CORONERS ACT, 2003

SOUTH  *AUSTRALIA*

FINDING OF INQUEST

An Inquest taken on behalf of our Sovereign Lady the Queen at Adelaide in the State of South Australia, on the 23rd day of October 2006, the 14th day of May 2007, the 3rd day of September 2008, the 12th day of January 2010 and the 7th day of April 2011, by the Coroner's Court of the said State, constituted of Anthony Ernest Schapel, Deputy State Coroner, into the death of Maureen Watkins.

The said Court finds that Maureen Watkins aged 56 years, late of 45 Kanmantoo Road, Aldgate, South Australia died at the Royal Adelaide Hospital, North Terrace, Adelaide, South Australia on the 14th day of July 2006 as a result of pulmonary thromboembolism due to left calf deep vein thrombosis. The said Court finds that the circumstances of her death were as follows:

1. Introduction and reason for Inquest

1.1. Mrs Maureen Watkins was aged 56 years at the time of her death on 14 July 2006. She died at the Royal Adelaide Hospital (RAH) where she had been treated as a patient in Ward S7 since 9 July 2006. At the time of her death Mrs Watkins was detained under the provisions of the Mental Health Act 1993 (MHA). The fact that Mrs Watkins died whilst being detained under the MHA meant that hers was a death in custody in respect of which, pursuant to the Coroners Act 2003, an Inquest was mandatory.

1.2. Mrs Watkins resided with her husband in Aldgate. She had suffered from what was thought to be bipolar affective disorder. In 2005 she had been hospitalised at Flinders Medical Centre in relation to this illness. Following that period of hospitalisation she was placed on appropriate medication. Mrs Watkins' mental state thereafter is

described in the statement of her daughter, Ms Tanya Watkins[1]. Ms Tanya Watkins states that following her mother's release from hospital in 2005, her mother was placed on medication for bipolar disorder but that in due course she stopped taking the medication. I took this to mean that she did so not in accordance with medical advice. Her mother then slipped into a deep depression that resulted in her mother being 'basically bedridden'. Mrs Watkins then had to be looked after by her husband. According to the statement of Ms Tanya Watkins, on 1 July 2006 her mother got out of bed and then resumed living as normal. However, on Saturday 8 July 2006 her mother woke early and then proceeded to play the piano and video games uninterrupted for an extraordinarily long period of time. That night her mother started to convulse as a result of which an ambulance was called. Mrs Watkins was taken to the RAH. She was examined in the Emergency Department and was admitted to Ward S7 on 9 July 2006. There Mrs Watkins would remain until her death.

1.3. Mrs Watkins experienced another seizure in the RAH Emergency Department. She was admitted and was then taken to the ward. Although no neurological abnormality was detected at autopsy, at the RAH an EEG was performed which was consistent with Mrs Watkins having suffered an epileptic fit.

1.4. It became apparent that Mrs Watkins had also injured her wrist. X-rays of Mrs Watkins' right wrist revealed a distal radial fracture. This was subsequently operated on. According to Ms Tanya Watkins' statement it is possible that Mrs Watkins had suffered her fractured wrist during her seizure.

1.5. While in hospital Mrs Watkins experienced episodes of confusion and delirium and also suffered from hallucinations. It was for these reasons that on 11 July 2006 she was detained under the MHA. The aetiology of the confusion and seizures was clinically thought to be due either to benzodiazepine withdrawal or to an underlying seizure disorder.

1.6. On 12 July 2006 Mrs Watkins underwent a general anaesthetic for a closed reduction and KY fixation of the distal right radial fracture.

1.7. At one point on 13 July 2006, it was thought that Mrs Watkins may have become hypoxic due to a possible pulmonary embolism or an infection. Hypoxia is an

[1] Exhibit C1a

inadequacy of oxygen reaching the tissues of the body. While a pulmonary embolus was suspected, no actual formal diagnosis was made prior to Mrs Watkins' death. Nor was any explanation for this episode of hypoxia identified.

1.8. In the early hours of the morning of 14 July 2006 Mrs Watkins was noted to have gasping respirations and seizure activity and she subsequently had a cardiac arrest. Resuscitative attempts were unsuccessful and she died at 0057 hours on 14 July 2006.

2. Cause of death

2.1. A post-mortem examination was carried out by Dr Karen Heath, a forensic pathologist at Forensic Science SA. Dr Heath's post-mortem report expresses the cause of death as pulmonary thromboembolism due to left calf deep vein thrombosis[2]. I find that to have been the cause of death.

2.2. The cause of death requires some explanation. At autopsy thromboembolic material was identified within the pulmonary trunk. This material occluded the right and left pulmonary arteries. In addition, thromboembolic material was identified within peripheral pulmonary blood vessels. The thromboembolic material essentially blocks the blood vessels that I have described, and in Mrs Watkins' case these blockages were fatal. The thromboembolic material that was responsible for these fatal blockages originated from a deep vein thrombosis (DVT) that was identified at autopsy within the veins of Mrs Watkins' left calf. A DVT situated within the veins of a person's leg may become detached and then travel through the bloodstream to the heart and lungs where the thromboembolic material might, as was certainly the case here, fatally block essential arteries connected with the lung. One possible cause of a DVT is sustained immobility. Immobility during hospitalisation is a recognised risk factor for pulmonary thromboembolism.

2.3. Neither the DVT within Mrs Watkins' calf nor the resulting pulmonary thromboembolism were clinically identified or diagnosed during Mrs Watkins' period of hospitalisation prior to her death. However, as already alluded to, the presence of a pulmonary embolism had been suspected by an intern working within Mrs Watkins' ward. This suspicion raised its head during 13 July 2006, some hours prior to Mrs Watkins' collapse and death in the early hours of the following morning. In the event,

[2] Exhibit C3a

the pulmonary embolism was not formally diagnosed and so no remedial measures were taken to address it.

3. Issues at Inquest

3.1. The Inquest addressed a number of issues including the lawfulness of Mrs Watkins' detention, the circumstances in which Mrs Watkins possibly developed her DVT, whether or not the DVT and pulmonary embolism ought to have been diagnosed and whether or not Mrs Watkins' death could therefore have been prevented.

3.2. I deal firstly with the question of the lawfulness of Mrs Watkins' detention. I have already alluded to Mrs Watkins' mental state during her period of hospitalisation. The regime of detention under the MHA in Mrs Watkins' case involved a three stage process.

3.3. Before discussing the circumstances of Mrs Watkins' detention I should briefly explain the regime of detention that the 1993 MHA provided for. I add here that the 1993 Mental Health Act has been replaced by the Mental Health Act 2009. Mrs Watkins' detention occurred pursuant to the 1993 legislation. Section 12(1) of the 1993 version of the MHA enabled a medical practitioner to make an order for the immediate admission and detention of a person in an approved treatment centre where the medical practitioner was satisfied of a number of matters; firstly that a person had a mental illness that required immediate treatment, secondly that such treatment was available in an approved treatment centre and thirdly that the person should be admitted as a patient and detained in an approved treatment centre in the interests of his or her own health and safety or for the protection of other persons. Section 12(2) of the MHA 1993 provided that such a detention order expired 3 days after the day it was made unless earlier revoked. A person so detained had to be examined by a psychiatrist within 24 hours of the patient's admission to the approved treatment centre or, where that was not practicable, as soon as was practicable after that admission. The examining psychiatrist had to consider whether the continued detention of the patient was justified or not. If a psychiatrist was not satisfied that the continued detention of the patient was justified, the psychiatrist was obliged to revoke the order. Otherwise, the psychiatrist would confirm the order. If the psychiatrist confirmed the order, this had the effect of continuing the 3-day period that had been enlivened by the original detention order. At the end of that 3-day period, further

orders for detention for periods up to 21 days, but not exceeding two such periods, could lawfully be imposed. Mrs Watkins underwent all three stages as described. She was originally detained pursuant to Section 12(1) of the Act. Her detention was thereafter confirmed by a psychiatrist. As well, a 21-day period of detention was imposed towards the end of the first 3-day period.

3.4. There is no question but that Mrs Watkins' detention under the MHA was lawful at all times in the interests of her own health and safety. Nobody has suggested otherwise. It was believed that Mrs Watkins behaviour and delirium, possibly as the product of an organic brain syndrome as distinct from a psychosis, put her at risk. As it happened Mrs Watkins, for a period, had to be lightly restrained by a Posey restraint device while in her bed and when seated. There is no suggestion other than that this restraint was necessary, appropriate and humane.

3.5. The question of the method and timing of the development of Mrs Watkins' DVT can also be disposed of relatively briefly. Immobility in a hospital setting is one means by which a DVT might develop. In this case at one point during Mrs Watkins' hospitalisation she was confined to bed and was lightly restrained both there and also whilst seated. The evidence suggested that these restraints would not have prevented mobility of Mrs Watkins' limbs. In any event, there is insufficient evidence to suggest that the DVT developed whilst Mrs Watkins was in hospital or, indeed, developed as a result of immobility that may have been the result of light restraint or confinement to bed. The circumstances of Mrs Watkins' hospitalisation have been examined by an independent consultant vascular surgeon, Dr Robert Fitridge. Dr Fitridge is an Associate Professor within the Department of Surgery, Faculty of Health Sciences, at the University of Adelaide. He is also Head of the Vascular Surgery Unit at the Queen Elizabeth Hospital. He has been practising as a consultant vascular surgeon since 1994. The focus of Dr Fitridge's examination of the circumstances of Mrs Watkins' death concentrated for the most part on the question of diagnosis of the DVT and pulmonary embolism, and the major part of his report[3] tendered to the Inquest focuses on that issue. However, Dr Fitridge expressed an opinion as to the circumstances and timing of the development of Mrs Watkins' DVT. Dr Fitridge states that his impression is that the DVT developed before or around the time of Mrs Watkins' original seizure, or during the early part of her admission to the

[3] Exhibit C18a

RAH. Dr Fitridge did not believe that it developed at the time of the surgery on her wrist. In any event, regardless of Dr Fitridge's opinion, there does not appear to be sufficient evidence to draw any conclusion about the development of the DVT when it is borne in mind that according to Mrs Watkins' daughter's statement, Mrs Watkins, after slipping into a deep depression in 2005, was basically bedridden until 1 July 2006 when she eventually arose and commenced the unusual behaviour that I have already described. It is worthwhile observing in this regard that Dr Matthew Gaughwin, who is the Director of the Drug and Alcohol Unit at the RAH and who saw Mrs Watkins in connection with a possible benzodiazepine withdrawal syndrome, points out in a statement that he provided to the Inquest[4] that if Mrs Watkins had been greatly affected by benzodiazepines at home and had spent a lot of time immobile as a result, she may have been at risk of DVT at home in a manner similar to that experienced by airline passengers and that she may have had a DVT even before she came to hospital. Another practitioner who had been involved in Mrs Watkins' treatment at the RAH, Dr Jane Hecker, also referred to this possibility[5]. To my mind the possibility that Mrs Watkins already had a DVT before she arrived at the RAH has not been eliminated.

3.6. An associated question is whether in any case Mrs Watkins ought to have been provided with either chemical or mechanical prophylaxis against the risk of developing a DVT or pulmonary embolism. The RAH protocol for the administration of venous thromboembolism prophylaxis was tendered to the Inquest[6]. The medical and surgical risk factors that pertained to Mrs Watkins, as set out within the protocol, would not appear to dictate either chemical prophylaxis by way of the administration of an anticoagulant such as Heparin or mechanical prophylaxis provided by lower limb stockings. Dr Fitridge expressed the opinion in his report that he would have considered Mrs Watkins to be at relatively low risk of developing a DVT at the time of her admission to the RAH. She was not entirely bed bound while in hospital and was mobilised with assistance. Dr Fitridge suggests that while all patients in hospital have a risk of developing a DVT, prophylaxis is aimed at those considered to be at moderate or high risk. As well, the use of medications such as Heparin carry a slightly elevated risk of bleeding. He points out that prophylaxis with Heparin would have been contraindicated until a CT or MRI scan had excluded an intracerebral bleed

[4] Exhibit C21i
[5] Exhibit C21h, Record of Interview, Question and Answer 166-168
[6] Exhibit C25

as a cause for Mrs Watkins' presentation. He acknowledged that following such exclusion there might be a case for administering DVT prophylaxis and that there are arguments for and against it. However, Mrs Watkins did not have conditions which would typically be associated with the increased risk of DVT.

3.7. As to the issue concerning the diagnosis of the DVT or pulmonary embolism, it needs to be borne in mind that Mrs Watkins' initial presentation and symptomatology during her admission at the RAH did not clinically suggest that there was a pulmonary embolus at work. Despite the fact that Mrs Watkins was a middle-aged woman who had no previous history of epilepsy, the EEG that was administered very much suggested that the fitting that she had experienced at home and in the Emergency Department had an epileptic origin. There was also the question of possible benzodiazepine withdrawal for which she was administered diazepam. There were none of the classic symptoms of a pulmonary embolism such as chest pain or shortness of breath. Moreover, calf pain or swelling that might be suggestive of a DVT within the leg was never identified. It was only when Mrs Watkins experienced her fatal collapse in the early hours of the morning of 14 July 2006 that any clinical signs consistent with pulmonary embolus became evident.

3.8. During 13 July 2006 an intern on duty came to consider whether Mrs Watkins was experiencing either an infective process within the respiratory system such as might be caused by aspiration of vomitus, or a pulmonary embolism. Dr Lauren De Luca was at that time an intern at the RAH. Dr De Luca had obtained her original medical degrees in 2005. Dr De Luca's first involvement with Mrs Watkins occurred on 12 July 2006 when she was allocated to the medical unit as a relieving intern for a period of two days. As I understood the contents of her lengthy and extensive police interview[7] Dr De Luca was under the supervision of a registrar within the unit, Dr Alice Anderson. For the whole unit there was only one intern and one registrar on duty. Dr De Luca was not rostered to work on Thursday 13 July 2006. However, according to Dr De Luca, Dr Anderson was rostered to work that day but Dr De Luca offered to cover for her as Dr Anderson was studying for examinations. Dr Anderson would nevertheless be available by telephone if Dr De Luca needed to ask her any questions. There was no consultant on duty that day. The upshot was that as far as one can tell from the whole of the evidence, the only medically qualified person on

[7] Exhibit C21f

duty in this ward on 13 July was the intern, Dr De Luca. As an intern, there is no reason to question Dr De Luca's competence, but it needs to be borne in mind that an intern is usually quite inexperienced and is in his or her first post graduate year.

3.9. Dr De Luca explained that when she observed Mrs Watkins on the morning of 13 July 2006 she was quite drowsy but displayed no symptoms such as pain or shortness of breath. She noted that she was saturating at 95% on 4 litres of oxygen which, while outwardly reasonable, was lower than the day before. Dr De Luca thought that Mrs Watkins' may have been drowsy from the effects of her wrist operation the day before and/or from the effects of diazepam which had been prescribed for benzodiazepine withdrawal. However, Dr De Luca suggested that the fact that Mrs Watkins was not saturating that well could have been due to something like an infection or an embolus. Dr De Luca examined Mrs Watkins' calves and found that they were soft, non-tender and displayed no obvious evidence of a DVT.

3.10. Notwithstanding the absence of any clinical symptoms of either an infection or a pulmonary embolus, Dr De Luca believed that it would be appropriate to conduct an arterial blood gas examination (ABG) to ascertain whether Mrs Watkins was hypoxic. She also decided to perform a chest X-ray. She advised Dr Anderson of the situation by phone. It was agreed by both doctors that the ABG and chest X-ray should be done.

3.11. In Dr Anderson's interview with police[8], Dr Anderson agreed that the oxygen saturation of 95% on 4 litres of oxygen had been abnormal and that she would have expected a higher reading. It suggested that there had been a level of deterioration in Mrs Watkins that required investigation. One possibility in her mind was a pulmonary embolus. She suggested there might have been a multitude of reasons for her oxygen to be low, but in her interview Dr Anderson confirmed that she had advised Dr De Luca to obtain an ABG to investigate pulmonary embolus. The X-ray was designed to investigate the possibility of infection possibly caused by an aspiration pneumonia.

3.12. The ABG was performed at about 1:04pm and the result was made available. A further ABG was undertaken at about 4:10pm. Dr De Luca ordered both tests. The test that was conducted at approximately 1:04pm revealed that Mrs Watkins' oxygen

[8] Exhibit C21g

level was low. The chest X-ray did not reveal any abnormality. The later ABG result suggested that Mrs Watkins' oxygen levels had approached normality. However, the second ABG was conducted when Mrs Watkins was on oxygen and so the result has less diagnostic significance than the first.

3.13. Dr Anderson asserts that she was never told of either ABG result[9]. She had only been made aware of the original observations made by Dr De Luca that the patient's oxygen saturation was at 95% on 4 litres of oxygen. Beyond being informed of that, she had no further involvement with Mrs Watkins' case prior to her death the following morning. In her police interview Dr Anderson was asked to interpret the first ABG result. She suggested that it had indicated significant hypoxia. Dr Anderson acknowledged that the result of the first ABG test was consistent with a pulmonary embolism, although other things could have caused those results as well.

3.14. In her interview Dr De Luca did not lay claim to having advised Dr Anderson of any of the ABG results that afternoon. Dr De Luca explained that by the time she herself had the full results from the ABG tests and the chest X-ray, it was after 5pm and by then Dr Anderson would have been out of the hospital and unable to be contacted[10]. Dr De Luca went on to explain that she was only relieving and did not know any of the consultants on the ward and was not aware if they were in any event on for that day[11]. Dr De Luca went on to explain that one of the reasons she did not get back to Dr Anderson was that the ward had been 'extremely, extremely busy'[12] and that there was only one doctor looking after many patients. She believed that there would have been over 20 people in the ward for the one intern. There was one particular patient who required emergency medical calls during the day. I understood that Dr De Luca herself went off duty sometime around 5pm.

3.15. As far as the second ABG result is concerned, this had been interpreted by Dr De Luca as unremarkable and signifying an improvement. The difficulty, however, was that Mrs Watkins had been administered oxygen whereas the first ABG result was on air. The second more satisfactory ABG result would therefore need to be considered with some care, insofar as it simply demonstrated that the earlier hypoxia had been corrected with the delivery of oxygen. As I understood the evidence, the second ABG

[9] Exhibit C21g, page 17
[10] Exhibit C21f, page 17
[11] Exhibit C21f, page 18
[12] Exhibit C21f, page 19, answer 155

result would not necessarily address the possible existence of the underlying pathology, if any, that had given rise to the earlier hypoxic ABG result.

3.16. In her interview Dr De Luca said that at one point she had consulted a male registrar about Mrs Watkins. She was unable to recall the identity of that person. Subsequent investigations by the police identified that medical practitioner as Dr Benjamin Williams. Dr Williams provided a statement verified by affidavit[13]. At that time Dr Williams was in the first year of his physician training. He was not working in the medical unit at the RAH. He believes that he was more than likely working in the Intensive Care Unit at that time. However, on 13 July 2006 Dr Williams was in the medical ward having responded to an emergency call that had originated from there. He recalls speaking with Dr De Luca at the nurses' station and that Dr De Luca indicated that she was having difficulty with some of her patients in the medical unit and was also having difficulty contacting her registrar. She had therefore taken the opportunity to ask Dr Williams for advice in relation to a patient, now identifiably Mrs Watkins. Dr Williams believes that the conversation occurred at around 3pm to 4pm. Dr De Luca told Dr Williams that the patient was confused, was one day post operation for wrist surgery and was suspected of being withdrawing from benzodiazepines. Dr De Luca had told him that she thought the patient might have a pulmonary embolus. She told Dr Williams that she was going to perform an ABG investigation. Dr Williams did not examine Mrs Watkins for himself. He states that he subsequently became aware of the result of an ABG that had been performed at approximately 4pm. It will be remembered that this investigation did not show Mrs Watkins to be hypoxic having regard to the fact that this test was conducted on oxygen. Dr Williams recalls advising Dr De Luca that in his opinion a pulmonary embolus was not in keeping with confusion and the absence of hypoxia. Dr Williams considered Mrs Watkins' recent surgery together with benzodiazepine withdrawal as a possible explanation for Mrs Watkins' confused presentation. Dr Williams, significantly, states the earlier ABG result was not drawn to his attention at the time. He was not aware of that investigation. However, he states that the first ABG result in fact showed Mrs Watkins to be hypoxic and that if he had known of that earlier result he probably would have recommended to Dr De Luca that she perform the necessary tests to investigate a pulmonary embolus. Such an investigation would

[13] Exhibits C19 and C19a

include a CT pulmonary angiogram. He had no further involvement with Dr De Luca in relation to Mrs Watkins' care.

3.17. Dr De Luca said that after she had spoken to the unidentified male doctor, whom we now know to be Dr Williams, she did not believe that she needed to undertake any further investigations. She asserts that the male doctor had said that none were required because the chest X-ray was normal and the more recent ABG was satisfactory. Dr De Luca's note, timed at 5pm in the progress notes, consists simply of the recording of the ABG results and the chest X-ray results with the plan being to continue current management with a view to a medical officer reviewing Mrs Watkins the following day. As well, diazepam was to be withheld as that was thought to be contributing to Mrs Watkins' drowsiness.

3.18. The evidence suggests that when Dr De Luca went off duty there was no further medical evaluation made in respect of Mrs Watkins' presentation. This meant that no further discussion or consideration was given to the question as to whether any further diagnostic measures ought to be undertaken in order to investigate the possibility of a pulmonary embolus such as a CT pulmonary angiogram. As well, there did not appear to be any definitive explanation for Mrs Watkins' hypoxic presentation during the course of the afternoon of 13 July 2006. Dr De Luca agreed that further investigation for the causes of Mrs Watkins' presentation could have been undertaken, but pointed out that Mrs Watkins was clinically asymptomatic for pulmonary embolus and that there was no longer any indication for her to do perform any further investigation. Mrs Watkins still did not exhibit any chest pain or shortness of breath.

3.19. That night Mrs Watkins was cared for by nursing staff and carers. The statement of a carer, Mr Gryphon Jackson[14], describes the circumstances in which Mrs Watkins collapsed. Mr Jackson states that at about 11:15pm on the evening of Thursday 13 July 2006 Mrs Watkins said that she was 'panting'. Mrs Watkins said that on more than one occasion so Mr Jackson then went and fetched the registered nurse. Another carer, Mr Craig Workman[15], also saw Mrs Watkins at about this time and he describes her as breathing very fast and generally having difficulty breathing. Mrs Watkins said something to the effect that 'I'm going to lose the baby'. The registered nurse was brought to Mrs Watkins.

[14] Exhibit C11a
[15] Exhibit C12a

3.20. We know this person to have been Ms Lisa-Marie Seyfang. RN Seyfang provided a statement to the Inquest[16]. RN Seyfang commenced duty at about 9pm on the night of 13 July 2006. Mrs Watkins was being specialled by an enrolled nurse but at 10pm the special was replaced with two carers. At the commencement of RN Seyfang's shift Mrs Watkins was sleeping. Later that night at about 11:30pm RN Seyfang entered Mrs Watkins' room to administer an intravenous dose of antibiotics. Mrs Watkins appeared deluded insofar as she said something about men in her wardrobe. However, Mrs Watkins otherwise appeared normal, relaxed, warm to touch and her hands and lips were pink. Eventually RN Seyfang's attention was drawn by one of the carers to the fact that a patient was panting. She went to Mrs Watkins' room and observed that Mrs Watkins appeared to be having a seizure. She was blowing bubbles and foaming at the mouth and was in an odd position. RN Seyfang called an emergency call. A medical emergency team attended. At about 12:25am Mrs Watkins became unresponsive. CPR was commenced. At one point it was determined that Mrs Watkins had a pulse, but this eventually ceased and signs of life also ceased. She could not be further resuscitated and was pronounced life extinct at 12:57am on 14 July 2006.

3.21. I have already referred to Dr Fitridge and his expert overview. Dr Fitridge expresses the view that it is likely that the pulmonary embolus, from which Mrs Watkins' succumbed, developed in the morning or early afternoon of 13 July 2006. Dr Fitridge suggests that the first ABG, whilst demonstrating hypoxia, was not specific of any particular cause. Mrs Watkins' drowsiness could have been explained clinically by administration of diazepam, a sedative agent. Dr Fitridge states:

> 'I think these symptoms and the non-specific blood gas results, without the presence of chest pain, would make the diagnosis of pulmonary embolus relatively unlikely, but a diagnosis which could have been considered.' [17]

He viewed Dr De Luca's assessment of Mrs Watkins' presentation as being appropriate. He suggested that there were no symptoms or signs that would have strongly suggested a diagnosis of pulmonary embolus. While the first ABG result was consistent with a diagnosis of pulmonary embolism, he suggested that there was a relatively low index of suspicion of the same having regard to Mrs Watkins' clinical findings. As to whether any further investigation should have been undertaken, that

[16] Exhibit C6a
[17] Exhibit C18a

depended upon the likelihood of a diagnosis of pulmonary embolus. If pulmonary embolus was considered to be likely, then diagnostic measures such as a CT pulmonary angiogram or ventilation perfusion scan would be appropriate. However, he believed that there was, on the facts as they were known, a relatively low chance of the clinical scenario representing a pulmonary embolus. I accept that evidence, and it will be recognised that a Court such as this has to guard against viewing a complex matter such as this too much with the benefit of hindsight, but it will be noted that Dr De Luca at the time had considered a possible diagnosis of pulmonary embolus and had discussed that with Dr Anderson. They both concluded that at least ABG tests should be undertaken. Unfortunately, Dr Anderson was not made aware of the results of either of those tests and Dr Williams was only informed of the result of the second test that had been taken on oxygen. In my view, particularly having regard to Dr Williams' statement, there is a very strong possibility that if the ABG tests in their entirety had been evaluated by more senior medical staff, a decision would have been made to further investigate a pulmonary embolism and to perform a CT pulmonary angiogram or other diagnostic measure. In the light of Dr Fitridge's opinion, the lack of any clinical symptomatology of a pulmonary embolus and Dr De Luca's inexperience, it is impossible for the Court to be in any way critical of Dr De Luca, but the fact remains that there had been a missed opportunity to diagnose. Was Mrs Watkins' death preventable? Dr Fitridge suggested that even if a positive diagnosis of a pulmonary embolism had been reached, it was still nevertheless uncertain whether remedial measures such as commencement of anticoagulation would have avoided a fatal result. In my opinion the evidence is insufficient to allow for a finding on a balance of probabilities that a more timely diagnosis and administration of remedial measures would have prevented Mrs Watkins' death.

4. The RAH Mortality Review report

4.1. Following this matter a mortality review report was compiled by the RAH. The findings of the review were somewhat bland and unremarkable. However, following the review a number of recommendations were devised that are set out as follows:

> '2. *Recommend* that clinical areas review local practices to ensure that abnormal results (e.g. ABG's) are treated as such until proven otherwise (by repeat test).
>
> 3. *Recommend* that the treating team seek advice from a consultant neurologist if an EEG result reports an epileptic encephalopathy picture.

- Suggest that the detection of an epileptic encephalopathy on EEG trigger immediate review by a consultant neurologist with a view to management of the patient in an intensive care unit or neurology ward.

4. *Recommend* that medical patients with neuropsychotic or delirium states be stratified, and high risk patients be considered for high dependency management by more experienced staff.
    - Consider cohorting patients in a dedicated area with more experienced staff providing 24 hour cover.
    - Consider aligning medical wards as acute care, intermediate care and long term care with staffing to match.
7. *Recommend* that the hospital review leave arrangements for consultant and registrar medical staff to ensure that appropriate and safe cover is provided.'

Having regard to the issues identified in this Inquest it would appear that those recommendations were appropriate. I would only add that in relation to recommendation 7 this Court has, in the past, had occasion to comment upon staffing levels at the RAH in the context of leaving important clinical tasks to inexperienced interns without sufficient oversight by more senior practitioners such as registrars and consultants[18].

Key Words: Death in Custody; Pulmonary Embolus

In witness whereof the said Coroner has hereunto set and subscribed his hand and Seal the 7th day of April, 2011.

Deputy State Coroner

[18] Inquest into the death of Olga Krivitch, Inquest 13/2009