NHS FORTH VALLEY

IMMERSION IN WATER DURING LABOUR AND BIRTH

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NHS Forth Valley

Consultation and Change Record

Contributing Authors:	Debbie Forbes
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يمكنك الحصول على خدمة الترجمة الفورية أو القيام بترجمة هذه الوثيقة إلى لغتك الأصلية عن طريق الإتصال بخدمات الترجمة الفورية على رقم 0845 130 1170. هذه الخدمات متاحة مجانا بدون أى مقابل مادى.

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Overall, the evidence indicates that immersion in water during the first stage decreases maternal uptake of epidural/spinal analgesia, and that water immersion during the first stage of labour can be supported for women at low risk of complications (Cluett & Burns 2009).

There is insufficient evidence about the use of water immersion during second stage of labour and therefore clear implications cannot be stated (Cluett & Burns 2009).

Criteria for use

All healthy women with an uncomplicated singleton pregnancy at term should have the option of labouring and birthing in water (RCOG & RCM 2006).

- ☑ Woman's informed choice
- ☑ Normal, term pregnancy at 37+ weeks
- ☑ Singleton fetus with cephalic presentation
- ☑ BMI <35 at booking
- ☑ Spontaneous onset of labour
- ☑ No systemic sedation within the last 4 hours
- ☑ Clear liquor and reassuring fetal monitoring
- ☑ Spontaneous rupture of membranes < 24 hours
- ☑ Post dates induction of labour in an uncomplicated pregnancy only – a woman who labours without the need for syntocinon following IOL may use the pool if she wishes providing all maternal and fetal observations are within normal parameters.

Waterbirth is not recommended if there are risk factors for shoulder dystocia:

- ☑ Previous shoulder dystocia
- ☑ Clinically large baby
- ☑ Slow progress in 2nd stage

If a woman expresses an interest in waterbirth team midwife should:

- ☑ Ensure the woman has received Forth Valley's *Waterbirth Information* Leaflet.
- ☑ If a woman is healthy with an uncomplicated pregnancy and wishes immersion in water for labour and/or birth document this in the special features labour and birth section in the SWHMR notes.

Documenting use of pool

- ☑ If a woman is not able to use the birth pool because it is already in use please document her name and CHI number in the waterbirth note book kept in labour ward duty room
- ☑ If a women is hiring her own pool for a home birth again document this in the notebook

- ☑ Labour should be established prior to entering the water, once labour has established it seems that water enhances uterine activity. A rough guide is 4-5cms dilated. If the woman enters the pool before labour is established the relaxing effect of the water may inhibit labour. Each woman should be reviewed individually.
- ☑ The woman is free to leave the pool at any time she wishes and should be aware that she will be requested to leave the pool immediately if any complications arise

Analgesia

- ☑ Equanox is available for use in the pool. The woman should not be left unattended in the pool if using analgesia.
- ☑ Opiates should not be administered when using the pool and at least **2** hours should have elapsed since administration of an opiate, as long as the woman is alert and not drowsy. Opiates affect the fetus at delivery and disrupt the physiology of normal labour

Water

- ☑ The water level should be at the level of the woman's breasts when she is sitting in the This depth of water assists increased buoyancy and facilitates unrestricted movement (Burns & Kitzinger 2000).
- ☑ The woman should be encouraged to move and explore different positions. She may choose to squat, kneel or be on all fours, rather than sit. It is important that women are not in any one position for a long period. There is the potential, especially when kneeling of the risk of pressure damage to their knees.
- ☑ The water should be kept as clear as possible with a disposable sieve to assist in observation of the water colour. In the event of the pool being heavily contaminated, ask the woman to leave the pool temporarily while the water is changed.

Temperature of Water

As with any labouring woman, it is important to avoid her becoming pyrexial. Therefore, the water temperature of a pool should not exceed the maternal body temperature, as immersing a woman in water above her natural core temperature will result in fetal hyperthermia and associated cardiovascular and metabolic disturbances (Johnson 1996).

- ☑ The water temperature should not exceed 37.5^{0}C
- ☑ The water temperature should be monitored (in the centre of the pool and below the surface) prior to entering the pool, and then hourly throughout use and as second stage approaches. Record readings on the partogram.
- ☑ Maternal temperature should be checked hourly
- ☑ The room temperature should be comfortable for the woman.

Immersion in water during labour and birth

Care & observations during labour

- ☑ If there are any concerns about maternal or fetal wellbeing, the woman should be advised to leave the pool.
- ☑ The usual recordings of pulse rate and blood pressure should be performed and docume on EWSC.
- ☑ The fetal heart rate can only be monitored by intermittent auscultation by waterproof doppler as Guideline for *Intermittent Auscultation in Low Risk Pregnancy in Labour*
- ☑ The woman should be encouraged to drink plenty water to avoid dehydration and hyperthermia in the warm environment (Burns & Kitzinger 2000). Midwives too should ensure they drink plenty fluids.
- ☑ As caring for any woman in labour, the woman should be encouraged to pass urine and leave the pool to do so.
- ☑ In the rare case of an emergency situation, you must insist that the woman leaves the pool.

Preparations for birth

- ☑ Ensure the water temperature is 37º C.
- ☑ Ensure delivery equipment is ready including extra cord clamps.
- ☑ Towels, sheets, mats and or beanbags should be available in the room should the woman wish to leave the pool when the delivery is imminent.
- ☑ As the birth approaches, the woman will instinctively know whether she wishes to remain in the pool. Some women prefer to be on dry land. It is the woman's decision whether or not to remain in the pool for delivery.

2nd Stage

- ☑ Pushing should be physiological (non-directed), that is the woman should be encouraged to push only as and when she has the urge and should not be hurried.
- ☑ A waterbirth should be "hands off" birth
- ☑ A mirror can be used to visualise the advancing vertex

- ☑ The baby should be born completely underwater then gently raised to the surface.
- ☑ The head and body may be born over one contraction or the head is born first and the body is delivered with the next contraction.
- ☑ It is not necessary to feel for the presence of nuchal cord. It can be loosened and disentangled as the baby is born (Burns & Kitzinger 2000, Garland 2000). Feeling for the cord underwater may stimulate respiration.
- ☑ The baby should be gently raised to help ensure the cord does not snap, especially if it is short (Burns & Kitzinger 2000 & Garland 2000).
- ☑ Rest the baby close to the woman's abdomen at uterine level to avoid possible excess transfusion to the baby.

Delay in 2nd Stage

- ☑ If 2nd stage progress is slow advise the woman to leave the pool. Prolonging the time in the pool can result in lower oxytocin levels and increase the risk of 3rd stage haemorrhage.

Delay in the Birth

- ☑ If there is a delay in delivery of the shoulders following the next expulsive contraction ask the woman to stand up and put one foot on the side of the pool to increase the pelvic diameters.

- ☑ If the woman raises herself out of the water and exposes the fetal head to air, once the presenting part is visible, she should be advised to remain out of the water to avoid the risk of premature gasping under water. Be prepared for this especially if woman is in a "hands knees" position.
- ☑ Once out of water the baby's head should **NEVER** be re-immersed, the body should remain in the water.

UNDER NO CIRCUMSTANCES SHOULD THE NUCHAL CORD BE CLAMPED AND CUT UNDER WATER

3rd Stage

Currently there is no reliable evidence that can be used to inform decisions about the risks and benefits of 3rd stage being conducted under water (RCOG & RCM 2006).

Choices for 3rd stage should be discussed with the woman and documented in notes.

Active Management

- ☑ If active management of the third stage is requested this should be conducted out of water with syntocinon given when the woman is out of the pool; the woman should be advised to leave the pool within 5 minutes.
- ☑ Remember to document the time the woman leaves the pool.

Physiological Management

- ☑ The woman may remain in the water for the delivery of the placenta providing there is no excessive bleeding or the 3rd stage is prolonged. The third stage should occur physiologically however active management should be initiated if required.
- ☑ For physiological management of 3rd stage the cord may be clamped and cut when it has stopped pulsating.

Perineal repair

- ☑ If suturing required this should be left up to one hour as tissues may be water saturated.

Environment

- ☑ Floor should be kept dry with any water spillages being dried immediately.
- ☑ Dim lighting and soft music can be used to help provide a relaxing atmosphere.
- ☑ Room temperature should be between 26-28^{0}C.
- ☑ Ensure there are plenty of towels available.
- ☑ Alternative delivery facilities should be available i.e. delivery bed (in case of emergency), bean bag, and mattress for the floor.

Reduction of the risk of infection

To date, there is no evidence of increased maternal, fetal or neonatal risk associated with water immersion, compared with labouring and giving birth on land (Cluett & Burns 2009).

- ☑ Gauntlet gloves are available for staff to wear
- ☑ All cuts and grazes must be covered by waterproof dressing for both the woman and the midwife.

Record keeping

- ☑ Accurate contemporaneous records should be kept as for all women. Additionally, times of entering and leaving the pool should be clearly documented, including the reason for leaving the pool, if appropriate. It is essential that it is recorded clearly whether the baby was born under water (RCOG & RCM 2006).

Shoulder dystocia

- ☑ Try to exclude potential shoulder dystocia prior to the onset of 2nd stage in water
- ☑ If on palpation the baby feels excessively large, then it would be advisable for the woman to birth on dry land
- ☑ Emergency call for help including paediatrician
- ☑ Assist the woman to change position - ask the woman to stand, placing a foot onto Side of the pool.
- ☑ Second midwife to protect the baby's head at all times
- ☑ Exit the pool using the step and handrail
- ☑ Guide the woman on to the Bradbury birthing mat and adopt the McRoberts position
- ☑ Proceed as per HELPERR mnemonic

Group B Haemolytic Streptococcus

The presence of Group B streptococcus in itself does no preclude the use of the birthing pool for labour and or birth. IV antibiotics should be given as per protocol. The woman can remain in the pool providing:

- ☑ She remains apyrexial throughout the course of labour
- ☑ There is no evidence of fetal compromise
- ☑ Liquor remains clear and non-offensive

Waterbirth in the community setting

When a woman requests a waterbirth in the community, it is the responsibility of the midwives in the team to gain the knowledge and where possible the skills prior to undertaking waterbirth at home.

Inform the Team Leader when a woman requests a home waterbirth and arrange a home visit to the woman between 28 and 34 weeks, if support required contact a Supervisor of Midwives.

When planning a home waterbirth, it is the responsibility of the woman and her birth partner to arrange private hire of a birthing pool and its subsequent assembly and maintenance. Hire or purchase must be from a reputable firm, paddling pools are unsuitable. Care should be taken to ensure pool is not beside any electrical equipment. Electric sockets can be covered with plastic covers to prevent damage due to condensation.

As always, the Supervisor of Midwives is available for any midwife who requires advice and support either in the community or hospital setting.

References

Cluett ER, Burns E. Immersion in water in labour and birth. *Cochrane Database of Systematic Reviews* 2009, Issue 2.

Burns E & Kitzinger S (2000) Midwifery Guidelines for Use of Water in Labour Oxford Centre for Health Care Research & Development

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Garland D & Jones K (2000) Waterbirth: Supporting Practice with Clinical Audit *MIDIRS Midwifery Digest* 10: 333-336

Royal College of Obstetricians Gynaecologists & Royal College of Midwives Joint Statement No. 1 (2006) Immersion in Water during Labour and Birth

NICE Clinical Guideline 55 Intrapartum Care 2007

April 2011: Review April 2013 or sooner
Debbie Forbes

DATA SHEET FOR WOMEN USING THE BIRTHING POOL

Addressograph:
(name, address, DOB and unit number)

EDD;

Parity _____

Date of Delivery:_____

Time that woman entered the pool:	**Dilatation of Cervix:**	
Did the woman birth in the pool: (tick where appropriate)	**YES**	**NO**
If 'NO' - when did she leave the pool	**Time of leaving pool**	**Dilatation of Cervix**
Reason for leaving the pool:		
If birthed in the pool, complete section B		
Was any other form of pain relief used?	**Please specify:**	
Duration of the first stage:	**Duration of second stage:**	
Blood loss:	**Perineum:**	
Condition of baby:	**Apgars: at 1 min at 5 mins** **Cord pH arterial** _____ **venous**_____	
Any Complications:		
MIDWIFE'S COMMENTS:		
Name of 1st Midwife		
Name of 2nd Midwife		
It is the responsibility of the midwife delivering to complete and return this form to A. Paterson, Supervisor of Midwives. Please put in box file in labour ward.		
Document in Delivery Register if woman used water for labour and/or birth		