ANNEX A

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. Chief Executive Officer Mid & South Essex NHS Trust** **2. Director of Midwifery Mid & South Essex NHS Trust** **3. Vice President of the Royal College of Obstetricians and Gynaecology for Clinical Quality**
1	**CORONER** I am SONIA HAYES, area coroner, for the coroner area of ESSEX
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. [HYPERLINKS]
3	**INVESTIGATION and INQUEST** On 10 January 2023 I commenced an investigation into the death of LAURA-JANE KIRSTEN NICOLE SEAMAN, AGE 36. The investigation concluded at the end of the inquest on 12 August 2024. The conclusion of the inquest was Ia Disseminated Intravascular Coagulation Ib Massive Peritoneal Haemorrhage from Splenic Capsular and Peritoneal Tears with recent vaginal delivery. Narrative Conclusion: Laura-Jane died as a consequence of basic failures by healthcare professionals to recognise and escalate her loss of consciousness as a maternal collapse with inability to obtain vital signs that was incorrectly attributed to malfunctioning equipment rather than obvious clinical deterioration had MEOWS charts been utilised. Vital signs that were obtained were severely deranged with persistent tachycardia and hypotension for a period of over 2 ½ hours and the consequential risk to her life that was obvious. There was a failure of escalation that was mandated, and action taken with multi-disciplinary consultant led review would have resulted in care and treatment for obvious signs of hypovolemia that was available and would have saved Laura-Jane's life. Laura-Jane's death was avoidable and was contributed to by neglect.
4	CIRCUMSTANCES OF THE DEATH Laura-Jane Seaman died at Broomfield Hospital on 23 December 2022 of Disseminated Intravascular Coagulation due to Massive Peritoneal Haemorrhage from Splenic Capsular and Peritoneal Tears with Recent Vaginal Delivery without complication at 00:58 on 21 December 2022. Laura-Jane complained of feeling bleeding at 02:40, of feeling dizzy at 03:30 with required vital signs not being taken. Midwives failed to appropriately escalate Laura-Jane's maternal collapse at 03:45 whilst semi-recumbent in bed. Laura-Jane was treated for possible dehydration, but her condition continued to deteriorate. Midwives failed to obtain required vital signs until 04:04 that were annotated on a piece of paper rather than on Modified Early Obstetric Warnings Scores (MEOWS) charts with the consequence that her deteriorating condition was not escalated. There

	were multiple missed opportunities to escalate and treat Laura-Jane that were required. Laura-Jane continued to deteriorate with persistent low blood pressure and tachycardia that were indicative of hypovolemia. Laura-Jane suffered a splenic capsular tear on the labour ward that caused an intraperitoneal bleed that continued undetected in the absence of any examination of her abdomen. An urgent blood test taken at 04:45 was not chased and showed a drop in her haemoglobin that should have been known and escalated. Laura-Jane repeatedly informed staff she believed she could feel bleeding and then that she had numbness in her limbs and could not see the midwife who was right beside her. Laura-Jane was reviewed by the obstetric registrar at about 06:00 and was suffering chest pain, increased oxygen requirement and shortness of breath due to hypovolemia. Laura-Jane's chest was clear, and she was talking in full sentences and her vital signs and medical records were not reviewed and administered a dose of therapeutic low molecular weight heparin for suspected pulmonary embolism and in the absence of an examination of Laura-Jane's abdomen. Laura-Jane suffered a cardiac arrest at approximately 06:30 due to a severe reduction in circulating blood volume. Laura-Jane was resuscitated and suffered a second arrest and again resuscitated and was given a blood transfusion when her haemoglobin was found to be significantly low. Laura-Jane underwent cardiac and abdominal scans that confirmed the absence of features of pulmonary embolism and the presence of intraabdominal haemorrhage. The major haemorrhage protocol was not called. Laura-Jane was conveyed to theatre for an emergency laparotomy that found a massive intraabdominal haemorrhage caused by splenic capsular tear treated appropriately with splenectomy. Advice from the Consultant Intensivist was successfully implemented to treat Laura-Jane who was critically unwell due to her cardiac arrests. Significant amounts of blood products were administered to Laura-Jane with the advice of haematology. Protamine was not administered until 10:40 to assist with reversal of low molecular weight heparin. A further laparotomy with required with second opinions during which Laura-Jane sustained peritoneal tears due to the condition of the tissues as there was ongoing bleeding with disseminated intravascular coagulopathy noted. Laura-Jane went to intensive care at about 16:00. Laura-Jane underwent further surgery on 22 December and on 23 December Laura-Jane underwent a surgery that was attempted to save her life that was not successful.
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 could 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) The acute Trust 72-hour investigation did not identify: a. The absence of a contemporaneous Labour Ward medication chart for a patient that was administered medications on the ward b. Significant omissions in the medical record-keeping and some medications administered were entered into a medication chart from a previous admission in November 2023 c. Vital signs for patients on the labour ward being annotated on a piece of cardiotocograph paper and the absence of required MEOWS charts d. Communication issues with Trust staff and sharing of information e. Lack of compliance with national guidance and training f. Absence of contemporaneous blood testing results for Laura-Jane as a patient at high risk of post-partum haemorrhage in labour taken at

i. 00:40 hours for cross matching, and

ii. urgent blood tests taken at approximately 04:45 for a deteriorating patient

g. Lack of compliance with the triggering of the major haemorrhage protocol

(2) Laura-Jane was not escalated for hours as a deteriorating patient in accordance with training and national guidance including PROMPT training, or the Royal College of Obstetricians and Gynaecologists Maternal Collapse in Pregnancy and Puerperium (RCOG)Green-top Guideline No.56. The maternal collapse was categorised as a "Faint" by Trust staff and Laura-Jane was treated for potential dehydration (with no apparent risk factors) and administered medication that had only a transient effect.

(3) The administration of Metaraminol on the labour ward is rare for a mother who had an uneventful delivery and did not prompt a critical care review with a background of deranged vital signs

(4) There was a focus by midwifery staff on per vaginal bleeding and the hypovolemia was not recognised. The PROMPT training guidance contains illustrations by way of photographs to assist with the assessment of blood loss that focuses on per vaginal bleeding. Covert bleeding is referred to in the context of hypovolemia in a separate place on one line. Covert bleeding is not referred to in the Trust Drills & Skills Booklet.

(5) Laura-Jane informed clinical professionals she thought she was haemorrhaging and that she was going to die in a background picture of maternal collapse and prolonged deranged vital signs. This did not trigger Consultant obstetric review, 2222 alert or referral to the critical care outreach team.

(6) The Trust Executive Review Group ("ERG") Report was not shared with the Trust Director of Midwifery or the Head of Midwifery at Broomfield Hospital who did not agree with the ERG conclusions that:

> 'The absence of escalation to an obstetric consultant was discussed and noted that the team escalated to an anaesthetist, which is usual practice in an obstetric emergency (putting out a call to the medical emergency team would not be common practice).'

> 'The possible reasons why the bleeding was not identified were discussed and it was noted that in maternity cases the absence of vaginal bleeding and with no signs of uterine rupture it would be unlikely that the team would have considered bleeding as a cause of deterioration.'

and gave evidence that this is not in accordance with good clinical practice or national guidelines and training.

	(9) Staff skill mix for doctors on the Labour Ward for the night of 20/21 December was staffed with a junior obstetric registrar with a newly qualified colleague in his first week and a junior anaesthetist, all with limited experience of working on the Labour Ward. (10) Quality of communication and handovers between Trust staff key information was omitted in handovers between staff at all levels including when Laura-Jane was taken to theatre as a medical emergency. (11) Therapeutic anticoagulation was administered without consultant obstetric input, further medical review or imaging where there had been hours of deranged vital signs that were inconsistent potential complications for pulmonary embolism. (12) No accounts were taken from Haematology, or the blood lab team involved with this massive haemorrhage by the Trust or the HSIB (who investigated this case) where massive amounts of blood products were prepared, dispensed and then administered where the timings and sharing of information were important to understand.
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 7 February 2025. 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: i. Mother of Laura-Jane ii. Partner of Laura-Jane iii. Obstetric Registrar iv. Anaesthetic Registrar v. Consultant Surgeon vi. Labour Ward Co-ordinator vii. Medical Registrar viii. Allocated Midwife ix. Care Quality Commission I have also sent it to the following expert witnesses who may find it useful or of interest x. Midwifery Expert xi. Consultant Obstetrician & Gynaecologist xii. Consultant Haematologist xiii. Consultant Anaesthetist xiv. Consultant Surgeon

	xv. NMC xvi. HSIB now known as Maternity and Newborn Safety Investigation (MSNI) 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. She may send a copy of this report to any person who she 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	 **HM Area Coroner** **13 December 2024**