

**436.6 WATER BIRTH AND USE OF WATER IN LABOUR GUIDELINE  
MAT/LWG/Intrapartum/26**

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**1. INTRODUCTION**

Immersion in water during labour can aid relaxation, ease pain, help women change position easily and reduce the need for epidurals for pain relief. NICE Intrapartum Care guideline (2007) encourages the use of water for labour pain relief. The Royal College of Midwives (RCM) and The Royal College of Obstetricians and Gynaecologists issued a joint statement in April 2006 supporting "... labouring in water for healthy women with uncomplicated pregnancies. The evidence to support underwater birth is less clear but complications are seemingly rare. If good practice guidelines are followed these complications should be further reduced." (Alfirevic and Gould 2006).

Women’s choice during pregnancy and birth must be respected (Maternity Matters 2007) and midwives should be able to support women who choose to labour and birth in water.

Buckinghamshire Healthcare NHS Trust has available permanent birth pools at the Aylesbury Birth Centre and Wycombe Birth Centre and also inflatable pools for use on the Labour Ward or when the permanent pools are in use.

**2. SELECTION CRITERIA**

- a) Mother’s request.
- b) Must be low risk:
  - Uncomplicated pregnancy at 37+ weeks’ gestation.
  - Established labour confirmed.
  - Fetal heart rate within normal limits 110 – 160 bpm.
  - Cephalic presentation.
  - Maternal observations within normal limits.
  - No known blood-borne viruses.
  - No skin disorders where skin surface is broken.
  - No opiates within a two hour period.
  - No significant medical conditions which may affect the pregnancy, i.e. pregnancy induced hypertension, pre-eclampsia, cardiac conditions.
  - Women with previous caesarean section must be on Labour Ward with telemetry in place.
  - IOL is suitable for water births as long as an initial CTG is normal when contractions commence and oxytocin is not required.
  - If membranes have ruptured, liquor should be clear. If prolonged **SROM**, i.e. over 18 hours, IV antibiotics must be commenced.

- Women with diabetes must be on Labour Ward with telemetry and the baby must not be clinically diagnosed macrosomic.
- Weight of less than 100 kg at 36 weeks, from a health and safety point of view.
- No physical disability/condition impairing the mother's ability to enter and exit the pool by herself or stand up.

Women choosing water labour and/or birth who fall outside of the selection criteria should be discussed with a supervisor of midwives. This discussion may need to involve other members of the multidisciplinary team; allowing a full risk assessment to be undertaken and the risks and benefits can be explored with the woman. An informed choice can subsequently be made by the woman. Detailed documentation of such discussions and management plans must be written in the woman's maternity records.

### 3. DECISION TO ENTER THE POOL

There is little evidence to recommend an arbitrary point in labour/specific cervical dilatation that should be set before immersion in water for pain relief in labour is permitted. However, it is recommended that women mobilise in early labour and established labour is confirmed prior to entering the pool.

If a woman requiring pain management enters the pool she should be aware that should contractions diminish, she may need to leave the pool and return when contractions re-establish.

#### **Before entering the pool:**

Assess maternal and fetal wellbeing suitability (as per [472 Normal Labour and Birth Guidelines for Maternity Staff](#)).

Vaginal examination undertaken to confirm in established labour. The midwife should discuss with the woman the need to leave the pool should any deviations from normal occur. This discussion should be documented in the notes

#### **Pool depth:**

Fill to the level of the breasts/above the umbilicus, when sitting in the pool. Record depth of water in woman's notes.

### 4. FIRST STAGE

- Water temperature should be comfortable for the woman (NICE 2007, RCM 2012). Record this hourly on partogram. It is recommended 32 - 36°C (Balaskas 2004). It should not exceed 37.5°C (NICE 2007).
- Maternal temperature hourly. Record this on the partogram.
- All other maternal and fetal observations as per [472 Normal Labour and Birth Guidelines for Maternity Staff](#).
- Encourage free fluids to prevent dehydration.
- If other forms of analgesia, apart from Entonox® are required, the mother must leave the pool.

### 5. SECOND STAGE OF LABOUR

To ensure that the baby does not breathe underwater, it is important to keep the temperature as close as possible to 37°C (Balaskas 2004). It must not exceed 37.5°C (NICE 2007). As reported by Johnson (1996), a cooling of 1 - 2°C can initiate breathing.

- Record water temperature every 30 minutes on the partogram.
- All other maternal and fetal observations as per [472 Normal Labour and Birth Guidelines for Maternity Staff](#).
- Two midwives must be available at a water birth, one of whom should be competent with water birth.
- **Keep hands off and observe:** Control of the perineum is unnecessary; immersion in water changes the skin elasticity thereby aiding stretching of the perineum. Do not touch the emerging fetal head during birth. Traction for the shoulders is also unnecessary.

- Do not feel for the presence of the umbilical cord around the fetal neck during the birth. Cutting and clamping of the cord before the birth of the baby is not an option with water births, as this would trigger respiration.
- If an episiotomy is necessary, the woman should leave the pool.
- The baby should be delivered completely submerged, as exposure to air will initiate respiration.
- When the baby is born, it is turned gently until face is uppermost, brought to the surface immediately and given to the mother.
- Allow the cord to stop pulsating if this is the parents wish, then clamp and cut.
- Avoid undue tension on the umbilical cord as the baby is brought up to the surface. There is a risk of cord rupture (Cro and Preston 2002).

## 6. THIRD STAGE OF LABOUR

It is the woman's choice whether she has a physiological or active third stage. Women are asked to exit the pool for management of the third stage of labour. However, physiological management can be conducted in the pool but must not exceed one hour in length (NICE 2007).

## 7. EMERGENCY SITUATIONS

Continuous risk assessment of the woman during water labour and birth is essential to reduce the incidence of obstetric emergencies in the pool.

All midwives must be familiar with the procedure for emergency evacuation of the pool (see [Appendix 2](#)). In the event of an emergency:

- Summon help.
- Raise mother onto edge of pool, maintaining airway as required.
- Use sliding sheet to place onto hard surface where resuscitation can be undertaken, where indicated.
- Always ensure the labour ward co-ordinator is aware that there is a woman labouring/birthing in the water.

## 8. EVACUATION FROM THE POOL

The physical technique of removing a collapsed patient from the birthing pool is hazardous and poses a high risk of injury. Buckinghamshire Healthcare NHS Trust has a safe handling policy (see [Guideline 46 Manual Handling Policy](#)). The policy states that:

**'Hazardous manual handling should be avoided in all but the most exceptional or life-threatening situations. If this is not possible then the risks arising should be reduced to the lowest level reasonable and practicable.'**

The Royal College of Nursing and The National Back Pain Association (1997) advise that there are only four situations that can be described as an emergency. These are when a patient is in imminent danger of: Drowning, a bomb or bullet, a collapsed building or other structure or being in an area that is actually on fire or filling with smoke. Cardiac arrest in a hospital is regarded by The Resuscitation Council UK as a **foreseeable situation** and, as such, should be risk assessed, with the outcome of this assessment being formulated into a clear plan of management. The plan (as detailed below) should then be implemented locally.

The assessment process of using the birthing pool indicates that if there is a 'likelihood' of the mother having a cardiac arrest or fainting/blacking out whilst in the pool, she should be advised not to enter the pool. It should be ensured that women meet the inclusion criteria for a pool delivery before she enters the pool. In the unlikely event of the mother being in extreme distress or having a cardiac arrest whilst immersed in the pool, the following evacuation technique should be used.

### Skill level:

The handler must have received training in this manoeuvre. This will be discussed and demonstrated at the Maternity Services in-house manual handling training. A high level of skill

and physical fitness of the handler is required. Due to the high risks associated with this technique, it is not considered appropriate for each midwife to 'experience' moving an unconscious person out of the pool. Training will involve direct instruction from the manual handling key trainer or manual handling practitioner. It is a requirement of staff working within the Birth Centres at Wycombe and Aylesbury to be able to undertake this manoeuvre. If any member of staff feels they are unable, due to health or physical reasons, to undertake this technique in the event of an unconscious mother, they should contact their line manager immediately.

### Evacuation technique:

This technique should be considered as an interim measure while permanent solutions are sought following risk assessment.

If the woman is able, she should be encouraged to stand and assisted to leave the pool. A bath mat should be made available to reduce the risk of slipping and maintain a safe environment. A Labour Ward bed should be available to receive the women from the pool.

Following collapse, emergency help should be summoned via the emergency buzzer system. Four members of staff, as a minimum, are required to perform the manoeuvre. **Do not pull the plug out – keep the water running** as the buoyancy of the water helps to support the mother's weight and float her out of the pool, thus reducing the level of effort required by the staff.

One member of staff enters the pool to support the mother. The mother is then manoeuvred into the evacuation position with her back facing the sloping side of the pool.

A large green reusable slide sheet, or two disposable slide sheets, are placed behind the mother right down to the level of the sacrum.



A bed must be placed across the top of the pool, with brakes on and foot off, ready to receive the mother.



One member of staff should stand either side of the mother outside the pool, holding the top of the slide sheet and with feet in the direction of travel.

The fourth member of staff should support the airway and guide the woman onto the awaiting bed during the manoeuvre. She may have to be on the bed, depending on its width and the amount of reach required to support the woman during transfer.

The member of staff in the pool bends her knees and places one arm under the patient's legs ready to support. She may use her free hand to help support herself on the edge of the pool.

One member of the team should take the lead, normally the individual supporting the airway. The command should be READY, BRACE, SLIDE.

The team member in the pool continues to support the legs as the mother is slid back onto the bed and repositioned ready for resuscitation/emergency manoeuvre, if required.

Attempts should be made at all times to maintain the environment and keep the surrounding pool area dry.

## **9. INFECTION CONTROL ISSUES WITHIN BIRTHING POOL ENVIRONMENT**

- The pool should be kept free of faecal contamination at all times, by removing solid faecal debris with a disposable sieve.
- Gloves (½ size smaller than normally worn) and aprons must be worn for delivery.
- Eye protection is available and must be worn during delivery.
- All cuts and abrasions on fingers, hands and arms should be kept covered with a waterproof dressing.
- The pool is cleaned thoroughly after use as per cleaning policy. See point 10 below.

## **10. MAINTENANCE AND DECONTAMINATION OF THE BIRTHING POOL**

### Maintenance

- The bath surface must be free of chips and cracks.
- The shower head must be free of rust (SMH only).

### Legionella precautions – prior to each use

- Run tap(s) at full bore to drain for 3 minutes.
- Run shower at full bore to drain for 3 minutes.

This procedure must be documented so that an audit trail is provided.

### Pool decontamination – after each use

- Empty pool. The cleaning procedure is a clinical responsibility and must be carried out by either a maternity care assistant or a midwife.
- Wearing disposable gloves and plastic apron clean the whole surface of the bath including shower attachment using disposable paper and neutral detergent.
- Rinse off cleaning agent with fresh water using either:
  - disposable paper used for the cleaning stage
  - shower head spray
- Mix up a 1 litre solution of hypochlorite bleach to 1000 ppm – which is:
  - 1 Chlor-Clean tablet dissolved in 1 litre of water (dilutor bottle should be used)
- Put plug in, empty the solution into the bath and coat all surfaces of bath with it using disposable paper (used for cleaning and rinsing stages). Discard paper to clinical waste.
- Wearing clean disposable gloves, drain residual solution and rinse all surfaces of the bath with fresh water, using either:
  - clean disposable paper, or
  - showerhead spray
- Using paper, dry bath as far as possible and leave to fully air dry before next use. Discard paper to domestic waste.

### Pool equipment

All equipment to be used in the birthing pool must be confirmed as acceptable by the Infection Control Department.

### Shower head decontamination (SMH only)

To prevent contamination, clients must be advised not to let the showerhead enter the pool water. However, the following applies if this has occurred:

1. Remove shower head from hose.
2. Immerse for 10 minutes in a solution of hypochlorite at 1000 ppm, so that all internal and external surfaces are in contact with the solution.
3. Remove showerhead and rinse in fresh water.

### Legionella precautions – between each use

Should the bath be unused for a period of time, the following applies every three days:

1. Run tap(s) at full bore to drain for 1 minute.
2. Run shower at full bore to drain for 1 minute (SMH only).
3. Dry bath using paper and leave to fully air dry before next use. Discard paper to domestic waste.
4. This procedure must be documented in order to provide an audit trail.

## **11. PROFESSIONAL KNOWLEDGE AND COMPETENCY**

NSF Standard 8.3 states 'All staff have up to date skills and knowledge to support women who choose to labour without pharmacological intervention, including the use of birthing pools' (DH 2004).

Any midwife undertaking water births must have competency in water birth. If she cannot support this, she should refer to a supervisor of midwives.

## **12. REFERENCES/BIBLIOGRAPHY**

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For further information or guidance relating to the procedure contact:

Manual handling key trainers, ext: (110) 6158, or Trust Manual Handling Practitioners contactable via main switchboard.

[Appendix 1 Audit Tool](#)

[Appendix 2 Evacuation of Woman from the Pool Flowchart](#)

See also

[Guideline 46 Manual Handling Policy](#)

[Guideline 472 Normal Labour and Birth Guidelines for Maternity Staff](#)

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## AUDIT TOOL

### USE OF BIRTHING POOL

<b>Patient's details</b>   	<b>Delivery</b>  <b>Date:</b> .....  <b>Time:</b> .....
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#### **Section 1**

Parity (prior to delivery): ..... Gestation: .....

Dilatation on entering pool if known: .....

Membranes intact: Yes ..... No .....

Pain relief used prior to entering pool: .....

Was pool requested by patient ..... or suggested by midwife.....?

Length of time in pool during labour: .....

Fetal heart rate (average): .....

Other analgesia used in pool: .....

Water temp (average) 1<sup>st</sup> stage: ..... 2<sup>nd</sup> stage: .....

Maternal temp (mean during labour): .....

Maternal pulse (mean during labour): .....

Delivery in pool? Yes / No (If Yes, please continue to Section 3)

#### **Section 2**

Dilatation on exiting pool: .....

Reason for leaving pool: .....

Analgesia given once out of pool: .....

Augmentation? ARM ..... Syntocinon .....

Mode of delivery: .....

**Section 3 (to be completed for any woman who has used the pool)**

*Post Delivery*

*Mother:*

3<sup>rd</sup> Stage: Active ..... Physiological ..... MROP .....

EBL: ..... Perineum: .....

Temp at one hour: ..... Pulse at one hour: .....

*Baby:*

Apgar scores: ..... Birth weight: .....

Need for resuscitation (please describe method): .....

.....

Temp at one hour: .....

Time of first feed: ..... Breast / bottle (delete as necessary)

***If you feel you have injured yourself caring for this woman in the pool please  
complete a Datix Form***

**PLEASE RETURN COMPLETED FORMS TO CAROLE BEETHAM**

### Evacuation of a Woman from the Pool

