



# Use of Water for Labour and Birth Guideline

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Brief summary of Document:	To provide the best available evidence, to facilitate the safe and effective use of water during labour and birth.
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Scope	Maternity service users suitable to birth in a midwifery-led unit (MLU) or have a homebirth, who wish to use a birthing pool for labour and birth. To be used within a midwifery-led unit and homebirth setting. The guideline is to support midwives when caring for women within the pool.
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To be read in conjunction with:	All Wales Clinical Pathway for Normal Labour, All Wales Midwife-led Unit Guideline (4 <sup>th</sup> ed.)
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Owning Committee/ Group	Midwifery Group
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Reviews and Updates		
Version no:	Summary of Amendments:	Date Approved:
1	New Guideline	14.9.2017
2	Corrected version uploaded	Uploaded 10.10.2017

## Glossary Of Terms:

Keywords	NCP - The All Wales Clinical Pathway for Normal Labour VE - Vaginal Examination Hyponatraemia – Lack of potassium
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## 1. Aim

To provide the best available evidence to facilitate the safe and effective use of water during labour and birth.

It must be noted that there is currently limited evidence available relating to the use of water during labour and birth therefore aspects of the guideline have been based on advice published by midwives who have become experts in the use of the pool for labour and birth.

## 2. Objective

To produce a guideline that facilitates midwives in supporting women who chose to labour and give birth in water. The guideline clarifies the criteria required to enable the midwife to support women and their families during labour.

## 3. Scope

- The use of water for pain relief to facilitate labour and birth is suitable for healthy women with an uncomplicated pregnancy and labour (as defined by the All Wales Midwifery-Led Care Guidelines and The All Wales Clinical Pathway for Normal Labour- NCP).
- Two maternity health professionals (ideally 2 midwives) should be present at a pool birth.
- The first time a midwife undertakes the support of a woman having a pool birth, the midwife should demonstrate training and be supported by a second midwife experienced in facilitating waterbirths.

## 4. Guideline steps

### Introduction

Water can provide a calming environment for women. Once in active labour water can enhance uterine activity, provide effective pain relief thereby reducing the need for an epidural and unnecessary intervention. Water immersion during labour is not associated with reduced five minute APGAR scores, increased neonatal infection rates or admission to neonatal units. There is some evidence to suggest that the length of the first stage may be reduced.

### Criteria for women

- Water birth is suitable for healthy women with uncomplicated pregnancies and labours (as defined by the All Wales Midwifery-Led Care Guidelines and The All Wales Clinical Pathway for Normal Labour- NCP). All these women should be able to labour and give birth in water (bath or birth pool) for pain relief.
- NICE guidelines (Intrapartum care for Healthy women and babies, updated 2017) recommend that women do not enter the water within 2 hours of receiving opioids, or if feeling affected by them after this period. There is a need to consider the risk of respiratory and reflex depression in a baby where the mother has received opioids in the last few hours.
- Water may be used whenever desired for pain relief. There is insufficient evidence on timing of immersion into water in the first stage of labour and therefore there should be no restriction on when women enter the pool. However, it is thought that water immersion may slow the frequency of contractions before labour is established. Due to the availability of birthing pools in MLUs, women should be encouraged to use water in the bath in the latent phase of labour and enter the pool once in established labour.

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## Criteria for midwives

- The first time a midwife has the responsibility of a pool birth, the midwife should be supported by a second midwife experienced in pool birth.
- Two maternity health professionals (ideally 2 midwives) should be present at a pool birth.
- The midwife's general health, ability and any personal or human factors should be taken into consideration when involved in tasks such as filling, emptying, cleaning and maintaining the pool and during emergency evacuation.
- Staff should have instruction, information and training to enable them to safely carry out the tasks they undertake and use the equipment provided. This training should include musculoskeletal risks including sustained postures; postures to be adopted and avoided.
- Staff need to be properly trained in emergency evacuation procedures to be competent and confident in the use of emergency handling equipment.

## Homebirths

Please complete risk assessment on page 12 and 13.

For homebirths women must be advised that the pool should be situated on the ground floor, or on a floor capable of taking the weight. If the pool has been used before then a pool liner will be required. A clean hose should be used and women must be informed not to fill the pool and let it stand in preparation for going into labour even when the temperature is being maintained by the use of a pump or heater as there is a risk of Legionnaire's Disease. Any pumps used should be used solely for pool emptying and not for the recirculation of water. The woman should be informed to supply a new sieve, thermometer and mirror to support the midwife to provide care for her during the water birth.

## 1<sup>st</sup> Stage of Labour

- Run the water before filling the pool. The water should be deep enough to cover the woman's abdomen and to nipple level when sitting. Insufficient water levels will not create buoyancy which is thought necessary to trigger the release of endorphins and oxytocin and reduce the production of stress hormones. Deep water also provides support for the body and aids mobility.
- Water immersion triggers chemical and hormonal changes which take effect after 20 minutes and peak at about 90 minutes. It is suggested that women leave the pool after 2 hours for a period of about 30 minutes for mobilisation and micturition. Getting back in the pool after 30 minutes will re-activate the chemical and hormonal processes. It is then advised to continue encouraging the women to mobilise out of the water every 1.5 -2 hours.
- The room temperature should be between 21-24°C degrees to allow the mother's heat to evaporate whilst in the pool, and also to act as an environmental stimulus to initiate the baby's first breath.
- Baseline observations must be within the parameters of the Normal Care Pathway before entering the pool. Maternal and fetal well-being must be monitored as outlined in the All Wales Normal Care Pathway with additional hourly maternal temperature monitoring.
- Water temperature is to be recorded hourly and adjust to the woman's comfort, however it must not exceed 37.5 degrees centigrade.
- Women should drink a minimum of 500mls of isotonic fluid per hour otherwise there is a risk of hyponatraemia.
- The woman should be encouraged to empty her bladder regularly.
- Vaginal examinations can be carried out in the pool.
- Entonox may be used if the woman wishes whilst she is in the pool.

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A woman should not be left alone in the pool.

- Partners can be in the pool with the woman so long as trunks/costume is worn and they are willing to leave the pool if asked/necessary.
- If there is a rise in maternal temperature greater than 1 degree or an increase between 37.5 – 37.9 degrees:
  - The pool temperature must be lowered and the room cooled
  - Increase oral fluids
  - Change maternal position
  - Check the water depth
  - Administer Paracetamol
  - Ensure that the maternal pulse and fetal heart is not raised
  - Repeat temp in 30 minutes and if still raised leave the pool
  - Repeat again in 30 minutes and if continues to be raised for transfer to obstetric unit.
- If maternal temperature, maternal pulse and fetal heart rate rise the woman should leave the pool immediately and follow NCP guidelines and transfer to an obstetric unit.
- A temperature of greater than 38 degrees necessitates that the woman exits the pool and be transferred to obstetric care.
- If contractions become irregular or slow progress in labour is confirmed on vaginal examination, women should be advised to leave the pool to mobilise and adopt a more upright position. If contractions increase and labour progresses the woman can return to the pool.
- Women should be advised to leave the pool in the presence of any maternal or fetal concerns.

### **2<sup>nd</sup> Stage of Labour**

- During the 2<sup>nd</sup> stage of labour the pool temperature should be between 37-37.5 degrees.
- To avoid fetal stimulation the 'hands off' technique must be used. The baby should be born spontaneously with little intervention including directed pushing, control of the head or "guarding the perineum".
- A mirror can be used to enhance visibility of advancing fetal head for the mother .
- There is no need to feel for an umbilical cord.
- The baby should be born entirely under the water and brought gently and slowly, face uppermost, to the surface. If the woman raises herself out of the water and the fetal head is exposed the delivery should continue out of the water. Ensure the baby's body is immersed, 'skin to skin' to maintain baby's temperature.
- Check that the umbilical cord is intact. If it has snapped or torn it must be clamped immediately.
- Babies born underwater often do not cry immediately, and may remain blue-tinged for a longer period compared to those born out of water. The heart rate must be checked and spontaneous respiratory effort observed.
- The cord should not be clamped earlier than 1 minute after the birth unless there is concern about the integrity of the cord or the baby's well-being.

### **3<sup>rd</sup> Stage of Labour**

- Physiological third stage can occur in or out of the pool.
- Active management must be conducted out of the pool, oxytocics should not be given whilst the woman is in the pool.
- Women should exit the pool if estimated blood loss is greater than 500mls or the woman's response indicates potential compromise.
- Unless perineal trauma is assessed as severe any suturing required should be delayed for an hour following birth as perineal tissue may be water-logged and friable.

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## Emergencies

- In the event of an emergency, the woman must promptly be assisted to vacate the pool and the appropriate emergency procedure followed.
- In the event of maternal collapse in the pool or if the woman is unable to vacate the pool herself, the agreed Safe System of Work for Evacuation from birthing pool must be promptly adhered to.

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### 6. APPENDIX 1 - Birthing Pool/ Bath Cleaning Protocol

1. Ensure the room is well ventilated, remove and dispose of the thermometer to avoid blocking the pool waste outlet
2. Ensure compliance with Standard Infection Control Procedures - Plastic apron, gloves
3. Before emptying the pool remove any debris using a disposable sieve to prevent debris from blocking the pool waste outlet
4. Empty the pool / bath
5. Use a general detergent and new disposable cloth or mop head, clean the pool/bath of any blood and small bits of debris.

When cleaning the pool / bath

- a. Start at the tap outlet - do not put the cloth/mop in to the nozzle, and finish at the base of the tap and then clean the tap handles
- b. Clean around the top rim of the pool initially
- c. Move inwards cleaning around the inside of the top rim over the overflow - work downwards towards the waste outlet.

#### **DO NOT TAKE A DIRTY CLOTH BACK OVER AREAS ALREADY CLEANED**

- d. Rinse the pool/bath with warm water
- e. Dispose of the cleaning cloth/mop in orange waste bag
- f. Dry all surfaces with a disposable cloth or towel
- g. Dispose of gloves and apron in orange waste bag and decontaminate hands

6. Ensure compliance with Standard Infection Control Procedures and use a plastic apron, gloves
7. Mix the chlor-clean solution Actichlor 1.7g - 1 tablet / 1litre water = 1000ppm in a clean bucket
8. Clean the pool using the process described in point 5. a – d Using the Actichlor solution Rinse the pool with the Actichlor solution and leave in place for 10 minutes

#### **DO NOT DRY THE POOL**

9. Rinse the pool thoroughly using cold water starting at the tap and work down towards the waste outlet
10. Dry the entire pool with a clean mop head or towel
11. Empty and dry the bucket - store the bucket inverted

Inflatable pools should be emptied and liners disposed of. If the liner has leaked then the pool should be cleaned as the above

Disposable, thermometers, mirrors, sieves, liners and hoses should be used.

12. The pool should have a daily dust with a clean cloth to remove any general dust.
13. If the pool has been unused for five days (see Legionella prevention sheet within the Health Board), then pool must be cleaned with the general detergent – for Legionella compliance.

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### 7. APPENDIX 2 - Emergency Evacuation from Birthing Pool - Safe System of Work

Emergency Evacuation from Birthing Pool - Safe System of Work	
	<p><b>Action needed:</b>  <b>SUMMON HELP</b>                      The midwife will take responsibility for maintaining the woman's airway and ensure her face is held clear of the water</p>
<p><b><u>Equipment to be used:</u></b>                      Trolley/bed                      Evacuation Net                      Slide Sheets</p> <p><b><u>No. of people required:</u></b>                      Minimum of 4</p>	<p><b>DO NOT DRAIN THE POOL</b> – The buoyancy offered by the water will assist staff to position the net and to support and turn the woman</p> <p><b>Staff member to assist the midwife to turn the woman so that she is floating on her back (if the woman is sitting on the step then leave her in this position)</b></p> <p><b>Staff member to prepare the trolley/bed in suitable position to receive the woman. Slide sheets should be placed on the trolley/bed to assist with sliding woman onto the trolley/bed</b></p> <p><b>Two members of staff will position the evacuation net under the woman</b></p> <p><b>The midwife must move to one side of the woman but remain in charge of the airway</b></p> <p><b>Using clear commands e.g. "Ready, Steady, Slide"                      Slide the woman clear of the pool and onto the trolley/bed</b></p> <p><b>Remove the net and the slide sheets from under the woman once she is safely located on the trolley/bed</b></p> <p><b>Keep the woman warm with towels/blankets and assess</b></p>

## 8. APPENDIX 3 - RISK ASSESSMENT FOR USE OF WATER IN LABOUR AND BIRTH AT HOME

### RISK ASSESSMENT FOR USE OF WATER IN LABOUR AND BIRTH AT HOME

ADDRESSOGRAPH

DATE OF ASSESSMENT

#### 1. Carry out a manual handling risk assessment prior to and during labour

Date of assessment prior to labour: \_\_\_\_\_

Date and time of assessment in labour: \_\_\_\_\_

#### 2. Criteria for use of water

All women suitable for homebirth as per the All Wales Midwifery-Led Care Guidelines and the All Wales Clinical Pathway for Normal Labour are suitable to labour and birth in water at home.

#### 3. Pool check

Is the pool situated on the ground floor?	Yes	No
Is there a new disposable liner?	Yes	No
Is there a new disposable hosepipe?	Yes	No
Adequate clearance around the pool?	Yes	No
Are the walls of the pool sturdy enough for the woman or midwife to lean on?	Yes	No

#### 4. Advice to the woman

- Birth partner to be responsible for filling, maintaining and emptying pool and ensuring temperature maintained as per guideline.
- Do not pre-fill the pool and maintain with a heater prior to labour due to a risk of Legionnaire Disease. Fill at time of labour.
- Ensure new liner and hosepipe used and disposed of afterwards.

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- Pool bottom should be non-slip.
- To supply a new sieve, thermometer and mirror.
- The woman may be advised to leave the pool if a deviation from the Normal Care Pathway occurs and/or in the event of an emergency.
  
- In the event of the woman collapsing in the water she should be slid over the top of the pool onto a dry area with the assistance of the birth partner.
  
- Paramedics will be called if transfer into an obstetric unit is indicated and in the event of an emergency.

## 5. Equipment required:

- Birthing pool
- Single use disposable liner
- Single use disposable hosepipe
- Plentiful supply of hot water
- Stool/step for pool access if needed
- Sieve
- Thermometer
- Mirror
- Towels

**Signature of woman:**

**Print name:**

**Date:**

**Signature of midwife:**

**Print name:**

**Date:**