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The Northern Health and Social Care Trust have advised me that on 27 November 2018 a junior locum doctor would have been working independently managing Mr T's case. If Mr T presented now, middle grade doctors would be treating him who had access to a consultant. Also, a reminder has been issued to Emergency Department medical staff regarding the importance of clear documentation and that a history alone suggestive of unstable angina should warrant urgent investigation and admission.

On 28 November 2018 at approximately 11:00, Mr T experienced chest pain at rest. Clinical Reviewer 3 states that Nurse A quite correctly wanted to refer Mr T back to A&E. However, Mr T did not want to go in an ambulance. Clinical Reviewer 3 also observed that the ECG performed on Mr T and labelled as "unremarkable" showed subtle changes. Clinical Reviewer 3 stated that he was looking at this case from his perspective as a consultant cardiologist and acknowledged that this was from a different level of expertise than that of HiP staff. However, Clinical Reviewer 3 would have expected a doctor to compare the later trace with the ECG from 23 November 2018 and to notice the subtle changes present. It does not appear the ECG completed on 28 November 2018 had been looked at by the doctor. Had Mr T gone back to hospital at this stage he most likely would have undergone an angiograph on 28 or 29 November 2018.

Clinical Reviewer 3's report has informed the following recommendation:

### **Recommendation 2: Electrocardiograms (ECGs)**

The Trust (Healthcare in Prison Service Managers) should ensure that staff carrying out ECGs have access to timely interpretation from trained staff such as a doctor who is on or off site or an appropriately trained nurse.

Clinical Reviewer 3 considers that it would have been better to call the ambulance when Mr T experienced chest pain on 30 November 2018 at approximately, 09:00/09:30. However, it was unlikely that calling the ambulance earlier, instead of at 11:00, would have made a significant difference because at that time Mr T was

already verging on cardiogenic shock<sup>8</sup>. Clinical Reviewer 3 was also of the opinion that it was a mistake to attribute Mr T's low blood pressure reading on 30 November 2018 to the GTN spray. His view was that the low blood pressure was due to destruction of the heart muscle.

Overall, Clinical Reviewer 3's opinion of the primary care Mr T received was good. Clinical Reviewer 3 is satisfied that this care would have been equivalent to that he would have received in the community taking into consideration that Mr T was in a custodial setting.

Embargoed

<sup>8</sup> Cardiogenic shock is a life-threatening condition in which your heart suddenly cannot pump enough blood to meet your body's needs. The condition is most often caused by a severe heart attack, but not everyone who has a heart attack has cardiogenic shock. Cardiogenic shock is rare.

## **PART B: LEARNING AND GOOD PRACTICE**

### **Section 5: Learning for Improvement and Good Practice**

One of the purposes of my investigation is ensuring learning from past experience improves practice in the future. During the course of an investigation, a considerable amount of information is collated from a variety of sources. This includes written documentation, CCTV, interviews, landing journals, inmate notes and healthcare records. It is also important that good practice is noted to ensure it continues into the future. Where practice has not been all that it could have been, improvements can be applied. A number of important learnings have been identified during the course of this investigation into Mr T's death. Such learning should enhance the care provided to those in custody.

I have made recommendations informed by the Clinical Review reports. From my investigations, I believe that improvement can be achieved in the area of care following episodes of unstable angina or episodes or recurring chest pain. I draw this conclusion from matters set out in Part A.

The following learning points have been identified during the course of my investigation into Mr T's death. The Trust should introduce a policy or expand existing policy and provide a pathway, following patients reporting chest pain. This should provide HiP staff with guidance on the processes to follow concerning chest pain and potential cardiac pain and any changes in the nature, frequency and precipitating factors for such pain. The Trust should also consider the provision of opportunistic screening to those at risk of heart disease in light of my findings. I therefore recommend:

#### **Recommendation 3: Screening for Individuals in custody at risk of heart disease**

The Trust (HiP Service Managers) should consider measures to encourage men in custody to regularly avail of well men checks including blood pressure measurement, smoking and diet advice and fasting lipid tests.











## Appendix 2: Terms of Reference for Clinical Reviewers regarding the healthcare in the case of Mr T

- Mental health nurse Hilary Pinfold. To review the medical and healthcare records of Mr T and produce a report giving your expert clinical opinion.

In doing so, I would be grateful if you could advise on the following:

- In light of the ongoing chest pain that Mr T had been experiencing, his recent transfer to hospital and the advice given by the hospital that he should return promptly if his condition deteriorates, should Mr T have been transferred to hospital immediately on his first complaint of chest pain at 9.16am on the morning of the 30 November 2018? This was the first occasion that Mr T's GTN spray did not provide any relief to his chest pain.
- Mr T received assistance from healthcare staff and Prison Service staff on three occasions during the morning of the 30 November 2018: at 09.16, 10.01 and 10.53. It is apparent from analysis of the CCTV that in the interim periods between these three occasions, significant time elapsed during which Mr T did not have any contact with healthcare staff or Prison Service staff and therefore only had support from other prisoners. In the context of how Mr T presented on the morning of the 30 November 2018 and the fact that he had recently been experiencing ongoing chest pain. Do you think that it was acceptable Mr T was left alone without support or assistance from healthcare and Prison Service staff during these interim periods on the morning of 30 November 2018?
- Your view on the fact that it has come to our attention that EMIS records can be amended retrospectively by Super-Users. It is recorded under the 26 November in Mr T's EMIS records that patient is deceased. However, Mr T did not die until 30 November. It is therefore now apparent that not all entries can be relied upon as contemporaneous records of the treatment received by a patient.

- Doctor Jane Rees. To review the medical and healthcare records of Mr T and produce a report giving your expert clinical opinion.

In doing so, I would be grateful if you could advise on the following:

- In light of the ongoing chest pain that Mr T had been experiencing, his recent transfer to hospital and the advice given by the hospital that he should return promptly if his condition deteriorates, should Mr T have been transferred to hospital immediately on his first complaint of chest pain at 9.16am on the morning of the 30 November 2018?
- If Mr T had been taken to hospital earlier, is it likely that the outcome could have been different?
- Doctor Duncan Dymond. To review the medical and healthcare records of Mr T and produce a report giving your expert clinical opinion.

In doing so, I would be grateful if you could advise on the following:

- Does GTN spray lower blood pressure and based on how he presented at 09:16 would this alter the perception that he showed signs of a heart attack?
- In light of the ongoing chest pain that Mr T had been experiencing, his recent transfer to hospital and the advice given by the hospital that he should return promptly if his condition deteriorates, should Mr T have been transferred to hospital immediately on his first complaint of chest pain at 09:16 on the morning of the 30 November 2018?
- If Mr T had been taken to hospital earlier than he was on the morning of 30 November 2018, is it likely that the outcome could have been different?

## Appendix 3: Timeline of Events

Friday 23 November 2018	
09:24	In the treatment room Mr T explained he had a shortness of breath when he exerted himself, this occurred on and off over the past few weeks. Mr T was advised to rest and if his symptoms persisted, he was to alert staff.
15:40	Mr T attended the treatment room clutching his chest; he had severe tightness in his chest and had a shortness of breath. Nurse A was concerned and spoke with the duty Doctor, Dr A. Dr A decided Mr T required an ECG and he should rest until this could be performed.
18:26	Mr T was seen by Dr A for his ECG he advised he had no true pain, had not collapsed and his shortness of breath was very transient. Mr T was adamant that he never had any symptoms at rest or during low-level exertion, and the tightness is not stopping him from performing his work. Mr T was given a GTN <sup>9</sup> spray. He was advised to rest and do no further work over the weekend. Dr A reiterated the importance of not ignoring tightness in the chest and symptoms to look out for at rest.
18:47	Nurse A records a discussion with Dr A regarding Mr T. Mr T was to be monitored closely during the night and over the weekend. If Mr T had any further episodes, he was to attend A&E. Nurse A notes Mr T was reviewed at 16:45 and again at 18:30.
20:00	The Trust handover sheet for 23 November 2018 stated, "Please observe tonight and over the weekend. Chest Tightness on examination Angina".

<sup>9</sup> Glyceryl trinitrate, or GTN, is a type of medicine called a nitrate. It is used to treat angina (chest pain). It can help stop chest pain if an angina attack has already started. It can also help to prevent them from starting.

<b>Sunday 25 November 2018</b>	
21:10	Mr T asked for paracetamol, as he appeared chesty and hoarse. His colour was good, but he was advised that if he had any episodes of chest tightness or pain overnight to alert staff immediately. Mr T was advised to sleep in an upright position and to refrain from working.
<b>Monday 26 November 2018</b>	
07:05	Nurse B records no further call outs in respect of Mr T and he was to be reviewed again that morning.
08:55	Nurse A records Mr T had chest pains over the weekend, but had relieved this by using the GTN spray. All his clinical observations were recorded as normal. Further tests were requested to include Troponin <sup>10</sup> CRP <sup>11</sup> . He was to see the doctor later that afternoon. However, Nurse A recalled at interview they had not been able to speak to the doctor but did talk to a doctor the next day.
13:40	Nurse A recorded Mr T's blood pressure, pulse rate and respiration rate. Healthcare entries recorded blood test results, reviewed by a Dr A. A further healthcare entry timed 13:40 by Nurse C records the results of the blood tests having been reviewed via the ECR. Doctor to be asked for advice regarding Mr T's chest pain.
16:23	Nurse D records a check in with Mr T he appeared bright and well and all clinical observations were normal. Mr T said he was beginning to feel better and had no shortness of breath, no chest pain, or tightness in his chest. Mr T was reminded that if he did experience any of these symptoms he was to alert staff immediately.
23:25	Nurse E records that during the medication round Mr T stated he had chest pain and had taken the GTN spray to relieve the pain. General observations were completed and Mr T was advised to alert staff if there were any further episodes.

<sup>10</sup> A troponin test is a blood test that can help assess heart damage. It is used along with other diagnostic tests to help evaluate the likelihood of a heart attack.

<sup>11</sup> C-reactive protein (CRP) is an annular (ring-shaped) pentameric protein found in blood plasma, whose circulating concentrations rise in response to inflammation. It is an acute-phase protein of hepatic origin that increases following interleukin-6 secretion by macrophages and T cells.

<b>Tuesday 27 November 2018</b>	
12:36	Nurse A records that Mr T had been unwell the previous night with chest tightness on any exertion, this settled with a GTN spray and rest. Nurse A discussed this with Dr A and Mr T attended the Causeway Hospital.
14:05	Mr T attended the A&E department at the Causeway Hospital on 27 November 2018 at 14:05, having been referred by HiP. He was discharged with a note to return promptly if his condition deteriorated. It was noted that Mr T had been referred to the RACP clinic
<b>Wednesday 28 November 2018</b>	
09:10	Nurse A recorded that after attending A&E, the previous day, Mr T was concerned that he was still having ongoing chest pain on exertion. Mr T agreed that he would not go on his UTR planned for that day as he was not well enough and transport was requested to take Mr T from reception back to his accommodation in H2.
09:10	Nurse B recorded Mr T appeared flushed, however, on examination his temperature was recorded as normal. He said he was not well enough to go on his UTR, as he would be on his own. Mr T said he had arranged to see his wife and he did not want to worry her. He told Nurse B that he had attended the Causeway Hospital and had an ECG test, a chest X-ray, had his bloods taken and that he had to return in two weeks to complete a treadmill test.
11:06	Mr T was experiencing chest pain at rest while in bed and GTN spray taken. Mr T walked to the treatment room he had no shortness of breath and was not perspiring. However, it was noted that Mr T was very worried about himself. Mr T advised that as he was now experiencing pain at rest, he should attend A&E. However, Mr T was not keen. The consequences were explained to Mr T of what could happen if he refused to attend hospital. Nurse A spoke to Prison Staff who agreed to monitor Mr T. He was to be reviewed again in the afternoon.
12:14	Nurse A records a discussion with Lead Nurse A in which they made a decision to repeat an ECG. The ECG result was the same as before and recorded no change. Because the ECG did not show any change and as his pain had now resolved itself, Healthcare in Prison staff

	monitored Mr T instead. Mr T was to rest and take his GTN spray and to alert staff if the pain returned.
13:20	Lead Nurse A records ECG reviewed as Mr T was experiencing pain at rest but the GTN spray relieved this. The ECG result as 'unremarkable' and Mr T refused to attend the A&E Department.
17:38	Nurse B records Mr T advised he was fine and was having no further episodes of chest pain. Mr T was aware that he needed to alert staff if he experienced any further pain. Nurse B informed Mr T that he could call a nurse at any time day or night. Mr T assured them he would alert staff if needed.
<b>Friday 30 November 2018</b>	
09:16	Nurse arrives on the landing and at 09:17 goes straight to Mr T who is sitting on a chair.
09:20	Mr T gets up from the chair and walks to the telephone.
09:21	Mr T walks from the telephone box back up the landing towards his room. The nurse leaves the landing.
09:29	Mr T comes out of his room chatting to another individual in custody. He goes through the security grille and out of sight at 09:30.
09:34	Mr T walks back onto the landing and goes back into his room.
09:38	Healthcare records show Nurse F went to the landing to see Mr T as he was experiencing central chest pain. On arrival, Nurse F noted that Mr T was very pale and sweaty and was sitting on a chair. He had taken one spray of GTN, which did not relieve the pain and advised by the nurse to take another. ECG requested whilst Mr T was experiencing chest pain.
09:47	Mr T comes out of his room and walks down the landing with assistance. He walks through the security grille at 09:48 rubbing/holding his chest before going out of sight.
09:56	Mr T comes back onto the landing walking through the security grille and to the telephone box.
10:01	Mr T comes out of the telephone box and other individuals in custody assist in putting him into a chair.

10:02	Three nurses arrive on the landing. At 10:04, other individuals in custody help Mr T into a wheelchair after which they wheel him down the landing at 10:08.
10:08	An entry by Nurse F records that a Hospital referral was sent.
10:13	Another other individual in custody pushes Mr T in a wheelchair back onto the landing to the ablutions.
10:15	An entry by Lead Nurse A records that Healthcare in Prison staff carried out an ECG test on Mr T whilst he was experiencing chest pain and that the result showed minimal change. Staff referred Mr T to A&E for assessment as a result.
10:49	Senior Officer A goes into the ablutions and comes out at 10:50.
10:51	Senior Officer A comes back onto the landing and into the ablutions.
10:53	A nurse goes into the ablutions and leaves at 10:54.
10:54	Emergency Ambulance requested.
10:59	A nurse exits ablutions, Mr T is pushed in his wheelchair from ablutions through the security grille.
11:24	Nurse F records that chest pain had worsened and emergency ambulance called due to sudden deterioration. Ambulance arrived at 11:27.
12:38	Mr T arrives at A&E – Altnagelvin Hospital.
13:34	Resuscitation procedures commenced.
13:46	Life pronounced extinct by a doctor.