NHS
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NHS Foundation Trust

Guideline for the use of Water in Labour and Birth

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PROUD to care

NHS Barnsley Hospital NHS Foundation Trust

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1.0 Introduction

This guideline is to inform the practice of the midwife whether at home or on the Barnsley Birthing Centre (BBC) with regard to the best practice in the care of women who are labouring and/or birthing in water.
It will aid obstetricians when discussing the options of the use of water in labour/birth for women booked under shared care.

1.1 Labouring in water

Water immersion in labour has considerable perceived benefits for the woman with no difference in the type of birth, five-minute Apgar scores, neonatal infection or admission to neonatal units.

The following benefits are associated with the safe use of water in labour (RCM, 2018):

- Facilitating mobility and enabling the woman to assume comfortable positions
- Gives the woman a greater feeling of control
- Provides significant pain relief and greater satisfaction
- Promotes relaxation and reduces the need for drugs and interventions
- Can shorten the duration of labour
- Protects the mother from interventions by giving her protected private space
- Can help reduce use of epidural and lower caesarean section rates
- Encourages an easier birth for women and a gentle transition for the neonate
- Is highly rated by women – typically stating they would consider giving birth in water again

Although waterbirth is recommended for low-risk women, the facilitation should also be available to women under shared care. A woman should be given the opportunity to discuss her request for a waterbirth with her consultant obstetrician and these discussions must be documented accordingly (RCM, 2022).

2.0 Objective

To maximise the safety of women and their unborn babies when they choose to labour or birth in water.

To ensure the safety of professionals providing care for women who choose to labour or birth in water

3.0 Scope

This guideline applies to all midwifery and medical staff working on the maternity unit and in community.

4.0 Main body of the document

4.1 Birth Planning

NICE clinical guidance no.190 (Intrapartum care for healthy women and babies) recommends that labouring in water should be available for women as a form of pain relief and suggests that women are supplied with evidence-based information to enable them to make informed decisions regarding their care. The woman's views, beliefs and values should be respected at all times.

4.2 Inclusion Criteria for women who wish to labour and birth in water

Women's informed choice
Maternal baseline observations all within normal parameters
Normal fetal heart rate
Term pregnancy ≥37weeks
Singleton fetus with cephalic presentation
No opioid analgesia within the previous 2 hours
Spontaneous rupture of membranes < 24 hours
Clear liquor when membranes ruptured
Ambulatory enough to get in and out of the pool unassisted

Additional aspects for inclusion

Vaginal Birth after Caesarean Section (VBAC)

The overall rate of a planned VBAC is 72-75% (RCOG, 2015)
The plan and method of delivery should have been discussed with a Senior Obstetrician, agreed and fully documented prior to established labour.

Continuous EFM is recommended to be carried out using telemetry (RCOG, 2015 and NICE, 2017).

GBS positive previously or currently diagnosed

The current prevention of early onset neonatal GBS disease guideline recommends that 'intrapartum antibiotics should be offered and administered to women who are currently diagnosed with GBS or who have had a previous positive result'. However, the administration of IV antibiotics should NOT prohibit women labouring or birthing in the pool with a cannula in situ. Plumb et al (2007)

The cannula should be secured with a waterproof dressing and kept dry; a bandage may be used to support this but it must be removed prior to administering any IV medication or fluids.

4.3 Exclusion Criteria for women who wish to labour and birth in water

Any condition or situation that would involve additional risks to labouring or birthing in water. The list below is not exhaustive and each case should be assessed individually.

Previous obstetric history:

- Shoulder Dystocia
- Post-partum haemorrhage
- Eclamptic fit

Current pregnancy:

- Ante-partum haemorrhage
- Malpresentation
- Multiple pregnancy
- Intra-uterine growth restriction

- Pre-eclampsia
- Meconium-stained liquor

Maternal:

- Uncontrolled Epilepsy
- Genital herpes

Labour:

Prior to entering the pool, the woman should be informed of the following parameters and limitations of water birth:

- They will be advised on the optimal timing of entry into the pool
- They will be advised of the limitations re: choices of additional pain relief
- They will be advised to leave the pool if unexpected complications occur in labour
- They will be advised to leave the pool for active management of the third stage (women who opt for a physiological third stage can choose to remain in the birthing pool – see section on the 3rd stage below

4.4 Women who chose waterbirth against medical advice

Any woman wishing to receive care outside of national and local policy will receive evidence-based information to inform their decision making. As per the Royal College of Midwives (RCM) care outside guidance document, personalised care plans should be formed together with the woman and her family and the decisions made should be documented. https://www.rcm.org.uk/media/5941/care_outside_guidance.pdf

Midwives should seek input and support from Lead Midwives, specialist midwifery staff involved in the woman's care and the woman's named Consultant when developing the personalised care plans.

If the woman is already labouring the on-call Registrar or Consultant obstetrician should be asked to review the woman and clearly document the plan which has been agreed with her, including discussions regarding risks and the woman's wishes.

4.5 Preparation of Equipment

The pool room should contain all the necessary equipment needed for delivery, should be adequately ventilated and be maintained at a comfortable temperature.

The pool should be filled to a depth that is comfortable for the woman, ensuring that the uterus is fully immersed.

At home

Women will be given a list of equipment, which they need to provide.

All electrical equipment should be kept away from the pool.

Please note. It is recommended that women labour and birth in pools that have been filled from the domestic hot water supply at the time of delivery. It is **not** recommended that

women labour or give birth in a birthing pool that has been filled prior to the onset of labour and the temperature maintained by the use of a heater and pump (risk of legionella pneumophilia infection in the neonate).

In hospital/home environment

A waterproof handheld Doppler should be available.

Care on the Birthing Centre

The woman should be orientated to the hospital birthing pool and be able to enter and exit the pool with ease; a risk assessment should be carried out if the woman has limited mobility due to an increased BMI, pelvic girdle pain or mobility issues. This should be documented on the partogram.

4.6 Health and Safety

Minimising contamination of the water by strict adherence to cleaning procedures should reduce the risk of infection. The regular sieving of the pool to remove debris is essential.

Moving and handling issues need to be considered (BHNFT, Manual Handling Policy). The woman and her partner must be fully informed of this policy and the expectation that she will be expected to exit the pool with minimal assistance from staff. A plan for removing the woman from the pool in an emergency situation or if the woman's mobility becomes compromised should be made.

Protective clothing should be worn, i.e. plastic apron and to consider gauntlet gloves.

4.7 The Use of the Pool during Labour

Midwives attending women who choose to labour and/or deliver in water should understand the steps for dealing with emergency situations. Adjacent to the pool there will be an appropriate area where care can continue should the woman be required to exit the pool.

The midwives should review how they would manage any emergency situations i.e. shoulder dystocia, haemorrhage. All emergency management should be in accordance with the appropriate guidelines

4.7.1. Water temperature:

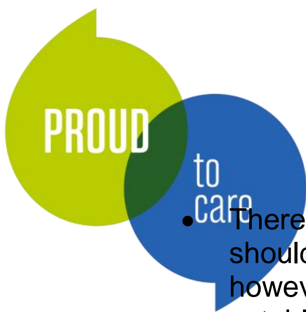
- The water temperature must be checked every 60 minutes during the first stage and every 30 minutes in the second stage of labour. This should be documented in the partogram on the waterbirth page

- There is no evidence regarding pool temperatures. It is recommended the pool is kept below 37.5C to protect the woman from overheating.
  It should not be too cold to cool the baby at delivery, therefore above 36C is set as a guideline (NICE, 2017)

- Water should be deep enough to facilitate movement and comfort.

Please refer to Appendix 1: The use of water for labour and delivery quick reference guide

4.8 Observations during Labour:



- There is no evidence to support arbitrary points during a woman's labour when she should be allowed to enter the pool or how long she should stay in the water, however it is thought that the optimal time for pool entry is when the woman is in established labour and experiencing regular uterine activity.

- Maternal observations – 4 hourly blood pressure, hourly temperature, minimum ½ hourly pulse. If a maternal temperature is **37.5°C or above**, the woman will be asked to exit the pool as there is an increased risk of hypoxic changes to the fetus in the presence of maternal pyrexia – consideration should also be given to the risk of maternal infection.

- Fetal heart rate monitoring (FHR) – every 15 minutes for the 1st stage of labour using a Pinnard or protected battery-operated Doppler and after every contraction (with a maximum interval of 5 minutes) when actively pushing. Maternal pulse should be recorded when auscultating FHR to ensure differentiation.

- Encourage oral fluids to maintain maternal hydration.

NB – If the woman has to leave the pool at any time, please dry the woman quickly and keep her warm to reduce the risk of maternal hypothermia. In an emergency the priority will always be the timely commencement of any emergency procedures and/or transfer to theatre.

4.9 (a) Pain Relief

- Consider simple methods first e.g. breathing and relaxation

- Aromatherapy by diffuser (no oils in the pool)
- The mother may use Entonox in the pool
- Opioids. The birthing person will be asked to get out of the water if requesting opioid analgesia due to its sedative effects. Careful consideration would be needed if the birthing person wanted to re-enter the pool at a later time.

(b) Bladder care

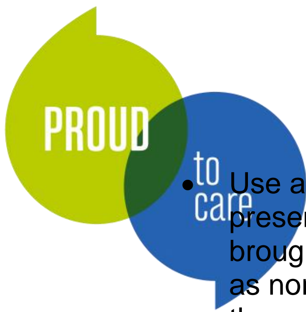
- *Please refer to care in labour guidance*

(c)Partner / Birth companion

- Encourage involvement at all times. Some partners may wish to enter the pool
- Encourage and support the woman with hydration

4.10 The Use of the Pool during Delivery of the Baby

- If an amniotomy or episiotomy is indicated assist the mother to exit the pool.
- The water temperature should be between 36-37.5C and recorded every 60 minutes in 1st stage and every 30 minutes in 2nd stage.
- The depth of the pool should reach the mother's breasts to optimise buoyancy and control of delivery in water
- A mirror may be used to aid visualisation and assess progress of second stage.
- As far as possible faeces should be removed from the pool by the use of a sieve.



- Use a ‘hands off delivery technique’ for delivery. It is not necessary to feel for the presence of a nuchal cord. The baby is delivered completely underwater and brought gently to the surface head first; the cord can be loosened and disentangled as normal. Consider pool depth as rapid cord traction can result in the snapping of the cord. Check to ensure the cord is intact.
- If the woman leaves the pool once the vertex is visible, she should not return.
- If the cord has snapped ensure it is clamped immediately (clamps should be readily available). Refer the infant for a paediatric assessment.
- Should shoulder dystocia occur, an emergency exit should be facilitated. All manoeuvres should be performed clear of the water.
- Otherwise position the baby for the mother to hold, during which time, observe and perform an Apgar assessment. Maintain the warmth of the baby. Clamp and cut the cord out of the water, when indicated depending on woman’s choice of 3rd stage management.

NB - the midwife must be aware that hypoxia or any suspected or unsuspected compromise will predispose the baby to gasp and aspirate, further contact with air may stimulate breathing

4.11 Management of the 3rd Stage of Labour:

Active Third Stage

Women will be advised that they must leave the pool if they choose to have active management of the third stage of labour.

Physiological Third Stage

Women requesting a physiological third stage of labour may choose to stay in the pool but must be aware that:

- There is no reliable evidence that can be used regarding the benefits or risks of delivery of the third stage whilst under water
- It is not possible to estimate the blood loss of women who are immersed in water

The management will be as for a woman undergoing a physiological third stage out of water but the midwife should be aware that it is difficult to estimate the level of blood loss whilst in the pool and be vigilant for signs of deterioration in the woman’s condition.

The woman should be asked to leave the pool for management of a retained placenta if the third stage has not delivered within 60 minutes.

4.12 Management of Postnatal Care:

It is essential that the room is maintained at a comfortable temperature to ensure mother and baby are supported to remain normothermic. Any wet clothing and/or towels should also be removed and replaced with pre-warmed towels and blankets.

Mother:

- Temperature, pulse, blood pressure, saturation and respiration rate will be recorded after delivery as per guideline for the Management of Normal Labour

- The mother should be kept warm to prevent hypothermia. Remove wet clothing and dry her thoroughly
- Examination of the perineum should be conducted out of the pool and suturing deferred for approximately one hour for water retention of the tissues to dissipate (unless bleeding profusely)

Baby:

- The baby must be kept warm in skin to skin
- Neonatal observations - Respiration Activity Position Perfusion Muscle Tone (RAPPT) should be performed as per local guidance

5.0 Roles and responsibilities

5.1 Midwives

To provide the best evidence-based care for women who wish to labour and birth in water in accordance with appropriate guidance.

6.0 Associated Documents and References

Barnsley Hospital NHS Foundation Trust *Health and Safety Guidelines*

Brown L, (1998) The tide has turned: audit of water birth, *British Journal of Midwifery*, Supplement on water birth 6 (4) p.236-243

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Nursing and Midwifery Council (NMC, 2015) *Code of Professional Conduct.* London

Peacock P, et al (2018) Neonatal Outcomes Following Delivery in Water: Evaluation of Safety in a District General Hospital, *Cureus, v10(2)*
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care outside guidance.pdf (rcm.org.uk)
Royal College of Midwives, RCM Midwifery Blue top guidance: Midwifery care for all women in all settings (2018)

Royal College of Midwives, Evidence based guidelines for midwifery led care in labour. Immersion in water for Labour and Birth (2012) [online] www.rcm.org.uk accessed 17/08/2017

Royal College of Obstetricians and Gynaecologists and Royal College of Midwives Joint Statement No.1 (2006)

7.0 Training and Resources

Training will be delivered as outlined in the Maternity Training Needs Analysis. This is updated on an annual basis.

8.0 Monitoring and Audit

Any adverse incidents relating to the guideline for the use of water for labour and birth will be monitored via the incident reporting system. Any problems will be actioned via the case review and root cause analysis action plans. The action plans are monitored by the risk midwife to ensure that improvements in care are made. The trends and any root cause analysis are discussed at the monthly risk meetings to ensure that appropriate action has been taken to maintain safety.

The guideline for the use of water for labour and birth
will be audited in line with the annual audit programme, as agreed by the CBU. The audit action plan will be reviewed at the monthly risk management meetings on a quarterly basis and monitored by the risk midwife to ensure that improvements in care are made.

9.0 Equality and Diversity

This section is mandatory for all Trust Approved Documents and must include the statement below:

The Trust is committed to an environment that promotes equality and embraces diversity in its performance as an employer and service provider. It will adhere to legal and performance requirements and will mainstream equality, diversity and inclusion principles through its policies, procedures and processes. This guideline should be implemented with due regard to this commitment.

To ensure that the implementation of this guideline does not have an adverse impact in response to the requirements of the Equality Act 2010 this policy has been screened for relevance during the policy development process and a full equality impact assessment is conducted where necessary prior to consultation. The Trust will take remedial action when necessary to address any unexpected or unwarranted disparities and monitor practice to ensure that this policy is fairly implemented.

This guideline can be made available in alternative formats on request including large print, Braille, moon, audio, and different languages. To arrange this please refer to the Trust translation and interpretation policy in the first instance.

The Trust will endeavor to make reasonable adjustments to accommodate any employee/patient with particular equality, diversity and inclusion requirements in implementing this guideline. This may include accessibility of meeting/appointment venues, providing translation, arranging an interpreter to attend appointments/meetings, extending policy

timeframes to enable translation to be undertaken, or assistance with formulating any written statements.

9.1 Recording and Monitoring of Equality & Diversity

This section is mandatory for all Trust Approved Documents and must include the statement below:

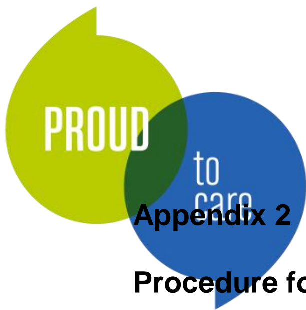
The Trust understands the business case for equality, diversity and inclusion and will make sure that this is translated into practice. Accordingly, all guidelines will be monitored to ensure their effectiveness.

Monitoring information will be collated, analysed and published on an annual basis as part of Equality Delivery System. The monitoring will cover the nine protected characteristics and will meet statutory employment duties under the Equality Act 2010. Where adverse impact is identified through the monitoring process the Trust will investigate and take corrective action to mitigate and prevent any negative impact.

Appendix 1

The use of water for labour and delivery quick reference guide:

- Discuss strategy for exiting the pool in an emergency with staff, the woman and her partner present
- Optimal time for pool entry is when the woman is in established labour and experiencing regular uterine activity.
- Check environmental factors – maintain a comfortable environmental temperature and have necessary equipment for delivery available in the room.
- Regular sieving of the pool is important to remove any faeces or debris
- Encourage oral fluids
- All invasive procedures require the woman to exit the pool
- Monitor maternal blood pressure 4 hourly, temperature hourly and pulse half hourly – if maternal temperature is more than 37.5°C, it is advisable to leave the pool
- Fetal heart rate (FHR) every 15 minutes during the 1st stage
- FHR after every contraction when pushing (maximum of 5-minute intervals)
- Exit the pool if any deviation from the normal or contraindications as listed
- May use Entonox
- If opioids are needed the woman must exit the pool for at least 2 hours
    - Ensure that the sedation levels of the woman are assessed on an individual basis
- Pool depth to reach the woman's breasts to optimise buoyancy
- Maintain pool temperature between 36-37.5°C (37.5°C during 2nd stage) – check every 60 minutes during 1st stage, check every 30 minutes during 2nd stage
- 'Hands off' delivery technique. It is not necessary to feel for the nuchal cord, baby's head to be brought to surface first
- Consider pool depth when bringing baby to the surface. Keep baby's body underwater to keep warm. Check cord to make sure it is intact, if not the ends must be clamped immediately. Refer the baby for paediatric review if the cord snaps in the water before clamping
- Dry and wrap the woman if she has to exit the pool for transfer to theatre (unless this will compromise the woman or her unborn baby in an emergency)
- Exit pool for active 3rd stage of labour – the woman may choose to remain in the pool if she chooses to have a physiological 3rd stage
- Record baby's heart rate, respirations and temperature initially and then RAPPT observations should be performed as per local guidance



Appendix 2

Procedure for cleaning and disinfecting of birth pools on the Birthing Centre

This document provides a framework for cleaning and disinfecting pools following delivery, promoting uniformity of approach and ensuring basic standards are met

The main underpinning themes are risk management and infection control

Aim
To ensure a standardised approach to cleaning and disinfecting of birthing pools

Management/Procedure

- Use personal protection equipment, gloves and apron
- After use the pool must be cleaned with warm water and a non-abrasive detergent
- Disinfect the pool with Tristel solution. Follow the manufacturer's instructions for making up the solution and combining both sachets before adding to 5 litres of water
- A long mop handle with a disposable mop-end can be used to wipe the sides of the pool with the Tristel mix
- The pool should then be left to dry
- Particular attention should be given to the drainage outlet that needs cleaning and drying with a disposable cloth
- The drainage system should be kept closed when not in use

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Appendix 3
Glossary of terms

RAPPT - Respiratory Activity Position Perfusion Muscle Tone Observations

Appendix 4 (must always be the last appendix)
Maintain a record of the document history, reviews and key changes made (including versions and dates)

Version	Date	Comments	Author
1	06/08		
2	09/06/2014		
3	08/09/2014		
4	18/09/2017		
5	02/11/2022		J Brindley

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Name of Group/Department/Committee	Date
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Approved by CBU 3 Overarching Governance Meeting	21/12/2022
Approved at Trust Clinical Guidelines Group	
Approved at Medicines Management Committee (if document relates to medicines)	N/A

Barsley Hospital
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Trust Approved Documents (policies, clinical guidelines and procedures)

Approval Form

Please complete the following information and attach to your document when submitting a policy, clinical guideline or procedure for approval.

Document type (policy, clinical guideline or procedure)	Guideline
Document title	Guideline for the use of Water in Labour and Birth
Document author (Job title and team)	Practice Educator Midwife
New or reviewed document	Reviewed
List staff groups/departments consulted with during document development	
Approval recommended by (meeting and dates):	**WB&G 18/11/2022** **CBU3 B&G 21/12/2022**
Date of next review (maximum 3 years)	21/12/2025
Key words for search criteria on intranet (max 10 words)	Birthing pool
Key messages for staff (consider changes from previous versions and any impact on patient safety)	
I confirm that this is the FINAL version of this document	**Name: Molly Claydon** **Designation: Governance Support Co-ordinator**

FOR COMPLETION BY THE CLINICAL GOVERNANCE TEAM

Approved by (group/committee): CBU3 Business and Governance

Date approved: 21/12/2022

Date Clinical Governance Administrator informed of approval: 22/12/2022

Date uploaded to Trust Approved Documents page:22/12/2022