CORONERS COURT

OF NEW SOUTH WALES

Inquest:	Into the death of TV
File number:	2016/326336
Hearing dates:	2-3 October 2019
Date of findings:	25 October 2019
Place of findings:	Coroners Court, Lidcombe
Findings of:	Deputy State Coroner E. Truscott
Catchwords:	Coronial Law - cause and manner of death - psychiatric patient - hospital death - mental health - medication regime
Representation:	*Counsel Assisting:* Dr P Dwyer instructed by Ms B Holliday-O'Brien and Ms J Holmes, Legal, of the NSW Department of Communities and Justice *South Eastern Sydney Local Health District:* Mr J Downing instructed by Ms J Pirie of the Crown Solicitor's Office
Findings: **Section 74** **Non–Publication Order**	**Identity** TV **Date of Death** 1 November 2016 **Place of Death** Prince of Wales Hospital **Cause of death** Arrhythmia of unknown aetiology **Manner of death** Died whilst asleep in a psychiatric unit. That the identity of the deceased and her family not be published.

IN THE CORONERS COURT
LIDCOMBE
NSW

Section 81 Coroners Act 2009

REASONS FOR DECISION

Introduction

1. TV died on 1 November 2016. She was only 23 years old, and was deeply loved by her family and friends. She is survived by her mother, MV; father MiV, and older sisters MG and TP.

2. TV died in her sleep whilst a patient in the Mental Health Intensive Care Unit ("MHICU") of the Prince of Wales Hospital. Her death was sudden and unexpected. Following a thorough post mortem examination, the forensic pathologist, Dr Elsie Burger, provided a report explaining that she could not identify the cause of death but posited 4 possible causes with explanations.

3. Two issues relating to TV's death have been the focus of this inquest – whether there is sufficient evidence to establish the cause of death on the balance of probabilities, and whether TV received appropriate medical care and treatment from the time of her admission into Hospital on 25 August 2016 and more particularly in the days before her death. Following from that, the question arises as to whether it is necessary or desirable to make any findings pursuant to s 82 of the *Coroners Act 2009* (NSW).

TV's Background

4. On 25 February 1993 TV was born prematurely, at a gestational age of 25 weeks, and weighing only 750 grams. She spent the first 103 days of her life in a humidicrib within the Neonatal Intensive Care Unit at the King

George V Hospital in Sydney. TV was officially discharged from hospital at four months old, on 1 July 1993 which would have been about the date of her birth if she had been full term.

5. TV's development progressed slowly and she required regular monitoring by doctors. When TV was three years old, doctors determined that TV had a number of learning difficulties and had a lower than normal attention span. TV was required to see an occupational therapist for a number of years.

6. TV attended pre-school for 2 years from age 3 to 5 before beginning as a student at the St George Christian School. During this time she appeared to be learning at the same rate as other children in her class, although she repeated Year 1. Academically she was mid-range and progressed through primary school.

7. When TV was 12 years old she and her parents attended psychologist Rosemary Boon for TV to undergo a psychometric assessment as TV was struggling with her attention to detail with numbers and calculations. It was determined that TV required some therapy. Sadly, she also reported being bullied around that time and with the onset of puberty, hormones were affecting her moods and ability to cope. Her parents took her to see psychiatrist, Dr Annemaree Bickerton, who diagnosed her with bi-polar.

8. Still only aged 12, whilst in year 6 at primary school, TV had the first of many admissions to hospital for psychiatric care and treatment[1].

9. It is acknowledged that TV's family are strongly of the view that TV was prescribed an excess of medication from too young an age, which was a

[1] A chronology table prepared by those assisting contained in Volume 1, Tab 13, of the Brief of Evidence provides a summary of TV's admissions covering the 11 years until her death in 2016. The summary has been largely taken from MV's statement, Volume 1, Tab15. Medical records from August 2016 are contained in Volumes 3 and 4, medical records prior to that time have not formed part of the Brief of Evidence due to the limited scope of this inquest

failure in the treatment of her mental health. It is not within the scope of an inquest to investigate that complaint.

First Hospital Admission

10. In 2005, TV was initially admitted to St George Private Hospital but after 2 weeks, due to deterioration in her health, she was transferred to the Child Mental Health Unit at the Westmead Children's Hospital. During this time she was diagnosed with bi-polar and she commenced medication treatment with Lithium and Zyprexa; her diagnosis developed to severe bi-polar and a further medication, Epilim, was added to her treatment. After a three month period of hospitalisation, TV was discharged home.

First 2 years of High School

11. In 2006, TV commenced her first year of High School, her year 7 progressed well and it appears that she did not require any further admission to hospital. Towards the end of year 8, given that she had improved her medication was reduced.

Health and Education 2008 - August 2012

12. In 2008, TV was in year 9. In the first half of that year, TV was admitted to the Prince of Wales Hospital and became a patient within the "Star Room". Her love of singing and dancing was encouraged as a means of self-regulation. TV enjoyed this environment and following her discharge home, she commenced a pattern of behaviour where she would call the police requesting readmission. This continued for some years.

13. TV presented some significant challenges for her parents and teachers in dealing with her behaviour. Her parents and sisters were completely dedicated to providing her with love, care and support. However, there were occasions where arguments resulted in TV contacting the police requesting they take her to hospital. Sometimes she would be admitted and she would stay for about 2 weeks until being discharged again.

14. In 2008, TV was commenced on Seroquel and in the middle of the year she enrolled in the Rivendell School which provides education for children and young people in a specialist mental health care setting. By the end of the year she returned to her local school.

15. In 2009, TV completed half of her year 10 studies as her mental state and general health remained stable. However, half way through that year she again contacted police stating that she was once again unwell. She was admitted as a voluntary patient to the St George Mental Health Unit. Around October 2009, TV was discharged and she returned to school and completed her School Certificate.

16. In 2010, TV commenced year 11. She stopped going to school after 3 weeks. Her mother MV decided to leave her own employment to dedicate her time caring for TV. Around mid-year TV was about to start at a new school but again became unwell. She was admitted as a voluntary patient and transferred to the Walker Mental Health Unit in Concord while attending Rivendell School. In December 2010, TV had Electroconvulsive Therapy ("ECT"). TV remained hospitalised until she was discharged in July 2011.

17. In October 2011, TV was struck by a car and one of her injuries was a broken left leg. She was hospitalised for a month. After discharge she was readmitted to a Mental Health unit for a short time and then discharged home again. 2011 was the last year of TV's secondary school education.

18. In 2012, TV enrolled in a number of TAFE courses and by July 2012 she had completed her Certificate Two in General Education. However, throughout the year, TV contacted police and ambulance services a number of times, in an attempt to be admitted once again as a voluntary mental health patient. On five occasions she was refused admittance by St George Hospital. When TV finished her course, MV reduced the oral medication TV was taking because she thought TV was being overly

sedated. When the treating psychiatrist discovered this, he changed TV's medication from tablets to a monthly depot injection.

19. In August 2012, TV's medication changed from Clozapine tablets to Risperdal delivered by depot injections. According to MV, TV's mental state then worsened and she had thoughts of hurting people including herself. From September to December 2012, TV was admitted on several occasions as a voluntary patient to St George Hospital where on each occasion she remained in hospital for about three to five days.

February 2013 - August 2016

20. In February 2013, TV enrolled in TAFE to study HSC and Certificate 3 in Media. In June 2013, she was admitted to Sutherland Hospital for two days where she was prescribed Zyprexa additional to the Risperdal. MV reports that within a week of this medication she noticed that TV became overly excited and she had to admit TV into Sutherland Hospital after an incident at the beach.

21. On 4 July 2013, TV was admitted to the Sutherland Hospital Inpatient Psychiatric Unit and her medication was increased to include Zyprexa, but within a couple of weeks TV became catatonic, described as being unable to move, swallow and communicate. Her parents were angry at the level of medication used to treat TV.

22. MiV and MV participated in a number of Mental Health Tribunal meetings with doctors and mental health workers attached to the hospital. Both parents pleaded that TV be released from hospital into their care.

23. On 2 August 2013, TV was officially discharged from hospital into the care of the St George Community Mental Health Team and her parents. TV was not medicated. MV says she and MiV noted a marked improvement in TV's behaviour.

24. Dr Sophie Kavanagh, Staff Specialist Psychiatrist at the Sutherland Hospital has provided a statement in which she explains that TV's discharge diagnosis was a "probable catatonic schizophrenia". The discharge letter notes the complexity of her case, and that she had mild developmental delay, onset of probable psychotic illness from age 12, with multiple treatments including ECT and clozapine and that TV was susceptible to side effects of medication. It notes that her parents advocated for TV to be discharged with no medication, although Clozapine had been suggested.

25. In 2014, TV wanted to enrol in TAFE but to do so she was required to provide proof she was medicated for her illness from a medical professional. However, it seems that due to the medical advice that she should be receiving Clozapine, no such medical clearance would be provided.

26. According to MV, TV decided that to enrol in TAFE she should re-enter the mental health system and become medicated. TV on a number of occasions unsuccessfully sought to be admitted back into hospital.

27. In April 2014, the St George Community Mental Health Centre provided a letter setting out that TV was no longer suffering from bi-polar and she had not been medicated for 6 months. TAFE continued to refuse to enrol TV as the letter was not signed by a doctor. TV continued calling emergency services and continued not being admitted into hospitals.

28. In July 2014, TV cut a piece of MV's hair with a pair of scissors without her permission. TV telephoned the police and she was admitted to hospital but was soon released. The police charged TV with assault to which she entered a plea of guilty at the Local Court where she received a good behaviour bond. According to MV, this incident was part of TV's attempts to be readmitted into hospital so she could enrol in TAFE. She had not expected that she would be charge with an assault.

29. TV started again to become unwell. She was not showering or eating; MV said TV was depressed because nothing was happening for her as she could not enrol in TAFE. In November 2014, TV was admitted into the St George Mental Health Unit where she remained until May 2015 under the care of Dr Kay, Consultant Psychiatrist.

30. In May 2015, TV was discharged home but shortly after was readmitted to hospital and then transferred to the Sutherland Rehabilitation Centre following a sexual incident with another patient which was reported to police. TV became agitated and a change in her behaviour was met with medication and a transfer to the acute unit within Sutherland Hospital and her mental health continued to deteriorate.

31. In September 2015, TV was transferred to the MHICU at the Prince of Wales Hospital and in early October 2015 she was returned to the St George Mental Health Unit.

32. On 13 October 2015, TV was discharged home to live with her family. TV was medicated with Clozapine and Lithium. MV says that this medication made TV incontinent and she had to wear sanitary pads.

33. TV enrolled in Sydney Community College to study film making. Dr Kay became concerned with TV's compliance with medication, so in November 2015, she commenced TV on regular monthly Haloperidol injections.

January 2016 – August 2016

34. The first half of 2016 was a time of flux and significant psychiatric distress for TV. She was admitted to St George Hospital on numerous occasions, either self-presenting, or being brought in by ambulance[2].

35. MV says that after each injection of Haloperidol, TV would become manic and engage in sexual activity. TV became agitated with the incontinence.

[2] Medical Chronology, Volume 1, Tab 13, p 12

MV said that over the period from December 2015 through to early 2016, TV would contact emergency services on a daily basis. She attended St George Hospital on her own accord constantly, and then to the Sans Souci Medical practice with the aim of being admitted to hospital.

36. TV continued to plead with all services that she be admitted as a voluntary mental health patient, but on each of these occasions she was refused admission. Sometimes she would present to the Emergency Department ("ED") of the Hospital 3-4 times a day. MV's experience of this was that TV was behaving in this way because she wanted her medication changed.

37. On repeated occasions in June, July and August TV attended Sutherland and St George Hospitals claiming to have homicidal and suicidal thoughts. She was repeatedly discharged.

38. From a physical health perspective, TV had a presentation with pleuritic chest pain on 13 January 2016 and with chest pain and shortness of breath on 21 July and 23 July 2016[3&4].

39. On 20 August 2016[5], TV presented to Sutherland Hospital ED complaining of injuries sustained during an alleged sexual assault. She was seen by the medical team and given advice and analgesia. It was noted that she had already received more comprehensive assessment for this incident elsewhere.

The Final Admission Period 25 August 2016 - 1 November 2016

25 - 27 August 2016 - St George Hospital

40. On 25 August 2016, TV was admitted as an involuntary patient to St George Hospital. The admission summary noted that over the previous 6 months, TV had presented almost on a daily basis and at times 2-3 times a

[3] Report of Dr Nielssen, Volume 1, Tab 10
[4] There had been an investigation for DVT in April 2015
[5] Statement of Sophie Kavanagh, Volume 1, Tab 12

day. She had been cleared by the ED doctor the previous day after a "typical presentation of behavioural disturbance". MV had taken TV to the hospital and reported that she had not slept for the last 3 days other than a couple of hours a night, and that despite compliance with medication her behaviour had escalated and the family was struggling to cope. TV's admission was a day after her sister MG gave birth to her baby.

41. TV's admission report describes her as difficult to engage, at times vague, exhibiting labile behaviour, highly elevated, agitated and at times tearful. She was expressing high levels of distress. Her speech was pressured and loud and she had a disordered and tangential thought form; she had a disinhibited and disorganised thought process. Her background was noted to be Bi-polar Affective Disorder ("BPAD"), Borderline Personality traits, mild intellectual disability and that she was being case managed by the St George Community Mental Health team who were thinking about a referral to Bloomfield Hospital. The report noted that TV's mum and her sister had BPAD and her dad had depression.

42. TV was admitted under the care of Dr Clarke who was the Senior Staff Specialist and Dr Fang, Psychiatry Registrar. Dr Yana Kay was TV's treating psychiatrist who was on call the evening of TV's admission and discussed her care with Dr Clarke. Dr Kay provided a statement and also gave evidence.

43. TV was treated with an anti-psychotic Clopixol (Accuphase (Zuclopenthixol acetate)) and Clonazepam. Her regular medications were noted to be Haloperidol, Clonazepam and Lithium[6]. There is a suggestion in the notes that TV had become manic with a background of ceasing Clozapine[7]. She received other sedative medication such as Midazolam and Lorazepam.

44. TV's care was escalated on the second day and was placed on 2:1 nursing special but she was very difficult to manage and examine. Progress Notes

[6] St George Hospital Clinical Notes, Volume 3, Tab 38, p. 22
[7] St George Hospital Clinical Notes, Volume 3, Tab 38, p. 28

record that she was disruptive, sexually disinhibited, intruding into others' personal space, coming towards staff with clenched fists, getting under the shower fully dressed only to do it again after she had been changed, crawling around the floor, jumping up and dancing and singing, being fixated on male doctors saying she wants to have a baby; and when the registrar tried to examine TV, she was difficult and broke her swipe card. She was incontinent and disruptive ringing alarms and barging into other patients' rooms and the nurses' station.

45. TV posed a risk to staff and sedation had little effect; she was sleeping for bursts of 90 minutes, was disinhibited, disorganised and difficult to direct. It was determined that TV's care should be further escalated into an intensive care setting and it was determined that she be transferred to the MHICU at the Prince of Wales Hospital.

27 August 2016 – 16 September 2016: MHICU, Prince of Wales Hospital

46. On 27 August 2016, TV was transferred to the MHICU of the Prince of Wales Hospital. She arrived at 2.30 pm. TV was admitted under the care of Dr Clive Stanton and his Registrar Dr Helen Williams. Both doctors provided statements and gave evidence at the inquest.

47. Dr Williams was unable to perform a physical examination or obtain history from TV due to TV's sedation. Dr Williams' impression was that TV was suffering a relapse in schizoaffective disorder, in the context of stress around her sister having a baby on a background of borderline personality traits and mild intellectual disability.

48. Dr Williams noted TV's medication at St George Hospital and in consultation with the staff specialist on duty, Dr Ahmed determined to continue that regime, complete blood tests and an Electrocardiogram ("ECG") and review TV the following day.

49. Medical records indicate that on her admission, TV was agitated, continued to press the duress alarm and that she was disinhibited. She was given Midazolam and Haloperidol at 5.50 pm and was asleep at 6.30 pm.

50. TV was placed on close observation in a low stimulus environment in the MHICU and treated with Lithium, Haloperidol, Zuclopenthixol, Clonazepam, Lorazepam and Promethazine as required. She was noted to have a low grade fever and flu like symptoms.

51. Dr Williams attended TV each day and monitored TV for sedation and any extrapyramidal side effects (side effects from psychiatric medication). TV remained difficult to physically examine. Over this time it was noted that TV's blood tests were normal, the Lithium was within therapeutic range (i.e. it was causing no toxicity) and the ECG results gave no concerns. TV did not have any extrapyramidal side effects.

52. On 30 August 2016, Dr Stanton and Dr Williams reviewed TV and determined to reduce TV's medication so she was taken off her regular Clonazepam and Haloperidol. She maintained the Lithium and the monthly Haloperidol injection. The doctors determined that TV would benefit from ECT treatment. They considered that TV did not have capacity to consent to such treatment, so they made an application to the Mental Health Tribunal.

53. On 2 September 2016, the Mental Health Tribunal made an Order for TV to be an involuntary patient and to undergo ECT treatment. An Inpatient Treatment Order was given to expire on 1 December 2016 and consent for 12 sessions of ECT was given. TV's Benzodiazepine medication was ceased so it would not interfere with the ECT. As TV's behaviour was so disorganised and disruptive, her sleep was poor and she was incontinent, TV was accommodated with a 1:1 nurse special in a 4 bed pod which meant that she was kept away from other patients due to the risks involved both to their wellbeing and TV's.

54. Dr Stanton was on leave from 1 September 2016 and Dr Ahmed provided staff specialist care for TV. Dr Ruby Hamill, a psychiatry registrar, also provided care. They have both provided statements. On 1 September 2016, Dr Hamill noted that TV had a sore throat, a high heart rate but a normal temperature. She prescribed Paracetamol PRN. Dr Hamill reviewed TV each day and her behaviour remained unsettled, her temperature low grade, she still had a sore throat and given her incontinence suspected Urinary Tract Infection. On the evening of 3 September 2016, oral Haloperidol was reintroduced to manage TV's increased mania. Dr Hamill again reviewed TV on 4 September 2016, and noted that TV had been disruptive overnight. She determined that TV was fit for ECT.

55. TV had her first ECT on 5 September 2016. She had a total of six low dose ECT treatments, with a gradual improvement in her mental state. On 6 September 2016, Dr Williams reviewed TV and noted that she remained highly disorganised, incontinent and was sleeping poorly. TV commenced on an evening dose of Promethazine (Phenergan) to assist her sleep.

56. TV continued with ECT and the above medication management. Small improvements were noted. She was monitored with blood tests and ECGs. Sometime after her ECT treatment on 16 September 2016, TV was seen to walk out of a male patient's room and she told a nurse that he had sexually assaulted her. It was determined that TV should be transferred back to St George Hospital.

16 September 2016 – 25 October 2016: Return to the St George Hospital Mental Health Unit

57. On her transfer to St George Hospital from POWH, TV remained an involuntary patient and was managed on Level 2 Observation, which requires observations to be made by a nurse every 10 minutes, and TV also had 1:1 nursing. Dr Kay was on leave when TV was admitted and she was again under the care of Dr Clarke. Dr Kay returned on 4 October 2016 and resumed TV's care.

58. TV's ECT continued and she had her 10th treatment on 30 September 2016. Dr Kay and Dr Fang conducted a review on 4 October 2016. Dr Kay noted that TV was relatively settled, co-operative, her sleep was good, and her Lithium was within therapeutic levels. She commenced 2 hourly escorted leave with her family, and her morning dose of Haloperidol was decreased as was her nightly dose of Promethazine.

59. TV began to have periods of significantly improved health. Her pleaded with hospital staff to have her discharged which was refused.

60. Billie Dong from the St George Mental Health Team was TV's caseworker from 16 December 2015. Prior to TV's admission Ms Dong had spoken with TV about being admitted to a particular programme at the Bloomfield Hospital in Orange. Integrated Services Program is a specialist service that facilitates and co-ordinates cross-agency supports and responses for people with multiple and complex needs[8], and Ms Dong was meeting with them to explore the admission to Bloomfield. The plan was that on TV's recovery she would be admitted to a women only ward in Bloomfield Hospital to participate in a residential programme aimed at establishing a patient's independence for day-to-day living.

61. Ms Dong was clearly a committed caseworker who remembered TV fondly. Ms Dong visited TV while she was in both the St George and Prince of Wales Hospitals. Ms Dong had visited TV at St George Hospital on 26 August 2016 where she saw that TV was quite unwell. She again visited her on 23 September 2016 and she spoke with TV about the Bloomfield Hospital plan and reassured TV about it. On 26 September 2016, Ms Dong noted that TV was calm, settled, and had a flat effect. TV said she was ready to meet with the ISP team. On 7 October 2016, Ms Dong took TV out for 30 minutes escorted leave. TV was appropriate, safe and expressed excitement about the programme.

[8] Statement of Ye Chen Dong, Volume 1, Tab 19

62. Dr Kay's statement notes that TV's treating team decided to start the process for TV to have a long stay mental health rehabilitation at Bloomfield Hospital and Dr Fang wrote the application and sent it on 11 October 2016. On 12 October 2016, Dr Kay noted that TV was showing early warning signs with increased excitability and increased her morning dose of Haloperidol.

63. On 14 October 2016, Dr Kay noted that TV reported an inability to control her sexual arousal and she was placed into a special unit called "the bubble" for her sexual safety. She was on Level 2 observations and her promethazine was reduced. She was on Level 3 escorted leave, on condition that she did not attend crowded places such as church which could provoke her excitability.

64. On 14 October 2016, TV spoke with Ms Dong on the telephone and asked if she could go to a Get Fit Class, but it was decided she should wait another week. TV said that she had been having leave with her family and her mother was not too happy about the idea of TV being in Bloomfield as it was quite a distance out of Sydney for visits.

65. Ms Dong spoke with MV over the telephone and explained to her the benefits of the programme and gave her reassurance that TV's need for 24 hour supervision and support to develop living skills was best provided by the programme. She said she would help with finding information about how the family could visit TV if she was accepted into the programme.

66. On 17 October 2016, TV was noted to still be stable and that she did not require any PRN medication and her leave was again increased to 2 hours escorted. On 18 October 2016, TV and Ms Dong had another telephone conversation where TV expressed her excitement and the referral to Bloomfield.

67. On 19 October 2016, Ms Dong visited TV at St George and TV's mood had changed to being elevated and TV wanted to sing and dance to self-regulate. On 21 October 2016, Ms Dong spoke with Dr Kay about TV

going to the Get Fit class and it was decided that due to her current mental health she could not attend.

68. Dr Kay monitored and reviewed TV on 20 and 21 October 2016, noting that she was generally remaining stable with a few signs of excitability. On 23 October 2016, TV had complained of pain in her leg and was given paracetamol. That night TV deteriorated significantly and had a severe mood disturbance with elevation and anger[9].

69. On 24 October 2016, TV was reviewed by Dr Kay. Dr Kay noted that TV's heart rate was 100 BPM (beats per minute) which in her statement she described as Tachycardia. Dr Kay was concerned that TV had Deep Vein Thrombosis ("DVT") in her right leg and provided TV's mental health permitted, a Doppler ultrasound was to be done. In consultation with a Haematology Registrar, TV was commenced on an anticoagulant, Clexane, at a low prophylactic dose.

70. Dr Kay prescribed that TV be administered a dose of Accuphase to treat her psychosis, severe mood disorder and deteriorated sleep pattern. An ECG was performed shortly after and the results were within normal range. By early afternoon, TV was yelling, disrobing, pushing staff and causing significant distress to other patients so Dr Kay organised for TV to be transferred back to Prince of Wales Hospital.

25 October 2016 - 1 November 2016: Return to the MHICU, Prince of Wales Hospital

71. TV was transferred back to the MHICU at the Prince of Wales Hospital on 25 October 2016. TV was reviewed by Dr Hamill. TV had experienced the return of manic symptoms, including increasing agitation, disruptive behaviour, disinhibition and impulsivity, poor sleep, and poor hygiene including incontinence[10].

[9] Statement of Dr Yana Kay, Volume 1, Tab 20
[10] Report of Dr Roberts, Volume 1, Tab 11

72. TV was diagnosed with "re-emergence of manic symptoms, likely with a significant behavioural aspect, the background of established schizoaffective disorder and stress of pending application to Bloomfield rehabilitation"[11]. With a plan for an ultrasound scan of the left leg to investigate DVT, the following treatments were prescribed:

    i. Haloperidol 5 mg oral twice daily;
    ii. Lithium 450 mg in the morning and 900 mg at night
    iii. Clonazepam 1 mg oral four times daily and PRN;
    iv. Enoxaparin (clexane) 140 mg injection (treatment dose, rather than prophylaxis);
    v. Promethazine 25 mg oral at night and two additional PRN doses to maximum of 150 mg/day;
    vi. Haloperidol 5 mg intramuscular every 4 hours PRN to a maximum of 10 mg/24 hours;
    vii. Promethazine 25-50 mg intramuscular every 4 hours PRN for agitation to a maximum of 150 mg (including oral doses); and
    viii. Midazolam 5 mg intramuscular every 4 hours PRN.

73. TV was noted not to be amenable to counselling because of her agitation and disorganised thinking. She was placed on Level 2 observations, which she had been on at St George Hospital.

74. On 26 October 2016, TV was reviewed by Dr Ahmed and Dr Hamill. TV had ongoing behavioural issues with elevated mood, poor hygiene and incontinence. Dr Hamill noted that TV had Tachycardia but based on previous records considered this to be “baseline”. She reports that TV complained of shortness of breath and pain in her chest but that she was chaotic and answered yes to everything. Dr Hamill did not observe any objective signs of shortness of breath or distress but was concerned about the possibility of a pulmonary thrombosis. The doctors planned to have blood tests including lithium level and a Doppler test conducted to investigate the DVT.

[11] Dr Williams’ statement, Volume 1, Tab 21

75. TV's medication regimen was adjusted as follows:
    i. Haloperidol 80 mg as intramuscular depot injection;
    ii. Clonazepam 2 mg orally four times a day;
    iii. Zuclopenthixol intramuscularly 100 mg daily;
    Trimethoprim 300 mg orally once only (antibiotic); and
    iv. Benztropine 1-2 mg orally PRN for extrapyramidal signs (which are adverse effects to antipsychotic medicines).

76. On 26 October 2016, MV telephoned Ms Dong and advised her that TV was back at the Prince of Wales Hospital. MV complained that TV became elevated because the nurses were giving her PRN sedative medication which had the opposite effect and caused TV to become elevated. Ms Dong telephoned TV and spoke to her on the telephone. TV told her that she had been dancing and singing and she then asked Ms Dong if she was going to die as she was having difficulty breathing that day and she thought this was an asthma issue[12]. Ms Dong reviewed TV's medical record (electronic) and noted that TV had complained to the doctor about her shortness of breath a couple of hours earlier and that there was a plan to investigate it.

77. On 28 October 2016, TV had the Doppler test which showed that she did not have DVT, and after a physical examination Dr Stanton was satisfied that TV did not have DVT, so ceased the Clexane.

78. TV was reviewed by Dr Stanton and Dr Williams that afternoon. They noted that her blood tests were normal and that she was unlikely to have an infection. Dr Stanton noted that though TV had ongoing behavioural issues with an elevated mood, disorganised behaviour, disinhibition, aggression, poor hygiene and incontinence, she was not as unwell as she had been at the August admission so thought he would not re-introduce ECT. He ceased the Accuphase but maintained the other medication which had been in place at St George Hospital.

[12] Statement of Ye Chen Dong, Volume 1, Tab 19

79. On 31 October 2016, TV was reviewed by Dr Williams. She noted that TV complained of a sore throat and she had a temperature up to 38.2°C 3 days earlier but that at the time of review was 37.8°C. Blood tests from 3 days earlier were also normal. Dr Williams examined TV and documented that the physical observations were normal. She did not think that TV was suffering from any medical illness. She documented that TV should have two physical examinations each day and that PRN Paracetamol should be given in the event of any fever.

31 October 2016 - 1 November 2016

80. On the evening of Monday 31 October 2016, TV refused to sleep in her room, which was not uncommon, and was something the nursing staff could accommodate. She removed her mattress and blankets from her room and slept in the general living and television area. About 12.10am on Tuesday 1 November 2016, TV fell asleep, according to the record kept on the 'Patient Observation Sheet' within her pod. Ten minute observation checks were completed throughout the night and early morning by nursing staff as per hospital policy. All lights within the pod remained operating during the night which assists nurses and doctors with their observations.

81. TV's patient care level 2 observation charts had been correctly filled in by nursing staff to record observations every 10 minutes[13]. At 3:20am, a patient observation check is recorded as having been completed and TV was observed to be sleeping and breathing.

82. At 3:30am the next visual check was conducted. On this occasion, TV was observed to be not breathing so the nurse called a Code Blue (an emergency requiring intensivist medical care) and they commenced Cardiopulmonary Resuscitation (CPR).

83. Resuscitation continued with the Accident and Emergency team arriving within ten minutes. Defibrillator pads were used on the deceased between

[13] Prince of Wales Hospital Clinical Notes, Volume 3-4, Tab 39

compressions, along with a number of adrenaline injections which were administered via the inferior vena cava which was accessed via the right foot. A bag valve mask was used for breathing.

84. The NSW Ambulance Service was contacted at 3.44am, and attended at 3.54am. At 4.20am, TV was conveyed a short distance by Ambulance from the MHICU to the Accident and Emergency within the public area of the Prince of Wales Hospital. Resuscitation continued during the time she was transported.

85. TV had gastric contents in her mouth which is believed to have also have gone into her lungs. She was intubated while CPR and regular adrenalin injections continued. The doctors needed to access delivery points for intravenous delivery of medication. One intravenous line was gained via the external jugular ("EJ"- a vein in the right side of neck). Despite the efforts of medical staff, TV was unable to be resuscitated. At 5.10am TV was pronounced life extinct. Prince of Wales Hospital staff immediately contacted TV's family and the police who attended to begin their investigations.

86. Observations which were made by police on the day included a bruise on the side of TV's neck which was consistent with the EJ entry, a mark on the centre of the chest consistent with defibrillation, bruising on the right and left hand and arm consistent with the movement and transportation and a number of small bruises on the leg and foot again consistent with emergency medical treatment. There were no other significant external physical injuries observed.

The Cause of TV's Death

87. In order to determine the cause of TV's death a post mortem examination was ordered by the coroner. This was performed on 4 November 2016 by

Dr Burger, a forensic pathologist in the Department of Forensic Medicine. Dr Burger has provided two reports and given evidence.

88. Given the medication TV was taking those assisting the coroner obtained an expert pharmacology and toxicology report from Dr Darren Roberts.

89. A post-mortem computerised tomography (CT) scan showed extensive pulmonary oedema[14], a condition caused by excess fluid in the lungs. At autopsy, the scattered bruises relating to her emergency treatment were noted.

90. On internal examination, the lungs were oedematous but also appeared moderately collapsed. There was no evidence of pulmonary emboli. There was a small clot in the inferior vena cava, a large vein that carries the deoxygenated blood from the lower and middle body into the right atrium of the heart.

91. Blood samples were taken and sent to a forensic laboratory for toxicological analysis. The results showed that that there were no toxic levels of any of the medication that TV was prescribed. There were low/therapeutic levels of Clonazepam (antipsychotic), Benztropine (an anticholinergic drug used for movement disorders), Haloperidol (an antipsychotic), Nordiazepam (a Benzodiazepine sedative), Paracetamol (an analgesic) and Zuclopenthixol (a sedative) and their metabolites. Dr Burger ensured serum tests were specifically carried out in relation to identifying if there was any insulin problem.

92. The post-mortem examination did not provide any direct evidence upon which Dr Burger was able to ascertain the cause of TV's death[15].

93. Dr Burger posited four considerations: Hypoglycaemia, Gastric Aspiration also known at Pulmonary Aspiration, Pulmonary Emboli, and Arrhythmia.

[14] Autopsy Report, Volume 1, Tab 5
[15] Autopsy Report, Volume 1, Tab 5

Dr Roberts was also asked to comment on each of these considerations in addition to whether any medications had a role to play in TV's death.

Hypoglycaemia

94. When TV was admitted to the ED at the Prince of Wales Hospital her blood glucose concentration was very low. Low blood glucose can result in hypoglycaemic brain damage, which could lead to death. However, it is not obvious what the cause of the hypoglycaemia could be. There is no evidence of an insulin injection, and no evidence of an insulinoma (a tumour of the pancreas) which secretes insulin. Dr Burger said in her evidence that she gave particular regard to the possibility of synthetic or metabolic insulin and caused tests to be carried out to investigate that. The tests did not show any deranged level of insulin.

95. In his report Dr Roberts notes, "The low insulin and C-peptide concentrations on a post- mortem concentration...suggests that her body's homeostatic counter-regulatory response to hypoglycaemia was appropriate. From a toxicology perspective this pattern could occur following an insulin overdose". The tests ordered by Dr Burger excluded the presence of any synthetic insulin. Further, any deranged metabolically produced insulin has been excluded.

96. When giving her evidence, Dr Burger said that she the thought hypoglycaemia was highly unlikely given those results as well as the fact that the earlier hospital tests carried out by the hospital while TV was a patient did not indicate any blood sugar problems. Ultimately Dr Burger is of the opinion that the low blood sugar was due to metabolic changes associated with attempts to resuscitate TV. On balance hypoglycaemia is excluded as a cause of death.

Gastric aspiration

97. Pulmonary oedema and the microscopic examination of the lungs confirmed aspiration of gastric content into the lungs. This condition is also referred to as pulmonary aspiration and though it is a condition from which a person can die, there is no evidence to suggest that gastric aspiration occurred prior to and causing TV becoming unresponsive

98. The nurses who discovered TV noted that she was unresponsive not that she had vomitus, and it was only after the CPR and when the doctors tried to intubate TV that there was vomitus.

99. Dr Roberts raised TV's history of frequently complaining of nausea and vomiting and whether the various sedatives may have contributed to aspiration due to over-sedation. However, having examined TV's doses of medication on the evening of her death, he could see no reason to think that TV was particularly susceptible to over-sedation.

100. Dr Burger notes that usually, when gastric aspiration occurs, it is due to a loss of consciousness or other disease process. However, it is common for agonal (or gasping) aspiration of gastric contents to occur and particularly so in vigorous resuscitation attempts. It is more likely that the gastric aspiration occurred as a result of either loss of consciousness and or resuscitation. Accordingly, it is excluded as a cause of death.

Pulmonary emboli

101. The P79A report to the coroner was completed by the Officer in Charge who attended the hospital and spoke with nursing staff. In that report it was stated that an inferior vena cava ("IVC") filter was placed during the resuscitation process. IVC filters are devices placed to prevent clots from reaching the lungs (pulmonary emboli). Dr Burger noted the reference to the IVC filter in the P79A report. She noted that when she performed her post mortem examination that the filter was no longer present, so

concluded that it had been removed by the treating medical team at the hospital.

102. The reference to an IVC filter in the P79A report was incorrect. The medical notes clearly show that it was an entry line into the external jugular ("EJ") and that it had fallen out. The Officer in Charge misunderstood what was conveyed by medical staff.

103. Dr Burger sought to explain the significance of the absence of any clot in circumstances when she had relied on incorrect information that an IVC filter had been inserted. Dr Burger knew that TV had been investigated for a DVT. Dr Roberts notes that DVT can cause a fever and tachycardia (fast heart rate), which the medical records note from time to time. Further, the records contain reference to TV complaining about pulmonary symptoms and chest pain.

104. Dr Burger suggested the absence of evidence of a pulmonary clot could be explained by positing that when the IVC filter had been placed and removed, it was possible that at removal of the filter, a significant thrombus (or clot) was removed. She said that she did not believe that this is probable though because if that had occurred, it would have been reported in the medical notes which it wasn't.

105. Dr Burger also pointed out that an IVC filter should only prevent further thrombi from reaching the lungs, not remove thrombi that are already present in the lungs. There was no thrombus in the lungs.

106. Dr Burger said that that the clot in the inferior venous cava did not appear to be ante-mortem (before death) but she performed a microscopic examination. That examination confirmed that the clot was post-mortem. Accordingly, the clot had no role in TV's death. Pulmonary emboli is excluded as a cause of or having in role in TV's death.

Arrhythmia

107. TV had been treated with Haloperidol, an antipsychotic drug. This drug is known to potentially cause prolongation of the QT interval which can be identified by performing an Echocardiogram. The significance of a QT prolongation is that it could possibly predispose a person to experience cardiac rhythm disturbances.

108. TV's echocardiogram results that had recently been conducted did not demonstrate any QT prolongation. Accordingly, there is no basis upon which to make any finding that she had likely drug related QT prolongation. There are records that TV at times had Tachycardia, a fast heart rate. Unfortunately heart dysrhythmia cannot be proven at autopsy. Dr Burger in her evidence thought that, given the exclusion of the other listed possible causes the most likely cause of TV's death was cardiac. Dr Burger was unable to identify the likely cause of the disruption to TV's heart rate.

109. In her report, Dr Burger sets out that research has established that persons with mental illness have a 3 - 5 fold greater risk of sudden death (excluding deaths due to suicide and accidents) compared to the rest of the population. According to another source, sudden unexpected deaths may account for up to 20% of mortality in schizophrenic patients, with a significant percentage relating to cardiac causes[16].

110. On balance Dr Burger said that an arrhythmia of unknown aetiology would best appropriately describe the medical cause of TV's death.

111. Dr Roberts is a medical specialist in clinical pharmacology, toxicology and nephrology. He provided a comprehensive report setting out the various medicines/drugs and doses TV was prescribed during her hospitalisation and he has provided an opinion about whether they were appropriate[17].

[16] Report of Dr Burger, Volume 1, Tab 11A
[17] Report of Dr Darren Roberts, Volume 1, Tab 11

112. Dr Roberts gave evidence consistent with his report. He was not critical of the type and dosage of medication in terms of what was prescribed, the doses that were prescribed and when it was dispensed. He included in his analysis the PRN medication given to TV throughout her admission particularly at St George Hospital.

113. Dr Roberts also gave evidence about the significance that TV, identified by genetic testing in 2009, was an "intermediate metaboliser" of the enzyme CYP2D6, meaning that drugs which are metabolised by this enzyme are eliminated from the body at a slower rate compared to more active forms of this enzyme.

114. As a general principle, in the case of a patient with decreased CYP2D6 enzyme activity, drugs which are substrates of this enzyme may need to be prescribed at lower doses than would otherwise be used in a patient with normal or higher CYP enzyme function.

115. Dr Roberts undertook his assessments with regard to TV's CYP2D6 position. He examined whether the medication was likely to have played any role or contributed to TV's death. Dr Roberts' assessment and evidence was thorough and he was of the opinion that the medication or drugs prescribed to TV were appropriate. After careful analysis he determined that TV's death was not related to the drug treatment regime that she had been on.

116. Dr Stanton, when he gave evidence impressed that because of the special nursing and facilities available at the MHICU at the Prince of Wales Hospital, he is able to minimise a patient's medication, keep the patient safe and very closely observed. TV was in such a situation and at the time of her death was on a relatively reduced prescribed and PRN medication regime. Dr Stanton was in agreeance with Dr Burger that TV's death was likely an arrhythmia of an unknown origin.

117. Having heard the evidence about the possible causes of TV's death I accept that she had an arrhythmia of an unknown aetiology which led to

her death and that should be articulated as the cause of her death. I am satisfied that the medications prescribed to TV were appropriate and did not contribute to her death.

The Psychiatric Care Provided to TV

118. Dr Olav Nielssen, one of the most experienced forensic psychiatrists in NSW and an expert who has given evidence in numerous courts in NSW, provided a report in which he analysed the care and treatment provided to TV during her hospitalisation. Dr Nielssen also gave evidence. He reported that TV had "a very severe form of psychiatric disorder, manifesting in gross behavioural disturbance and extreme vulnerability and she was in need of protection".

119. Dr Nielssen articulated that TV received treatments usually reserved for the more severe and treatment resistant forms of mental illness, including Clozapine and ECT for manic disturbance. He concurs with the psychiatric diagnosis of the manic phase of a severe form of bipolar disorder, on a background of mild intellectual disability and that based on the descriptions of TV's behaviour around the time of her death, she needed treatment in an acute psychiatric ward.

120. Dr Nielssen's report and oral evidence also addressed the adequacy and appropriateness of the medication and treatment provided to TV including the use of ECT, the appropriateness of the medication regime and the level of supervision. He was not critical of any aspects of the treatment provided to TV.

121. I am satisfied that TV's treatment was appropriate and played no role in her death.

The Statement from TV's Family

122. TV's sister provided a 14 page typewritten statement which I have read[18]. Her position is very much that the medication that TV was prescribed since she was 12 years old and particularly the PRN medication played a role in not only aggravating TV's illness, particularly her mania, but also likely ultimately caused such a young, sudden and unexplained death. Her statement also sets out the horror for herself and her family anticipating a fatal outcome for TV and not being able to stop it. She likened it to waving down a bus so it does not run over her sister who has fallen on the road ahead but that the bus does not see her waving and does not stop. The bus is the mental health system.

123. Within the scope of this inquest and the police investigation, the Court could not inquire into the matters involved in TP's discussion in her statement, which spanned TV's treatment for over a decade. Her insight and frustration are very clear and I regret that my findings leave the matters raised unanswered.

124. TV was a much loved daughter and sister. She was an extremely vulnerable member of our community due to her mental illness. TV's family gave her the best of love and dedicated care possible since the day she was born and the sudden and unexpected loss of TV will always be with them. I regret that this inquest is unable to provide any comfort at all to them and I again express my condolences.

[18] MFI A

My Findings:

Identity	TV
Date of Death	1 November 2016
Place of Death	Prince of Wales Hospital
Cause of death	Arrhythmia of unknown aetiology
Manner of death	Died whilst asleep in a psychiatric unit.

This inquest is now closed.

Magistrate E Truscott
Deputy State Coroner
25 October 2019