

Coronavirus COVID-19: Supporting healthy pregnant women to safely give birth.

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In the context of this Coronavirus (COVID-19) pandemic, many pregnant women are experiencing heightened anxiety and are fearful about their labour for themselves and their babies. It is therefore, really important to retain a sense of balance and our remit to work with them and our multi-professional colleagues in partnership to assuage their fears.

In the UK we are very lucky to have skilled midwives who can provide total care for healthy pregnant women who experience a straightforward pregnancy. We can also support these women to give birth in midwifery led settings; namely alongside and freestanding midwifery units and at home. There is sound research to illustrate the benefits of these care settings with respect to labour outcomes, maternal satisfaction and transition to parenting¹. Out of hospital birth also often offers women greater continuity of care, another crucial element that affects their childbirth experience and confidence going into parenting².

The COVID-19 pandemic presents another reason for us to utilise these birth settings for healthy women who experience a straightforward pregnancy, not least because hospitals are pressured enough and need to be enabled to focus on caring for women with suspected or are confirmed to have the Coronavirus. Also in a midwifery led setting, women encounter fewer health professionals than in a hospital, thus reducing hospital acquired contamination potential. So, in the absence of suspected Coronavirus as outlined by the RCOG³ or has been confirmed to have it, healthy women who are at low risk of childbirth complication should consider having their baby in a midwifery led setting.

The latest RCOG update states that *'The evidence for the safety of birth settings that are not co-located with an obstetric unit is based on the availability of ambulance services to enable rapid transfer, and appropriate staffing levels. If these are not in place, it may be reasonable to rationalise the provision of these services'*³. Ambulance availability may fluctuate between geographical areas. However, in the absence of an emergency transfer requirement, which is the majority of transfers¹, it may be possible to use normal modes of transport to the obstetric unit. This is likely to be faster and less stressful given there is much less traffic on the roads.

Water immersion during labour and waterbirth is a mainstay care option for women in alongside and freestanding midwifery units all of which have at least one birth pool, any many women choosing to give birth at home purchase an inflatable birth pool.

Labouring and/or giving birth in water: COVID-19 pandemic considerations

By virtue of being immersed in any standard sized birth pool, there is more space between her and her midwife. This protected personal space is valued by women and provides a natural barrier between the woman and her midwife.

COVID-19 is not a waterborne virus, therefore, the water environment dilutes respiratory droplet and faecal contamination potential. Pathologists are testing faecal specimens in water because it dilutes the risk of droplet and aerosol contamination⁴. The World Health Organisation highlights that faecal contamination presents a low risk for COVID transmission⁵.

Midwives

In the Coronavirus context, water immersion presents a lower risk of contamination risk for midwives compared with bed birth because it promotes the use of social distancing without interrupting normal midwifery care. Undertaking intermittent fetal heart rate auscultation and other observations, and assisting women to gently guide their baby's head out of the water do not present an added risk to the midwife. With respect to placental delivery, in the absence of concern, for example, excessive bleeding, there is no reason why a woman should be asked to leave the pool; an action that could increase the contamination risk whilst disrupting placental separation and mother baby contact at this uniquely important time.

Midwives have ready access to gloves, plastic aprons and masks. Gauntlet gloves serve no purpose during birth pool care because they invariably leak down the arm inside, whatever size one uses. However, wearing hand gloves a size smaller than one would usually use keeps hands dry. As when attending birth in any setting, adequate PPE availability should be guaranteed - see the latest PPE advice for maternity³.

Every NHS Trust should have a birth pool cleaning protocol, which should be meticulously undertaken after use by each women as per usual practice.

As per usual care provision, comprehensive hand washing before and after contact with women is essential.

Summary

This globally challenging time for everyone in every society is a clarion call for midwives and medics caring for women during pregnancy and the puerperium. In the UK, the presence of skilled, knowledgeable midwives working in midwifery led settings can make a significant contribution to enabling obstetric units to focus of caring women with a range of complex needs or who present in labour with suspected or confirmed COVID-19.

Irrespective of the birth setting, it is incumbent upon us to secure respectful, skilled care provision that optimises women's innate capacity to labour and give birth and emerge feeling confident as they transition to parenthood ⁶.

Key points for maternity professionals

The birthing pool environment presents a natural barrier between the woman and her midwife. Supporting women in the water reduces droplet, aerosol and faecal contamination, presenting a low-risk transmission activity for the Coronavirus.

Water immersion for healthy women is associated with a number of beneficial maternal outcomes² outcomes with no known adverse risks to the neonate⁷

For primiparous women, birthing in midwifery-led settings (AMU/FMU or home) water immersion reduces transfer rate with the greatest benefit seen at FMU⁸.

Water immersion for labour and/or birth should be supported and encouraged as an effective method of analgesia

Dr Ethel Burns, Senior Lecturer Midwifery, Oxford Brookes University

Dr Megan Cooper, Lecturer in Midwifery at the University of South Australia

Dr Claire Feeley, Associate Lecturer and Researcher, Oxford Brookes University

Dr Priscilla Hall, CNM, Instructor, Nell Hodgson Woodruff School of Nursing, Emory University, Atlanta, Georgia

Dr Charles Roehr, MD, PhD Associate Professor and Academic Consultant

Neonatologist Newborn Services, Women's Centre, Oxford University Hospitals NHS Foundation Trust.

Dr Jennifer Venderlaan, Assistant Professor, University of Nevada Las Vegas

References

1. Birthplace in England Collaborative Group, Brocklehurst P, Hardy P, Hollowell J, Linsell L, Macfarlane A, McCourt C, Marlow N, Miller A, Newburn M, Petrou S, Puddicombe D, Redshaw M, Rowe R, Sandall J, Silvertown L, Stewart M. Perinatal and maternal outcomes by planned place of birth for healthy women with low risk pregnancies: the Birthplace in England national prospective cohort study. *BMJ*. 2011 Nov 23;343:d7400. doi: 10.1136/bmj.d7400. [accessed 7th April 2020] <https://www.ncbi.nlm.nih.gov/pubmed/22117057>
2. Ethel E. Burns RM, MSc Mary G. Boulton PhD Elizabeth Cluett RM, PhD Victoria R. Cornelius PhD Lesley A. Smith PhD. Characteristics, Interventions, and Outcomes of Women Who Used a Birthing Pool: A Prospective Observational Study. First published:03 July 2012 Birth [accessed 7th April 2020] <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1523-536X.2012.00548.x>
3. RCOG. Coronavirus (COVID-19) Infection in Pregnancy. Information for healthcare professionals Version 6: Published Friday 3 April 2020 [accessed 7th April 2020] <https://www.rcog.org.uk/globalassets/documents/guidelines/2020-04-03-coronavirus-covid-19-infection-in-pregnancy.pdf>
4. Wenling Wang, PhD¹; Yanli Xu, MD²; Ruqin Gao, MD³; et al Detection of SARS-CoV-2 in Different Types of Clinical Specimens. *JAMA*. Published online March 11, 2020. doi:10.1001/jama.2020.3786 [accessed 7th April 2020] <https://jamanetwork.com/journals/jama/article-abstract/2762997>
5. WHO Water, sanitation, hygiene and waste management for the COVID-19 virus Technical brief 3 March 2020 [accessed 7th April 2020] https://apps.who.int/iris/bitstream/handle/10665/331305/WHO-2019-NCoV-IPC_WASH-2020.1-eng.pdf
6. Birthrights: Statement for Immediate Release 31 March 2020 human Rights Charity Calls for Protection of UK Women. In Childbirth During National Emergency [accessed 7th April 2020] <https://www.birthrights.org.uk/wp-content/uploads/2020/03/Final-Covid-19-Birthrights-31.3.20.pdf>
7. Vanderlaan J, Hall P, and Lewitt MJ, Neonatal outcomes with water birth: A systematic review and meta-analysis *Midwifery*, 2018. 59(April): p. 27-39 [accessed 27th April 2020] [https://www.midwiferyjournal.com/article/S0266-6138\(17\)30124-9/abstract](https://www.midwiferyjournal.com/article/S0266-6138(17)30124-9/abstract)
8. Mirjam Lukasse, Rachel Rowe, John Townend, Marian Knight & Jennifer Hollowell Immersion in water for pain relief and the risk of intrapartum transfer among low risk nulliparous women: secondary analysis of the Birthplace national prospective cohort study. *BMC Pregnancy and Childbirth* volume 14, Article number: 60 (2014) [accessed 7th April 2020] <https://link.springer.com/article/10.1186/1471-2393-14-60>