REGULATION 28: REPORT TO PREVENT FUTURE DEATHS
Pamela Margaret Hands aka Horner

	REGULATION 28 REPORT TO PREVENT FUTURE DEATHS **THIS REPORT IS BEING SENT TO:** **The Royal College of Emergency Medicine, 7-9 Bream's Building, Chancery Lane, London, EC4A 1DT.** **The Royal College of Surgeons (Orthopaedic), 35-43 Lincoln's Inn Fields, London, WC2A 3PE.**
1	**CORONER** I, Dr E Emma Carlyon am Senior Coroner for the coroner area of Cornwall and the Isles of Scilly
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 the 9th December 2015, I opened an investigation into the death of PAMELA MARGARET HANDS otherwise known as PAMELA MARGARET HORNER. An inquest was opened on 10th December and a full inquest hearing took place at Truro Municipal Building, Truro between the 11th – 12th July 2017. The inquest concluded that the cause of death was 1a Multi Organ Failure 1b Cardiac Arrest (26.11.2015) 1c Effects of Relative Opiate Toxicity following administration of Local Anaesthetic Nerve Block for a Periprosthetic fracture of the femur due to a fall II Coronary Artery Atherosclerosis.** **A Narrative Conclusion was reached** **"Pamela Margaret Hands died from multiple organ failure following a collapse in the hospital Accident and Emergency Department on 26.11.15 due to the effects of relative opiate toxicity following the administration of a local anesthetic for necessary pain relief for a periprosthetic fracture due to a fall. The lack of adequate patient observations from the time of administration of the Local Anesthetic prevented the recognition of opioid toxicity and reversal of the opioid side effects with an antidote and or medical intervention to avoid the cardiac arrest"**
4	**CIRCUMSTANCES OF THE DEATH** **Pamela Hands fell in the kitchen at her home address, [redacted] at just before 22.45 on 21st November 2015. She was transferred to the Royal Cornwall Hospital by ambulance during which time she was administered morphine sulphate for pain relief at 23.35 (5 mg) and 00.34 (2.5 mg). She was diagnosed with a periprosthetic fracture of femur. She was given a further dose of morphine sulphate between 1.20 - 30 am (10 mg). In order to assist**

	with pain relief a right fascia iliac block (40mls 2.5% bupivacaine) was administered intravenously at 2.20 am with no issues. At the time of the administration of the Local Anaesthetic and for 5-10 minutes after, there was no evidence of opioid toxicity. She was not adequately observed from around 2.30 am. At 2.53 am she was found unresponsive on the bed, not breathing and with no pulse. She was successfully resuscitated at 2.57 but despite this she never recovered consciousness and despite medical support died on 1st December 2015. The effects of the opioid toxicity following the administration of the local anesthetic nerve block for pain relief led to the respiratory and subsequence cardiac arrest. Opioid and Fascia iliac blocks are recognized as being a standard care pathway in the peri-operative management of patient with neck of femur fractures. Observations after the administration of the fascia iliac block would on balance have recognized the opioid toxicity allowing the antidote (Naloxone) and/or other medical support to be administered and on balance the cardiac arrest avoided.
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. – The Expert Consultant in Pain Medicine explained that after the fascia iliac block was administered analgesia will occur over 10-15 minutes. As the patient obtains better analgesia from the fascia iliac block, the opioids in the circulation would have a more toxic effect than an analgesic effect. Pain is a potential arousal stimulus keeping the patient awake and aware of their surroundings. Pain is also a respiratory stimulant. There is an intimate link between the neurophysiology of pain and the respiratory stimulant. It was recognised that removing a painful stimulus using a local anaesthetic block can pre-dispose patients who have had opioids to respiratory depression. The risk can be increased if the patient has other respiratory depressant risks such as alcohol which can act synergistically with the opioid. In order to avoid this, the patient would need to be observed during the first 30 minutes after the administration of the block to reverse the effect of the opioid or support the respiration if required to avoid a cardiac arrest and death. At the time of the death were no National Guidelines to advise on the need to monitor patients post procedure or application of the anaesthetic nerve block At inquest it was clear from the evidence of the Clinical Director of Emergency Medicine that in 2015 the effect of relative opioid toxicity following the administration of a local anaesthetic nerve block for proximal femur fractures was not widely recognised within Emergency Medicine. As there was an increase in the use of fascia iliac block in conjunction with opioid analgesia in emergency medicine, this risk should be highlighted to health professionals so that they were aware of the risk and the appropriate guidelines put in place.
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. To increase awareness to health professionals within your organisation or in general of this risk so that the appropriate preventative measures, guidance and protocols are in place within organisations to reduce the risk of respiratory depression, arrest or death after the administration of fascia iliac block.

7	**YOUR RESPONSE** You are under a duty to respond to this report within 56 days of the date of this report, namely by the 12th February 2018. 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] of Watkins & Gunn Solicitors, [redacted] representative for the Royal Cornwall Hospital Trust. I have also sent it to [redacted] representative of SWAST 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]** **[SIGNED BY CORONER]** **18th December 2017** Elizabeth Emma Carlyon