REGULATION 28: REPORT TO PREVENT FUTURE DEATHS (1)

*NOTE: This form is to be used **after** an inquest.*

	REGULATION 28 REPORT TO PREVENT FUTURE DEATHS **THIS REPORT IS BEING SENT TO:** **1. The Chief Executive,** **Liverpool Womens Hospital, Crown Street, Liverpool L8 7NJ**
1	**CORONER** I am Alan Wilson, Assistant Coroner, for the area of Liverpool
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 27th July 2013 I commenced an investigation into the death of **Isabella Hope HILL** , Aged **7 days**. The investigation concluded at the end of the inquest on 11th October 2013. The conclusion of the inquest was Ia Heart Failure Ib Arrhythmia Ic Ischaemic/Hypoxic Damage to the Myocardium II Hepatic Necrosis due to leakage of TPN Fluid from an Umbilical Venous Catheter Severe Immaturity of Lung. Necrotising Enterocolitis Narrative Conclusion, as follows: Isabella Hope Hill was born prematurely at 26 weeks gestation. She was stable on Continuous Positive Airway Pressure (CPAP) support. She deteriorated but initially responded well. She underwent a Central Venous Catheterisation using an Umbilical Venous Catheter which is used to deliver intravenous fluids, nutrition, blood products and medications to sick preterm infants. Initially, it was not appreciated that the umbilical line had migrated out of a blood vessel and Total Parenteral Nutrition (TPN) fluid entered her abdomen leading to a build up of pressure on her lungs. She suffered a circulatory collapse requiring cardio pulmonary resuscitation. This collapse caused damage to her heart muscle leading to ischaemic/ hypoxic degenerative change and significantly disturbed the delivery of oxygen to her body tissues. Her abdomen was noted to be tight and distended. The TPN fluid was aspirated resulting in some improvement. She later deteriorated further and after a period of heart rhythm disturbances and cardiac arrest probably due to the cardiac injury she died at approximately 9.40 am hours on 17th July 2013

4	**CIRCUMSTANCES OF THE DEATH** See the Narrative Conclusion recorded in Box 3 above.
5	**CORONER'S CONCERNS** 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. – At the conclusion of the inquest, I indicated to the Properly Interested Persons that I proposed to write to the Trust by way of a report in accordance with the provisions of paragraph 7 of Schedule 5 of the Coroners and Justice Act 2009. During the Inquiry, the Trust provided me with a draft Serious Incident Report that had been prepared to enable the Trust to investigate this incident and to identify what, if anything can be learned from Isabella's death and what if anything can be done to avoid the possibility of a similar incident happening again. I emphasise that I acknowledge the report is a draft document, prepared as it was prior to receipt of the post mortem report and was intended to reflect preliminary findings which may require revision following the determination of the cause of death at inquest. As can be seen from the above Narrative, the facts of this case involved the use of Central Venous Catheterisation using an Umbilical Venous Catheter [UVC]. Whilst there can be complications of UVC insertion including mal-positioning and line migration, an x-ray is required to confirm clinically the position of a UVC [which can commonly be mal-positioned despite use of optimal operation technique]. The evidence heard confirmed the Trust's own guidelines were not followed in this case in that such an x-ray was not performed at a point during Isabella's treatment when it ought to have been, and the Trust's review confirms that this not being done amounted to sub-optimal standard. The Trust's document recommends a review of the UVC guidelines including a literature search of the UVC guidelines and discussions with senior colleagues at the other units in the practise, and of education and training around UVC guidelines. Having concluded this inquest, and whilst I acknowledge that the Trust have indicated that changes have already been instigated, I now write to the Trust to confirm that in my view the Trust should take action because issues surrounding the UVC guidelines – particularly in the absence of any national guidelines – gives rise to a concern of deaths in the future. I would therefore be obliged if the Trust would write to me in due course to confirm the outcome of their review once completed, setting out what is proposed in terms of changes to be made, and to explain what steps the Trust proposes to take to encourage medical staff to follow the guidelines. Perhaps the Trust would send me a copy of the full review document for my consideration once completed.
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.
7	**YOUR RESPONSE**

	You are under a duty to respond to this report within 56 days of the date of this report, namely by 18th December 2013. 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 The family of Isabella Hope Hill The Coroners Society 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	**Alan Wilson** **Assistant Coroner for the** **City of Liverpool** **Dated: 23rd October 2013**