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Waterbirth and Induction of Labour

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The proportion of births where labour was induced has increased from 20.4 per cent in 2007-08 to 32.6 per cent in 2017-18[1]. The rationale for induction is varied, and the methods used can impact on the option of using water for labour and or birth. However, just because a woman is accepting the offer of induction does not mean that she is automatically then not able to use water for pain relief.

Provided that there are no other medical reasons why water may not be suitable for labour andor birth, induced labour should not mean that women are denied access to this powerful labour support and form of pain relief, and indeed some trusts are supporting this already in their guidelines.

The first stage of induction is normally attempting to start labour with a membrane sweep, or 'stretch and sweep', which is when your midwife inserts a finger into the opening of your cervix and moves their finger around in the hope of stimulating labour. If labour starts after a stretch and sweep women are usually supported to access a birth pool.

If a stretch and sweep doesn't lead to labour starting, the next stage is usually a prostaglandin induction (hormone pessary or gel). If your waters have already ruptured the pessary may not always be required as the cycle of labour hormones may already have commenced, or have been triggered by the change in pressure of your uterus.

The aim of the pessary or gel is to open the cervix in order to allow your midwife to rupture the membranes (breaking the bag of water that surrounds the baby), which triggers changes both in pressure within the uterus and chemical hormonal receptors to hopefully start or progress labour.

Current NICE guidelines for monitoring the fetal heartrate during induced labour states that continuous

fetal monitoring should be used where there is a risk of overstimulation of the muscles of the uterus (hyperstimulation). Prostaglandins and synthetic oxytocin (syntocinon – the drug used in the drip, as explained below) both carry these risks.

Once the fetal heart rate is confirmed as normal, intermittent auscultation should be then offered, unless intravenous oxytocin is used. Women are often able to go home after having a prostaglandin gel or pessary, unless there is an adverse reaction to the hormones.

If women go on to established labour with prostaglandin induction alone they should be treated like other labouring women and have access to birth pools, as intermittent auscultation is normal practice whilst using a birth pool. Some NHS trusts may not have adopted NICE guidelines so it is important to discuss this with them in advance.

If continuous monitoring is still recommended and you accept it [note: AIMS' information sheet on monitoring in labour may help you with this decision[2]] or if you want this type of monitoring, this does not stop you from being able to access a birth pool. Many hospitals have a wireless (telemetry) system for continuous monitoring in water. Traditional electronic monitoring, which is often used with induction, cannot be used underwater. The monitor needs to be water sealed to prevent injury to you or damage to the equipment and the telemetry systems are designed for this purpose.

Another option which is very valuable to many women is to use a shower, which can be directed to any aspect of your body which is sensing the contractions. Do not underestimate the power of just the sound of running water and a relaxing shower in helping to boost your labour hormones.

Finally, labour may be enhanced and occasionally started with an intravenous synthetic oxytocin hormone, syntocinon, which is given in a drip in your hand which will remain attached until after you birth. Having an IV cannula in water is possible but may raise concerns about infection in your hand. Women can easily keep their hand out of the water or ask for the cannula to be covered by a comfortably fitting plastic glove and sealed with tape at your wrist. It is most likely that your health care provider will also strongly recommend that you are continuously monitored when using the drip because of the risk of overstimulation of the muscles of the uterus. If your hospital has a telemetry system this should still be possible in water.

The IV line that delivers the syntocinon drip is connected to a machine which does need to be kept away from water and condensation, although some manufacturers supply protective covers. To ensure that this is possible, extension kits are available so that the pump itself can be well away from the pool. Although battery powered IV pumps are available, there is still no possibility of electrocution with a mains unit as the only connection between the woman and the machine is via plastic piping. There is therefore no difference in risk of electrical injury compared to using the machine when the woman is out of water provided the pump itself is kept away from the pool and wet areas which can be achieved by an extension kit. Furthermore, any theoretical risk of electrocution can be almost completely removed with the use of an RCD[3] unit. Finally, as an absolute fail-safe, ensuring that the electrical lead is too short to

reach the pool itself would mean that no one could bring the pump close enough to the pool to allow it to fall in!

Some pumps are available as battery powered units, which might be an acceptable option for trusts who would prefer not to use mains-connected pumps, and the same extension units can be used with these to keep the pump unit itself away from any water.

It is important to keep in mind the limitations that come with using machines to monitor women and their babies during labour. Continuous fetal monitoring machines, whether the traditional machine with wires or the newer wireless version (telemetry), come with limitations. Heart rate transducers can sometimes find it difficult to maintain contact due to several factors (movement of mother or baby or BMI of mother). In these situations it would berecommended to ensure there is no baby compromise and mother may be asked to leave the water until this can be established.

Cardiotocography monitors (CTGs) are sensitive pieces equipment and despite professional and hospital responsibility ensuring they remain fit for purpose, sometimes they do not work correctly. This may mean that particularly telemetry (wireless) devices, may not be available in all situations whilst they are being repaired.

All forms of pain relief have pros and cons, as health professionals we are able to provide information (classes, leaflets and discussion). Support groups and charities are available with similar opportunities to have evidence based information given for a mother to make informed decisions for labour and birth.

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