	REGULATION 28 REPORT TO PREVENT FUTURE DEATHS **THIS REPORT IS BEING SENT TO:** 1. Mr Simon Wright, Chief Executive, Shrewsbury and Telford NHS Trust, Royal Shrewsbury Hospital, Mytton Oak Road, Shrewsbury SY3 8XQ
1	**CORONER** I am Mr John Penhale Ellery, Senior Coroner for the coroner area of Shropshire, Telford & Wrekin.
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 15th October 2018 I commenced an investigation into the death of Mark Richard HINTON, 52 years of age, and opened an inquest on the 28th February 2019. The investigation concluded at the end of the inquest on the 25th day of April 2019. The medical cause of death was Ia) Pulmonary Embolus due to Ib) Deep Vein Thrombosis and II) Bleeding Duodenal Ulcer. The conclusion of the inquest was "Preventable Natural Cause"
4	**CIRCUMSTANCES OF THE DEATH** On Monday 8th October 2018 at 16:37 hours the deceased self-presented in A&E, Princess Royal Hospital, Telford. He was triaged at 17:25 hours with a history that he had been walking his dog last Thursday and the dog ran into his right leg. He had increased pain to his right calf area radiating into his thigh. He had contacted 111 who advised him to go to A&E due to possible 'clot'. He was triaged, seen by other nurses and a doctor and was discharged home at 22:10 hours. A D-Dimer test had been requested which would have assisted indicating the presence or not of a DVT. That request had not been documented and the discharging doctor was not aware of it at the time of discharge. The result showed a markedly raised D-Dimer which if known at the time would have resulted in the deceased's admission to hospital, treatment and probable survival. A series of failings and system errors led to the death.
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. Concerns were raised by SATH themselves in their Serious Incident Investigation Report and other arose during the course of the inquest. For completeness all concerns are set out here so a holistic approach can be taken. (1) The information chain. a) When Mark (as the family wish him to be referred to) attended A&E he informed the triage nurse (nurse A) that he had contacted 111 who advised to go to A&E due to possible 'clot'. That information was not recorded or passed on to others. Recorded examination of Mark included pain and obvious swelling to right calf.

b) The Staff Nurse (nurse B) who then carried out observations on Mark came to the view that he 'could probably do with a D-Dimer'. That nurse states she passed that information to the next (third) nurse (nurse C).

c) Nurse C states that information was not passed to her. She was unaware that Mark had pain in his calf and therefore had no reason to request bloods, particularly a D-Dimer test, and had no knowledge of them being requested.

d) At or around 19:33 hours it appears that bloods, including a D-Dimer test were requested. However there is no record of these (8) test being recorded or who ordered them or why.

e) When the attending doctor first saw Mark at 21:06 hours he saw the results of 7 blood tests none of which indicated to him the presence of a possible DVT. The 8th blood test (i.e. the D-Dimer test) was not shown and as there was no record of it having been requested he did not know it was outstanding and nor in his opinion, was it required. Upon the information before that doctor he medically discharged Mark from hospital. Following Marks' discharge from hospital the result of the D-Dimer test became available which would have led to Mark being admitted with treatment which probably would have saved his life.

(2) System failures.

a) The system did not require or mandate the person who requested blood tests, specifically in this case a D-Dimer test, to record that request or the reason for it. There was no alert system which would have alerted the final decision maker of that request. At that time a health care assistant, staff nurse or doctor could have requested the tests. Only a doctor may do so now.

b) The evidence indicated that agency nurses and locum doctors did not have access to the hospital systems in particular the "review" system for requesting and reporting on tests. It appears to have been common practice for those who could not do so to log on using a permanent member of staff's pin number or access code, with or without their permission.The blood tests had been requested on nurse C's 'review' account who denied doing so.

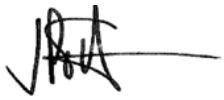
c) If none of the witnesses who gave evidence requested the D-Dimer test it meant that another person did and could do so without any entry or note made in the A&E records.

(3) Other matters arising.

a) A second set of observations should have been made before Mark was discharged. This did not happen.

b) The D-Dimer test result was delayed due to a systems error with the CS2500 machine. It is stated that this may happen intermittently and is then corrected. Had the system error not occurred it is likely that the (8th) result would have been available on screen for the discharging doctor to review.

c) Telephone results are not made if the patient is an in-patient in A&E. The Standing Operation Procedure (SOP) in Pathology states "D-Dimer greater than 500ug/l telephone to GP, out-patients and outlying hospitals (excludes SATH in-patients)". Is a patient waiting assessment in A&E an out-patient or in-patient or some other category?

	d) Differential diagnosis. Had all the information to the discharging doctor a differential diagnosis of DVT may have been made and recorded. e) A body map had not been completed at any time. f) Oramorph was recorded as having been given but not checked. Also it may the mask symptoms of pain. g) Whilst D-Dimer tests were becoming routine rather than clinically required, Mark had come in with a possible 'clot' whether his earlier symptoms had improved or not. h) The absence of documentation made it difficult if not impossible to resolve factual discrepancies between members of staff. i) The impression given by witnesses was that they were under pressure (racing against the clock) to meet the 4 hour deadline in A&E.
6	**ACTION SHOULD BE TAKEN** In my opinion action should be taken to prevent future deaths and I believe your organisation has 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 25th June 2019. 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] mother of Mark, [redacted] sister of Mark. 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	 Mr John Penhale Ellery Senior Coroner Shropshire, Telford & Wrekin 30th April 2019