Introduction and who guideline applies to:

Nationally, a percentage of births include birth in water or the use of immersion in water during labour. Although immersion in water during labour compared to conventional care has not been shown to reduce the caesarean section rate other significant benefits have been reported. These include:

Randomised controlled trials $^1$:
- Reduced need of pharmacological analgesia

Non-randomised studies $^{2,3,4,5,6}$:
- More intact perineums in nulliparous women
- Fewer episiotomies
- Overall incidence of perineal trauma less
- Reduction in analgesia
- Shorter overall labour

Qualitative studies $^{5,7,8,9}$:
- Women experienced greater sense of control
- Excellent experience
- Would choose the same again

University Hospitals of Leicester NHS Trust have had water birth facilities since 1991 at St Mary’s Birth Centre, at Leicester General Hospital and at Leicester Royal Infirmary. These guidelines for the use of water for labour and birth have been produced by an expert Working Party to collate the best available evidence on water births in order to provide midwives with a reference point to inform their practice.

This guideline is intended for the use of all Midwifery staff involved in the care of pregnant women choosing to labour and/or give birth in water. This guideline applies to all low risk birth settings.
Recommendations

1. All Midwives involved in the care of a woman choosing to labour and/or give birth in water should ensure that they are competent to care for the woman

2. Suitability for a water birth should be assessed in consultation with the woman

3. The pool should be entered when labour is established

4. The water temperature should be monitored, and maintained at a range of 35-37.5°C

5. Women who have experienced an uncomplicated second stage should be able to choose a physiological third stage as an option. Where active management of the third stage is considered women should be requested to stand clear of the water or to leave the pool

6. Midwives should be aware of the infection control implications when facilitating a water birth

7. Staff caring for women labouring/giving birth in water should be aware of the manual handling implications for the woman and themselves

Recommendation One:

All Midwives involved in the care of a woman choosing to labour and/or give birth in water should ensure that they are competent to care for the woman

- All Midwives should be skilled in caring for women choosing to labour / birth in water.

- All Midwives caring for women choosing to labour and/or give birth in water should make themselves aware of local policies and guidelines
**Recommendation Two:**

Suitability for a water birth should be assessed in consultation with the woman

- Midwives should discuss during the antenatal period, the use of immersion in water in labour with all women who are suitable for a water birth
- Where possible an assessment should be made in consultation with the woman prior to labour and documented in the health record
- Information on water birth should be given to women in a form they can understand and in a culturally sensitive fashion, to ensure parity of access to quality services
- Inclusion criteria are –
  > Term Pregnancy (37-42 weeks)
  > Spontaneous established labour
  > Uncomplicated pregnancy suitable for Midwifery Led Care in Labour

- When a woman requests a water birth but does not meet the criteria an individualised care pathway should be made with the multi disciplinary team.

- Women requesting home water births should be advised as to the considerations they should make to ensure their own safety and those of others during labour e.g. positioning of the pool, flooring, electrical safety, accessibility, drowning risks to children and pets. Women should be advised to obtain specialist advice as appropriate

**Recommendation Three:**

The pool should be entered when labour is established

- The evidence on timing of immersion into water during the first stage of labour is not robust enough to set criteria (NICE/RCOG 2006) therefore early labour could be managed by mobilisation and other activities within a labour room rather than water immersion

- The working party recommend that the most appropriate time for the woman to enter the pool is when the contractions are increasing in length, strength and frequency

- Women should not enter water (a birthing pool or bath) within 2 hours of opioid administration or if they feel drowsy.
Recommendation Four:

The water temperature should be monitored and maintained at a range of 35-37.5°C

- There has been much controversy over the recommended temperature of a birthing pool. NICE 2014 states that the temperature of the water should not be above 37.5. The working party recommend maintaining a temperature of 35 - 37.5°C:

  OR The woman should be allowed to regulate the pool temperature to her own comfort but the water temperature should not exceed 37.5°C

- The water temperature should be recorded hourly
- The ambient room temperature should be comfortable for the woman.
- Maternal temperature should be recorded four hourly as per the “Intrapartum Care: Healthy Women and their Babies” guideline
- If the woman is using the pool for the analgesic effect in labour, maternal temperature and water temperature should be monitored in the same way, regardless of whether or not she intend giving birth in water

Recommendation Five:

Labour and birth should be managed appropriately

- The usual maternal observations of low risk women in labour should be performed as per the “Intrapartum Care: Healthy Women and their Babies” guideline
- A maternal temperature of 37.8 or higher should prompt exiting the pool (and then action as per the “Pyrexia and Sepsis in Labour guideline)
- The fetal heart should be monitored using waterproof Doppler and in accordance with the “Fetal Heart Rate Monitoring in Labour” guideline
- The woman should be encouraged to leave the pool to empty her bladder at regular intervals
• Frequent drinks should be encouraged to prevent dehydration

• Vaginal Examination should be performed out of the water and should include full assessment

• A “Hands off” approach at delivery is recommended. It is not usual to feel for cord – the baby will be born spontaneously

• The baby should be gently guided to the surface face first. Undue traction on the cord should be avoided

• If there is lack of descent/advancement of the head the woman should be asked to stand out of water

• If the woman raises herself out of the water following delivery of the baby’s head she must not re – immerse herself

• If there are any concerns with restitution and delivery of the shoulders the woman should stand clear of the water and transferred to land

If it is necessary to clamp and cut the cord the baby must be clear of the water

• If there is evidence of:

  Concerns about progress of labour } The woman should be asked to get out of the pool and her care transferred to Combined care
  Request for epidural analgesia   
  Vaginal bleeding  
  Maternal pyrexia on more than 2 occasions (as per Intrapartum care: Healthy Women and their Babies guideline)
  Maternal hypertension >140/90mmHg (on 2 separate occasions 30 minutes apart)
  Meconium stained liquor   
  Fetal heart rate irregularities
  Undiagnosed malpresentation
  Cord prolapse  
  Shoulder dystocia  
  ANY concerns about maternal or fetal wellbeing

• If there is:

  Maternal request for opioid analgesia ➔ The woman should be asked to get out of the pool and low risk midwifery care should be continued in another low risk environment (unless there are also transfer criteria
  Heavy contamination of pool
  Technical difficulties with the pool
Recommendation Six:

Women who have experienced an uncomplicated second stage should be able to choose a physiological third stage as an option. Where active management of the third stage is considered women should be requested to stand clear of the water or to leave the pool

- Cord bloods for Rhesus negative women who opt for a physiological third stage in the water should not be taken until the placenta is fully delivered and removed from the pool

Recommendation Seven:

Midwives should be aware of the infection control implications when facilitating a water birth

- Water should be run through permanent plumbing for two minutes prior to use. If the pool is not used for 24 hours water should be flushed through the system for 2 minutes

- Contamination of any kind may have an effect on the baby. Visible solids should be removed with a sieve. If the midwife feels there is heavy contamination the woman should be advised to leave the pool. Before the woman returns to the water the pool must be emptied, cleaned in accordance with current infection control recommendations and thoroughly dried before refilling

- Disposable Liners: a new liner is essential for each patient when using a portable pool. Used liners must be disposed of in yellow clinical waste bags. Ensure liner is not torn or leaking prior to use

- Where disposable tubing is used this must be discarded after each use. All equipment must be thoroughly cleaned and sterilised after each use

- Women who choose to use water for labour and birth during a planned homebirth should be advised of these measures to reduce the risk of infection

Blood Borne Infections:

Women with BBI must have an individualised care plan by the MDT in place. Although the quantity of water will seriously reduce the risk from blood borne viruses, universal protections should always be taken. Midwives should pay particular attention to transmission via sclera and should wear protective glasses for all types of birth
Spontaneous Rupture of Membranes:
There do not appear to be contraindications to use of pool for women with rupture of membranes at term (if all else is normal). Current evidence does not demonstrate a higher rate of maternal infection following water birth.

Recommendation Eight:

All Staff caring for women labouring/giving birth in water should be aware of the manual handling implications for the woman and themselves.

- Prior to entering the pool the woman must have been assessed and met the clinical criteria as stated in recommendation one.

Good practice to minimise the risk of manual handling injuries:

- Antenatal discussion regarding home birth should include the location of the birthing pool to enable good access all around the pool and suitable flooring.
- A manual handling risk assessment chart should be completed before the woman enters the pool.
- Any unnecessary manual handling whilst the woman is in the pool should be avoided.
- The woman should be encouraged to position the sonicaid herself, or to raise her abdomen out of the water for the midwife to position it.
- The area around the pool should be kept dry; any spills should be wiped up immediately to prevent any slips.
- The Midwife should not attempt to remove the woman from the pool if she is unable to move herself – she should:
  - Call for immediate assistance.
  - Maintain the woman’s safety.
  - Consider emptying the pool. This will depend on the clinical situation.
  - Follow the ‘Procedure for removal of a woman from the pool if she is unable to do so herself’ (Appendix I).
  - It may be more prudent to stabilise her condition in the pool and then move her when it is safe to do so.
• Women, who develop complications during labour, should be advised to leave the pool while they are still able to do so. Specific transfer criteria are listed in Recommendation Four

Appendix I:

PROCEDURE FOR REMOVAL OF A WOMAN FROM THE POOL WHO IS UNABLE TO DO SO FOR HERSELF

Blood loss may be difficult to assess in the pool. If excessive blood loss is suspected or if there are any other concerns the woman should be asked to leave the pool at the earliest opportunity prior to any deterioration in condition.

The aim of this procedure is to remove the woman from the pool in the quickest and safest way possible. Do not initiate this procedure if the woman is able to remove herself from the pool with some assistance.

The degree of urgency will dictate how the woman is removed from the pool:

1. Assess the woman's condition
2. Call for assistance
3. Pull plug out of pool (if appropriate)
4. Take measures to stabilise the woman’s condition
5. Remove the woman from the pool when it is safe to do so
6. Use the hoist or a specifically designed net to remove the woman
Guideline development

This guideline was originally written by a Working Party that comprised the following people:

- Nessa McHugh - Midwifery Tutor
- Denis Walsh - Midwifery Tutor
- Yvonne Ostah - Delivery Suite Manager
- Jean Walker - Practice Research and Development Midwife
- Joanne Clarke - Clinical Guideline Facilitator
- Di Weedon - Community Midwife
Guideline Development Methodology
Extensive literature searches were undertaken of the CINAHL, MEDLINE, Cochrane, MIDIRS and Embase databases, and relevant websites consulted. Existing waterbirth guidelines, both from local and national hospitals, were also gathered.

An independent review of all the available evidence was carried out by the Working Party members. The Working Party used this literature to make recommendations that reflect and reference the best available evidence. There are very few randomised controlled trials on which to base recommendations, therefore the existing evidence was combined with local consensus. Each recommendation has been rated according to the grade of evidence on which it is based and the strength of the recommendation accordingly.

References and Bibliography:


32. Leicestershire Infection Control Policies


34. Weiss, S.H. Risks & issues for health care workers Medical Clinics of North America pp555-575 vol 81 no.2 in March 1997


<table>
<thead>
<tr>
<th>Auditable standards</th>
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<tbody>
<tr>
<td>All Midwives involved in the care of women using water attend a water birth workshop</td>
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<tr>
<td>Suitability for use of water when requested should be assessed and documented in the health record</td>
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<tr>
<td>The woman should be in established labour on entering the pool</td>
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<tr>
<td>The water temperature should be maintained at a range of 35-37 degrees centigrade</td>
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<tr>
<td>The woman should be given the choice of physiological management of the 3rd stage if the 2nd stage is uncomplicated</td>
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<tr>
<td>Where the 3rd stage is managed actively the woman should stand clear of the water or leave the pool</td>
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