Royal Hospital for Women (RHW)
BUSINESS RULE
COVER SHEET

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EXECUTIVE SPONSOR	Midwifery Clinical Co-director of Maternity Services
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SUMMARY	Inclusion and exclusion criteria for safe water immersion during labour and birth.

Royal Hospital for Women (RHW)
BUSINESS RULE

Water Immersion for Labour and Birth **RHW CLIN064**

This Clinical Business Rule (CBR) is developed to guide safe clinical practice at the Royal Hospital for Women (RHW). Individual patient circumstances may mean that practice diverges from this Clinical Business Rule. Using this document outside RHW or its reproduction in whole or part, is subject to acknowledgement that it is the property of RHW and is valid and applicable for use at the time of publication. RHW is not responsible for consequences that may develop from the use of this document outside RHW.

Within this document we will use the term woman, this is not to exclude those who give birth and do not identify as female. It is crucial to use the preferred language and terminology as described and guided by each individual person when providing care.

1 BACKGROUND

The aim of this CBR is to provide a guidance on appropriate equipment, support, and knowledge about labour and/or birth in water for a woman in labour at term with the following criteria:

- Singleton pregnancy
- >37 weeks' gestation
- Cephalic presentation
- Normal fetal and maternal observations
- Booking body mass index (BMI) <35

2 RESPONSIBILITIES

2.1 Medical and midwifery staff

3 PROCEDURE

3.1 Equipment

- Birth pool or appropriate-sized bathtub
- Sieve
- Mirror
- Light/torch
- Gauntlet gloves
- Doppler (waterproof)
- Bath net/sling/pod

3.2 Clinical Practice

- Discuss antenatally with woman the use and benefits of water during first and second stages of labour
- Assess woman's suitability for labouring and/or birthing in water from table 1

Table 1 - Exclusion/Contraindications for Water Immersion:

First Stage	Second Stage
Inability to maintain accurate interpretable continuous electronic fetal monitoring (CEFM) when indicated (as outlined in fetal heart rate monitoring GL2018_025)	
Preterm < 37weeks	Previous shoulder dystocia
Impaired mobility that restricts ability to get in and out of bath	Previous third stage of labour complication e.g. postpartum haemorrhage >1000mls
Abnormal fetal heart rate	Previous obstetric anal sphincter injury (OASI)/severe perineal trauma or history of perineal scarring or fissures (individualised plan needs to be made)
Meconium stained liquor	Known fetal anomaly (individualised plan needs to be made)
Maternal temperature > 37.5ºC	Suspected macrosomia
Active herpes simplex infection – Type 1 and 2 **Or** any open lesion or untreated infection that could impact birth	Known intrauterine growth restriction
Hepatitis B surface antigen positive, Hepatitis C PCR positive or HIV positive	
Vaginal bleeding suggestive of antepartum/intrapartum haemorrhage	
Use of regional anaesthesia	
Opioids within three hours of administration	
Epilepsy or pre-pregnancy diabetes	

- Refer woman for consultation with senior medical officer if she has a contraindication to water birth (as per above exclusion criteria) and is requesting water immersion during first or second stage
- Ensure the woman who is eligible for first stage only in the water is aware she is advised to exit the bath for second stage
- Ensure woman is aware of circumstances when water immersion is no longer recommended for labour and/or birth (e.g. inability to accurately monitor the fetal heart)
- Ensure water birth is supervised by a midwife experienced with water birth
- Attend routine maternal and fetal observations and record on partogram in line with usual labour and birth care
- Ensure maternal temperature performed hourly and blood pressure (BP) second hourly
- Ensure Intermittent Auscultation (IA), or continuous telemetric cardiotocograph (CTG) are classified as normal. The CTG should be sighted and signed every 15 minutes (as outlined in Fetal Heart Rate Monitoring - Maternity guideline GL2018/025)
- Adjust water temperature according to maternal comfort, aiming to maintain between 35-37.5°C
- Ensure woman adequately hydrated and voiding bladder regularly
- Avoid:
    - soaps, salts, lotions, and oils in water
    - debris – keep water as clear as possible using sieve as much as needed (empty and refill if required)
    - Transcutaneous Electrical Nerve Stimulation (TENS) machine in water

- Ensure neonate is born fully submerged and gently brought to the surface within 10 seconds
- Continue birth out of the water if the birthed head is already exposed to air. Do not re-submerge
- Keep neonate skin-to-skin with woman, keeping warm with blankets and hat whilst maintaining the body submerged. Head must remain above water post birth
- Ensure no tension on the cord to avoid the cord snapping
- Review neonate's condition whilst on woman's chest. If neonatal respirations do not establish or other concern arise, cut the umbilical cord, and transfer the neonate to a resuscitaire for assessment and call for assistance
- Recommend woman exits the bath for active third stage. A woman requesting physiological third stage after a spontaneous labour who wishes to remain in the water should be advised to exit the water if any concern about blood loss arises (see appendix 1 for visual blood loss estimation chart)
- Manage postpartum haemorrhage as outlined in RHW LOP
- Recommend woman leaves pool if concern for her or her neonate's condition in the immediate postpartum period
- Use bath sling if woman is unable to exit bath by herself. Bath sling is located in draw next to bath in birth centre or birth pool trolley in birth unit
- Ensure a minimum of four staff for correct use of the sling
- Do not empty bath as it is easier to get the woman out if bath remains full

Fourth stage of labour

- Recommended that the woman exits the bath once third stage is complete, if has remained in the bath for third stage
- Dry the woman and neonate and keep them warm to prevent hypothermia, keeping the neonate's head dry and covered with a hat, maintaining skin-to-skin as much as possible
- Wrap baby in warmed blankets and give to support person whilst assisting woman to transfer to bed and cover with warmed blankets
- Continue skin-to-skin with neonate
- Delay repair of perineal trauma for an hour (if possible) to allow for skin turgor to return to normal

Shoulder dystocia

- Call for assistance if shoulder dystocia suspected i.e. if the shoulder does not deliver with the next contraction after the neonatal head is born
- Ask the woman to stand up supporting herself with the rails
- Place one of the woman's legs on the side of the bath adopting an upright semi-squat or a deep squat position, if the water level is too high assist the woman out of the bath
- Remove the woman from the bath to the floor if the shoulder is not born with the next contraction and follow the shoulder dystocia procedure according to RHW CBR

3.3 Documentation

- Medical Record
- Antenatal card

3.4 Education Notes

- Women reported increased satisfaction with second stage when using water immersion[1,9]
- Water immersion during the first stage of labour was associated with a small reduction in the risk of using regional analgesia from 43% to 39% (RR 0.91, 95% CI 0.83 to 0.99, 5 trials, 2439 women, moderate-quality evidence)[2]
- The immersion of a fetal scalp electrode (FSE) in water is currently not supported by the manufacturer – however no adverse outcomes have been observed or documented by them. Therefore, we cannot recommend that immersion in water be used when an FSE is required for fetal monitoring
- There is no evidence of increased maternal, fetal, or neonatal risk associated with water immersion, compared with labouring and giving birth on land[2,8]. Johnson's review of the newborn respiratory physiology outlines that there are several protective mechanisms that prevent the baby from inhaling or gasping during a birth in water[7,8]
- There is currently no reliable evidence that can be used to inform women regarding the benefits and risks of warm water immersion during the third stage of labour[3] therefore women's wishes and clinical situation should be used to make decision. Following physiological birth, there is no evidence to suggest physiological third stage must be conducted out of the water[3]. It is important to remember the woman may not show signs of physical compromise until significant blood loss has occurred
- Neonates born in water to Group B Streptococcus (GBS) positive mothers are less frequently colonised with GBS than those born on land[4]
- Women's experience of labour and birth in water is overall very positive. In a physical sense, facilitating ease of movement and assisting women to find a comfortable position as well as the sense of weightlessness being considered helpful. Women suggested that water immersion facilitated a better experience particularly with respect to satisfaction, relaxation, comfort, empowerment and control9. This appears to be more significant for those who actually birth in water[5]
- Although there is clearly a need for more research, the currently available evidence does not justify discouraging women from choosing immersion in water during labour[6,9]
- Fetal hyperthermia has been linked with hypoxia and, therefore, it is important for labouring women to avoid becoming febrile. Monitoring maternal and water temperature regularly is recommended. Water temperature should be comfortable for the woman but not exceed 37.5□C [6]
- It is recommended that annual training of sling/bath slide use for lifting a woman out of the bath is undertaken by all birthing services staff

3.5 Implementation, communication and education plan

This revised CBR will be distributed to all medical, nursing and midwifery staff via @health email. The CBR will be discussed at ward meetings, education and patient quality and safety meetings. Education will occur through in-services, open forum and local ward implementation strategies to address changes to practice. The staff are asked to respond to an email or sign an audit sheet in their clinical area to acknowledge they have read and understood the revised CBR. The CBR will be uploaded to the CBR tab on the intranet and staff are informed how to access

3.6 Related Policies/procedures

- Shoulder dystocia
- Postpartum Haemorrhage – Prevention and Management
- Environmental Cleaning Policy NSW Health (2020) PD2012_061
- Fetal Heart Rate Monitoring – Maternity – MoH GL2018/025
- Infection Prevention and Control Practice Handbook. Clinical Excellence Commission 2020 NSW

3.7 References

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2. Cluett E, Burns E. 2018. Immersion in water in labour and birth (Review), Cochrane Database of Systematic Reviews https://www.cochrane.org/CD000111/PREG_immersion-water-labour-and-birth
3. RANZCOG statement March 2021. Warm water immersion during labour and birth. (C-Obs-24) https://ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Water-immersion-during-labour-and-birth-(C-Obs-24)_March-2021.pdf?ext=.pdf
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7. Johnson P. 1996. Birth under water: To breathe or not to breathe. BJOG. 103: 202-8.
8. Harper B. 2014. Birth, Bath, and Beyond: The Science and Safety of Water Immersion During Labor and Birth. Journal of Perinatal Education 23(3): 124-34
9. Carlsson T, Ulfsdottir H. 2020. Waterbirth in low-risk pregnancy: An exploration of women's experiences. Journal of Advanced Nursing. 76(5): 1221-31
10. National Institute for Clinical Excellence. Intrapartum care for woman with existing medical conditions or obstetric complication and their babies NICE guideline [NG121]. March, 2019

https://www.nice.org.uk/guidance/ng121/chapter/Recommendations#previous-caesarean-section

11. Australian College of Midwives. 2013. Position Statement on the use of water immersion for labour and birth. Australian College of Midwives Canberra

4 ABORIGINAL HEALTH IMPACT STATEMENT DOCUMENTATION

- Considerations for culturally safe and appropriate care provision have been made in the development of this Business Rule and will be accounted for in its implementation.
- When clinical risks are identified for an Aboriginal and/or Torres Strait Islander woman or family, they may require additional supports. This may include Aboriginal health professionals such as Aboriginal liaison officers, health workers or other culturally specific services

5 CULTURAL SUPPORT

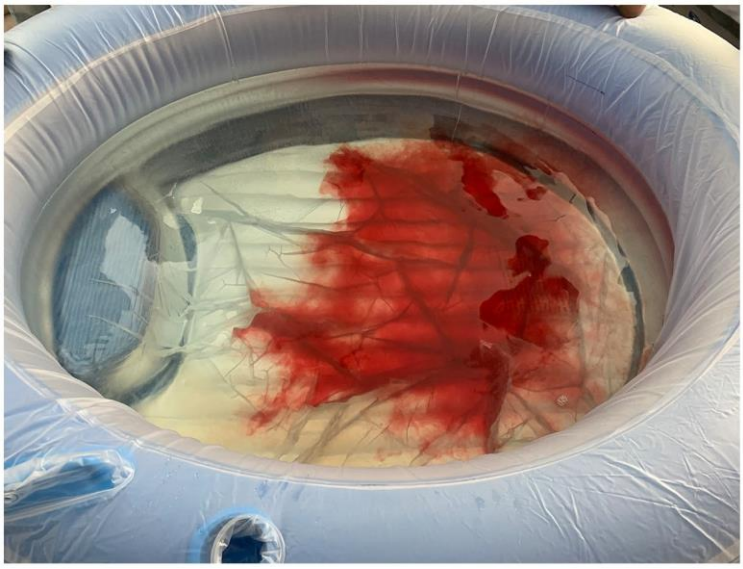
- For a Culturally and Linguistically Diverse CALD woman, notify the nominated cross-cultural health worker during Monday to Friday business hours
- If the woman is from a non-English speaking background, call the interpreter service: NSW Ministry of Health Policy Directive PD2017_044-Interpreters Standard Procedures for Working with Health Care Interpreters.

6 REVISION AND APPROVAL HISTORY

Date	Revision No.	Author and Approval
Title changed to Water Immersion for Labour and Birth Reviewed and endorsed Maternity Services LOPs group 24/8/21 Approved Quality & Patient Safety Committee 21/11/19 Title changed to Water Immersion for Birth– reviewed and endorsed Maternity Services LOPs group 5/11/19 Approved Quality & Patient Safety Committee 15/4/11 Reviewed February 2011 and renamed Waterbirth and Labour in Water Labour and Birth in Water approved Quality Council 20/9/04		
06/06/2024	4	Amendment – removal of line: *There should be a clearly documented individualised care plan as negotiated with the senior obstetric medical officer in the medical record*

Appendix 1

Visual Estimate of Blood Loss. In an Inflatable Birth Pool



100 mls

300 mls

500 mls

1000mls

Each amount was measured and poured into the water in the inflatable birth pool. Water was 37 degrees Celsius. Real Blood used (not simulated).

*Used with permission of www.pregnancy.com.au

Name of Business Rule	RHW/BR-XXXX/MM-YYYY