umbilical cord
- No movement / absent tone

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Right or left lateral position is suitable for conveyance.[4,15] Positioning the woman on her right side offers reassurance, allowing her to face the clinician or relative:

- Continually observe for signs of imminent birth en-route.
- Stop the vehicle to assist with the birth
- Provide early pre-alert message to the nearest obstetric unit and request maternity staff to meet the ambulance at an agreed entrance to avoid any delays.
- Stop the vehicle to assist with the birth if required.

Management of a Breech Birth (See Figure x.xx)

Recognition of breech birth imminent: remain on scene

If baby's buttocks are visible and advancing through the vaginal entrance (introitus), birth is **imminent** so remain on scene.

Prepare:

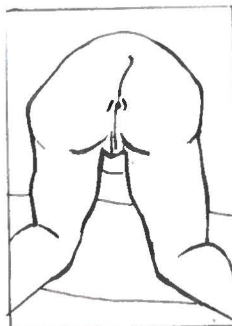
Request help and additional resources as per local procedures.

Prepare for newborn life support (Newborn Life Support).

Assist the woman into a position that aids gravity (position at the edge of the bed/trolley or all-fours)

Mother semi-recumbent – vagina over edge of bed to allow birth

Note: In the Semi-recumbent position keep the mother's buttocks AT THE EDGE of the bed, to allow the baby to 'hang down' under its own weight during delivery



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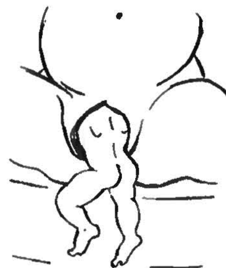
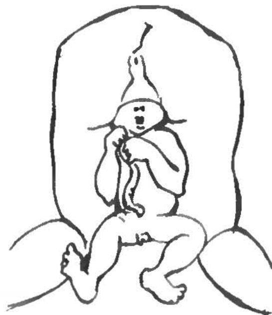
When the scapula (shoulder blade) is seen – the elbows/arms should now be visible. When the baby's elbow is visible:

- Hook your finger into the antecubital fossa (inside the elbow) and draw the arm **down** & deliver alongside the baby's body. Do this for both sides to release the arms.
- If you cannot see the arms, you will need to rotate the baby to bring the arms into view.
- Place your hands around the baby's pelvis.
- Rotate the baby until the shoulder is uppermost.
- If the arm is not delivered, place your finger into the vagina (gain consent first) finding the axilla and feel down the humerus until you reach the elbow.
- Place your finger into the antecubital fossa (inside the elbow) and complete delivery as described above.
- If the second arm does not then deliver, rotate the baby in the other direction and repeat.
- Once both arms are released, rotate the baby to face in the correct direction – see images below:



Mother semi-recumbent – baby's back must face towards you



Mother in All fours – baby's abdomen must face towards you

Watch video clip: video-arms delayed.MP4

If the head is delayed and the mother is in a semi recumbent position:

Baby's back should face towards you (see image above).

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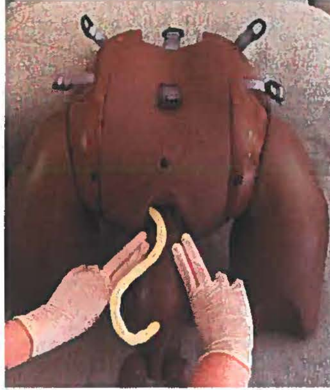

Mother in 'All fours' – shoulder press applied to encourage flexion and birth

Watch video clip:
VID-shoulder press.mp4

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References

1. Azria E et al. Factors associated with adverse perinatal outcomes for term breech fetuses with planned vaginal delivery. *American Journal of Obstetrics and Gynecology* 2012, 207(4). doi:10.1016/j.ajog.2012.08.027.
2. Azria E et al. Neonatal mortality and long-term outcome of infants born between 27 and 32 weeks of gestational age in breech presentation: The EPIPAGE Cohort Study. *PLOS ONE* 2016, 11(1). doi:10.1371/journal.pone.0145768.
3. Bogner G. et al. Breech delivery in the all fours position: A prospective observational comparative study with Classic Assistance. *Journal of Perinatal Medicine* 2014, 43(6): 707–713. doi:10.1515/jpm-2014-0048.
4. Carbonne B et al. Maternal position during labor: effects on fetal oxygen saturation measured by pulse oximetry. *Obstetrics & Gynecology* 1996, 88(5): 797-800. DOI: 10.1016/0029-7844(96)00298-0
5. Doyle NM et al. Outcomes of term vaginal breech delivery. *American Journal of Perinatology* 2005, 22(06): 325–328. doi:10.1055/s-2005-871530.
6. Hofmeyr GJ and Kulier R. (2012) Expedited versus Conservative approaches for vaginal delivery in breech presentation. Cochrane Database of Systematic Reviews [Preprint]. doi:10.1002/14651858.cd000082.pub2.
7. Louwen F et al. Does breech delivery in an upright position instead of on the back improve outcomes and avoid Cesareans? *International Journal of Gynecology & Obstetrics* 2017, 136(2): 151–161. doi:10.1002/ijgo.12033.
8. Pasupathy D et al. Time trend in the risk of delivery-related perinatal and neonatal death associated with breech presentation at term. *International Journal of Epidemiology* 2008, 38(2): 490–498. doi:10.1093/ije/dyn225.
9. Reitter A et al. Does pregnancy and/or shifting positions create more room in a woman's pelvis? *American Journal of Obstetrics and Gynecology* 2014, 211(6). doi:10.1016/j.ajog.2014.06.029.
10. Royal College of Obstetricians and Gynaecologists (RCOG) (2017) Management of breech presentation (green-top guideline no. 20B), RCOG. Available at: https://www.rcog.org.uk/guidance/browse-all-guidance/green-top-guidelines/management-of-breech-presentation-green-top-guideline-no-20b/ (Accessed: 21 June 2023).
11. Spillane E, Walker S and McCourt C. (2021) Optimal time intervals for vaginal breech births: A case-control study [Preprint]. doi:10.22541/au.163251114.49455726/v1.
12. Su M et al. Factors associated with adverse perinatal outcome in the term breech trial. *American Journal of Obstetrics and Gynecology* 2003, 189(3): 740–745. doi:10.1067/s0002-9378(03)00822-6.
13. Walker S, Scamell M and Parker P. Principles of physiological breech birth practice: A Delphi Study. *Midwifery* 2016, 43: 1–6. doi:10.1016/j.midw.2016.09.003.
14. Walsh D. Physiological positions for breech birth. *International Journal of Childbirth* 2017, 7(2): 58–59. doi:10.1891/2156-5287.7.2.58.
15. Wu S et al. Effects of right lateral position on changes of fetal hemodynamics in late pregnancy. *J Ultrasound Med* 2023, 9999:1–7. doi:10.1002/jum.16261

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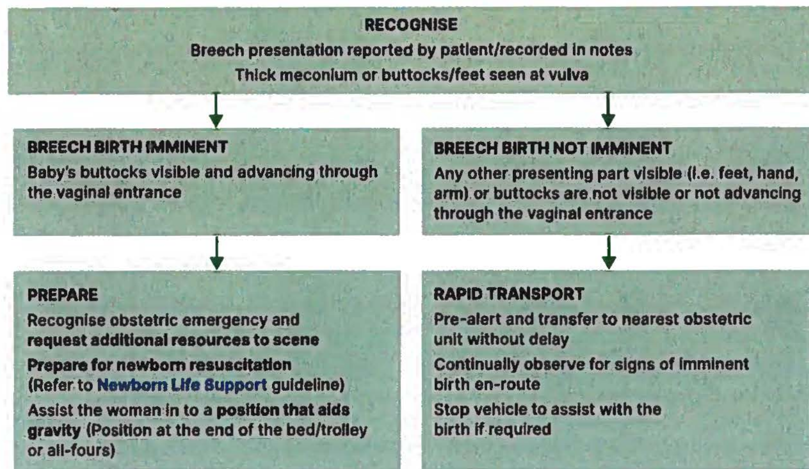


ASK DO YOU NEED MORE HELP? ARE YOU SEEING PROGRESS? ENCOURAGE CONTINUOUS PUSHING ASK DO YOU NEED MORE HELP? ARE YOU SEEING PROGRESS?

MANAGE

All fours | **Semi-recumbent**

Observe for descent, **hands poised** ready to intervene/receive the baby

- Both buttocks are born.
- **Start a timer.**
- Encourage **continuous pushing** (do not wait for contractions).

5 MINUTES TO COMPLETELY DELIVER BABY

If legs are delayed

Apply pressure behind the baby's knees to release the legs.

If arms are delayed

- When the baby's elbow is visible, hook your finger into the antecubital fossa (inside the elbow) and draw the arm down & deliver alongside the baby's body. Do this for both sides to release the arms.

- If you cannot see the arms, rotate the baby to bring the arms into view.
- Place your hands around the baby's pelvis. Rotate the baby until the shoulder is uppermost.
- If the arm is not delivered, place your finger into the vagina (gain consent first) finding the axilla and feel down the humerus until you reach the elbow.
- Place your finger into the antecubital fossa (inside the elbow) and complete delivery as described above.
- If the second arm does not then deliver, rotate the baby in the other direction and repeat.
- Once both arms are released, rotate the baby to face in the correct direction.

If the head is delayed - **All fours**

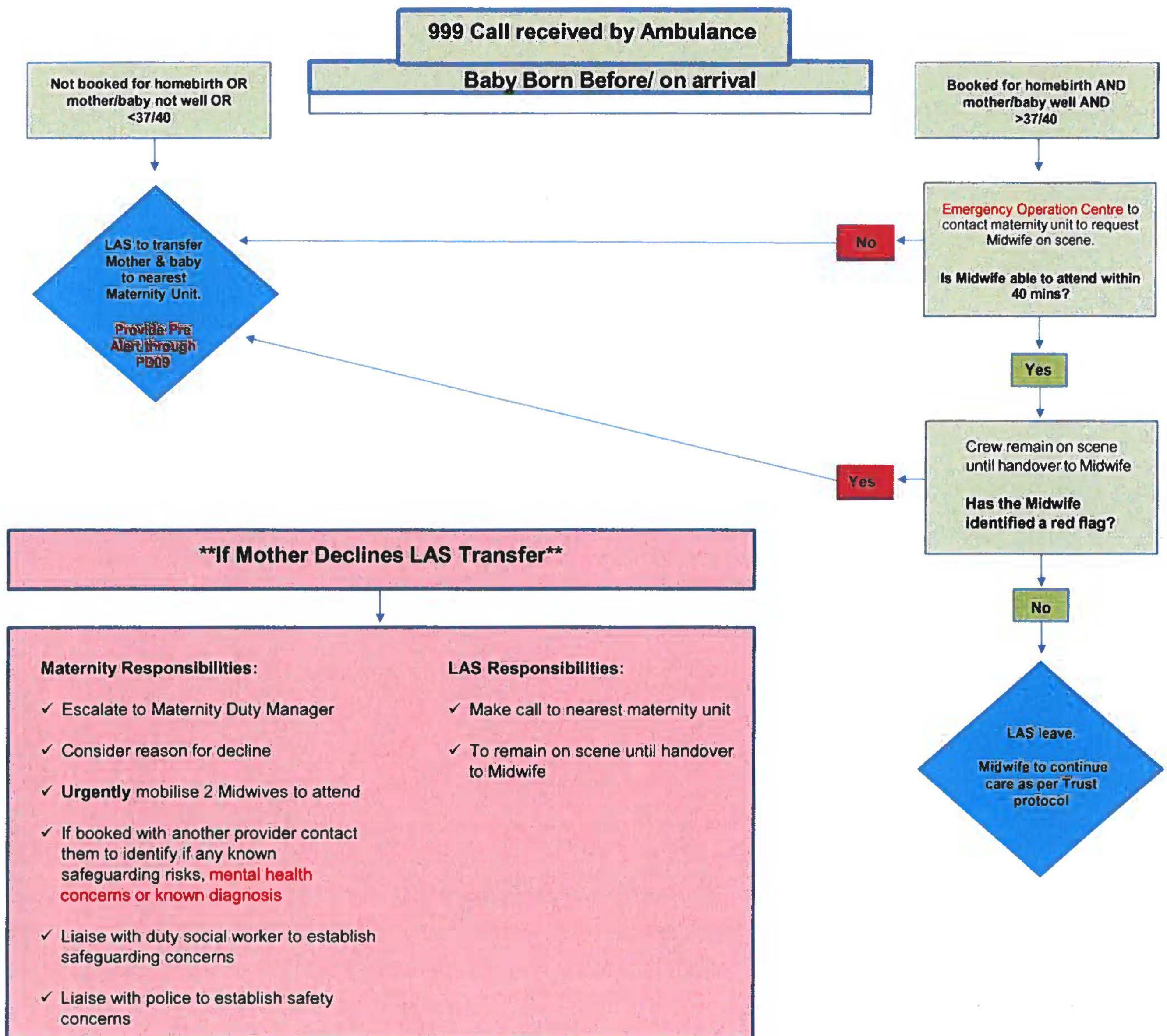
Baby's tummy should face towards you.

- Place both hands against the baby's chest and apply pressure to flex the baby's head forward as it's born.

If the head is delayed - **Semi-recumbent**

Baby's back should face towards you.

- Place one hand through the baby's legs to support baby's body along your arm, inserting the fingers into the woman's vagina.
- Place your two fingers on to the baby's cheekbones - avoid mouth and eyes.
- With the other hand, insert your fingers into the vagina along the nape of the baby's neck.
- Apply firm pressure to the back of the baby's head to bring the chin toward the chest.
- Apply pressure with both hands at the same time to flex the baby's head.
- Raise the baby upward to lift through the curve of the pelvis to deliver the baby.


999 Call received by Ambulance
Baby Born Before/ on arrival
Not booked for homebirth OR mother/baby not well OR <37/40
Booked for homebirth AND mother/baby well AND >37/40
LAS to transfer Mother & baby to nearest Maternity Unit.
Provide Pre Alert through PD09
Emergency Operation Centre to contact maternity unit to request Midwife on scene.
Is Midwife able to attend within 40 mins?
No
Yes
Crew remain on scene until handover to Midwife
Has the Midwife identified a red flag?
Yes
No
LAS leave.
Midwife to continue care as per Trust protocol
If Mother Declines LAS Transfer
Maternity Responsibilities:
✓ Escalate to Maternity Duty Manager
✓ Consider reason for decline
✓ Urgently mobilise 2 Midwives to attend
✓ If booked with another provider contact them to identify if any known safeguarding risks, mental health concerns or known diagnosis
✓ Liaise with duty social worker to establish safeguarding concerns
✓ Liaise with police to establish safety concerns
LAS Responsibilities:
✓ Make call to nearest maternity unit
✓ To remain on scene until handover to Midwife