	REGULATION 28 REPORT TO PREVENT FUTURE DEATHS **THIS REPORT IS BEING SENT TO:** 1. Walsall Healthcare NHS Trust
1	**CORONER** I am Mrs Joanne Lees, Area Coroner, The Black Country Jurisdiction
2	**CORONER'S LEGAL POWERS** I make this report under paragraph 7, Schedule 5, of the Coroners and Justice Act 2009 and regulations 28 and 29 of the Coroners (Investigations) Regulations 2013.
3	INVESTIGATION and INQUEST On 26/10/2016 I commenced an investigation into the death of Zachary James Johnson who died on the 16th October 2016. The investigation concluded at the end of an inquest on the 6th February 2020. The inquest concluded with a narrative conclusion as follows: Zachary Johnson was born in a birthing pool at approximately 21:05 on 15/10/16. During the second stage of labour he did not receive a sufficient supply of oxygen and was not breathing when he was born. He was taken to a resuscitaire before he was transferred by ambulance to hospital where he began to breathe shortly after 9.30 pm. Sadly, once resuscitated, his vital signs were not compatible with life and he passed away in the early hours of 16/10/16. During the second stage of labour, Zachary's foetal heartbeat was not adequately monitored at 5 minute intervals in accordance with NICE or Trust guidelines. During this second stage of labour Zachary's mother remained in the birthing pool and the lack of a working waterproof sonicaid prevented the auscultation of the foetal heartrate for a period of approximately 38 minutes before his birth. Zachary was taken immediately to a resuscitaire which was not working properly requiring inflation breaths to be administered manually using a bag and mask before chest compressions could begin. During resuscitation the ratio of inflation breaths to chest compressions was incorrect and not in accordance with Resuscitation guidelines and there was a period of time where no chest compressions were performed. Zachary's airway management was not continued during the transfer from the ambulance into the hospital. Zachary died from a lack of oxygen during labour. His death was contributed by neglect. The Medical Cause of Death was: 1a) Intrapartum Hypoxia.
4	**CIRCUMSTANCES OF THE DEATH** i) On the 15th October 2016, Zachary's mother went into labour was admitted to the Midwifery Led Maternity Unit at Charles Street Walsall. ii) The mother went into 2nd stage labour at approximately 8.27 pm in a birthing pool and at this time there was no working waterproof sonicaid in her room. The foetal heartrate was unable to be auscultated for a period of approximately 38 minutes by the time Zachary was born at

	approximately 9.05 pm by spontaneous vaginal delivery and he was floppy and unresponsive. iii) Zachary was taken swiftly to the resuscitative for resuscitation. There was a problem with the resuscitative and oxygen flow resulting in the need to use a bag and mask but it cannot be said whether this was mechanical or otherwise. iv) Resuscitation was incorrectly administered and not in accordance with the resuscitation guidelines the ratio of inflation breaths to CC should have been 3:1 instead of 15:1. In addition there was a period where no chest compressions were being carried out immediately prior to the arrival of a 3rd midwife. v) Having been taken to hospital there was a period where Zachary's airway was not managed during the transfer from the ambulance to the hospital. vi) Resuscitation continued in the hospital with chest compressions and ventilation breaths at the correct rate of 3:1 and a heart rate was detected at about 9.34 pm and Zachary began to breath shortly afterwards. vii) Subsequent investigations revealed signs incompatible with life after a total period of approximately 30 minutes without a cardiac output and Zachary passed away in the early hours of the following morning 16/10/16.
5	**CORONER'S CONCERNS** During the inquest the evidence revealed matters giving rise to concern. In my opinion there is a risk that future deaths will occur unless action is taken. In the circumstances it is my statutory duty to report to you. The **MATTERS OF CONCERN** are as follows. – (1) During the course of the inquest, I heard evidence that Zachary's mother was permitted to enter a birthing pool to give birth in the known absence of a waterproof sonciaid. The lack of such equipment prevented the auscultation of the foetal heart rate. This was a matter I found causative of Zachary's death. (2) I heard evidence that it was possible to have not permitted the birth mother to enter the pool and that it was possible to have removed her from the pool. I also heard evidence from an expert that it was 'completely unreasonable to assume a woman in extreme pain would be able to manoeuvre herself above the waterline to enable auscultation with a non-water proof aid'. (3) I also heard in evidence that the Walsall Healthcare NHS Trust had no specific policy or directive to prevent birthing mothers entering the birthing pool in the absence of the correct equipment and would still offer this as an option even if the correct equipment was not available. (4) I heard evidence that a foetal heartrate could not be monitored in the absence of the correct equipment to do so, yet birthing mothers in labour at a

	vulnerable time are having the responsibility about a potentially unsafe birthing option presented to them. (5) I heard evidence during the inquest that the resuscitation undertaken by the 2 midwives involved in Zachary's resuscitation was incorrect and inadequate and not in accordance with the resuscitation guidelines. The ratio of inflation breaths to CC should have been 3:1 instead of 15:1 and there was a period where no chest compressions were being carried out immediately prior to the arrival of a 3rd midwife. I also heard evidence that having been taken to hospital there was a period where Zachary's airway was not managed during the transfer from the ambulance to the hospital. I found both of these matters causative of Zachary's death. The inquest heard evidence that the two midwives involved in Zachary's resuscitation had attended a non-mandatory training course only a matter of weeks before Zachary's death which included an update of Newborn Life Support (NBLS). (6) I also heard evidence that most midwives will go through their whole career without experiencing a situation requiring new born resuscitation. I heard evidence that the mandatory training on NBLS was valid for 4 years and whilst the Walsall Healthcare NHS Trust had provided annual refresher training this was not guaranteed to continue. My concern is that there is insufficient frequent mandatory refresher training in new born life support skills.
6	**ACTION SHOULD BE TAKEN** In my opinion action should be taken to prevent future deaths and I believe you and/or your organisation have the power to take such action. The Trust may wish to consider implementing a policy of disallowing women in labour from entering the birthing pool in the absence of any working waterproof foetal heart monitoring equipment. Such policy may provide for the deflation of the birthing pool in the absence of such equipment. The Trust may also wish to consider implementing annual mandatory refresher training for all nursing and midwives involved in Maternity care both in hospital (to include the MLU and delivery suite) and in the community.
7	**YOUR RESPONSE** You are under a duty to respond to this report within 56 days of the date of this report, namely by 20/4/20. I, the coroner, may extend the period. Your response must contain details of action taken or proposed to be taken, setting out the timetable for action. Otherwise you must explain why no action is proposed.
8	**COPIES and PUBLICATION** I have sent a copy of my report to the Chief Coroner and to the following Interested Persons via their legal representatives [redacted] & [redacted] I have also sent a copy of my report to the Nursing & Midwifery Council (NMC) and the Resuscitation Council (UK). I am also under a duty to send the Chief Coroner a copy of your response.

	The Chief Coroner may publish either or both in a complete or redacted or summary form. He may send a copy of this report to any person who he believes may find it useful or of interest. You may make representations to me, the coroner, at the time of your response, about the release or the publication of your response by the Chief Coroner.
9	 **Mrs Joanne M. Lees** **Area Coroner** **The Black Country Jurisdiction** **18/2/20**