REGULATION 28: REPORT TO PREVENT FUTURE DEATHS

	REGULATION 28 REPORT TO PREVENT FUTURE DEATHS **THIS REPORT IS BEING SENT TO:** Fiona Dalton Chief Executive Trust Management Offices Mailpoint 18 Southampton General Hospital Tremona Road Southampton Hampshire SO16 6YD
1	**CORONER** I am Karen Harrold, Assistant Coroner for the coroner area of Portsmouth & South East Hampshire.
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. http://www.legislation.gov.uk/ukpga/2009/25/schedule/5 http://www.legislation.gov.uk/uksi/2013/1629/made
3	**INVESTIGATION and INQUEST** On 23rd March 2016 the Senior Coroner, David Horsley, commenced an investigation into the death of Mr Scott Douglas Hooper aged 46 years old. The investigation concluded at the end of the inquest on 17 March 2017. A **Narrative Conclusion** was recorded by the jury as follows: **Scott Douglas Hooper died as a result of an unexpected but recognised complication of the severity of his pelvic injuries**. The medical cause of death was: 1a) Pulmonary Embolism; 1b) Deep Vein Thrombosis; 1c) Immobility due to fractured pelvis.
4	**CIRCUMSTANCES OF THE DEATH** Mr Hooper was admitted to Queen Alexandra Hospital in Portsmouth at 08:57 on Saturday 12 March 2016 following an unwitnessed accident at work. He worked as a fork lift truck (FLT) driver at a timber yard. When setting down a double load of hardwood that exceeded the permitted weight for the FLT, the vehicle started to tilt and shed its load. Mr Hooper jumped from the cab at its highest point onto the concrete road. It is believed the FLT then hit him. There were no witnesses to the accident but other workers heard a loud crash outside the shed and ran to help Mr Hooper. On admission he was triaged and his general observations were normal with little indication of a major injury. By 12.08 he was still not able to be mobilised and his pain level had risen to 7 on a scale of 7-10. An x-ray was ordered at 12.08 and revealed complex pelvic fractures which required a transfer to Southampton General Hospital (SGH) for surgery. Mr Hooper left Portsmouth by ambulance at 7.40 pm and on

admission to SGH **a risk assessment was carried out by a doctor at 22.50 to assess the risk of bleeding. His weight was incorrectly stated as being 80kg (approx. 12½ stones). In a separate assessment carried out by a nurse she established his correct weight by simply asking Mr Hooper and he confirmed 107 kg (nearly 17 stones). This correct weight was not spotted until 14 March by a ward pharmacist and is important as the amount of anti-coagulant drugs to be given according to the SGH thromboprophylaxis (Tpx) protocol is calculated on weight. Initially the plan was to give him 40mg once a day when in fact because of his true weight he should have received 40mg twice a day.**

On day of admission it was not deemed appropriate to give any anti-coagulant drugs because of the likelihood that Mr Hooper would have surgery the following day but he was given mechanical Tpx via stockings and IPC boots.

[redacted] Consultant Orthopaedic Surgeon, saw Mr Hooper on Sunday 13 March and after discussing his high pain levels, the doctor explained the risks and benefits of carrying out the necessary surgery to stabilise Mr Hooper's pelvic area. This involved insertion of a screw into the back of the pelvis plus pins and a bar at the front. The alternative to surgery would have been 6 weeks complete bed rest. Mr Hooper gave informed consent and the surgery itself was uncomplicated.

Post operation instructions were that for the next 6 weeks Mr Hooper was not to bear weight; the external fixation would be removed; and Tpx to be given. [redacted]ndicated the drug Clexane was to be given for 6 weeks according to the SGH protocol. So there was no avoiding that Mr Hooper would be immobile for a considerable period because of the nature of his injuries.

There was considerable discussion at the inquest about the pattern of medication post operatively. Another member of the doctor team applied the protocol and decided that 40 mg once a day was appropriate working on the assumption that his weight was 80 kg.

The pattern was as follows:

- Day of injury 12 March – no anticoagulant drugs given the risk of bleeding and likely surgery the following day

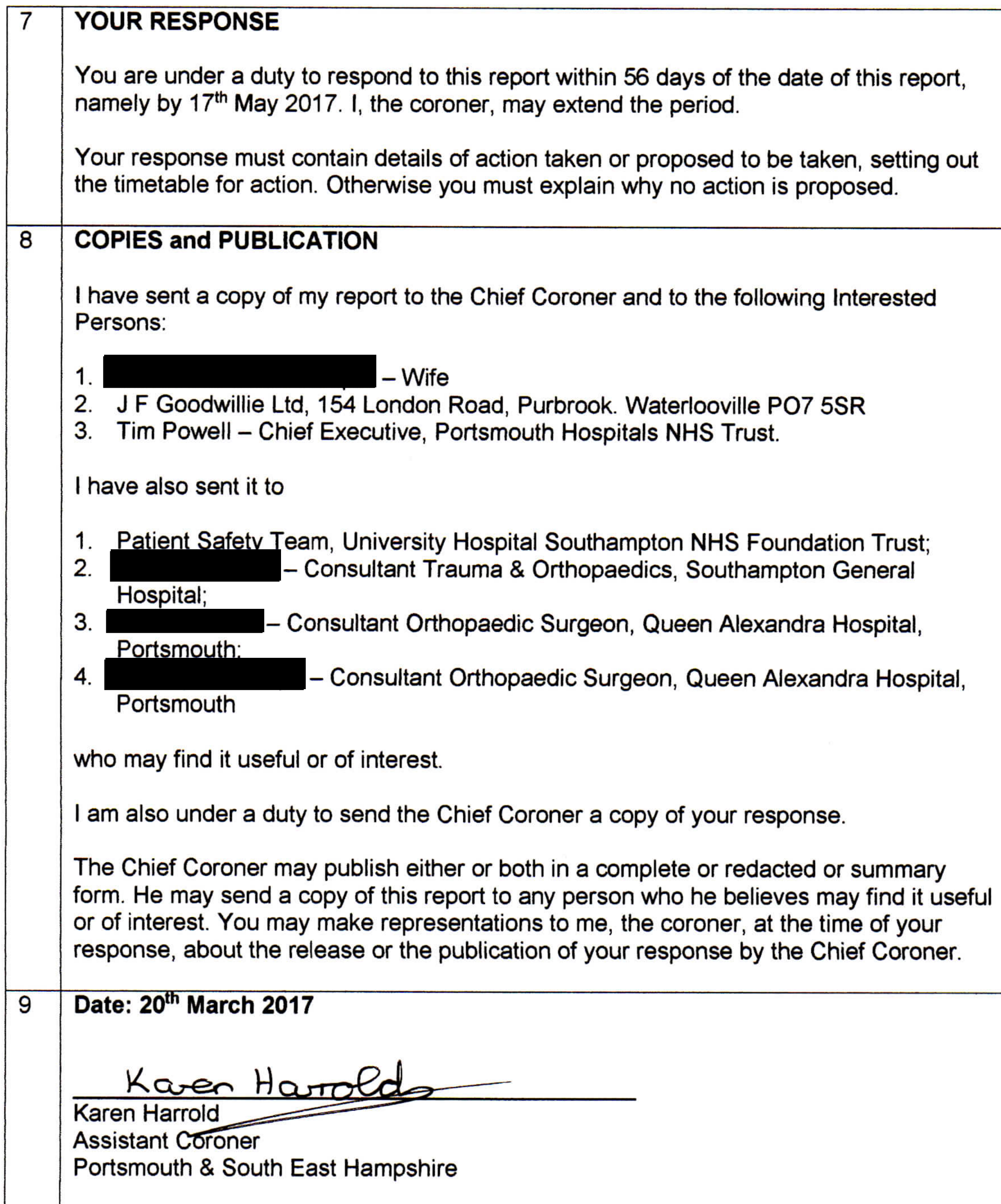
- 13 March – in theatre in morning – given 40mg in evening. Clinically this was appropriate as Tpx should not be given until 6 hours after surgery;

- 14 March – no morning dose given. At around 10.00 a ward pharmacist queried whether 40 mg once a day was appropriate as it was spotted from the notes that the reported weight was in fact 107 kg so following the SGH protocol this should have been 40mg twice a day. **It was accepted that a morning dose should have been given immediately but this did not happen meaning there was a missed dose**. An evening dose of 40 mg was given.

- 15 March – no morning dose given as pin site was oozy. [redacted]confirmed at inquest that clinically this was an appropriate decision given the oozing could be due to bleeding or infection. **It was confirmed that it could not be ascertained who made the decision to withhold the morning dose. Normally it would be a doctor but there is an expectation that the decision would be recorded and this did not happen.** It was felt unlikely that a nurse would make the decision alone without referral to a doctor. However, stockings were still in use so some Tpx measures were still in place.

- Given twice daily as per protocol 16 to 20 March until transferred back to QAH on 20 March.

	Mr Hooper remained at Southampton until 20 March and was transferred back to Portsmouth. Sadly at 09.27 on 22 March there was a sudden deterioration in his condition and a cardiac arrest call was put out but despite resuscitation he died at 10.15 a.m.
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. – 1. **On admission to SGH on 12 March, Mr Hooper's weight was incorrectly recorded as 80kg when the reality was his true weight was 107 kg** – a difference of 27 kg (4st 3.5lbs) which is a considerable difference. This is important as the amount of anti-coagulant drugs to be given according to the SGH thromboprophylaxis protocol is calculated on weight. 2. As stated above, **on 15 March when the clinical decision was made to withhold the morning dose of Tpx medication it could not be ascertained who made the decision.** This was a significant clinical decision and it is a basic requirement that all clinical decisions are recorded in order to capture capturing who made the decision and why. In respect of both of these concerns, during the investigation I learned through the Root Cause Analysis that a Trauma & Orthopaedic Morbidity & Mortality meeting had been held. In addition, I was told during the inquest that a nonogram was now in use to improve weight estimation for those patients where it was not possible to obtain actual weight and that training was underway in relation to its use for elderly patients. I also heard that some new beds with built in weighing scales were to be purchased within 2 months subject to cost and commissioning. Whilst a valuable tool, a single T&O M&M meeting is only effective for those doctors and nursing staff who attend. I was not given any other detail as to how the valuable lessons to be learned from this case were to be spread to clinical staff across the T&O department or the whole Trust as weight estimation can be equally important in many other medical specialisms. I was told during the inquest that training was currently taking place in respect of elderly patients but I was not given a plan or timetable for other high risk patients such as Mr Hooper who was only 46 years old and suffered from an acute crush pelvic trauma which had the potential to be life threatening. Mr Hooper died on 22 March 2016 but as yet no active steps have been taken to address patients who fall into the same category. The same principle can be said to apply to bed purchase and it did not appear to be an agreed action that beds with scales would be used to improve the problem of weight estimation in order to ensure accurate dosage of essential medication.
6	**ACTION SHOULD BE TAKEN** In my opinion action should be taken to prevent future deaths and I believe you 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 17th May 2017. 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:

1. – Wife
2. J F Goodwillie Ltd, 154 London Road, Purbrook. Waterlooville PO7 5SR
3. Tim Powell – Chief Executive, Portsmouth Hospitals NHS Trust.

I have also sent it to

1. Patient Safety Team, University Hospital Southampton NHS Foundation Trust;
2. – Consultant Trauma & Orthopaedics, Southampton General Hospital;
3. – Consultant Orthopaedic Surgeon, Queen Alexandra Hospital, Portsmouth;
4. – Consultant Orthopaedic Surgeon, Queen Alexandra Hospital, Portsmouth

who may find it useful or of interest.

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 Date: 20th March 2017

Karen Harrold
Assistant Coroner
Portsmouth & South East Hampshire