Coroners Act, 1996
[Section 26(1)]

Western Australia

RECORD OF INVESTIGATION INTO DEATH

Ref No: 10/17

I, Evelyn Felicia Vicker, Deputy State Coroner, having investigated the death of ***Christine TURVILLE (aka NICHOLLS)****, with an Inquest held at Perth Coroners Court, Court 51, Central Law Courts, 501 Hay Street, Perth, on 27 & 28 February 2017 find the identity of the deceased was* ***Christine TURVILLE*** *and that death occurred on or about 26 March 2015 at Lot 519, Buckland Road, Jarrahdale, as the result of Bronchial Asthma and Emphysema in the following circumstances:-*

Counsel Appearing:

Ms K Ellson assisted the Deputy State Coroner

Ms R Hill (State Solicitors Office) appeared for the South Metropolitan Area Health Service (Armadale)

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INTRODUCTION

On 24 March 2015 Christine Turville (the deceased) was granted overnight leave from Armadale Hospital (AH) to attend her home address to check on the welfare of her cat. She did not return on 25 March 2015 as agreed, and on the afternoon of 26 March 2015 was located, deceased, in the bush surrounding her home by three members of her treating mental health team at Armadale Mental Health Service (AMHS).

She was 56 years of age.

At the time of her death the deceased was subject to an involuntary patient order under the *Mental Health Act 1996* (WA), section 43 (2) (a) Form 6, due to end on 3 April 2015.[1]

By the provisions of the *Coroners Act 1996* (WA) involuntary patients under the *Mental Health Act 1996* (WA) are *"persons held in care"*. This mandates the holding of a public inquest, section 22 (1) (a), to examine the circumstances of the death, and a coroner holding that inquest must comment on the quality of the supervision, treatment and care of that person while held in that care.

[1] Ex 1, tab 4

IDENTITY

Under section 25 (1) of the *Coroners Act 1996* (WA) a coroner investigating a death must find if possible –

> " (a) the identity of the deceased…"

In this case the papers disclosed some difficulty in establishing the correct name for the deceased. There is no difficulty with the fact of who the deceased was, only the appropriate name for the registration of her death.

The deceased was known to police as Christine Nicholls and the WAPoL Report of Death (P100)[2] gives her name as Christine Nicholls, but does not record the names of her parents. She was born in the UK. The deceased also had aliases as Christine Turville and Christine Clarke (possibly her maiden name). The name Nicholls also appears on the Police Identity of Deceased Person (P92)[3] where the visual identification of the deceased was carried out by her son from her first marriage and her first husband was called Andrew Nicholls. Her son similarly has the surname Nicholls.

Following the deceased's divorce from Mr Nicholls' father, the deceased moved to Queensland and worked there for a while before marrying Mr Turville in New South Wales. There are another two children from that marriage.

[2] Ex 1, tab 1
[3] Ex 1, tab 2

On the deceased moving back to Western Australia she appears to have continued using the married name Turville. All the hospital records in Western Australia at the time of her death[4] were in the name of Turville, as was her Medicare card, Department of Housing card, bank card and her Synergy bill.[5]

As a consequence I believe the correct name to use for the deceased at the time of her death was the one she was using, and was known by legally. The deceased will be referred to by the name of Christine Turville (aka Nicholls) for the purposes of section 25 (1) (a) of the *Coroners Act 1996*.

BACKGROUND

The Deceased

The deceased was born in Redding, England, on 9 August 1958 and moved to Australia when she was approximately 10 years old, where she originally lived in Rockingham. She married her first husband (Andrew Nicholls) when she was 18 years of age in 1996 and had three children, all boys.

The deceased and her husband then divorced and the deceased moved to Brisbane, Queensland, with her children

[4] Ex 1, tab 16, 17
[5] Enquiries made to various organisations as to her name usage at the time of her death

where they were placed into foster care as a result of her escalating mental health issues.

The deceased moved to New South Wales and married again, to David Turville in her mid-thirties, with whom she had another son and a daughter. They remained together for 10 years before separating and finally divorcing. The deceased then moved back to Western Australia when her son, Andrew Nicholls, was approximately 15 years of age, where she continued to live until her death.

The deceased was on a disability pension due to her mental health issues which caused her problems, but was otherwise engaged with life and happy.[6]

The deceased chose to live in a remote environment, in Jarrahdale, alone with only her cat for company. It was an isolated property and it is not clear it had all the usual services, but the deceased appeared to prefer her environment.[7] Her son, Andrew Nicholls, lived reasonably close by in Armadale and the deceased used the Armadale Health Services when necessary. Mr Nicholls reported the deceased smoked cannabis for many years.

Medical

By the time of her death the deceased is recorded as having, other than her mental health issues, a medical history of

[6] Ex 1, tab 9
[7] t 28.02.17, p51

chronic obstructive pulmonary disease (COPD), hepatitis B & C, a history of congestive cardiac failure (2014), community acquired pneumonia (2011), and removal of a benign breast lump.[8]

The deceased's son, Andrew Nicholls, believed the deceased was first diagnosed with schizophrenia in her 20's before she moved to Brisbane, Queensland.[9] Her treating psychiatrist at AMHS noted her file suggested a period of "baby blues" following a miscarriage in 1989, following which the deceased experienced ongoing involvement with mental health services in Queensland. He records her diagnosis of paranoid schizophrenia as occurring in 1990, when she was 34 years of age, at Royal Brisbane Hospital, complicated by a comorbid substance misuse disorder with a history of IV amphetamine use and cannabis.[10]

The deceased's first contact with the Western Australian Mental Health Services (WAMHS) occurred in 1998 when she required admission to the Alma Street Centre, Fremantle Hospital, as the result of a drug precipitated psychotic relapse. She was again admitted to Alma Street in 1999 in the context of amphetamine and cannabis use. She was commenced on the depot antipsychotic, zuclopenthixol.

In February 2000 the deceased was admitted to Graylands Hospital with an acute relapse of chronic paranoid

[8] Ex 1, tab 10
[9] Ex 1, tab 9
[10] Ex 1, tab 10

schizophrenia, again after polysubstance abuse. She was admitted to Fremantle Hospital in August 2001, again with a drug induced psychosis. The deceased was discharged on regular zuclopenthixol depot injections and was to be followed up by the Rockingham Kwinana Mental Health Service (RKMHS).[11]

It appears the deceased then moved to the Armadale area and there came under the care of the Armadale Mental Health Services (AMHS) in 2002 when she had a relapse of schizophrenia on a background of substance abuse. She was again administered regular zuclopenthixol depot injections until September 2005 when the service lost contact with her.

The next contact with WAMHS appears to have been March 2006 when the deceased again turned up in the Rockingham area after an alleged assault. She was referred back to AMHS.

On 3 May 2006 the deceased was transferred from Joondalup Hospital to Swan Districts Hospital on forms under the *Mental Health Act 1996*. She was recorded as displaying bizarre behaviour. From Swan Districts Hospital she was transferred to AH on 11 May 2006 with a diagnosis of schizoaffective disorder with cannabis use. She was admitted as an involuntary patient. She was recommenced

[11] Ex 1, tab 10

on the zuclopenthixol depot medication and her mental state gradually improved until discharge on 14 June 2006 with follow up to be at Rockingham under the RKMHS.

The deceased disappeared from WAMHS between June 2006 and April 2014 when she had a serious relapse. She was referred from AMHS to RPH and then back to her GP on her declining to be followed up by AMHS. Her GP at the time was Dr Roy Gilroy of Apollo Health Armadale.

On 3 October 2014 the deceased presented to AH with swelling of both her legs and increased shortness of breath. She was diagnosed with an exacerbation of her congestive cardiac failure and managed with diuretics. Her oxygen saturations were in a normal range throughout this admission, but she discharged herself against medical advice on 6 October 2014. Again in November 2014 the deceased was taken to AH by St John Ambulance Service with shortness of breath and left sided chest pains. On this occasion her oxygen saturations were initially 86%, but increased to 99% with Ventolin and oxygen. Her chest X-ray showed no signs of infection and she was treated as a non-infected exacerbation of her COPD/asthma with inhalers and prednisolone, following which she was discharged.

On 30 November 2014 the deceased was taken to the AH ED following a car crash. Her oxygen saturation was within

normal limits at 93-95% and following investigations she was allowed home that day.

A different GP from Apollo Health referred the deceased to AMHS in 2014 after she had presented in an agitated state. The service was unable to contact the deceased and asked the Mundijong Police to conduct a welfare visit. The police reported she appeared well and did not wish to engage with mental health services.

In February 2015 the deceased was taken to AH ED by ambulance with worsening shortness of breath after running out of her inhalers. Her oxygen saturations were low at 85% and she was again provided with prednisolone, salbutamol and ipratropium inhalers which appeared to work well. She was allowed home that day with a supply of inhalers and advice to be reviewed by her GP.[12]

March 2015

On 2 March 2015 the deceased presented to AH ED complaining of respiratory symptoms, sore ankle and headache after an alleged assault three days earlier. She was noted to be short of breath and had decreased oxygen saturations of 88%. Her venous blood gas results showed acidosis with PH of 7.27 and a raised PC02 of 81.8 (37-50) and raised bicarbonate of 36.9 (22-28). The deceased was diagnosed with a non-infective exacerbation of her COPD

[12] Ex 2 & 3

and was admitted for stabilisation under the medical team. During the admission she received two litres of oxygen per minute by nasal prongs and was prescribed a variety of medications for her asthma, heart disease, COPD, hypertension and schizophrenia (olanzapine 10mg twice a day).

The deceased had always been recorded as an extremely heavy smoker and during this admission she continued to smoke despite requiring oxygen treatment. On 3 March she was referred to the on call psychiatric team for review of her mental health concerns. She was assessed by the duty medical officer on 4 March, who felt she was experiencing a relapse of her paranoid schizophrenia in the context of her non-adherence to her olanzapine, possibly exacerbated by the concomitant use of prednisolone for treatment of her COPD. Her olanzapine medication was altered to an evening dose and the option of tapering and stopping her prednisolone was considered. A note was placed in her medical file to ensure the deceased did not discharge herself, and in the event that she tried, there was a note to consider use of the *Mental Health Act 1996* to detain her.

By 5 March 2015 the deceased was considered well enough to be transferred to the psychiatric ward and she was then reviewed by a Consultant Psychiatrist, Gordon Faulds, a locum at AMHS at the time with Registrar, Dr Palmer.[13]

[13] Ex 1, tab 10

Dr Faulds noted the deceased as being disorganised with flight of ideas, derailment and unhappy at the idea of being transferred to the psychiatric unit. He diagnosed her with an acute relapse of schizophrenia and placed her on a Form 1 under the mental health provisions to be transferred to the inpatients psychiatric ward.

Dr Faulds reviewed her under the Form 1 on 6 March 2015 and recorded her as an involuntary patient suffering from disjointed thoughts, rapid and pressured speech and disorganised behaviour. He suggested she was unable to consent to treatment and therefore the involuntary patient order was necessary.

Once on the psychiatric ward the deceased was reviewed by the medical team, on request, at 3pm on 6 March 2015 due to a drop in her oxygen saturations to 83%. She was noted to have crackles and wheezes in her chest without a temperature and it was advised one of her medications be ceased and replaced with an inhaler, twice a day, to maintain her oxygen saturations between 86-93%. In the event her oxygen saturations dropped below 85% she was to be given salbutamol nebulisers. Bloods were taken, a chest X-ray requested, and it was noted that antibiotics may be necessary if she developed signs of infection. It was also advised that should her oxygen saturations drop below 85% persistently, she should have another medical review.

No lung function test was ordered to check the deceased's lung function, possibly because she was so resistant to treatment, although her resistance was generally more from the psychiatric perspective, than medical.

There was some concern the deceased's low oxygen saturations may have been secondary to her over sedation and her long acting benzodiazepine, provided as necessary, was ceased.[14] The medical registrar who saw her that afternoon altered a number of the deceased's medications and believed she may be suffering with mild exacerbation of her COPD which is why further investigations were undertaken. There is no explanation as to why this did not include a lung function test or even if one was considered.

Following review the deceased absconded from the ward and was recorded as being away without leave and the police were notified. The police returned her to the ward on 7 March 2015.

On the deceased's return to the ward she was quite agitated and required additional medication. She appeared disorganised in thoughts, with rapid and pressured speech, and was reviewed by the on call psychiatrist later in the day. No changes were made to her regular treatment, but it was ordered she be restrained in a locked ward to reduce the risk of her further absconding.

[14] t 28.02.17, p51

The deceased was transferred to the High Dependency Unit (HPU) on 9 March 2015[15] and her medication there changed to the antipsychotic paliperidone, with a view to starting depot medication. Her paliperidone was gradually increased and a mood stabiliser, sodium valproate, was added on 10 March 2015 due to her ongoing elevated mood. The deceased remained irritable and on 12 March 2015 her oxygen saturations again dropped to 81% following a dose of lorazepam. The notes record the deceased was placed on 15 minute observations although this does not appear to have been charted.[16] Her sodium valproate was gradually increased to 500mg twice daily.

When the deceased was reviewed on 16 March 2015 by Dr Faulds he noted the deceased appeared to be grossly elevated, with rapid and pressured speech, with marked thought disorder. He considered her to be insightless to her ongoing need for inpatient treatment and exhibiting ongoing poor sleep. He reviewed her sodium valproate levels and considered changing her antipsychotic to zuclopenthixol depot due to her history of good responses to that medication.

The deceased formally requested a second opinion with respect to her treatment and she was seen by Dr Kevin Smith later on 16 March. He stated he was confident her

[15] Ex 1, tab 17a
[16] Ex 3

diagnosis and treatment were correct and he believed it would take some time for her mental state to settle. He noted the deceased still wished to leave immediately and needed to be maintained on a secure ward.[17] She was provided with extra olanzapine due to her mood.

Later that night at approximately 9pm a Medical Emergency Team (MET) call was made as the deceased's oxygen saturations dropped to 81% on room air. This required the deceased be transferred to HDU before she could be transferred back to the mental health unit. In the HDU the deceased was given oxygen, IV hydrocortisone, salbutamol nebulisers, broad spectrum antibiotics, and restarted on prednisolone with restricted fluids. Blood tests showed a low sodium level of 122 (134-146mmol/L) and her arterial blood gases at 8.55 pm showed acidosis and raised carbon dioxide levels. The plan was to maintain her oxygen saturation level between 88 and 92%. A chest X-ray was ordered but does not appear to be reported on the file.

The following day the deceased maintained her oxygen saturation at over 91% on room air. Frusemide was withheld and she was maintained on fluid restrictions. Dr Faulds noted the mental health unit was unable to provide oxygen therapy and if the deceased continued to require oxygen she would need to remain in the open medical ward.

[17] Ex 1, tab 10

The deceased's oxygen saturations remained at an acceptable level and she was returned to an open ward in the psychiatric unit on 18 March 2015. A complete blood test showed an increase in her sodium level to just below the normal range.

Over the next few days the deceased's mental health appeared to gradually improve. Although she exhibited pressured speech at times, she was no longer expressing any delusional beliefs. She was provided with ground access on 20 March 2015, and started to make requests for leave to attend to the welfare of her cat.

Throughout her stay the deceased had been extremely concerned about her cat. Arrangements had been made, through the council of official visitors, for the cat to be visited by an advocate from that organisation to feed it on alternate days. There are some records indicating this was done, however, the deceased continued to express concern about her cat. Her treating team discussed the option of providing her with day leave to visit her cat, but the difficulty with the remoteness of the deceased's residence made day leave a difficult proposition logistically.

On 22 March 2015 the deceased's oxygen levels again dropped to 80%, however, on this occasion she did not appear distressed and the medication chart indicates she

was given 10mg of olanzapine, but did not require any other treatment. On her review by Dr Faulds on 23 March 2015 she was considered to be quite well, and when she again made a request for leave to attend her cat, consideration was given to how that may be achieved. The deceased agreed to start depot paliperidone and there was no mention, either in the notes or Dr Faulds' evidence, they considered her low oxygen saturations to be of concern.[18]

On 24 March 2015 her treating team made a decision the deceased would be granted overnight leave to visit her cat, on the condition she was medication compliant and returned the following morning. Part of the rationale for this was the deceased was considered to be improving in her mental health state and the team were planning for her discharge the following week.[19] Allowing her overnight leave to visit her cat would be a good indicator of how the deceased would cope on her return home to a remote location. Before the deceased left the ward her observations were checked and, other than her oxygen saturation (83%), all her vital observations were within acceptable limits. The deceased was allowed to leave the ward at approximately 1.00 pm with no concerns being expressed about her low oxygen saturations.

There are a number of notes in the records about the deceased's low oxygen saturations. On occasions she was

[18] t 28.02.17, p54
[19] t 28.02.17, p52

reminded to breathe deeply and her oxygen saturations returned to acceptable levels.

A review of the deceased's treatment by a respiratory physician, Dr Summers, indicated the low oxygen saturations consistently recorded for the deceased may have been an artefact. She may have been breathing too shallowly, and the oximeter used to measure her blood oxygen levels on the peripheries was not recording accurate oxygen saturations.[20]

The deceased was due to return to the ward on the morning of 25 March 2015.

The deceased did not return and although some leeway was provided with exact timing, especially with regard to the remoteness of her home and the difficulty in travelling to and from that location, she still did not return. Her absence was brought to the attention of her consultant psychiatrist, Dr Faulds. By the time Dr Faulds was notified and considered it necessary to attend the location himself, there was some concern he would not be able to reach the location and arrive back in daylight. Arrangements were made for there to be a home visit the following day.

Dr Faulds said in evidence one of the reasons he wished to visit the location himself was because he was the deceased's

[20] Ex 1, tab 14, t 27.02.17, p8

treating psychiatrist and wished to view the suitability of her home for himself while considering her discharge in the near future.[21]

26 MARCH 2015

On 26 March 2015 Dr Faulds visited the deceased's residence in Jarrahdale with a community mental health nurse and a medical student. The community mental health nurse went because the first "on call respondent" was not in a position to go and the clinical mental health nurse who did go, Fiona Shepherd, was to be designated the deceased's community mental health nurse once she was discharged. Nurse Shepherd stated she believed it would be useful for her to go and observe the deceased's residential circumstances.[22] The student medical officer was Dr Jessica Lowes who was on clinical practice and attached to Dr Faulds. It was considered it would be good experience for her to participate in a home visit in the circumstances of the deceased.[23]

Dr Faulds, Dr Lowes and Nurse Shepherd left AMHS after lunch and travelled by car to Jarrahdale. There the property was accessed via a gravel road in a remote location surrounded by bush. There was a steep, slippery gravel hill leading down to the house which needed to be descended by foot.[24]

[21] t 28.02.17, p56 & t 27.02.17, p19
[22] Ex 1, tab 8
[23] t 28.02.17, p55 & t 27.02.17, p39/40
[24] t 27.02.17, p15

They went down to the house calling for the deceased, but could not locate her nor get a response to their calls. On not being able to locate her, Dr Faulds went into the house which was open and appeared to have been accessed. He considered the home to be neat and tidy, but was concerned that despite there being power available there did not appear to be water. There was nothing of concern about the state of the house, but they were unable to locate her.[25]

It was as they were leaving the house at about 1.30 pm, and returning to the car up the slope, they noticed the body of the deceased lying on a platform area which appeared to be an old bedstead in among the leaves outside the house.[26] Dr Faulds went to the deceased to assess her, but was satisfied she was deceased and that CPR would not be useful.[27] In evidence Dr Faulds confirmed there were the beginnings of rigor mortis, but he would not have assessed her as having being dead since 24 March 2015.[28] Nurse Shepherd noticed the deceased had on her left wrist a purple shopping bag which appeared to be empty and in her left hand was a blue plastic cylinder which she believed to be an asthma puffer.[29]

Nurse Shepherd stayed with the deceased while Dr Faulds and Dr Lowes returned to Jarrahdale in an attempt to

[25] t 27.02.17, p40
[26] t 27.02.17, p15 & t 28.02.17, p56 & Ex 1, tab 8
[27] t 28.02.17, p57
[28] t 28.02.17, p58
[29] Ex 1, tab 8

contact police and ambulance services as there was no signal from the property. While they were gone Nurse Shepherd spoke to the neighbours from the next door property who arrived on a quad bike and noticed the body of the deceased. They had been used to providing support and assistance to the deceased when she required it and were quite distressed at what had happened.[30]

Having contacted the police, Dr Faulds and Dr Lowe returned to the property and at 2.50 pm two police officers attended the property and noted the body of the deceased at the top of the gravel track leading down into the property on the bedframe. The police assessed the deceased as having sat down on the mattress after climbing the hill from the house to take a rest and had then possibly collapsed.

The police described the location as set in dense forest, not visible to the public and that access to the property was via a gravel track about 2-3km from Jarrahdale road. The police observed some insect activity and were concerned crows may have been about to present a problem to the body. A blue Ventolin inhaler was noted in her hand and the shopping bag was noted to contain numerous personal items including several boxes of medication. She was still wearing jewellery and did not appear to have been robbed. [31]

[30] Ex 1, tab 8
[31] Ex 1, tab 6

Shortly after the attendance of the police, the ambulance service arrived and noted the deceased was cool to touch and *"rigor mortis evident in her facial muscles and hands"*.[32] She was positioned on her back and leaning to the left with her head over the edge of the bed base lower than her body. Her face was mottled with lividity with no responses observable. The paramedics completed the life extinct form and left the deceased with the police.

The fact the deceased was fully dressed with all her jewellery and was carrying a bag containing personal items including her medications would imply she may have been about to return to AH, although the house was still open. The indications from the state of her body would imply she died on the evening of 25 March at the earliest, and more probably early on the morning of 26th (extent of rigor mortis as described by paramedics). The state of the deceased's body does not support the proposition she was first attending her home on the afternoon 24 March 2015, but rather she was in the process of leaving her home, probably on the morning of 26 March 2015.

POST MORTEM EXAMINATION

The post mortem examination of the deceased was undertaken by Dr Clive Cooke, Chief Forensic Pathologist, PathWest Laboratory of Medicine on 31 March 2015.[33]

[32] Ex 1, tab 11 & t 28.02.17, p58
[33] Ex 1, tab 12

Dr Cooke observed some minor abrasions and bruises to the backs of the deceased's hands and the top of her face. These appear to be consistent with the observations by the police and are consistent with the deceased's exposure following death, but not related to her death.[34]

On internal examination Dr Cooke found the coronary arteries exhibited focal, calcified arteriosclerosis at the origin of the left interior descending artery, with lumen narrowing of approximately 30%, and lesser changes present elsewhere, with mild fibrous arteriosclerosis. There was partly calcified arteriosclerosis throughout the aorta, but otherwise nothing in the cardiovascular system of particular concern. With respect to the respiratory system, the trachea exhibited mild congestion of the mucosa with some free-lying mucus towards the carina, but was otherwise normal. Both her lungs appeared to be hyper-expanded with emphysematous cysts at the apices and anteriorly in the upper lobes, and apparent emphysematous changes of the parenchyma throughout the lungs. The bronchial walls appeared to be thickened and the small bronchi contained grey/yellow coloured mucus which was readily extruded from the cut surfaces of each lung.

In summary, Dr Cooke considered the deceased exhibited congestion and hyper-expansion of the lungs, with emphysematous changes and mucus within thickened

[34] Ex 1, tab 6, tab 12b

bronchi, focal coronary arteriosclerosis and minor soft tissue injuries. He concluded the cause of death in his opinion was bronchial asthma and emphysema.

Toxicology was not performed in view of the circumstances of the deceased when located. Virology disclosed no respiratory viruses in a lung sample. Microbiology disclosed mixed bacteria in a lung sample without a specific infection, and histopathology indicated changes of asthma in the lungs and *"focal, very early and microscopic bronchopneumonia"*. Histology of the heart showed probable thickening of the heart muscles as may occur with chronic lung disease like asthma, but no further changes.[35]

While Dr Summers stated in evidence he believed the cause of death for the deceased was a cardiac arrhythmia,[36] he conceded that was the probable mechanism of death and that would have arisen as a result of her respiratory disease.[37] Dr Summers said he could see no evidence of asthma in the post mortem report, but I am confident Dr Summers did not have access to the information with respect to histopathology.[38]

CONCLUSION AS TO THE DEATH OF THE DECEASED

I am satisfied the deceased was a 56 year old woman with a long history of respiratory disease, exacerbated by her

[35] Ex 1, tab 12a
[36] t 27.02.17, p9
[37] t 27.02.17, p11
[38] Ex 1, tab 12a (30.08.16)

continued and heavy smoking. I am also satisfied the deceased had a long and difficult history of mental health issues and was diagnosed with schizophrenia by at least 1990 (her early 30s).

I accept Dr Summers' view it was inevitable the deceased would eventually die as a combined result of her respiratory difficulties and mental health issues. He pointed out it is almost impossible for people with the types of mental health issues the deceased faced to give up smoking, whatever their physical disability. Consequently the fact the deceased died as the result of her respiratory difficulties was intrinsically bound with her mental health issues and her inability to cease smoking.[39]

I am satisfied the deceased sought medical assistance when she considered it necessary for her physical disabilities, but was reluctant to engage with mental health services due to the restrictions it placed on her lifestyle. I accept the deceased was not generally medication compliant as far as her mental health issues were concerned, and that depot medication was appropriate in her circumstances.

The main aim of her treating mental health team at AMHS was to stabilise her and provide her with depot medication which was effective. There was some tension between the deceased's appropriate antipsychotic medication and its

[39] t 27.02.17, p10

impact on her cardiorespiratory capacity which had to be balanced by the consideration of safer medications and their availability in depot form.[40]

I am satisfied the deceased presented as physically unwell in early March and as a result was hospitalised, but due to her lack of compliance with her antipsychotic medications had also become mentally unstable. Following treatment for her physical difficulties she was assessed by the mental health team and made an involuntary patient in an attempt to stabilise her, both for her mental health issues and as a result improve her physical outcomes.

On being stabilised with her medical issues she was transferred to the psychiatric ward on 5 March 2015 to stabilise her mental health issues. While she was resistant at that point to medication, she was stabilised and depot medication instituted which appeared to improve her prognosis. Having achieved that stability, the next issue for the physicians was for the deceased to be able to live in the community, in the manner she found the most desirable.

It is clear the deceased chose to live in a remote location where she was not exposed to excessive human contact and that, mainly of her choosing. It is also clear her cat was extremely important to her mental welfare and her concern about the welfare of her cat was likely to hinder her mental

[40] t 27.02.17, p23 & t 28.02.17, p9

stability. Having switched the deceased to depot medication the next step was for her to return to the community, firstly to ensure the welfare of her cat, and secondly to enable her to then return to hospital in an attempt to finalise her appropriate management on her release to the community permanently and accommodate her preferences.

On 24 March 2015 the deceased was granted overnight leave to check on the welfare of her cat. I accept her oxygen saturations still appeared to fluctuate. However, on Dr Summers' assessment that some of the low O_2 saturations were the result of an artefact, both in her manner of breathing and the machinery used to measure her breathing, that was not an overriding concern.[41] The deceased was more likely to be stable in her home environment. Her COPD was always going to be a problem from a physical perspective, but she was as well as she had been prior to her hospitalisation and appeared to have been happy with her life.[42]

I am satisfied the deceased returned home,[43] but it is unclear on the evidence as to whether she located her cat. No one has any record of observing the cat while people were in the area following her death.[44] I am therefore unable to determine whether the deceased became distressed as a result of not being able to find her cat and

[41] Ex 1, tab 14a, t 27.02.17, p8
[42] Ex 1, tab 9
[43] t 28.02.17, p57
[44] t 27.02.17, p15,43

decided to stay one extra day which made her late for her return, or she had made a decision she would not return at all.

I am satisfied the deceased was not intending to return to hospital on the morning of 25 March 2015 because I believe she was still alive and capable of returning at that point.

On the evidence available I think it likely the deceased made a decision to leave her home on the morning of 26 March 2015, but became unwell as she attempted to reach the road and died. While it is possible a welfare check conducted on the afternoon of 25 March 2016 may have found the deceased alive, I do not believe intervention would have prevented her death if she was unable to locate her cat and was forced to leave, rather than returning voluntarily. She was clearly vulnerable to physiological stressors.

MANNER AND CAUSE OF DEATH

I am satisfied the deceased suffered from COPD which affected her cardiorespiratory capacity in addition to her mental health problems. I am also satisfied her mental health problems made it impossible for her to improve her physical health by way of a cessation of smoking.[45] The combination of her two major illnesses made her vulnerable to death as a result of her respiratory disease earlier than would otherwise have been the case.

[45] t 27.02.17, p10

I find death occurred by way of Natural Causes.

COMMENTS ON THE SUPERVISION, TREATMENT AND CARE OF THE DECEASED

The fact the deceased was "in care" under the provisions of the *Coroners Act 1996* (WA) at the time of her death, required the circumstances surrounding her death to be examined. Due to the circumstances involving both a physical medical issue and her mental state it was necessary the inquest heard evidence from a specialist forensic physician to ensure the deceased's care with respect to her COPD was appropriate while she was in the care of the state.

Dr Quentin Summers, Respiratory Physician, was asked to review the care of the deceased while she was in the psychiatric unit of AMHS.[46]

It was Dr Summers' view the deceased's mental health issues and her respiratory disease, in conjunction with any cardiac issues she may have had, were intrinsically integrated due to her mental illness exacerbating her need for smoking. Smoking had a deleterious effect on her respiratory function and similarly that would also have been affected by cardiac issues noted at post mortem examination.

[46] Ex 1, tab 14

Dr Summers noted he could find no records in the deceased's medical files of a lung function test which in his view were critical in determining her lung function.[47] Without a lung function test Dr Summers said it was difficult to determine whether the deceased's oxygen saturations fluctuated due to her disease or was an artefact. He advised that patients with COPD do compensate for lower oxygen levels and frequently function quite well with a lower oxygen saturation than people without respiratory disease. He said it is generally a slowly progressive decline and the body adapts to the lower levels of oxygen. He did note, that in the deceased's case, when she was reminded to breathe deeply, her oxygen saturations generally improved to the low 90's which was perfectly adequate for survival.

The issue with COPD is not just the effect of a reduced oxygen level, but also an elevated carbon dioxide level in the blood. Dr Summers noted the deceased appeared to manage relatively well with her lower oxygen saturations and that in all the circumstances one would not expect her to be able to give up smoking, the only efficient method of improving her respiratory function.

The deceased appeared to be able to manage relatively independently with her lower oxygen saturations and heavy smoking, which would also be affected by the necessary medication for her mental health issues. Dr Summers was

[47] t 27.02.17, p7

of the view appropriate medication for her mental health issues was essential and, as a result, the fact of her reduced respiratory function was an issue which her medical advisors managed as well as could be expected. Dr Summers pointed out that chronically low oxygen levels also increased the chances of a cardiac death which is why, with serious lowering of oxygen saturations, patients are provided with additional oxygen.

Dr Summers noted the deceased's antipsychotic medications of olanzapine and haloperidol would affect her respiratory function,[48]although Dr Munib, Consultant Psychiatrist and head of Department of Psychiatry, AMHS, stated those particular antipsychotics were generally considered to have less effect on respiratory function, than some of the others which could be used. Another factor in the deceased's requirement for antipsychotic medication was that it be available in depot form due to her noncompliance. At that time some of the safer antipsychotics could not be provided in depot form.[49]

In view of the necessity for the deceased be treated for her psychiatric issues, and her psychiatric issues indicating it would be extremely difficult for the deceased to stop smoking, Dr Summers was of the view that allowing the deceased leave when her oxygen saturations were at a level normal for her circumstances, and with which she appeared

[48] t 27.02.17, p9
[49] t 27.02.17, p23

to cope relatively well, was not unreasonable. The deceased's anxiety about her home situation was equally as distressing for her and needed to be accommodated.

Dr Munib indicated AMHS did encourage patients to explore alternative nicotine sources such as nicotine replacement therapy, but acknowledged it was difficult for psychiatric patients to cease smoking. Dr Munib also indicated the mental health team were aware of the cardiac risks with some of the antipsychotic medications and where possible alternative medication was used, depending on the circumstances of the patient.[50]

Dr Summers stated that in a normally healthy person saturations of 92% are normal for the older healthy population, and can decrease safely for those with COPD. He advised that in a range of 88-92%, oxygen would not be given because excessive levels of oxygen can be dangerous in and of themselves. Dr Summers was of the view that stopping smoking was really the only treatment which would be effective for patients with compromised oxygen levels and that while people smoke, oxygen should not be prescribed. There are drugs which can assist with opening the bronchioli but they are not really a treatment.[51]

Overall, Dr Summers was of the view the deceased's treating doctors had done extremely well in stabilising the deceased

[50] t 27.02.17, p22
[51] t 27.02.17, p11

in all the circumstances. In his opinion the fact the deceased could not give up smoking meant the outcome of her death as a result of the interaction between her mental and physical difficulties was "*almost certainly unavoidable*".[52]

Dr Munib outlined changes which have occurred, both in legislation and treatment of involuntary patients, to try and provide better holistic care for people whose mental health condition put them at risk of physical medical issues. There are now legislative requirements for medical reviews. Dr Munib was certain the deceased would have had a lung function test under current legislation, even though it was not part of her psychiatric treatment.[53] In addition, there have been improvements in the availability of depot antipsychotics,[54] and greater emphasis on physical functionality as well as mental capacity.

Under the *Mental Health Act 2014* involuntary patients are required to undergo mandatory physical examination within 12 hours of admission to a psychiatric ward, and other provisions allow involuntary treatment orders to be active in a medical ward, with combined input from medical teams as well as psychiatric teams.

In addition, specifically with respect to AMHS, the psychiatric ward now has two dedicated resident medical

[52] Ex 1, tab 14
[53] t 27.02.17, p17
[54] t 27.02.17, p23

officers in addition to the intern doctor, which was not the case in 2015.[55]

In all the circumstances of this case I am satisfied the deceased's supervision, treatment and care was appropriate. This is despite the fact a welfare check was not conducted on the afternoon of 25 March 2015, which most likely would have found her still alive, and that a lung function test would have better assisted the physicians around decisions relating to the deceased's physical functionality. The deceased's concern about her cat was an overriding factor in her continued progress.

E F Vicker
Deputy State Coroner
3 August 2017

[55] t 27.02.17, p26-27