CITATION: *Inquest into the death of Janelle Pamkal* [2023] NTLC 4

TITLE OF COURT:	Coroners Court
JURISDICTION:	Darwin
FILE NO(s):	D0112/2021
DELIVERED ON:	15 March 2023
DELIVERED AT:	Darwin
HEARING DATE(s):	14 - 15 February 2023
FINDING OF:	Judge Elisabeth Armitage
CATCHWORDS:	**Person held in care, CareFlight retrieval, aortic dissection, Chest Pain Pathway**

REPRESENTATION:

Counsel Assisting:	Chrissy McConnel
Counsel for Department of Health:	Tom Hutton

Judgment category classification:	A
Judgement ID number:	[2023] NTLC 4
Number of paragraphs:	31
Number of pages:	13

IN THE CORONERS COURT
AT DARWIN IN THE NORTHERN
TERRITORY OF AUSTRALIA

No. D0112/2021

In the matter of an Inquest into the death of

JANELLE PAMKAL
ON: 3 July 2021
AT: Royal Darwin Hospital

FINDINGS

Judge Elisabeth Armitage

Introduction

1. Janelle was born at Royal Darwin Hospital ("RDH") on 30 October 1985, the second oldest of five children, to Carol Pamkal and Billy Yalawonga (deceased). Her mother has requested that she be referred to by her first name. She was raised in Maningrida through primary school but attended high school in Darwin. As a teenager, she was very musical, she loved Rap music and liked to sing and dance. After school she moved around quite a bit but returned to Maningrida when she was about 23 because her father was ill. She stayed in Maningrida until he passed away. Janelle married Leon Lawrence and they had two boys who were born in 2007 and 2016.

2. Janelle had a history of hospital admissions for mental illness. In 2006, when she was 20 years old, she experienced an episode of psychosis and was admitted to the Darwin inpatient mental health unit ("Cowdy Ward"). She remained there for one month, and was diagnosed with schizoaffective disorder with a differential diagnosis of bipolar affective disorder, possibly

triggered by cannabis use. Following her discharge, medical records indicate that Janelle did not engage with mental health services for a period of three years.

3. In 2010, Janelle was admitted to the Joan Ridley Unit ("JRU"), the secure in-patient mental health unit at RDH, for acute psychosis. She was an in-patient for one month and was recommenced on antipsychotic medication. In 2011 she had a 6 week admission to Cowdy Ward for acute psychosis. She responded well to electroconvulsive therapy ("ECT"), and was discharged with monthly depot paliperidone injections ("depot"). In 2020 she was readmitted, because she was thought-disordered and aggressive. She again responded well to ECT, and on discharge resumed monthly depot. When she passed away she was up to date with her depot injection having last received it on 22 June 2021.

Bulman Community

4. Janelle was staying with family at the Weemol community in Bulman, approximately 300 kilometres from Katherine. It was said that while there she was regularly consuming cannabis. On the afternoon of 2 July 2021, she attended at the Bulman Community Health Clinic ("Clinic") because she couldn't sleep and requested medication. The Remote Area Nurse ("RAN") thought she seemed agitated and worried and gave her two 5 milligram tablets of the sedative Olanzapine to assist her.

5. At approximately 10.10am on the morning of 3 July 2021, multiple calls were received by Clinic staff regarding Janelle. It was reported that she was agitated, yelling and walking around Weemol naked. Two RANs responded immediately, arriving at Weemol approximately ten minutes later. They saw Janelle lying on the ground partially naked. She was dirty and wearing only trousers which were down around her ankles. She appeared to be dehydrated with a dry mouth. She was throwing rocks at family members who were trying to approach her and told the RANs that she was hearing loud noises and that

she did not want family around as they were "judging her". The RAN's persuaded Janelle to let them assist her. She dropped the rocks, then seemed to deliberately throw herself to the ground, but she did not appear to be injured or hurt. She was offered a sedative (Olanzapine) which she declined.

6. She was encouraged, and eventually agreed, to go to the clinic. During the drive she complained of being very thirsty and was given water to drink. She said that she felt nauseous but did not vomit. She was disturbed by the noise of the radio and requested that it be turned off. They arrived shortly before 11am but Janelle was reluctant to go inside and she refused to answer questions about her mental health. She was eventually persuaded to go inside but continued to appear agitated and was pacing around the treatment room. Because of her behaviour the RAN could not check her vital signs. Janelle said she was feeling sick and wanted to vomit, and she put her fingers down her throat and forced herself to vomit.

Involuntary admission for psychiatric assessment

7. The District Medical Officer ("DMO") service is a 24-hour telemedicine decision support and emergency retrieval activation service for patients in the Northern Territory. The RAN rang the on-call DMO, Dr Jill Farrer, and requested a return call. Dr Farrar reviewed Janelle's medical records and familiarised herself with Janelle's mental health history and her previous admissions to Cowdy Ward and JRU. At approximately 11.35am, Dr Farrer spoke with the RAN who further described Janelle's behaviour that day and her attendance at the Clinic the day prior. The RAN also reported that Janelle was, having trouble standing, refusing a physical examination, and declining any oral medications.

8. Dr Farrer considered that Janelle was exhibiting psychotic behaviour based on:

- her history of mental health illness, and her previous diagnoses of bi-polar disorder and drug induced psychosis;
- her described psychotic behaviour which included auditory hallucinations and paranoia;
- her family having sought assistance which indicted her behaviour had risen to a level that was concerning to those around her; and
- her behaviours which raised a risk of reputational danger (taking her clothes off), and posed a danger to others (threatening children and throwing rocks).

9. Dr Farrer considered that part of her presentation was atypical for psychosis. In particular her difficulty standing, vomiting, refusal to permit a physical examination, and refusal of oral medication, pointed to a possible physical illness. After prescribing 10 milligrams of Olanzapine and 10 milligrams of Diazepam to be administered (so that she would be as calm and comfortable as possible), Dr Farrer requested that the RAN make further efforts to complete observations. Later, the RAN was able to take a set of standard observations which indicated that Janelle's respiratory rate was fast and her blood pressure was a little low but she did not have a fever.

10. On the information available, Dr Farrer determined that Janelle should be involuntarily admitted into RDH for psychiatric examination under section 34(3) of the Mental Health and Related Services Act (the Act), and completed the necessary paperwork (Form 9). At 12pm, a CareFlight referral form was submitted with the provisional diagnosis of psychosis, together with a reference to a possible concomitant physical illness.

11. As Janelle was a "person held in care" at the time of her passing, an inquest was mandatory.

CareFlight retrieval

12. CareFlight received the referral at 12.13pm. After a discussion between Dr Farrer and the CareFlight Medical Retrieval Consultant, the job was prioritised as a P3 which requires a response within six hours. This is considered the appropriate prioritisation for a psychiatric patient requiring retrieval who is otherwise medically stable.

13. The CareFlight aircraft departed promptly for Bulman at 12.55pm. On board was Dr Emma Zorab, Retrieval Registrar. With some assistance Janelle walked up the stairs of the aircraft at 2pm. She lay on a stretcher and allowed Dr Zorab to examine her. Dr Zorab identified abnormalities in her respiratory rate at 36 breaths per minutes and her heart rate of 120 beats per minute. However, she was fully alert and not complaining of any breathlessness. Her blood pressure and oxygen saturations were normal. She complained of feeling thirsty despite having been given fluids and Dr Zorab administered a further 500mls of saline intravenously. Dr Zorab was satisfied that she was stable enough to travel and the aircraft departed Bulman at 2.20pm. During the flight Dr Zorab carried out a point-of-care blood test. Dr Zorab considered that Janelle was breathing fast to compensate for acidosis in her blood and that she had an organic disorder which was causing the abnormalities in her physiology. Janelle remained stable throughout the flight though her heart and respiratory rate remained high. Dr Zorab phoned RDH to alert the triage nurse about her concerns for Janelle and she requested a Majors bed and not a mental health bed be allocated.

14. Once in Darwin, Janelle and Dr Zorab travelled by St Johns Ambulance to RDH. While in the ambulance, Janelle complained of pleuritic chest pain. Dr Zorab considered that she may have been suffering from an infection or Pulmonary Embolus. Dr Zorab offered pain relief but Janelle declined.

Royal Darwin Hospital

15. They arrived at RDH at 3.58pm and Janelle was quickly transferred to a bed in the emergency department (ED). At 4pm, Dr Zorab handed Janelle's care over to Dr Nicolas Forget, an Emergency Medical Consultant and the most senior Doctor within the Majors unit of the ED. Dr Zorab again explained her concerns regarding Janelle's high heart and respiratory rate, abnormal blood tests and chest pain.

16. At 4.08pm, the ED Resident Medical Officer (RMO) commenced a medical assessment. The RMO recorded that Janelle reported central chest pain, which was sharp and pleuritic and which she said had started in the morning while feeding her son. It was noted that she was "Alert. Looks in pain." Initial impressions noted by the RMO were psychosis and, concerning the chest pain, "pulmonary embolus(?), myocardial infarction, pneumonia(?)." The plan was to conduct three ECG's, blood testing including Troponin, psychiatric review, urine analysis and cardiac monitoring. At 5.17pm blood results identified elevated Troponin. Troponin can (amongst other things) be a marker for myocardial damage.[1] A further test was ordered for 7.30pm.

17. At 6.04pm, Dr Forget conducted a bedside ultrasound and found a moderate pericardial effusion.[2] He ordered D-Dimer testing, a blood test that identifies the presence of abnormal blood clotting. At 7.08pm the D-Dimer returned an elevated level. Results of the second test for Troponin levels revealed that they had not increased. The results indicated that myocardial infarction was less likely. A Computed Tomography Pulmonary Artery ("CTPA") was completed at 7.50pm. Results of the CTPA were received at 9.55pm. There was no evidence of pulmonary embolic disease but a small pericardial effusion

[1] Troponin is also elevated in many other conditions such as trauma, hypovolaemia, cardiac arrhythmia, heart failure, pulmonary embolus, renal failure, aortic dissection, sepsis and severe exercise - see Report of Didier Jon Palmer, 26 January 2023, page 8.
[2] Pericardial effusion is an abnormal collection of fluid within the space surrounding the heart, contained by the pericardium, a sac of lining tissue surrounding the heart. Affidavit of Dr James Marangou, 2 February 2023, para 26.

was observed with features of right heart failure. At 9.57pm, Janelle was lying on the floor complaining of chest pain but refusing to return to her bed for monitoring. At 10.40pm she was agitated, pulling out lines, spitting and making it difficult for staff assess her.

18. Nevertheless, she was reviewed by the Night Medical Registrar as a priority patient at the start of his shift. She told him that her pain was "much better" than it had been when she arrived at the ED. She discussed some personal concerns and it was noted that she looked unwell. The plan was to admit her for discussion with the Cardiology team.

19. Soon after that review, Janelle went into cardiac arrest. At approximately 11pm, Code Blue was called, ED staff attended and Janelle was found to be pulseless and apnoeic. Cardiopulmonary Resuscitation ("CPR") was immediately commenced. She was moved to the resuscitation bay and Advanced Life Support ("ALS") was commenced but as she had a non-shockable rhythm, a defibrillator could not be used.

20. Dr Forget conducted an echocardiogram which showed a large pericardial effusion. He then attempted a pericardiocentesis procedure to relieve the pericardial effusion, using the echocardiogram for guidance. On-call Cardiologist Consultant, Dr James Marangou, assisted but the pericardial effusion was completely clotted and could not be relieved. Dr Marangou considered that the clinical situation was dire. There was evidence of a catastrophic underlying pathology resulting in clotted blood forming within the pericardial space. The clotted blood was compressing the heart causing cardiac arrest. As there is no on-site Cardiothoracic Surgery service at RDH, a decision was made by the clinical team to perform a thoracotomy as a last resort attempt to manually extract the clotted blood from the pericardial space. This was undertaken by Dr Forget who commenced direct cardiac massage, sadly all without success. Having exhausted all options to save her life, she was declared deceased 11.58pm.

Findings at Autopsy

21. On 6 July 2021 Dr Bjorn Swigelaar, forensic pathologist, performed an autopsy and found the cause of death was aortic dissection with associated acute aortitis. Dr Dimuth Gunawardane provided a second opinion and agreed with the finding of aortic dissection, but considered it associated with "suppurative inflammation possibly from a bacterial infection."

Aortic dissection

22. Aortic dissection is a rare (3.47 incidences per 100,000 people) and life threatening condition which occurs when the inner lining of the aorta tears, allowing blood to be pumped into its wall causing the inner and middle layers of the aorta to split (dissect). There are two types of aortic dissection. Type A is the most dangerous and involves a tear in the upper part of the aorta where it exits the heart. Type B is a tear in the lower part of the aorta. Janelle suffered a Type A dissection.

23. Dr Marangou explained that risk factors for aortic dissection include high blood pressure, connective tissue disorders and vascular inflammatory disorders. The risk increases with age and is greater for men. Dr Forget said that in almost twenty years of emergency medicine, Janelle was the first case he had seen of a young woman with an aortic dissection.

Care at Royal Darwin Hospital

24. As part of the investigation, an expert report was obtained from Professor John Raftos[3] who wrote,

> The appropriate Emergency Department medical response to Ms Pamkal's presentation with chest pain would have been to follow a standard Chest Pain Pathway. The Chest Pain Pathway used at Royal Darwin Hospital indicates that, in the absence of clear electrocardiogram evidence of acute myocardial infarction,

[3] Report of Professor John Raftos MBBS FCEM, dated 10 January 2023.

Emergency Department doctors should consider and confirm or exclude a list of differential diagnoses. He provided a list of alternative diagnoses and went on to say:

> "As it was, the doctors considered the possibility of non-ST elevation myocardial infarction (NSTEMI), pneumonia, and pulmonary embolism and excluded the possibility of pneumonia and pulmonary embolism by performing a CT pulmonary angiogram. According to the Pathway, one of whose purposes is to ensure that uncommon diagnoses are not missed, the doctors should also have considered the possibility of thoracic aortic dissection even though it is exceedingly uncommon in 35 year old women. In order to exclude the possibility of thoracic aortic dissection they should have asked the Radiologist to perform a CT thoracic angiogram at the same time as the CT pulmonary angiogram. The CT pulmonary angiogram was performed at about 2000 hours. If a CT thoracic angiogram had been performed at the same time, as should probably have been the case, it would, more likely than not, have shown diagnostic evidence of thoracic aortic dissection. For Ms Pamkal to survive the aortic dissection, cardiothoracic surgical treatment needed to be provided before midnight on 3 July 2021. My understanding is that there was no Cardiothoracic Surgical service at Royal Darwin Hospital in July 2021 and that patients requiring cardiothoracic surgery were transported to Adelaide for that service. Given the apparent absence of Cardiothoracic Surgery services at Royal Darwin Hospital, Ms Pamkal would not have survived even if her thoracic aortic dissection had been diagnosed on the evening of 3 July 2021".

25. Associate Professor Didier Palmer, who is the Director of the Emergency & Trauma Centre of RDH and Director of the Division of Emergency Medicine for RDH and Palmerston hospital prepared the institutional response for the Department of Health.[4] Dr Palmer disagreed with Professor Raftos in relation to his interpretation of the Chest Pain Pathway and the appropriateness of ordering a CT thoracic angiogram ("CTTA") at the same time as the CTPA. He considered that Janelle's symptoms were investigated appropriately and sequentially for her chest pain. Dr Palmer said of the investigations,

> "This involved initial blood tests, ECG, CXR. These were essentially non-contributory towards diagnosis except for a positive troponin. A repeat troponin revealed no rise (which largely excluded an ECG normal myocardial infarction) and a D-Dimer was performed as a raised troponin with pleuritic pain is most likely a pulmonary embolus. The D-Dimer if negative excludes the diagnosis of pulmonary embolus. The D-Dimer was positive and therefore a CT pulmonary embolus study was performed as the next logical step.
>
> Most diagnoses are made at first contact however rarer conditions and atypical presentations are often initially elusive. Complex condition diagnosis is akin to peeling an onion one layer at a time. You sequentially exclude the likely diagnoses (in this case myocardial infarction and pulmonary embolus) and then progress to exclude less likely conditions. The next likely diagnoses in this case were myopericarditis (inflammation of the heart muscle) and then dissection. The dissection extended and caused death prior to those further investigations. As demonstrated in the literature this is not unusual and this tragic case had more confounders than most.
>
> I would not consider this a "missed" diagnosis, the diagnostic process was proceeding appropriately but could not outpace the disease process.
>
> The "retrospectoscope" is a powerful tool, when you know the post mortem diagnosis every hint points at that diagnosis, when analysed prospectively with the information at hand at the time things are somewhat more elusive.
>
> If diagnosis had been achieved on that evening a jet retrieval to Adelaide would have been arranged and Ms Pamkal would still have been in the Emergency & Trauma Centre at the time of her cardiac arrest and subsequent death.

[4] Report of Didier Palmer OAM, MB Dch MRCGP FRCS FRCP FRCEM FACEM, dated 26 January 2023.

> For Ms Pamkal to have survived the diagnosis would have had to be made by 2200hrs and a 24hr on site cardiothoracic service would have to have been available. The mortality would still have been approximately 20%."

26. The effect of the evidence of Dr Forget and Dr Palmer was that at the time the CTPA was ordered there were a number of potential diagnoses. Conducting a CCTA at that time was not indicated because:

    - it would have exposed Janelle to additional radiation, to test for a condition that was "exceedingly unlikely";
    - it would have delayed the return of the Radiologists report, and the potential confirmation and treatment of the more likely Pulmonary Embolus;
    - it may have undermined the utility of each CT scan – due to the different dye and contrast analysis required;
    - it would have prevented other patients from using the CT scanner, as well as the Radiologist from reviewing other patients' imaging – potentially delaying their diagnoses and treatment; and
    - if such a practice were applied to the management and treatment of every patient in ED there would be simultaneous testing for scores of conditions which would be unlikely to yield results and such over-testing would grind the system to a halt.

27. Although the experts disagreed as to the appropriate timing for ordering a CCTA, they agreed that even if she had been diagnosed, the absence of a Cardiothoracic Surgery service at RDH meant that nothing could be done to save her in Darwin and she would have passed away before any transfer to Adelaide was achievable.

Formal Findings

28. Pursuant to section 34 of the *Coroners Act*, I make the following findings:

    (1) The identity of the deceased is Janelle Pamkal, born on 30 October 1985 in Darwin in the Northern Territory.

    (2) The time of death was 11.58pm on 3 July 2021. The place of death was Royal Darwin Hospital.

    (3) The cause of death was aortic dissection.

    (4) The particulars required to register the death:

        1. The deceased was Janelle Pamkal.

        2. The deceased was of Aboriginal descent.

        3. The deceased was not employed.

        4. The death was reported to the Coroner by Royal Darwin Hospital.

        5. The cause of death was confirmed by Forensic Pathologist, Doctor Bjorn Swigelaar .

        6. The deceased's mother was Carol Pamkal and her father Billy Yalawonga.

Comments/Recommendations

29. The Office of the Coroner offers its sincere sympathy to Janelle's family for their grief and loss. Counsel for the Department acknowledged that the death of Janelle was sudden and also extended the condolences of NT Health to her family and loved ones. I thank Counsel for their careful assistance with this inquest.

30. It is tragic and regrettable that a 35 year old woman who had none of the risk factors usually seen in a person suffering from an aortic dissection, passed away unexpectedly from such a rare condition. I am satisfied on the evidence that despite the best efforts and appropriate care by medical staff at every

stage of her treatment, including the RAN staff in Bulman, the DMO, CareFlight and the medical team at RDH, her death was unavoidable.

31. I make no recommendations.

Dated this 15 day of March 2023.

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ELISABETH ARMITAGE
TERRITORY CORONER