

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 9<sup>th</sup> day of June and the 15<sup>th</sup> day of July 2004, before Wayne Cromwell Chivell, a Coroner for the said State, concerning the death of Katica Jovanovic.*

*I, the said Coroner, find that Katica Jovanovic, aged 46 years, late of 19 Amos Way, Royal Park, South Australia died at The Queen Elizabeth Hospital, Woodville Road, Woodville South, South Australia on the 14<sup>th</sup> day of January 2002 as a result of pulmonary thromboembolism due to bilateral deep calf vein thrombosis.*

### **1. Reason for inquest**

1.1. On 9 January 2002 Dr Gorana Milosevic made an order pursuant to Section 12(1) of the Mental Health Act 1993 ('the Act') that Ms Katica Jovanovic be detained at the Queen Elizabeth Hospital. The grounds upon which Dr Milosevic made that order were as follows:

'Ms Jovanovic has a mental illness with poor insight. She is a danger to herself via self-neglect, her self-care has deteriorated in the last two to three weeks. In the last week she has left her bed once, has not eaten at all, and has drunk very little.'

(Exhibit C21)

1.2. On 10 January 2002, Ms Jovanovic was seen by Dr Jöerg Strobel, a Psychiatrist. Dr Strobel confirmed Dr Milosevic's order as required by Section 12(4) of the Act. Dr Strobel completed the Form 2 on 11 January 2002, as he had neglected to do so on the day. Dr Strobel's grounds for confirming the order were as follows:

'Patient presents laying in bed, very guarded, expressing delusional beliefs of a persecutory nature. She has not been eating and drinking well possibly in response to delusional beliefs ... I have known her for about four years as suffering from

schizo-affective disorder with limited insight and non-compliance - on CTO (Community Treatment Order).'

(Exhibit C21)

- 1.3. On 12 January 2002, Ms Jovanovic was seen by Dr R S Dhillon, Psychiatrist, who made a further order pursuant to Section 12(5) of the Act detaining her for a period of 21 days. Dr Dhillon commented:

'Schizo-affective disorder - depressed and psychotic ... quite somatically focussed. Says she is depressed and suicidal. Not eating or drinking. At risk of dehydration.'

(Exhibit C21)

- 1.4. Accordingly, at the time of her death on 14 January 2002, Ms Jovanovic was 'detained in custody pursuant to an Act or law of the State' within the meaning of Section 12(1)(da) of the Coroners Act 1975, and an Inquest into her death was therefore mandatory by virtue of Section 14(1a) of the said Act.

## **2. Background**

- 2.1. Ms Jovanovic was born on 24 November 1955.
- 2.2. Dr Anthony Davis, Consultant Psychiatrist, has provided me with a very helpful report concerning the treatment received by Ms Jovanovic prior to her death. In his report, Dr Davis recites the following history, which I will adopt for the purpose of these findings:

'The attached documents highlight an extensive psychiatric history, dating back to at least 1981. She had multiple admissions to psychiatric units in Adelaide, and extensive follow-up through Community services. Various diagnoses were made over time including neurotic depression, bipolar disorder, atypical bipolar disorder, schizo-affective disorder and chronic schizophrenia. Reference is made to histrionic personality traits or disorder. Upon reviewing the various case files, I consider that a diagnosis of schizo-affective disorder is most appropriate, given the array of psychotic symptoms and affective symptoms experienced over time.

Ms Jovanovic was subject to a Community Treatment Order, authorized by the Guardianship Board on 8<sup>th</sup> March 2001, for a period of 12 months. The treatment planned was based in the Community, and coordinated by a key worker. She was advised to continue with regular Depot injections of Zuclopenthixol, and maintain contact with Community Services on a regular basis. In January 2002 Ms Jovanovic could not be located for some time, and there were concerns about deterioration in her mental state. On 8<sup>th</sup> January 2002 her boyfriend, Mr Timoshanko, made contact with the Community Service, and sought assistance for Ms Jovanovic. At the time she appeared to be depressed, paranoid and in need of food and fluids. Arrangements were made for her to be transferred to the Queen Elizabeth Hospital via ambulance.'

(Exhibit C20, pp1-2)

- 2.3. In his statement, Mr Timoshanko confirmed that he called a locum doctor to examine Ms Jovanovic on 8 January 2002, and the locum's note, which is contained in Volume 2 of the Queen Elizabeth Hospital clinical record (Exhibit C21) states that she was complaining of 'leg pains'. Other symptoms were recorded, such as 'off food', 'no self-care', 'laying in bed', 'refusing to be seen'. The locum noted:

'Needs psychiatric assessment urgently. Tomorrow morning call ACIS. Partner to call mental health team.'

- 2.4. Mr Timoshanko did call Ms Susan Johnstone, Ms Jovanovic's Case Manager at the Mobile Assertive Care Team, which is part of the South Australian Mental Health Service. Ms Johnstone visited Ms Jovanovic on 9 January 2002 and arranged for her to be taken to the Queen Elizabeth Hospital and assessed in the Emergency Department by a psychiatrist.
- 2.5. Ms Jovanovic was seen by Dr Milosevic that afternoon, and as I have already recorded, Dr Milosevic detained her pursuant to the Mental Health Act 1993. Ms Jovanovic was admitted to the Crammond Clinic.
- 2.6. As for Ms Jovanovic's progress whilst an inpatient, Dr Davis has summarised the key events as follows:

'She had a cursory physical examination in the A & E Department, and she was recorded to have elevated temperature (37.6° C) but blood pressure was not recorded. She reported various symptoms including leg pains. Mr Timoshanko provided a history that Ms Jovanovic had not been eating for the previous week and that she was largely bed-bound and only drinking small amounts of water. She had been feeling unwell for at least a week, following Zuclopenthixol injection, and she had experienced "pain in the legs for days". Dr Milosevic questioned Ms Jovanovic further, and was advised that she had no pain in the legs at that time.

Ms Jovanovic was reviewed by Dr Strobel, consultant psychiatrist, on 10.01.02, and a Form 2 was completed, extending the detention order for three days. Dr Strobel requested that a physical examination be completed, and had discussions with the resident about possible physical complications of immobility and lack of food and fluids. Many staff entries in the case-notes highlight that Ms Jovanovic remained withdrawn and resistant to intervention, often declining food, fluids and encouragement to move about. Multiple references were made to the fact that fluids had to be encouraged, and that mobilisation was important. She was given an intramuscular dose of 200 mg Zuclopenthixol on 09.01.02. She was continued with Amitriptyline 100 mg at night and Risperidone 1mg mane and 2mg nocte.

Following Dr Strobel's assessment, the Psychiatric RMO attempted to complete a physical examination, and commented that the patient was "not cooperative". On the following day, 11.01.02, Ms Jovanovic remained prostrate on the bed. Once again she was resistant to examination, but the resident was able to complete a partial assessment,

including neurological function, and concluded that it was “unlikely to be neurologic or DVT etc”. The case-notes indicate that the staff were mindful of potential physical problems that could emerge in the setting of a patient with severe mental illness, associated with immobility, self-neglect and poor fluid and food intake.

The nursing notes document various observations. On 11.01.02 at 1430 hours, Ms Jovanovic had elevated temperature of 38.9° C, as well as elevated blood pressure and pulse rate. It is noted that Dr Richardson was advised of the observations, and that a midstream urine was requested.

On 12.01.02 at 0600 hours the temperature was 37.8° C, blood pressure and respiratory rate were normal. At 0800 hours temperature was 37.2° C, pulse rate was elevated to 115 per minute, and respiratory rate was elevated at 25 per minute.

Ms Jovanovic was reviewed by Dr Dhillon, consultant psychiatrist, on 12.01.02. He completed a Form 3, extending the detention for 21 days. He made reference to the need for food and fluids, and the need to encourage mobilisation. He also referred to the possible need for electro-convulsive therapy, to manage this severe psychotic state and the complications associated with immobility.

On 13.01.02 and 14.01.02, Ms Jovanovic remained passive, withdrawn and resistant to intervention. Reference is made to her request, “Don’t touch me”, and ongoing refusal to eat. A fluid balance chart was compiled, but it remained incomplete.

On the morning of 14.01.02 her temperature was 36.8° C, blood pressure was normal and pulse rate was normal. Between 09.01.02 and 14.01.02, there was no reference to leg pain, and no documentation of swelling of ankles, shortness of breath or any signs of respiratory distress. On the morning of 14.01.02 Ms Jovanovic reported pain in the legs and feet, as well as being “sore all over”. As a result she was unable to walk, shower or stand for any length of time. Later that day, Ms Jovanovic collapsed, and subsequently died from the complications of pulmonary embolus.'

(Exhibit C20, pp2-3)

- 2.7. On 14 January 2002, the nurses at Crammond Clinic, recognising that it was necessary to help Ms Jovanovic walk in order to minimise the possibility of developing deep vein thrombosis (DVT), approached her in her room. Enrolled Nurse Judith Morrison described what happened as follows:

'We approached her and told her we wanted to walk her as she hadn't been walked for the day. Katica didn't say anything to us. She had not really acknowledged us when we went into her room, but when we started to help her up, she said “No, no”. We got Katica to her feet and when we got her standing, her knees buckled under her and she slumped, so we sat her back down.

When she was sitting again, Katica became flaccid, non responsive and her eyes began to roll upwards. I thought at first it was a seizure, so I left the room with Halina and spoke to Kath Pirie about the situation. As a result of this, we called what's known as Code blue or a medical emergency.'

(Exhibit C5a, pp1-2)

- 2.8. Despite extensive efforts to resuscitate Ms Jovanovic, she could not be revived and Dr Andrew Philpott, after examining her and noting no signs of life, certified her life extinct at 8:20pm (Exhibit C2a, p2).

**3. Cause of death**

- 3.1. A post-mortem examination of the body of the deceased was performed by Dr J D Gilbert, Forensic Pathologist, on 15 January 2002. He diagnosed the cause of death as ‘pulmonary thromboembolism due to bilateral deep calf vein thrombosis’.
- 3.2. Dr Gilbert found that the main pulmonary arteries contained coiled thromboemboli up to 1cm in diameter, with occasional smaller thromboemboli in the peripheral pulmonary artery branches. He also found small established subpleural infarcts (death of tissue) at the posterior inferior borders of both lower lobes of the lungs. On examination of the legs, Dr Gilbert found thrombi in the posterior tibial veins and in veins within the soleus muscles in both calves.
- 3.3. These findings were confirmed on histological (microscopic) examination. Dr Gilbert found laminated ante-mortem thrombus in the pulmonary arteries, and ‘well marked thrombophlebitic changes in the deep calf veins with peripheral organisation of the thrombi in most of the involved veins’ (Exhibit C3a, pp2-3).

**4. Issues arising at inquest**

- 4.1. As I have already mentioned, Dr Anthony Davis provided me with a report concerning the treatment received by Ms Jovanovic.
- 4.2. There were many difficulties encountered in the management of Ms Jovanovic as she was suffering from a severe psychotic illness with depression, withdrawal and resistance to various interventions.
- 4.3. The medical and nursing staff appear to have been mindful of the physical complications that can occur in this setting. There are multiple references in the clinical record to the need for food, fluid and mobilisation, and one reference to consideration of DVT.
- 4.4. Dr Davis told me that the treatments prescribed for Ms Jovanovic’s psychotic illness were appropriate and in keeping with contemporary management of schizo-affective disorder (Exhibit C20, p3).

- 4.5. Ms Jovanovic did not have a thorough physical assessment despite several attempts to do so. She had complained of diverse physical symptoms including leg pains prior to admission, although there was no record of any specific complaint of leg pain after her admission to hospital, until the morning of 14 January 2002.
- 4.6. Dr Davis was concerned about the response to the elevation of Ms Jovanovic's body temperature on 11 and 12 January 2002. On 11 January her temperature reached 38.9° C and her blood pressure and pulse rate were also elevated. This had improved somewhat at 0600 hours on 12 January in that the temperature was 37.8° C and the blood pressure and respiratory rate were normal. By 0800 hours, the temperature was decreasing, but her pulse rate and respiratory rate were both elevated again. By 14 January 2002 her temperature, blood pressure and pulse rate had all returned to normal. Dr Davis said:

'One area of concern is the response to the documentation of elevated body temperature and pulse-rate. Reference is made to the need for a midstream urine, but there was no documentation of the need for a full septic screen, or further enquiry about possible sources of the elevated temperature and pulse-rate. It appears that this issue was not pursued with vigour, which may well have been an oversight by the treating team. Having said this, I am mindful of the fact that Ms Jovanovic was extremely difficult to manage, and that she offered considerable resistance to physical examination on several occasions. I am also aware of the fact that the treating team was focusing on establishing control of her psychotic state, which was a reasonable priority.

In general terms, I consider that more attention to her vital observations and further exploration of possible causes for the elevated temperature may have resulted in earlier detection of deep vein thrombosis, and possibly some intervention that may have prevented the emergence of pulmonary thrombo-embolism. However, I am also mindful of the difficulties that confronted the treating team, in obtaining a comprehensive assessment of her physical and psychological health. Furthermore, it appears that Ms Jovanovic did not focus on leg pain as a main issue following admission.'

(Exhibit C20, p4)

- 4.7. Dr Jörg Strobel, Consultant Psychiatrist, also gave evidence and said that he specifically discussed Ms Jovanovic's physical condition with Dr Sally Richardson, a Psychiatric Resident Medical Officer who has since returned to Great Britain. He said that he encouraged Dr Richardson to persist in her efforts to conduct a physical examination of Ms Jovanovic, and specifically mentioned the risks of DVT, among other things.

4.8. In the clinical record, Dr Richardson made the following entry:

IMP (impression) no obvious abnormalities discovered despite strong resistance. Demonstrates power ++ in resisting examination. Unlikely to be neurological or DVT, etc.'

4.9. It would appear that Dr Richardson did not examine Ms Jovanovic's legs, nor was she able to palpate them or otherwise investigate the possibility of DVT. Having said that, I accept that she was prevented from doing so by Ms Jovanovic's resistance, and the doctors were hoping that if they were able to effectively treat her psychosis, they might gain a better opportunity to physically examine her as she improved. Tragically, she died before that opportunity arose. Dr Strobel told me that Dr Richardson was a thorough and experienced clinician and he was confident that she had done all that was possible to examine Ms Jovanovic in the circumstances (T30).

4.10. Dr Davis acknowledged that even if Dr Richardson had been able to examine Ms Jovanovic's legs, it does not necessarily follow that DVT would have been diagnosed and/or treated. He said:

'It is also important to acknowledge that, in many instances, deep vein thromboses remain undetected in clinical settings, until the complication of pulmonary emboli emerge.'

(Exhibit C20, p4)

4.11. In all those circumstances, I have no criticism of the clinicians at the Queen Elizabeth Hospital arising from the fact that Ms Jovanovic's DVT was undetected prior to her collapse.

## **5. Prevention of future events**

5.1. Dr Strobel told me that since Ms Jovanovic's death, there has been an increased level of awareness of DVT among staff when dealing with psychiatric patients (T27). This is particularly necessary when the patient is obese, as Ms Jovanovic was (she weighed 110kgs).

5.2. Blood samples were taken on admission on 9 January 2002 and these showed no cause for concern. There is no evidence that these results were considered by the clinicians, although they were on the hospital computer system, and available for Dr Richardson to read. I will assume that she did so. No further blood was taken for testing after admission which could have been compared with the initial samples. A demonstrated anomaly may have led to intravenous rehydration being considered.

- 5.3. Dr Strobel said that the practice w\now is to administer fluids intravenously to rehydrate patients. There was a reluctance to do this in the past with psychotic patients because there were concerns about patient and staff safety where needles were involved (T27). If an intravenous injection was used with Ms Jovanovic, she may still have resisted its insertion (staff noted she was very strong), or pulled it out afterwards, so this issue remains a difficult one.
- 5.4. Dr Strobel told me that he acknowledged that Dr Richardson's entry in the clinical record quoted above was deficient in that it failed to record the actual signs found on examination, and in particular which signs were absent. He said that this had been reinforced to staff (T28).
- 5.5. Dr Strobel said that with the increased level of awareness of DVT, the threshold of medical opinion is now lower, and Heparin is now more likely to be used at an earlier stage where the risk is seen to exit (T28). He also told me that with the availability of a new blood test, call D-dimer, diagnosis of DVT can be easier, although a negative test does not necessarily exclude the presence of DVT (T28),
- 5.6. In view of Dr Strobel's evidence, I make no recommendations pursuant to Section 25(2) of the Coroners Act, 1975.

*Key Words: Death in Custody; Psychiatric/Mental Illness; Hospital Treatment; Deep Vein Thrombosis*

*In witness whereof the said Coroner has hereunto set and subscribed his hand and Seal the 15<sup>th</sup> day of July, 2004.*

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*Coroner*