REGULATION 28: REPORT TO PREVENT FUTURE DEATHS (1)

	REGULATION 28 REPORT TO PREVENT FUTURE DEATHS **THIS REPORT IS BEING SENT TO:** **1. West Midlands Ambulance Service University NHS Foundation Trust** **2. Health & Care Professions Council** **3. Wolverhampton University** **4. Quality Care Commission (Chief Inspector of Hospitals)** **5. HSIB**
1	**CORONER** I am Mrs Joanne Lees Area 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. https://www.legislation.gov.uk/ukpga/2009/25/schedule/5 https://www.legislation.gov.uk/uksi/2013/1629/part/7
3	**INVESTIGATION and INQUEST** On 27/1/23 I commenced an investigation into the death of Lauren Page Smith aged 29. The investigation concluded at the end of the inquest on 1/11/23. The medical cause of Lauren's death was; 1a) Acute Myocardial Infarction 1b) Coronary Artery Thrombosis 1c) Ruptured Coronary Artery Atherosclerosis The inquest concluded with a narrative conclusion as follows; Lauren Smith died from an acute myocardial infarction. The ecg reading that was taken at 08:56 am on the morning of her death was abnormal and was incorrectly interpreted. The ecg was likely consistent with a cardiac event in progress at the time which was clearly identified on the auto diagnostic monitor and consistent with the clinical symptoms reported by the deceased. At inquest I found the failure to interpret the ecg correctly was a **GROSS FAILURE.**
4	**CIRCUMSTANCES OF THE DEATH** On 6/1/23 Miss Lauren Page Smith passed away at her home address of 142 Essington Way, Wolverhampton. Earlier that day, paramedics had responded to a Category 2 ambulance call whereby Miss Smith reported vomiting, chest and arm pain. Her observations were normal. An ecg showed evidence of pathological q waves in V1, V2 and V3, an isolated ST elevation in V2 and a positive AVR deflection. The ecg was abnormal. The auto diagnostic monitor clearly recorded the ecg as abnormal and reported an anterior infarct. Both the attending paramedic and technician interpreted the ecg as normal and reported it as normal to Miss Smith who based on that information declined to attend hospital. Evidence was heard that the ecg indicated a likely cardiac event in progress at the time the paramedics were in attendance. Miss Smith was found in cardiac arrest several hours later and confirmed as deceased. A post mortem revealed evidence of a blood clot in the left

	anterior descending artery leading to an acute Myocardial Infarction.
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. – Some of the concerns I have identified are directed at multiple organisations and some are specific. During the course of the inquest I heard live evidence from Paramedic [redacted], Technician [redacted] and patient Safety Lead [redacted] **1. An ecg reading was taken at 08:56 am when both the paramedic and technician were in attendance on Miss Smith. That ecg was abnormal. The ecg identified pathological Q waves in V1, V2 and V3, an isolated ST elevation in V2 and a positive AVR deflection. Although the rhythm was sinus rhythm, 3 abnormal indicators were clearly present on the ecg. In addition, the auto diagnostic monitor clearly recorded the ecg as abnormal and reported an anterior infarct which was available for attending paramedics.** **2. Interpretation of a 12 lead ecg is fundamental part of the job of a paramedic and the ecg was not interpreted correctly by either the paramedic technician or the attending paramedic with over 8 years' experience.** **3. Paramedic [redacted] gave evidence at inquest that she'd never heard of Q waves before and didn't see the ST elevation on the ecg. She'd never heard of the term pathological Q waves nor an AVR positive deflection.** **4. Technician [redacted] told me she had never heard of pathological Q waves and that she wouldn't know what they were. She told me she didn't recognise the ST elevation on the ecg.** **5. The ecg print out clearly indicated a cardiac event in progress at the time the ecg was taken. Lauren Smith died from an acute MI.** **6. I am concerned that neither the paramedic nor the technician was able to interpret the ecg correctly and that neither paramedic appears to have noted or acted upon the auto diagnostic monitor report.** **7. Lauren Smith was informed that her observations and ecg were normal. This information was not correct, and it is likely that Lauren Smith based her decision not to attend hospital on this incorrect information.** **8. I was told in evidence that paramedic training includes identifying Q waves and ST elevations and any abnormal rhythms. I was told that a positive AVR deflection (which was a view) was not 'normal' and should have been identified as abnormal. I was told that the diagnostic monitor display reported what was seen on the ecg.** **9. I heard in evidence that ecg interpretation forms part of a paramedics initial training and mandatory annual training, but I am concerned that there was no evidence at inquest of any qualitative assessment of the ecg aspect of their training. I was informed that Technician [redacted] was undertaking a Paramedic BSc at Wolverhampton University. The training provider and/or regulator must ensure that training is effective. I am concerned the absence of such assessment presents a risk to patient safety at this time.** **10. I heard in evidence that neither paramedic nor technician had received any further training from WMAS following the death of Lauren Smith and the internal SI investigation which specifically identified the incorrect interpretation of the ecg. I am concerned this presents a risk to patient safety at this time.** **11. I am concerned that whilst [redacted] and [redacted] may've undertaken their own additional learning/self-reflection NO qualitative assessment of this learning has been undertaken and no action has been taken by their employer WMAS and no restrictions or**

	sanctions placed on their practice nor further individual training provided by WMAS and they continue in their respective roles. I am concerned this presents a clear existing risk to patients which remained unaddressed at the time of inquest. **12. I was told in evidence that neither paramedic nor technician had been referred to the HCPC. I have reported my concern about the fitness to practice of both [redacted] and [redacted] to the HCPC however there appears to be a lacuna in respect of [redacted]. [redacted] is a technician and not a fully qualified paramedic and as such is not yet registered with the HCPC. Therefore, the HCPC can take no action at the present time. I am informed the report I have made will be considered at such time as [redacted] applies for full registration. I am concerned this presents a risk to patient safety at this time.** **13. I am informed that as [redacted] is a Student Paramedic (qualified/trained to technician level), WMAS as her employer are responsible for her professional competency. I am concerned that the lacuna I have identified in relation to her technician status has not been addressed and that despite WMAS applying the same HCPC standards to trainees as fully qualified paramedics, that WMAS have taken no action in relation to [redacted] fitness to practice and provided no further training. I am concerned this presents a risk to patient safety at this time.** 14. **I am concerned that there has been no collective learning by West Midlands Ambulance Service following the death of [redacted]. There has been no action to address the learning gaps identified by WMAS own internal investigation report in respect of both the paramedic and technician. Therefore, I have addressed this aspect of my PFD to the CQC/Chief Inspector of Hospitals/HSIB as part of their regulation as to the safety of the West Midlands Ambulance Service considering the risk I have identified in relation to patient safety due to inaction by WMAS.**
6	**ACTION SHOULD BE TAKEN** In my opinion action should be taken to prevent future deaths and I believe you and your organisation/s 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 **15/1/24**. 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 [redacted] (parents of Lauren Smith). I am also under a duty to send a copy of your response to the Chief Coroner and all interested persons who in my opinion should receive it. I may also send a copy of your response to any other person who I believe may find it useful or of interest. 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.
9	**15/11/23**