REGULATION 28: REPORT TO PREVENT FUTURE DEATHS

	REGULATION 28 REPORT TO PREVENT FUTURE DEATHS **THIS REPORT IS BEING SENT TO:** **1. Chief Executive, Walsall Healthcare NHS Trust, c/o Manor Hospital, Moat Road, Walsall, WS2 9PS** **2. Parents of the late Tommi-Ray Colin Vigrass** **3. Care Quality Commission**
1	**CORONER** I am Zafar Siddique, Senior Coroner, for the coroner area of the Black Country.
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 13 January 2016, I commenced an investigation into the death of the baby, Tommi-Ray Colin Vigrass. The investigation concluded at the end of the inquest on 23 June 2016. The conclusion of the inquest was a short narrative conclusion: Baby Tommi–Ray Colin Vigrass died due to developing a Hypoxic brain injury arising from complications and difficulty of re-inserting an endotracheal tube contributed to by neglect. The cause of death was: 1a) Hypoxic brain injury 1b) Difficulty in re-inserting endotracheal tube 1c). Pre-term 28 weeks.
4	**CIRCUMSTANCES OF THE DEATH** 1. Baby, Tommi-Ray was born on the 9 January 2016 at 28+2 weeks gestation and weighed 1.02kg. He had developed Respiratory Distress Syndrome and required ventilator support. 2. The Doctor responsible for his care described that the ventilator was showing a persistent leak and kept alarming throughout the evening of the 9 January into the morning of the 10 January. He decided to extubate the baby and change the endotracheal tube (ET) to size 3 at 3.20am on the 10 January. The original tube was 2.5mm. The baby was tried on BIPAP initially but his oxygen saturations began to drop and he required manual ventilation. 3. After the initial attempt at intubation with a size 3 ET tube, the baby became bradycardic with low oxygen saturations and the tube removed. Cardiac compression was commenced. There was no response and the baby intubated again. There was good chest movement but the baby's response was poor. The ET tube was removed again.

	4. The on call Consultant was crash bleeped at 4am on 10 January and within 20 minutes he arrived promptly on the Neonatal Unit. He described that the ET tube was in situ but the baby was pale in colour. He checked the ET tube with a CO2 detector but it didn't turn yellow. The tube was removed and bagging commenced. He confirms that the after intubation the tube became dislodged and further intubation was required. A size 3 ET tube was used. 5. The baby was eventually stabilised and blood gas showed a PH of 6.68 which is very acidotic and when I asked if this can be an indicator of hypoxia he confirmed it can be. The baby was administered adrenaline and chest compressions continued. 6. The Consultant confirmed that for premature babies weighing less than 1Kg in weight it was usual practice to use a 2.5mm ET tube and in theatre the baby wasn't initially weighed. The priority was to insert the tube and stabilise the baby with further adjustments made in the Neonatal Unit. It could be risky using a tube that was too big which could lead to complications including stenosis. He also confirmed he wasn't consulted about the premature care plan, but was told by a colleague that a mother had been admitted to the ward with a premature baby (however this isn't documented). 7. A tertiary specialist Hospital (New Cross Hospital-Level 3 Unit) was contacted but there were initial difficulties in contacting the Neonatal Consultant despite multiple attempts through the switchboard. A transfer to this tertiary Hospital was eventually accepted. 8. The Neonatal Consultant at New Cross Hospital described that when the baby arrived on his Unit he took over his care on the 12 January and came to the conclusion that he had suffered significant brain damage due to the hypoxic episode following his cardiac arrest. Sadly, he died the following day on 13 January 2016 9. The Root Cause analysis investigation by the Trust identified the following Root causes: . • Use of incorrect size (2.5mm) tube for initial intubation • Individual failure in clinical decision making by Paediatric Registrar • Failure to inform Neonatal Consultant on call of ventilated baby admitted to NNU • Absence of formal handover/planning procedure to overnight consultant on evening round
5	**<u>CORONER'S CONCERNS</u>** During the course of 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. Evidence emerged during the inquest that the Paediatric Doctor in charge recognised that it was a mistake to extubate baby when he did. His words were: "What should have been a straight forward ET change turned into a nightmare". He also confirmed that he should have consulted the Consultant on call prior to making the decision and earlier use of the CO2 monitor would have made a difference.

	2. In addition, it emerged that there were problems and delays in trying to contact the tertiary unit via the switchboard. 3. There was also evidence of an inadequate handover and preparation for the arrival of the premature baby with insufficient care plan details or consultation taking place.
6	**ACTION SHOULD BE TAKEN** In my opinion action should be taken to prevent future deaths and I believe you have the power to take such action. 1. Although some improvements have been made by the Trust through the findings of the Root Cause Analysis (RCA) investigation. You may consider that expediting some of the action points in the RCA including training in the use of the CO2 indicator is made compulsory and further training for neonatal staff where deficiencies or gaps in knowledge have been identified. 2. You may also wish to consider expediting the process to establish a system to contact tertiary units within your area to minimise any delays in contacting the relevant staff for advice. 3. You may also wish to consider a review to ensure systems and procedures are in place to ensure that all relevant details/care plan are available for the Consultant in charge when a mother delivers a pre-term baby in an emergency.
7	**YOUR RESPONSE** You are under a duty to respond to this report within 56 days of the date of this report, namely by 23 August 2016. 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; Parents 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	**28 June 2016** **Mr Z Siddique** **Senior Coroner** **Black Country Area**