University Hospitals Sussex
NHS Foundation Trust

Waterbirth

Maternity Protocol: MP039

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Contents

Key Principles

A protocol is a set of measurable, objective standards to determine a course of action. Professional judgement may be used in the application of a protocol.

Scope:

This protocol applies to:

- All pregnant women wishing to and or using the pool during childbirth

Responsibilities:

Midwives & Obstetricians:

- To access, read, understand and follow this guidance
- To use their professional judgement in application of this protocol

Management:

- To ensure the protocol is reviewed as required in line with Trust and National recommendations
- To ensure the protocol is accessible to all relevant staff

Objective Standards

1 Aims

1.1 To promote the analgesic properties of water during normal labour. To promote a safe birth and analgesic requirements for women in labour in line with the parents' wishes.

1.2 All pregnant women from 37 completed weeks should routinely be assessed and appropriately offered the use of the pool during pregnancy and when in labour at a maternity unit (subject to pool availability).

1.3 Women planning a homebirth should be informed about the safe use of the pool at home (see appendix for information sheet)

2 Inclusion/Exclusion Criteria for women who wish to use the Birthing Pool

Women who can Labour and Birth in Water	• Low Risk in established Labour • IOL not requiring Oxytocin • VBAC with CTG Monitoring • PSROM with 1x PGE or spontaneous Labour <48hours • GBS (Out of Pool for IVAB's) • HIV with undetectable Viral Load • BMI <35 • GDM with Normal Growth • Meconium with continuous monitoring and no other risk factors
Discussion Required with MDT	• Anaemia <100g/dL • Communication Issues • BMI >35 with no additional risk factors • For Labour only, out for birth and active management of third stage • Previous PPH • Previous Shoulder Dystocia • Maternal Medical Conditions (including maternal infections) • Fetal Growth above the 97th Centile on USS • Asymptomatic Covid Positive
Exclusion Criteria	• Multiple Births • Significant Meconium • Abnormal CTG/Doppler • Oligohydramnios/Polyhydramnios • APH • Opioids <2hrs or drowsy • SGA • Pre-Eclampsia /PIH • Epilepsy • Breech • Unable to independently enter and exit the pool • GIDM/Type 1 • Sepsis • Preterm Labour <37 weeks • Hepatitis B • Symptomatic Covid Positive

2.1 A careful individualised Risk Assessment should be made to consider the risks and benefits of using the pool. The inclusion/exclusion criteria should still be followed and women planning to use the pool with the wireless CTG machine should have a plan of care clearly documented. Any suspicion of fetal distress (Non-Reassuring or Abnormal CTG) should lead to the women vacating the pool and a review undertaken and documented in the maternal notes.

3 Preparation for Using the Pool

3.1 The midwife providing care is responsible for:

3.1.1 Discussing Birthplace, birth plan and use of room with parents. If at home, ensure that the safety requirements for a home birth are met

3.1.2 Consider and providing a calm, comfortable, relaxing environment to promote a physiological labour and birth

4 Checking equipment

4.1 Water pool must be to British Standards, the cleaning and disinfection record checked. The pool must be visibly clean and dry on visual inspection prior to use

4.1.1 Step for getting in and out of pool

4.1.2 Sieve

4.1.3 Torch & mirror

4.1.4 Neonatal Resuscitation equipment (In hospital, a resuscitaire to be kept outside the room unless needed)

4.1.5 Mattress, couch or delivery bed

4.1.6 Towels

4.1.7 Buzzer (In hospital)

4.1.8 Pinard stethoscope/fetal Doppler

4.1.9 Water Thermometer

4.1.10 Delivery pack and oxytocin for 3rd stage (as required)

5 The midwife providing care should:

5.1 Undertake and document an individual risk assessment

5.2 Undertake and document the following observations with consent:
- Maternal temperature, blood pressure, pulse & urine analysis.
- Abdominal palpation (SFH, presentation, position, engagement, if any concerns confirm with USS).
- Undertake fetal heart rate assessment – this will usually be intermittent auscultation unless women is having continuous wireless monitoring.

5.3 Undertake and document the current pool temperature and maternal pulse hourly.

5.4 Vaginal examinations should be considered every 4 hours as per normal care in labour guidelines (see MP035 Care of women in Labour). If not required or declined this should be clearly documented and a plan for timing and indication for review made.

5.5 Discuss and plan care with the woman.

5.6 Women should be advised that they must leave the pool immediately if asked to do so by the Midwife.

6 Water Temperature 36 – 37^{o} Degrees Celsius

6.1 1st stage
Maternal preference is the best way to determine the optimal temperature for labour but should not exceed 37 degrees Celsius.

6.2 2nd Stage
Water temperature in the second stage should be approximately 37^{o}C and comfortable for the woman. This is to retain body temperature for delivery of the baby and prevent initiation of respiration.

7 Considerations for Labour and Delivery

7.1 If contractions slow after being in the pool for some time it is advised women have some time out of the pool and then re-enter, this is because prolonged time in the pool may slow contractions. Leaving then re-entering the pool may produce another oxytocin surge and increase contractions.

7.2 The woman should be encouraged to move and to explore different positions at any time during the labour and birth.

7.3 Birth partners can also be in the pool (appropriately dressed) during labour and birth to provide support and help as per the mother's wishes.

7.4 The pool should be kept free of faecal contamination as E coli is a potential source of infection. Single use sieves are available for this purpose.

7.5 Ensure that the woman is well hydrated; water must be available at all times. Encourage the woman to empty her bladder out of the pool at least every 3-4 hours.

7.6 Women should be made aware that pool births can increase the risk of a perineal tear and that the perineum cannot be supported as per ORB project.

7.7 Two Midwives should be present for birth. One of whom must be experienced in caring for women labouring and giving birth in water.

7.8 The head should be the first part of the body brought to the surface.

7.9 Details of the labour and delivery should be completed in the normal way. It should be clearly documented whether baby was born under water or above water.

8 Third Stage

8.1 The third stage can be physiological or actively managed if a normal birth has occurred.

8.2 If physiological approach is used the mother and baby must be kept warm and blood loss must be observed carefully. The cord can be cut once stopped pulsating or left intact until placenta is delivered. Placenta can be delivered by maternal effort in or out of the pool.

8.3 If active management approach is used mother and baby must be aided from the pool immediately. Active management can only occur on dry land.

8.4 Blood loss is assessed by looking at the colour and spread of blood in pool and assessment of maternal condition. Collect clots as appropriate and estimate blood loss.

9 1st Hour Post Delivery.

9.1 Baby should be kept skin to skin with mother for the initial period of time if well. Once out of the pool skin to skin with mother or birth partner is recommended.

9.2 On leaving the pool the mother and baby should be dried quickly and wrapped in dry warm towels. The room temperature should be kept warm at all times.

9.3 Suturing should be delayed for one hour due to water saturation of the tissues unless bleeding is excessive, when prompt suturing is required.

10 Emergency Situations: Call for help immediately '2222'

10.1 If problems arise in hospital, use emergency buzzer to get help and alert other labour ward midwives. The delivery room should be kept prepared for emergencies, if there is no bed in the water birth room. Action to be taken will depend on the type of emergency.

10.2 If the emergency occurs at home, either second midwife or birth partner phone for a Category 1 Paramedic Ambulance and inform labour ward.

11 Shoulder Dystocia

If there is a problem delivering the baby's shoulders, then the mother must be asked get out of the water immediately and the baby delivered using appropriate techniques (see Maternity Protocol MP48 Shoulder Dystocia). As the mother gets out of the pool the midwife must support the baby's head to prevent trauma and to catch the baby if it is born during this process.

12 PPH

If there is noted to be excessive bleeding or the mother reports or is seen to look unwell they must be supported to get out of the water as quickly as possible and the usual action undertaken (see Maternity Protocol MP053 Obstetric Haemorrhage).

13 Maternal collapse

Midwives providing care for women who then collapse in the pool should:
Hold maternal head out of water to ensure airway is clear
Keep water in the pool (consider turning on taps to raise level of water to aid transfer from pool)
Remove mother from pool as soon as possible using the fishnet and pat slide (hospital) or large sheet (at home) as per manual handling guidelines.
Continue ABC assessment and emergency support as required (address cause of collapse if possible)
Ensure baby is safe during this time if born (cut, clamp cord and remove from pool) (see Maternity Protocol MP074 Peripartum Collapse)

14 Breech

There is no current research regarding safety using the pool for breech labour and birth, however it is recognised that there is limited experience in this area. Based on this, our current recommendation is that women with breech presenting babies do not labour or birth in the pool (See Maternity Protocol MP046 Breech)

15 Home Birth

Use of the pool within the home setting please refer to Maternity Protocol MP060 Homebirth

16 Cleaning of the Pool

16.1 Trust birthing pools

The birthing pool needs to be cleaned prior to each use and every 24 hours. To coincide with the daily pool taps flushing regime (taps must be flushed daily for 2 minutes as per the Trust water flushing guidelines). A pool cleaning record should be kept, which is signed by the member of staff performing the procedure.

16.2 Contamination waste

Any faeces and other debris, which may contaminate the water, must be removed using a disposable strainer (single patient use). If the water is very contaminated then it should be changed completely, or the woman may be asked to exit the pool.

16.3 Cleaning of the birthing pool

- Visually inspect the work area and review the task, are there any hazards to be addressed?
- Assemble equipment, single use mop and bucket, disposable paper roll
- Place caution signs ensuring that they are visibly display, but not causing an obstruction
- Ensure there is adequate ventilation in the area
- Put on clean specific personal protective equipment (PPE) i.e. gloves and aprons, eye protection
- Follow manufactures recommendations for mixing up the chlorine dioxide agent (**never mix cleaning agents**)
- Always work from clean area to dirty, high surfaces to low
- Inform House-keeping if any problems identified
- Taps and shower heads to be descaled weekly by Estates

16.4 Process:

- Remove any debris from the pool, using the sieve, before emptying the pool (to prevent debris blocking the pool outlet)

- Ensure the pool tap is turned to 'closed' prior to cleaning the pool tap and pool area
- Using detergent wipe all surfaces ensure the tap is cleaned first, so as not to transfer microorganisms from the 'dirty' pool area to the cleaner tap region
- Ensure there is a contact time of 5 minutes
- Thoroughly rinse the interior of the birth pool with cold running water, ensure all traces of the chlorine dioxide solution is removed, to prevent any residue being left on the side of the pool surface
- Follow cleaning, pour 1 litre of chlorine dioxide down the drain
- Dry the entire surface of the pool and taps using disposable paper towels/roll
- Wipe all spillages of water from the floor with disposable paper
- Disposed of any single use accessories and/or hosing between patients
- Report any scale issues to Estates
- Return all equipment to storage area

Note: when running/flushing TMV mixer taps the tap lever **must** be moved to the maximum hot position (lever usually moves from its position on the right when it is off, over to the extreme left, when it is fully on maximum hot water) to allow the maximum amount of hot and cold water to be drawn through the tap. Water temperature from TMV taps should not exceed 41°C, and should pose no scalding risk.

17 References

1. Forde C., Creighton S., Batty A., et al (1999) Labour and delivery in the birthing pool. British Journal of Midwifery 7:3 pages 165 – 171
2. Royal College Of Midwives (2012) Evidence Based Guidelines for Midwifery Led Care in Labour – Immersion in Water for Labour and Birth
3. NMC Professional Standards of Practice 2018
4. NICE Clinical Guideline (2017) 190: Intrapartum Care
5. Anderson T. (2004) Time to throw away the waterbirth thermometer. MIDIRS (3):370-4
6. Gilbert R and Tookey P. 1999. Perinatal mortality and morbidity among babies delivered in water: surveillance study and postal survey. BMJ. Vol 319, 21. p483-387
7. Royal College of Midwives (2020) Clinical Briefing Sheet – Water Birth during the Covid 19 Pandemic

18 Appendix 1