Coroners Act 1996
[Section 26(1)]

Coroner's Court of Western Australia

RECORD OF INVESTIGATION INTO DEATH

Ref No: 36/18

I, Evelyn Felicia Vicker, Deputy State Coroner, having investigated the death of ***Pamela Edith ASHLEY*** *with an Inquest held at Perth Coroners Court, Courts 51 & 85, Central Law Courts, 501 Hay Street, Perth, on 22-24 October and 14 November 2018 find the identity of the deceased was* ***Pamela Edith ASHLEY*** *and that death occurred on 3 February 2016 at Armadale Kelmscott District Memorial Hospital, in the following circumstances:-*

Counsel Appearing:

Sergeant L Housiaux assisted the Deputy State Coroner
Ms H Richardson (State Solicitor's Office) appeared on behalf of North and East Metropolitan Health Service
Ms R Young (Meridian Lawyers) appeared on behalf of Ms Nguyen
Ms B Burke (ANF) appeared on behalf of Nurses P McAleer, F Baptist, N Mohamed, B Singh and J Domfeh
Mr D Brand (Brand Barristers & Solicitors) instructed by MDA National Insurance Pty Ltd appeared on behalf of Dr G Walsh
Mr N van Hattem (instructed by National Justice Project) appeared on behalf of Mr Ashley

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INTRODUCTION

On the evening of 2 February 2016, Pamela Edith Ashley (the deceased) was taken to the Armadale Kelmscott District Memorial Hospital (AKDMH) emergency department (ED) by ambulance due to her deteriorating mental health. She was assessed as requiring admission to a secure ward (Moodjar) pending a thorough assessment by a consultant psychiatrist as to her capacity to make appropriate decisions with respect to both her clinical and mental wellbeing. No appropriate bed was available and she remained in the ED overnight, waitlisted for Moodjar (Armadale Health Services acute mental health ward).[1]

The following morning she remained unwell and the environment in the ED was deemed unsuitable for her improvement. A decision was made to move her to the Older Adult Mental Health Service (OAMHS) ward, (Banksia Ward) and she was admitted at 1.30 pm on 3 February 2016. The deceased was still agitated and distressed and there were fears for both her safety and possibly others due to her very distressed behaviour.

At 3.00 pm on 3 February 2016 the deceased was confirmed as an involuntary patient under the *Mental Health Act 2014*, Form 6, and at 3.10 pm she was sedated by way of an

[1] Ex 1, tab 15

intramuscular (IM) injection of Olanzapine. Thereafter she was settled in bed.

The deceased was located unresponsive at about 4.30 pm and a code blue medical emergency called. The medical emergency team (MET) arrived at 4.35 pm, but despite aggressive resuscitation the deceased could not be revived.

She was 64 years of age.

The fact the deceased had been an involuntary patient at the time of her death meant the provisions of the *Coroners Act 1996* (WA) mandated public hearing by way of inquest into the circumstances of the deceased's death (section 3, section 22, section 25) and a coroner hearing the evidence is required to comment upon the supervision, treatment and care of the deceased while an involuntary patient.

The deceased's husband, David Ashley, was inconsolable following the death of the deceased. Despite the deceased's long history of both physical and mental health issues, Mr Ashley was convinced the proximity of the IM injection given to the deceased and her death indicated the injection had killed her and those responsible for administering it were directly to blame for her death.

Mr Ashley wrote many letters to the Office of the State Coroner (OSC) indicating his belief those present at the time

of the deceased's medication with the IM Olanzapine were responsible for her death, using terms such as murder and criminal negligence. It was repeatedly explained to Mr Ashley such findings were not the purpose of the coronial system, and expressly prohibited by the *Coroners Act 1996* (WA) (section 25(5)). Rather the purpose of the inquest was to determine the facts of the case as far as possible, to establish why and how the deceased had died.

Mr Ashley and the deceased had no children and when well, the deceased was a high functioning, competent member of the community. She and her husband ran a manufacturing company and generally took care of one another. Mr Ashley believed his wife was in good/excellent health although he acknowledged her mental health issues.[2] He remains grief stricken as to his wife's death.

The issue for the inquest centred around increased awareness of the tension between the different therapeutic considerations relating to clinical and mental health care, and recognition that patients with mental health problems are more at risk of sudden and unexpected death than others in the community facing physical illness alone, due to the unavoidable additional physiological stresses placed on an agitated and aroused person.

[2] Ex 1, tab 8A

The inquest considered three volumes of documentary evidence (exhibits 1-3), other documents tendered during the hearing (exhibits 4-6), as well as the oral testimony of a number of witnesses present during the deceased's admission overnight 2-3 February 2016. Oral evidence was also heard from independent expert witnesses who had reviewed the medical files relating to the deceased in an attempt to clarify the issues relevant to her death and her management.

At the conclusion of the inquest counsel for the parties were invited to make submissions to the Court. These were received in December 2018 and January 2019.

BACKGROUND

The Deceased

The deceased was born on 24 July 1951 in Busselton as one of five children. The deceased was educated in Busselton and following school she became a teacher of short hand. The deceased was highly proficient in this area and worked in WA Parliament recording for Hansard, and spent time in London also teaching short hand.

The deceased had two step sisters and a step brother and a biological younger sister. She enjoyed entertaining people and was known as a performer at a young age. Following a brief period working for the head of the Royal Flying Doctors

Service she became a flight hostess working on flights between Perth and the United Kingdom. She spent a period of time in Britain and there continued with her work in short hand. At this time Mr Ashely also applied to Qantas so that he could be in touch with his wife.

The deceased also taught dancing and at 21 years of age she met Mr Ashley through dancing and they were later married in Hawaii. They remained together for the course of the deceased's life.

The deceased and Mr Ashley developed a business manufacturing safety showers for mining sites and the deceased was both a company director and secretary for the business.[3]

Shortly before her death the deceased and her husband had moved to an address in Champion Lakes which had been stressful for the deceased. It had caused her sleep deprivation and turmoil in attempting to organise the new property to her satisfaction.[4]

Medical

The deceased had a longstanding history of bipolar affective disorder (BPAD) with an extensive history with Community Mental Health Services (CMHS), both in Osborne Park and

[3] Ex 1, tab 8
[4] Ex 1, tab 8

the Mead Centre in Armadale. She had multiple admissions under *Mental Health Acts* dating back to 2003. The deceased had suffered two serious manic episodes in 2014.[5]

The deceased attended a general practitioner (GP) at Haynes Medical Centre in Armadale[6] as well as another doctor on Railway Parade, Kelmscott, according to Mr Ashley.[7]

The deceased had a medical history of diabetes mellitus type 2 which was usually well controlled, high cholesterol and bilateral leg swelling, although tests by way of echocardiogram (EcHO) indicated she did not have cardiac cause for her leg swelling.

The deceased also suffered with obesity for which she had originally had a lap band placed, which was not successful. It was removed in June 2014 with the intention she have a gastric sleeve procedure in October 2014, but I cannot find any documentation that occurred,[8] presumably due to her continued mental health issues in 2014.

The deceased suffered obstructive sleep apnoea which had been confirmed by a sleep study in July 2011, and she was prescribed continuous positive airway pressure (C-PAP) therapy. At night Mr Ashley confirmed the deceased had her

[5] Ex 2, tab 2
[6] Ex 1, tab 22, Ex 3
[7] Ex 1, tab 8
[8] Ex 3

own C-PAP machine[9] and Dr Claxton, Respiratory and Sleep Disorder Physician,[10] confirmed in evidence his reading of the deceased's sleep apnoea history indicated it was severe with about 80 breathing disturbances per hour.[11] This can lead to under breathing during sleep (sleep hypoventilation), although there was no evidence this was the case for the deceased. Professor David Joyce, Toxicologist and Pharmacologist, indicated he believed the deceased's sleep apnoea was peripheral rather than central.[12]

In his report Professor Joyce explained peripheral sleep apnoea meant the problem lay in the anatomy of the upper airway, because of a body build that disadvantages airway patency when lying supine and asleep. While central meant the brain itself was not sensing low oxygen levels properly and sending messages to the muscles to breath up. Both forms of sleep apnoea are worsened by drugs that suppress respiration, but it was more so with central sleep disorders.[13]

The deceased was treated for her medical problems and according to Mr Ashley she was compliant with her medication regime. She obtained her prescriptions from a regular chemist in Gosnells.[14]

[9] t 23.10.18, p281
[10] Ex 1, tab 28
[11] t 24.10.18, p388
[12] t 23.10.18, p281
[13] Ex 1, tab 27
[14] Ex 1, tab 8

Events immediately preceding admission on 2 February 2016

Mr Ashley described that he and the deceased had moved house, approximately two weeks before her admission, and this had caused the deceased anxiety when attempting to get the new house orderly. He felt it was around this time she became unsettled and started behaving abnormally. He believed this was due to sleep deprivation and also a failure on the part of the deceased to eat or drink properly.

Mr Ashley rang the Mental Health Emergency Response Line (MHERL) but reported he was advised by whoever answered the phone they were about to close and that it was too late to ring. This was not Mr Ashley's usually experience with that service, however, he decided it would be necessary for him to take the deceased to the emergency department at AKDMH.

The hospital records indicated Mrs Ashley arrived at AKDMH at approximately 10.10 pm on 28 January 2016. She was reported to be suffering from sleep deprivation due to the stress of recently moving home. The deceased was assessed and her clinical signs were determined to be within normal limits although the deceased complained of chest pain to the triage nurse.[15]

The deceased was reviewed by the ED psychiatric liaison duty medical officer at 11.00 pm who believed she was suffering from insomnia for the reasons she had stated, and was also

[15] Ex 2, tab 2

concerned there may be early indicators of a relapse of her BPAD. He prescribed the antipsychotic, Chlorpromazine, administered at 00.35 am on 29 January 2016 and she was provided with another tablet to take home. In addition the deceased was given a six day prescription for Chlorpromazine and the plan was to refer the deceased to the community assessment treatment team (ATT). The deceased signed a discharge plan acknowledging this was to be done and was provided with contact details for emergency support services according to the hospital notes.[16]

The deceased stated she wished to return home and the psychiatric liaison medical officer asked the deceased be cleared medically before she left. The deceased was reviewed before she left the ED by Dr Elfatih Ismail, an Emergency Department Registrar.[17] Dr Ismail requested the deceased have an ECG before she left, but she claimed she had already had one and refused to have another.[18] At the time Dr Ismail made his determination the deceased was fit for release into the community from a medical perspective, he considered her to be competent mentally to decline further medical investigation by way of ECG.[19] The deceased was discharged home at 00.50 am on 29 January 2016 and Mr Ashley drove her home.

[16] Ex 2, tab 2
[17] Ex 1, tab 19 & t 22.10.18, p18
[18] t 22.10.18, p21
[19] t 22.10.18, p43

Mr Ashley reported the deceased appeared to sleep well that day and he later went to work. He believed his wife was a little anxious, but he left her working at home on the computer.[20]

The hospital plan to refer the deceased to the ATT was acted upon and the notes indicate the deceased was discussed at their intake meeting on the morning of 29 January 2016. A telephone call was made to the deceased and she appeared to engage well with the caller. She reported her mood was good and that she would be fine if she could get some sleep with the prescription medication she had been given. She was noted to be talking very fast, but her thoughts appeared to be on task, logical and appropriate. The deceased denied psychotic symptoms and agreed to a follow up appointment at the Mead Centre on 9 February 2016 at 11.30 am.

On Mr Ashley's return home that day he believed his wife to be quite unwell. He observed she was overly busy around the house and that she was praying. She continued to be stressed and over the next few days became very unstable, refusing to eat or drink and praying, while dressed in white.

Transfer 2 February 2016

Mr Ashley felt he could no longer cope with his wife at home and called the St John Ambulance Service (SJA). SJA

[20] Ex 1, tab 8

received the call from Mr Ashley at 8.16 pm on 2 February 2016 and an ambulance arrived at their home address at 8.22 pm. The officers were met by Mr Ashely who gave them a brief history outside before he took them upstairs to the deceased. The officers reported the deceased to be in a praying position, on her knees and elbows on the floor, wearing nothing, but covered in a white sheet.

Mr Ashley reported her as praying all day and displaying abnormal behaviour. The ambulance officers assessed the deceased as suffering a psychotic episode. She refused to look at them unless they were wearing white which was described as being a sign of being blessed or pure. The deceased advised the officers she was praying to God and had to pray before being taken to hospital. She told them she was sweating tears of blood for God, but was persuaded to dress for the trip to the hospital. She wanted to wear white, but they managed to place her in a colourful kaftan and she walked out to the ambulance with their assistance.[21]

Mr Ashley advised the officers the deceased did not like change and they had recently moved. The deceased told the officers she had no chest pain and was not short of breath or nauseous. She was not vomiting and did not have diarrhoea. She had not fallen or suffered any trauma. The deceased was recorded as whispering and mumbling and praying all the

[21] Ex 1, tab 23

way to the hospital, with poor eye contact, but no report of any suicidal ideation.

The officers recorded a slightly elevated temperature, but the deceased refused to accept any medication such as Panadol. She denied any other symptoms.

On arrival at the hospital it was difficult to persuade the deceased to leave the ambulance and she started to become uncooperative with the officers, who up to that point had managed to persuade her to cooperate. She stated she was praying, kept her eyes closed and shuffled herself onto the ambulance floor before getting into a wheelchair. She was unhappy on moving from the wheelchair onto a hospital bed.

SJA officers recorded the deceased as displaying abnormal behaviour, although her general observations appeared stable.[22] The deceased was handed over to the Emergency Department (ED) AKDMH at 9.08 pm with all her observations within normal limits.

AKDMH - ED

Mr Ashley had followed the ambulance to the hospital and he advised the ED triage nurse he was no longer able to cope with his wife at home. She had not been sleeping, was being loud and praying all day while lying naked on the lawn. The

[22] Ex 1, tab 24

deceased repeatedly stated she had sinned and needed to pray and asked for forgiveness. Once placed in a bed in the ED she refused to stay there and kept getting out of bed and walking around.

Mr Ashley reported the deceased had not been eating or drinking for days, although Psychiatric Liaison Nurse (PLN) Paul McAleer managed to persuade the deceased to have a few sips of water during his assessment. As a result of sipping the water the deceased became very distressed and stated she needed to repent because she drank water and took medication. Mr Ashley and PLN McAleer agreed the deceased needed to be assessed and Mr Ashley confirmed he believed his wife needed sedation with medication.

The deceased was seen by the psychiatric duty medical officer (DMO) with PLN McAleer. She was descried as having a bizarre posture and continually talking about religious things. She refused oral medication and refused admission.[23]

The DMO believed the deceased was suffering a psychotic relapse, although she did not fulfil the criteria of a manic episode. It was decided she should remain in hospital pending a formal assessment in the morning. The deceased was prescribed intramuscular (IM) Haloperidol, an antipsychotic, and the benzodiazepine, Clonazepam. The deceased was combative and the ED progress notes stated

[23] Ex 1, tab 24

security had to restrain the deceased to allow medication to be given.

The referral for examination by a psychiatrist was completed by PLN McAleer at 11.45 pm on 2 February 2016 and he documented her past medical history and her presentation.[24] PLN McAleer included the deceased's history of diabetes, sleep apnoea and obesity.

With respect to completing the paperwork necessary for the deceased to be admitted for psychiatric assessment, in agreement with Mr Ashley, it was noted by Mr Ashley that a major indicator for Mrs Ashley suffering a manic relapse of her BPAD was loss of sleep.

PLN McAleer handed over the documentation with respect to the deceased's admission for psychiatric assessment to the next PLN at 6.00 am on 3 February 2016. He was not involved in the deceased's observations overnight from a clinical perspective.

Physical examination in the ED indicated the deceased's respiration, cardiovascular system and gastrointestinal system were normal. Blood tests revealed a raised C reactive protein and white cell count (WCC). These results can be indicative of an infection.

[24] Ex 1, tab 15D

The deceased remained in the ED overnight following PLN McAleer's attempts to have her admitted to the Moojar ward, acute mental health ward for those under 65. As far as he understood the deceased was to remain in the ED until a bed on a suitable ward became available. The deceased was sedated in increments until 3.26 am 3 February 2016 as recorded on the medication charts.

The ED discharge summary indicated the deceased when awake would get out of bed and walk around which was the reason for her sedation in increments. She then appeared to settle and went to sleep.

There is no further medical or psychiatric information from ED and the nursing notes were not completed between midnight and 5.15 am on 3 February 2016. The medication charts follow her sedation, and the observation charts, properly read, indicate that at approximately 1.45 am the deceased's oxygen levels dropped to 93% on room air. The deceased was administered high flow oxygen at 8L per minute via a Hudson mask until her oxygen saturations improved to 99-100%. Following that the observation charts indicate 1-2 hourly observations were taken and supplementary oxygen was administered until 7.40 am, the last ED entry on the ED charts.

Further observations at 10.26 am and 12.03 pm were refused, when the deceased was awake. She did not require additional oxygen when awake.

Effectively the deceased was only monitored for her physical observations while asleep and presumably sedated to some extent. When awake she would not allow observations.

Due to the inability to complete clinical observations, visual observations were undertaken every 15 minutes and indicated that at approximately 8.00 am on 3 February 2016 the deceased fell on to the floor. She did not appear hurt. Visual observations continued until 12.40 pm.[25]

Dr Ismail's evidence was that the clinical observations taken for the deceased on 2-3 February 2016 in the ED had been incorrectly entered in the charts.[26] He was not ED DMO at that time. Due to those incorrect entries those reviewing the ED charts from admission on 2 February 2016 would gain a more favourable impression of the deceased's observations than had been the case.[27] Proper analysis of the figures showed the deceased needed medical intervention and should not have been cleared from the clinical perspective, without some understanding of her fluctuating oxygen levels.

[25] Ex 2, tab 2
[26] Ex 2, tab 2
[27] t 22.10.18, p27 - 33

The ED doctors did not believe the environment in the ED was suitable for the deceased's recovery. She attempted to get out of bed, was unsteady on her feet and was clearly agitated by her surroundings. When awake the deceased did not need assisted oxygen. She was considered best suited to a mental health unit which would be more restful for her aroused condition. There was still no bed available in Moojar and the ED PLN approached Dr Walsh, the locum consultant psychiatrist for the OAMHS (Banksia Ward) to admit the deceased.

BANKSIA WARD

In February 2016 Dr Gerard Walsh was a locum consultant psychiatrist in the OAMHS. He was advised of the need for the deceased to be provided with an appropriate bed at approximately 11.00 am 3 February 2016 by the ED clinical nurse specialist.[28] He was told the ED wished the deceased to be transferred to Banksia Ward, pending a bed becoming available for her in the more appropriate acute ward.

Dr Walsh understood the deceased had been admitted to the ED overnight with an acute relapse of long standing BPAD. Dr Walsh understood that to be on a background of stressors relating to moving house, poor sleep and overall stress. Dr Walsh was advised she had been administered various antipsychotic and sedating medications while in the ED in an

[28] t 24.10.18, p339

attempt to settle her. Dr Walsh understood the deceased to have a long history of treatment with antipsychotics and mood stabilisers and it was necessary she be appropriately assessed for the purposes of the *Mental Health Act 2014*.

Dr Walsh was under the impression the deceased was now more settled and it would be possible to manage her on Banksia Ward pending transfer to Moodjar. Dr Walsh understood the deceased was almost 65, consequently Banksia Ward would not be an inappropriate environment in which to treat her from her mental health perspective. He agreed to her transfer, but had not reviewed her.[29]

The deceased was taken up to Banksia Ward by the ED PLN at approximately 1.15 pm on 3 February 2016. PLN McAleer had gone off-shift at 6.00 am and the transferring PLN had not completed the assessment for the deceased. The hand-over did not recount the fact the deceased had experienced a desaturation while in the ED and had needed oxygen. Similarly there was no reference at hand-over to the fact the deceased had a slightly elevated WCC.

The ED PLN handed over to Nurses Singh and Domfeh as the two shift coordinators on duty at that time. RN Singh was the morning supervisor and RN Domfeh the afternoon supervisor. Technically that left RN Domfeh on her own, other than a student nurse who was only intermittently

[29] t 24.10.18, p340

available on the ward, and needed supervising by RN Domfeh. An agency nurse was due to came on duty at 3.00 pm. Meanwhile the morning shift assisted RN Domfeh while concluding their own shift duties.

On the deceased's admission to the Banksia Ward she was very unsettled, highly agitated, praying and refusing to allow anybody to touch her. This was a continuation of her behaviour in the ED when awake which had been the cause for concern. It had prevented a proper medical assessment while in the ED.

At approximately 1.30 pm Dr Anam the RMO for Banksia Ward attempted to physically assess the deceased. She was very unsettled and distressed and refused to let anyone touch her. Dr Anam and Dr Nezhad (psychiatric registrar) reviewed the deceased's ED notes.

Dr Nezhad, Dr Walsh's psychiatric registrar, had been unaware of the deceased's lowered oxygen saturations and need for additional oxygen overnight while sedated, and was not aware she had fallen during the morning when attempting to get out of bed. He was made aware of the deceased's raised WCC and understood there may be an underlying clinical issue with an infection which can exacerbate mental health issues.[30]

[30] t 22.10.18, p134, p155

Graduate Nurse (GN) Baptist was concerned about the deceased's behaviour due to her wrapping herself in a white sheet, praying to god that she must be pure, and not looking where she was going as she was pacing around the ward. She tripped a number of times and GN Baptist was concerned she was a falls risk. GN Baptist had not been included in the hand-over, rather he was watching over the deceased to try and ensure she did not come to harm whilst the shift coordinators were being given hand over.[31]

A room had not been allocated for the deceased and he was attempting to reassure and settle the deceased. As soon as the two shift coordinators returned to the ward they made a decision between themselves the deceased who was in room 9, should be placed in room 23, close to the nurses station, so it was easier to observe and ensure her safety.[32]

GN Baptist offered to try and escort the deceased to room 23 because she appeared to be responding to his attempts to protect her from herself. He managed to get her into room 23 sometime between 2 and 3.00 pm although in his view she was still behaving very oddly, wrapped in a white sheet, and when she was not on the floor praying was wandering around and bumping into things.[33]

[31] t 22.10.2018, p.63
[32] t 23.10.2018, p.215
[33] t 22.10.2018, p.79

On Dr Walsh being advised of the deceased's high WCC and observations in ED requested that further clinical history be obtained with respect to the deceased, while the DMO (Dr Anam) attempted to obtain clinical information with respect to the deceased.[34] Dr Walsh assessed the deceased's medication charts and noted the deceased had not received any form of medication since approximately 3.26 am. He therefore attempted to assess the deceased for the purposes of the *Mental Health Act 2014* at about 2.40 pm.

It was common ground with all the nurses present the deceased was refusing to engage with staff, and that Dr Anam had not been able to physically assess her. She would not allow any of the nurses to take vital observations, they had to rely on visual observations to ensure her safety.

Although the progress notes appeared to record clinical observations for the deceased upon her admission to the Banksia Ward it is clear these were taken from the earlier ED observations. RMO Dr Anam, documented that he was unable to perform a physical assessment of the deceased due to her presentation. In his initial plan he indicated the intention was to perform a physical examination of the deceased when it was possible to do so.

[34] Ex 1, tab 18

The concern with the clinicians was settling the deceased and reducing her level of agitation to enable her to be properly cared for.

The deceased was making statements along the lines of needing to sweat blood for Jesus, walking with her eyes closed and stumbling due to the sheets in which she was wrapped. She continued to refuse any physical examination.

Dr Walsh, Dr Anam and Dr Nezhad reviewed the deceased as best they could, but after attempting to persuade her to take oral medication it was decided it would be necessary to provide her with sedation. Dr Walsh chose Olanzapine as it had both antipsychotic and sedating properties.[35] He believed this would be best for the deceased. According to the medical records the deceased had been without sedation for over 11 hours and although she had been quite heavily sedated in the ED it was assessed that enough time had lapsed to make it appropriate she again be sedated.

It was apparent the deceased would not accept any medication and she was still highly aroused. Her behaviour was still extreme and the doctors decided it was necessary the deceased be committed on a Form 6 as an involuntary patient, to allow her to be medicated against her will. The Form 6 was signed at 3.00 pm.[36] The plan was for the

[35] Ex 1, tab 18
[36] Ex 1, tab 18D

deceased to be medicated by Olanzapine injection. This was to be intra-muscular (IM) and would be faster acting than oral Olanzapine, but would still need time to be effective.

The pharmacist for Banksia Ward was My Linh Nguyen. She had prior knowledge of the deceased from an earlier admission in October-November 2014.

On 3 February 2016 Ms Nguyen became aware of the deceased's admission to Banksia Ward and completed a medication history and management plan (MMP) specifically for the deceased. This was her normal practice with any new admission. She believed she completed it at 2.40 pm due to a notation on the plan. Ms Nguyen became aware of a discrepancy between the different sources of the deceased's medications. Ms Nguyen was told the deceased was too unsettled for her to be spoken to about her medications so Ms Nguyen gathered as much information as she could from the records available in the hospital. Ms Nguyen also called Mr Ashley in an attempt to clarify some of the information.[37]

Ms Nguyen discussed her concerns with Dr Nezhad while she was compiling a new MMP for the deceased and later with Dr Walsh. Dr Walsh and Ms Nguyen reviewed the deceased's MMP together and Dr Walsh ceased some of the prescribed medications while leaving others. Ms Nguyen discussed with Dr Walsh the deceased's obstructive sleep apnoea and the

[37] t 23.10.18, p272, 294

use of Olanzapine as a sedative, due to the fact it may cause or worsen respiratory depression for the deceased.

Dr Walsh assured Ms Nguyen he was aware of those concerns, but felt the clinical need for Olanzapine outweighed any risks, particularly taking into account she had been quite heavily sedated in the ED, apparently without ill effect. The deceased was not psychotropic naive and generally tolerated her medications well. Dr Walsh advised Ms Nguyen it was his understanding nursing staff understood the need to monitor patients for over sedation and/or respiratory compromise following sedation.[38]

Ms Nguyen's recall is that she approached RN Domfeh and discussed the need for monitoring the deceased for over sedation and respiratory compromise once she had been sedated. She was advised nursing staff understood the need for monitoring once patients were sedated. Ms Nguyen also annotated the deceased's medication chart with a note indicating that IM Olanzapine must not be administered with a parenteral benzodiazepine.[39]

Ms Nguyen was quite certain all of this occurred prior to the deceased being given IM Olanzapine. She made her entries post 4.00 pm when the deceased's medical file became available for her annotation. Dr Walsh recalled his

[38] t 24.10.18, p344
[39] Ex 1, tab 11, attachment C

interaction with Ms Nguyen,[40] although RN Domfeh did not recall the discussion.[41] Nevertheless, RN Domfeh said she understood patients needed to be monitored post sedation, but it needed to be done without distressing the patient. It was done by observing rather than clinical observations.[42] RN Domfeh understood it could cause respiratory compromise and that as a result following sedation with Olanzapine it was necessary to ensure the patient was actually breathing.

Once the order had been given for the deceased to receive an IM Olanzapine injection procedures were put in place to ensure it was done safely. Due to the deceased's agitated state and refusal to allow anyone to touch her it was necessary she be restrained physically to enable the injection to be given safely. It was intended to give the injection into her right buttock. RN Domfeh had to rely on the morning staff to assist her with the procedure because there were no afternoon staff.

The agency nurse Enrolled Mental Health Nurse (EMHN) Tetley was on the ward, but had not yet been provided with hand over. It was EMHN Tetley's evidence that when she initially attended the ward she assisted GN Baptist in directing the deceased to room 23 in an effort to contain her. EMHN Tetley noted the deceased to be very agitated and she

[40] t 24.10.18, p342
[41] t 23.10.18, 204
[42] t 23.10.18, p200

was clearly at risk of harming herself due to her behaviour. EMHN Tetley agreed with GN Baptist that there was a concern, *"she was a falls risk due to her walking around with a sheet over her face, bumping into things but refusing to allow anyone to touch her"*.[43]

EMHN Tetley noted Dr Nezhad was also concerned the deceased was a falls risk or would hurt herself because of her actions.[44]

It was decided between the nurses that RN Nina Mohammed would administer the injection to the deceased while RN Singh protected her head to ensure her airway was safe. RN Domfeh had control of her hands while GN Baptist secured her legs, in an attempt to ensure the injection was appropriately placed into a large muscle with as little movement as possible.[45] While EMHN Tetley had not noticed Dr Nezhad in the room it is clear he was near the deceased's head and supervising the procedure.[46]

EMHN Tetley was concerned at that type of injection being given in what she described as an old aged facility, but was not involved in the actual giving of the injection, although she was in the room. She recounted she thought the nurses behaved very professionally and the injection was certainly

[43] t 23.10.18, p229-230
[44] t 23.10.18, p230
[45] t 22.10.18, p101
[46] t 22.10.18, p118

given appropriately.[47] It was the evidence of EMHN Tetley the deceased stopped struggling moments before the injection was administered and became compliant due to her knowledge it would be pointless struggling further. EMHN Tetley did not believe the deceased was actually sedated, but rather that she settled quite quickly by becoming more compliant with what was happening.[48]

RN Mohammed reported no difficulty in properly placing the injection and agreed she had provided those sorts of injections before. She said she had prepared the IM injection herself, checking all the procedures with respect to the Form 6 with RN Domfeh, prior to making up the injection. She advised the deceased was lying on her left side facing the wall and that she injected her into her right buttock. Thereafter she left the room to dispose of the needle properly. It was by then the end of RN Mohammed's shift and she left, but checked the deceased was not suffering a problem with her sciatic nerve. She advised the Court there could be a difficulty with the injection if it was placed erroneously. She specifically looked through the window in the door to check for appropriate movement of the deceased's legs.[49]

Similarly RN Singh stated that following the IM injection she assisted RN Domfeh, because she was effectively on her own, by going out of the room to give EMHN Tetley a hand over.

[47] t 23.10.18, p234
[48] t 23.10.18, p235
[49] t 22.10.18, p104-108

She stated she had not understood any specific orders to have been given with respect to observations of the deceased, but indicated that following an IM injection of Olanzapine she would expect nurses to understand the deceased needed to be observed breathing and her respiratory rate noted every 15 to 30 minutes. She agreed that when the ED PLN had provided hand over to Banksia Ward they had not been provided with an instruction to continue the ED observations. After providing hand over to EMHN Tetley, RN Singh went off duty at 3.30 pm.[50] GN Baptist stated he also checked on the deceased with a visual observation before he left the ward at 3.30 pm. He said the door was closed, but he was able to observe the deceased breathing through the window.[51]

All nurses agreed the deceased settled considerably once she was on the bed for the injection and that following the injection she became more compliant with at least remaining on the bed. It was the common view she was generally compliant, but not unconscious.

It is common ground with all the nurses they did not receive instructions and did not understand, that clinical observations were to be conducted. In their view the deceased was too unsettled for that to be successful and the appropriate way to treat the deceased whilst she was in such

[50] t 22.10.18, p118
[51] t 22.10.18, p84

an agitated state was to ensure she was alive and breathing, until she became settled enough for them to perform clinical observations without causing her further distress.

RN Domfeh explained that following the IM injection for the deceased she understood EMHN Tetley was given a hand over by RN Singh, and she continued with her duties which were considerable. She believed she left the door to the deceased's room ajar so she was able to continue visual observation of the deceased from the nurses station where she had other duties to complete.

In addition between 3.10 and 3.30 pm RN Domfeh had cause to go into the deceased's room and took the opportunity to conduct visual observation on the deceased.

RN Domfeh said that part of her duties included ensuring the deceased's Form 6 was appropriately in her room for reference, and she also unpacked the deceased's clothes and placed them in the wardrobe which gave her an opportunity to closely observe the deceased. RN Domfeh was satisfied the deceased was still alive and settled although she was not convinced the deceased was asleep.

RN Domfeh explained those actions occurred between 3.10 and 3.30 pm when the morning shift nurses went off duty. Thereafter she and EMHN Tetley were on their own while still

needing to supervise the student nurse when she was on ward.

RN Domfeh did not recall the pharmacist attending the nurses station and talking to her about observations for the deceased, but is satisfied she understood the deceased needed to be observed and visual observations undertaken to ensure her safety while sedated. It was not unusual for the pharmacist to be on the ward, although it was unusual for her to write instructions which RN Domfeh believed normally would be provided by the doctor.

None of the nurses recalled Dr Nezhad giving an instruction for observations, however, the nurses understood they were required to undertake visual observations. If that is how they understood whatever was said, it would be routine for them to believe they were being given instructions about visual observations which they all understood.

The nurses on Banksia Ward in February 2016 did not use sedation scores, and Dr Walsh agreed he had not orally or in writing provided instructions about observations himself. He believed it would be understood.

Despite there being no specific direction registered by any of the nurses for clinical observations, RN Domfeh did visual observations on the deceased up until 3.30 pm and following that time EMHN Tetley undertook visual observations on the

deceased. She did not believe clinical observations would be possible until the deceased was far more settled.

EMHN Tetley's evidence was the door to the deceased's room was on occasion closed, although this did not prevent GN Baptist and RN Mohammed from observing the deceased was on her bed and moving. EMHN Tetley advised she went into the room at 3.35 pm, observed the deceased at 3.50 pm and physically went into the room at 4.05 pm to check on the deceased's breathing.

EMHN Tetley was concerned the deceased, at 3.50 pm, had moved from her side to her stomach and if there had been appropriate staff numbers would have arranged for her to be moved back onto her side. She did not know the deceased suffered sleep apnoea.

The evidence varied as to whether the door to the deceased's room was open or closed. There was evidence from EMHN Tetley she obtained the key at one point, and evidence the doors could accidently lock. All one can surmise from those differences is that a number of people were checking on the deceased between 3.15 and 4.05 pm on 3 February 2016 and were satisfied she was alive and breathing. Some went in and some looked through the window.

RN Domfeh advised that following 3.30 pm her duties were such that she did not continue with visual observations, however, relied on it to be done by EMHN Tetley.

EMHN Tetley's evidence is that at 4.05 pm she went into the deceased's room because she was unable to observe whether the deceased was breathing. She checked by placing her hand on the deceased's back to ensure there was a rise and fall. She was not concerned about the deceased's respiratory rate and stated the deceased was on her stomach with her face towards the wall on the pillows.

The evidence indicated the deceased was breathing, between 3.10 and 3.30 pm as a result of the observations of all the nurses. They did not report any concern with the deceased to Dr Nezhad when he checked before he went off duty at about 4.00 pm.[52] The evidence also indicated the deceased was breathing between 3.35 pm and 4.05 pm when EMHN Tetley physically checked on her. EMHN Tetley was satisfied the deceased was breathing earlier, and when she became concerned at 4.05 pm she physically checked by placing her hand on the deceased's back.

RN Domfeh, who had not been in to see the deceased after 3.30 pm, said she was keeping an eye on her from the nurses station and, at approximately 4.00 pm, RN Domfeh believed the deceased was asleep and that it would then be possible

[52] t 22.10.18, p172

to perform clinical observations which had not yet been taken. Prior to that time it was RN Domfeh's opinion the deceased was not asleep, which is why she did not give the instruction for clinical observations to be taken earlier.[53]

The student nurse (SN) who had been absent from the ward for the previous 90 minutes due to her need to speak with her supervisor, returned to the ward and asked if she could assist EMHN Tetley with the clinical observations. SN Rukundo had not been on the ward at the time the Olanzapine injection was provided.[54]

LOCATION OF THE DECEASED

Sometime between 4.15 pm and 4.20 pm EMHN Tetley and SN Rukundo entered the deceased's room with the monitoring trolley with the intention of performing the first set of clinical observations on the deceased. She was settled enough for that to be attempted without causing her further distress. The two nurses did not initially understand the deceased was unresponsive. Their intention was to take blood pressure, temperature, respirations and oxygen saturations.

EMHN Tetley described the deceased as being on her stomach with her face to the left, but into the pillows[55], while

[53] t 23.10.18, p217
[54] t 23.10.18, p258
[55] t 23.10.2018, p.243

SN Rukundo described the deceased as face down with her face nose first into the pillows.[56] SN Rukundo attempted to take the deceased's blood pressure, unsuccessfully, and EMHN Tetley attempted to take the deceased's temperature using a tympanic thermometer. SN Rukundo remembered the deceased's temperature as being 36.4^{0}C because it was the only measurement they were able to take before realising the deceased appeared to be cyanosed.

EMHN Tetley described moving the deceased's hair so she could access her airway effectively and realising her lips were turning blue.

EMHN Tetley went to collect RN Domfeh who came into the room, checked the deceased and immediately called a Code Blue (medical emergency). Practitioners from surrounding wards attended promptly and EMHN Tetley believed they had attempted to commence cardio pulmonary resuscitation (CPR).[57]

EMHN Tetley did not participate in the resuscitation attempt, but stood aside for the medical emergency team (MET) to work effectively. She started scribing resuscitation attempts.[58]

[56] t 23.10.2018, p.259
[57] t 23.10.2081, p.242
[58] t 23.10.2018, p.243

RESUSCITATION

The intensive care (IC) consultant on duty at the time the MET pager was activated was Dr Kiernan James Lennon.[59] He and a colleague had implemented the AKDMH IC Unit in 2011 and he had remained there since that time. Due to AKDMH being a small hospital it was possible for a highly qualified team of those with specialist advanced life skills to arrive at the scene of a medical emergency within minutes of the MET pagers being activated.

Dr Lennon advised the team comprised of himself, as the ICU consultant on duty, an ICU registrar, a consultant anaesthetist and registrar, a medical registrar and a senior ED nurse. In the event either of the consultants were delayed due to other patients their registrars could always attend immediately pending the consultants following as soon as was safe. He stated nurses in psychiatric wards would not be expected to be proficient in advanced life skills,[60] but the size of AKDMH meant proximity to those with skills would ensure they arrived very promptly.

It was not possible to be totally accurate as to timing but Dr Lennon believed his pager sounded at about 4.30 pm on 3 February 2016 and he made his way to Banksia Ward, with his registrar arriving slightly ahead of him. Dr Lennon noticed the deceased's lips to be very blue, which indicated

[59] Ex 1, tab 20; t 24.10.18, pp351-372
[60] t 24.10.18, p359

to him she was in cardiac arrest. She had been provided with oxygen. He also noted she had a very large build which was also a risk factor when considering the effective oxygenation of her system[61] and the ability to treat her.[62]

Dr Lennon immediately diagnosed a cardiac arrest, which he advised the court could be one of three types, and directed cardiac massage be implemented. He stated the deceased was in asystolic cardiac arrest which is the least likely to respond to intervention; even in ICU, a coronary care unit or cardiac catheter laboratory where everyone is trained to respond immediately with all the appropriate resources. The outcome is very poor and the likelihood of sustainable recovery even lower.[63]

The MET followed the standard life support algarithum for the Australian Resuscitation Council while Dr Lennon assessed whether there were any reversible causes for the cardiac arrest. They had achieved good oxygen delivery, without difficulty[64] and the deceased's venous blood gas results did not indicate a significant issue with the deceased's potassium levels,[65] but there was metabolic acidosis, a low blood sugar and no significant dehydration.[66] The deceased had a low haemoglobin, but there was no suggestion of

[61] t 24.10.18, p364
[62] t 24.10.18, p363, 367
[63] t 24.10.18, p360
[64] t 24.10.18, p361
[65] t 24.10.18, p368
[66] t 24.10.18, p369-371

internal bleeding, nor was that identified at post mortem examination.[67]

Dr Lennon could not diagnose anything which could be reversed or that he could do to make any difference to the outcome.[68] Based upon the history he had been given as to the cause for her arrest it could be hypoxic with gradually lowering oxygen levels, a thromboembolic event, a pulmonary embolus or myocardial infarction, but those diagnoses were a matter for the pathologist.

Due to the deceased's size venus access to assist in her management was hard; Dr Lennon agreed an existing cannula may have been dislodged, but he accessed the external jugular vein in her neck by inserting a large cannula.[69] Resuscitation was continued until all the practitioners present were satisfied it would not be possible to successfully revive the deceased and Dr Lennon called a halt to the resuscitation attempts at 5.02 pm.[70]

POST MORTEM EXAMINATION[71]

The post mortem examination of the deceased was undertaken on 5 February 2016 by Dr Vicki Kueppers, Forensic Pathologist, PathWest Laboratory of Medicine, WA.

[67] Ex 1, tab 6
[68] t 24.10.18, p362
[69] t 24.10.18, p363
[70] t 24.10.18, p365
[71] Ex 1, tab 6

Dr Kueppers outlined the post mortem examination showed evidence of medical treatment with resuscitation (CPR) attempts resulting in multiple rib fractures.

There was evidence of a vascular access catheter in the deceased's neck which Dr Kueppers confirmed was consistent with the process of resuscitation.[72] Dr Kueppers did not see any external evidence of anything she was concerned about with respect to the external surfaces of the deceased.

There was no evidence of significant underlying natural disease, despite the deceased's size and age. While the deceased had a history of mental health issues, Type II diabetes, high cholesterol, obstructive sleep apnoea and unexplained leg swelling not related to heart failure, these conditions appear to have been reasonably well controlled by way of medication.[73] There was no evidence of a thromboembolic event or pulmonary embolus.

Microscopy supported that examination in that the deceased's tissues showed only very mild scarring in the heart while fluid biochemistry indicated good blood sugar control.

[72] t 24.10.2018, p.320
[73] t 24.10.18, p319

Dr Kueppers saw no evidence of dehydration,[74] as confirmed by Dr Lennon, who advised the Court the deceased's blood gases taken at the time of resuscitation did not indicate she was seriously dehydrated or had a significant electrolyte imbalance for those electrolytes measured by the equipment at resuscitation.[75] Dr Lennon explained the venous blood gases were analysed at the point of resuscitation to help with management of potentially reversible causes of the cardiac arrest it was clear the deceased had suffered.[76]

There was also no evidence of a local site of infection, as reflected by the deceased's elevated WCC in the ED. This would suggest infection did not contribute to her death, but could have elevated her oxygen requirements as part of a physiological stressor.

Initially, Dr Kueppers' finding with respect to the death of the deceased had been that she was unable to determine a cause of death without further investigations.[77] Following those further investigations Dr Kueppers concluded there was not enough information for her to conclusively determine a cause of death for the deceased and it was described as unascertained.[78] In her letter to the Coroner[79] Dr Kueppers outlined a number of possibilities with respect to the death,

[74] t 24.10.2018, p.327
[75] t 24.10.2018, p.369-370
[76] t 24.10.2018, p.370
[77] Exhibit 1, tab 6B
[78] Exhibit 1, tab 6A
[79] Exhibit 1, tab 6C

but had not received further information from the experts later involved in reviewing the death of the deceased.

One of the areas of initial concern related to the deceased's sedation and her body habitus. The deceased was a large person with known obstructive sleep apnoea which put her at risk of sudden cardiac death, as did her significant psychiatric condition.[80]

Dr Kueppers did note post mortem lividity staining in a posterior distribution, but it is clear once discovered the deceased was placed on her back for resuscitation and would have remained on her back until post mortem examination which would explain that staining pattern. However, Dr Kueppers also noted patchy lividity staining on the face, most prominent on the left, which could relate to her position post mortem (on her back with face turned to the left), but is also consistent with EMHN Tetley's evidence the deceased was located face down, but turned to the left.[81]

Due to a lack of clarity as to the exact position of the deceased when first located unresponsive it was impossible to determine whether the deceased's positioning while asleep may have contributed to a difficulty with her breathing.[82] Dr Kueppers was unable to assist with a time of death in the narrow time frame between 3.10 pm and 4.30 pm on the

[80] t 23.10.2018, p.276
[81] t 24.10.18, p320-321
[82] t.24.10.2018, p.320

3 February 2016. None of the markers can be that precise in determining a time of death, and it was agreed the deceased was moved once discovered unresponsive to assist in the resuscitation process.[83]

In evidence, Dr Kueppers advised the Court the cause of death was still appropriately unascertained from a pathology perspective. However, she had an opportunity to review some of the expert witness reports and further information surrounding the circumstances of the deceased's death. As a result of all the additional information she favoured a mechanism of death of cardiac arrest, which could have arisen from a number of contributions to that mechanism.

Dr Kueppers considered all of the information she had available to her by the time of the inquest and stated she thought the most likely explanation for the mechanism of death for the deceased was a sudden disturbance in a normal beating rhythm of the heart, a fatal cardiac arrhythmia, and there were a number of potential contributors on the information that was available. Those included, possibly the deceased's position, possibly the presence of sedating drugs and the background history of obstructive sleep apnoea. Dr Kueppers said any or all of those factors may have contributed to the deceased's death by way of a fatal cardiac arrhythmia.[84]

[83] T 24.10.2018, p.321
[84] t 24.10.2018, p.328

In evidence, Dr Kueppers stated that on the whole of the evidence, and taking into account the expert evidence she was now aware of, she believed she would be in a position to propose a cause of death for the deceased of *"fatal cardiac arrhythmia in a lady with obstructed sleep apnoea and suffering an acute psychotic episode requiring sedation"*.[85]

Toxicology

The Office of the State Coroner (OSC) asked Professor David Joyce, Physician, Clinical Pharmacology and Toxicology (Professor Joyce) to review all of the information available with respect to the deceased in an attempt to clarify any contribution to the deceased's death from sedation and/or medication. Professor Joyce is both an academic researcher and active clinician in his areas of expertise and is responsible for caring for patients as a consultant physician in acute settings.

In his report,[86] elucidated by his evidence,[87] Professor Joyce outlined his analysis of the evidence available surrounding the time of the deceased's death. He noted that in the admission overnight on the 28 January 2016 the deceased had complained of chest pain, but had declined an ECG[88] which would have provided reliable information as to whether the deceased had a pre-disposition to arrhythmias, either

[85] t 24.10.2018, p.328
[86] Exhibit 1, tab 27
[87] t 23.10.2018, p.264-288
[88] t 22.10.2018, p.20

genetic or acquired, related to QT prolongation. Professor Joyce did, however, review earlier ECGs from the deceased's medical history and was satisfied she had no genetic pre-disposition and it was unlikely she had acquired one.

Professor Joyce noted the medication provided to the deceased on the late January admission and then her re-admission in the evening of 2 February 2016, apparently still presenting with a maniac episode with psychosis of BPAD. This indicated her current psychotic episode appeared to have been active for at least five days by the time she attended AKDMH on 2 February 2016. While the policies surrounding the admission of mental health patients, to either an emergency department or psychiatric unit, require there be a complete physical assessment it is not unusual for the medical assessment and investigations to be delayed depending on the level of agitation and arousal of the patient.

The deceased had prevented comprehensive medical investigations at the time of her admission when she was clearly in a very agitated state praying and wandering around with her eyes closed while wrapping herself in white sheets.

Professor Joyce noted the observation chart had been commenced in the ED and indicated the deceased had normal temperature and blood pressure, with an increased heart and respiratory rate overnight between 2 February 2016 and the morning of 3 February 2016. She had been

provided with sedation as a result of which she slept until 5.15 am, but there was recorded a drop of oxygen saturations overnight, for which she had been provided with additional oxygen. While in EDs patients are connected to constant monitoring of their vital signs.

Professor Joyce noted when awake the deceased declined to participate in further observations and a visual observation chart was used during a period of one on one nursing between 7.40 am and 12.40 pm on 3 February 2016 in the ED. The deceased on one occasion appeared to fall, with no evidence of any serious injury, however, there was concern as to her pacing and praying with her eyes closed which made her vulnerable to accidental events. Arrangements were made for the deceased to be placed in Banksia Ward while attempts were made for her to be placed in the acute adult psychiatric ward.

Once on Banksia Ward the evidence was the deceased continued to be very agitated and there were fears for her physical safety. The progress notes indicated that at 1.30 pm the deceased was lying on the floor faced down.

Professor Joyce noted that following her sedation overnight in the ED the deceased had received no additional medications until she was later confirmed as an involuntary patient at 3.00 pm in Banksia Ward and then provided with

the IM Olanzapine. The deceased had not received medication for approximately 11 hours at that point in time.

Professor Joyce understood that at the time of the IM Olanzapine being provided the deceased had been struggling, but became compliant reasonably quickly following that injection and then lay there calmly while on the bed in her room, until she apparently fell asleep.

Dr Joyce confirmed that while consideration of the deceased's medications in the ED could raise concerns with respect to her level of sedation and clinical issues (sleep apnoea, obesity, possible infection) as expressed by Pharmacist Nguyen, the actual levels of medication present in the deceased's system at the time of death did not raise the same level of concern.[89] Even review of the administration of sedative medications in the ED did not indicate unreasonable or extraordinary levels given her level of agitation and arousal when admitted. It was rather the deceased's clinical problems which had raised concerns with the pharmacist and instigated the need for close observation once provided with the IM Olanzapine.

The first post mortem toxicology did not record any Olanzapine in the deceased's system, but further specific targeting requested by Dr Kueppers and Professor Joyce detected Olanzapine in her system, at a level so low it needed

[89] t 23.10.2018, p.268

special targeting.[90] Professor Joyce agreed that patients with the deceased's clinical problems, in combination with her mental health presentation on 2 and 3 February 2016, warranted sedation in an effort to provide her with some relief, but also indicated she needed to be closely monitored to ensure interaction between sedation and her other risk factors, sleep apnoea and obesity, did not interfere with her respiration.

Professor Joyce looked at all of the relevant evidence relating to the deceased's known drug levels and post mortem toxicology and was confident the deceased's level of sedation would not have contributed to her death.[91] It was evident the Olanzapine had not contributed significantly to her apparent calming immediately post its administration, despite EMHN Tetley's view the deceased was heavily sedated. Professor Joyce believed the deceased's apparent response to the injection was rather a combination of her experiences to that point in time leading to a form of physiological exhaustion. The deceased's previous sleep deprivation, lack of food and adequate fluids, contributed to an excessive level of susceptibility.[92]

Professor Joyce outlined his reasons for reaching his conclusions and confirmed constant clinical monitoring by way of vital signs would have improved the ability to assess

[90] t 24.10.2018, p.327
[91] t 23.10.2018, p.272
[92] t 23.10.2018, p.270

whether the deceased's deterioration was acute, as a result of a sudden fatal arrhythmia, or had occurred as a result of a slow decline from respiratory depression. He confirmed mental health facilities were not appropriate facilities in which to continually observe those with clinical issues in conjunction with acute mental unwellness.

Similarly, it was dangerous to have patients with severe mental health problems attached to equipment whilst on a mental health ward which could not accommodate one on one observations for a prolonged period of time. Patients suffering an acute episode, such as the deceased, but also requiring intense clinical observation were best moved to an appropriate acute care facility.

Professor Joyce confirmed that even if appropriately monitored, in the event of sudden fatal cardiac arrhythmia he could not say death would have been prevented for the deceased. It would only allow more reliable evidence as to whether the deceased's death was an acute event or a more gradual deterioration. In Professor Joyce's opinion the overall evidence supported the conclusion a sudden acute event led to the deceased's death.

Prolonged QT Interval

Professor Joyce also examined all available ECGs for the deceased and was satisfied she did not have a genetic long QT interval, or, as far as he could tell from the evidence, one

induced by her need for psychotropic medications.[93] This was confirmed in the report of Dr Tan, an independent Cardiologist, who was asked to review the medical management of the deceased from a cardiac perspective.[94]

Dr Tan noted that while the deceased had risk factors for coronary atherosclerosis and it had not been possible to properly assess her on admission for her blood biochemistry due to her agitation, the clinical and post mortem evidence available did not support evidence of cardiac ischaemia. Dr Tan concluded there was nothing which provided evidence of acute QT prolongation for the deceased and there was no evidence which would support her medication caused her to develop QT interval prolongation and so contribute to her death at roughly 4.10 pm on 3 February 2016.

Sleep Apnoea

In addition to Professor Joyce the Court heard evidence from Dr Scott Claxton, a respiratory and sleep disorders physician. Dr Claxton outlined the evidence with respect to the deceased's sleep apnoea and was satisfied the deceased suffered from obstructed sleep apnoea for which she was prescribed a C-PAP machine. Mr Ashley confirmed in Court the deceased had a C-PAP machine, but it had not been taken to hospital with her on 2 February 2016.[95]

[93] t 23.10.2018, p.280
[94] Exhibit 1, tab 26
[95] t 23.10.18, p281

This introduced the possibility the deceased had suffered a prolonged period of respiratory deterioration leading to hypoventilation and respiratory arrest. Dr Claxton advised that patients suffering hypoventilation would appear to be breathing normally on visual observation[96] and the fact they were deteriorating would only be observable by use of oxygen saturation measurements. This involved physical contact with the patient. He agreed that in the state in which the deceased presented she would have been resistant to that form of intervention whilst conscious.

Dr Claxton outlined the deceased's level of sleep apnoea was severe in that she suffered severe obstructive sleep apnoea with evidence of 80 events of breathing disturbances over an hour, and subsequent drop in her oxygen levels during sleep.[97] Dr Claxton was satisfied the deceased appeared to have managed this well. The blood results he could observe did not have evidence of hypoventilation, measured by her bi-carbonate levels.[98] Dr Lennon confirmed the deceased's blood gases taken during resuscitation attempts by the MET post her collapse on the afternoon of 3 February 2016 did not reveal results which would support the deceased either being severely hypoxic, or dehydrated.

Dr Claxton was not of the opinion there was evidence of hypo ventilation, despite the deceased's sedation and known

[96] t 24.10.18, p390
[97] t 24.10.2018, p.388
[98] t 24.10.2018, p.389

obstructive sleep apnoea, however, he did clarify, obstructive sleep apnoea itself has been associated with sudden cardiac death, probably due to precipitating malignant arrhythmias. He considered that to be a possibility in the case of the deceased. He reported there is an increased frequency of sudden death in patients with obstructed sleep apnoea during sleep.[99]

Dr Claxton agreed the deceased's state of agitation was such she would not have been responsive to constant monitoring or C-PAP therapy. In his opinion the evidence with respect to the deceased indicated a malignant arrhythmia precipitated by obstructive sleep apnoea to be the most likely contributor to her sudden death. He confirmed patients who were heavily sedated, such as in the recovery bay of an operating theatre, would be monitored by machines which would reflect a sudden arrhythmia, however, he believed that was impractical in the circumstances of the deceased on the afternoon of 3 February 2016. He confirmed the appropriate place to deal with such situations, although not always successfully, would be in an ICU or high dependency unit (HDU) with anaesthetic nurses.[100] Even in those circumstances it is not always possible to reverse the effects of an arrhythmia, as confirmed by Dr Lennon.

[99] Exhibit 1, tab 28
[100] t 24.10.2018, p.395

This mechanism for the deceased's death corresponds with that proposed by Professor Joyce and Dr Kueppers.

FAMILY CONCERNS

Both prior to the inquest and during the evidence it was clear the deceased's husband, Mr Ashley, had serious concerns surrounding the evidence with respect to his wife's death.[101] While I understand his concerns there is no evidence the deceased's management on Banksia Ward directly contributed to her death.

There are matters relating to supervision and observations which will be covered later in this finding, but I need to comment specifically on the evidence which indicated the most likely explanation for the deceased's death was a sudden malignant cardiac arrhythmia.

I cannot find any evidence which would support the proposition the deceased died directly as a result of the IM injection of Olanzapine at 3.10 pm. The evidence does not support the deceased died at that time. Nor does the evidence support the proposition that had the deceased been attached to monitors or nursed as a one on one special the outcome of the likely malignant arrhythmia would have been any different, although it would have been responded to more rapidly.

[101] t 23.10.18, p288

I note the submissions on behalf of Mr Ashley focus on the supervision and observations, rather than Mr Ashley's initial concern his wife died directly as a result of the IM Olazapine.

CONCLUSION AS TO THE DEATH OF THE DECEASED

I am satisfied the deceased was a 64 year old woman who despite her medical issues with obesity, diabetes, and obstructive sleep apnoea, appears, from her post mortem examination, to have been relatively well from a clinical perspective. The serious issue for the deceased at the time of her death was her acute agitation and arousal as a result of her known mental health issues in the context of her known co-morbidities.

The evidence indicated the deceased had become unwell during the days preceding her admission on 2 February 2016. She was sleep deprived and not drinking or eating adequately, while stressed over her dissatisfaction with the outcome of their recent move and her perceived inability to make things neat and tidy. This had continued for a number of days and would have depleted her ability to compensate for ongoing stressors to her system.

I am satisfied when not acutely unwell the deceased was a highly functioning member of the community. This elevated the distress felt by her husband as the result of her tragic

death, while clinicians were attempting to settle her agitation on Banksia Ward on the afternoon of 3 February 2016.

On the evidence the decision to move the deceased to Banksia Ward, failing an appropriate bed on the adult acute ward, was made with the best of intentions with respect to the welfare of the deceased. The ED was not a suitable environment and while sedation, with additional oxygen, had provided her with relief by way of sleep, it had not lessened her level of anxiety and she needed a more therapeutic environment.

The deceased's placement was discussed with Dr Walsh during the morning of 3 February 2016 and he agreed to take over her care due to there being a bed available in Banksia Ward. In his view the nurses on Banksia Ward had the level of commitment necessary to care for the deceased. Dr Walsh was not made aware of the deceased's need for additional oxygen when sedated or her clinical presentation.[102]

The doctors on Banksia Ward were not made aware of the full ED picture until Dr Anam attempted to medically review the deceased on Banksia Ward. No one was aware of her low oxygen level while in the ED, requiring additional oxygen therapy. This is probably because of the difficulty with the accurate completion of the observation charts in ED.[103]

[102] t 24.10.2018, p.349
[103] T 22.10.2018, p.28

Nevertheless, I am satisfied that once the deceased was on Banksia Ward the nurses worked very hard to try and calm the deceased and keep her safe while the medical staff reviewed the information they now had and admitted her under the *Mental Health Act 2014*. This allowed the provision of the IM Olanzapine at 3.10 pm as an attempt to provide the deceased some relief from her distress. I accept the nurses on Banksia Ward did not understand the requirement for physical observation post IM Olanzapine, but did understand the need for close visual observations. Close physical observations were not practical or safe on Banksia Ward for someone with the deceased's presentation, and even with one on one nursing would not necessarily have prevented her death.

I am satisfied visual observations took place and that the deceased was still breathing at 4.05 pm on 3 February 2016.

Shortly after 4.00 pm RN Domfeh was satisfied the deceased was now asleep, something she had not been satisfied about earlier, and asked for the deceased's physical signs to be properly recorded. Something she did not believe, as shift coordinator, it had been possible to do safely, earlier. Even on commencing physical observations the two nurses involved did not immediately understand the deceased was unresponsive. On realising the deceased was unresponsive a medical emergency was called and the MET arrived and commenced aggressive resuscitation, unsuccessfully.

I am satisfied the MET's management of the attempted resuscitation was appropriate given the deceased's apparently recent demise and that if the deceased had been recoverable, it would have been achieved. The blood gases did not support a long period of decline, but did reflect serious metabolical acidosis.

There was no evidence to support the proposition the deceased had died at 3.10 pm when the IM Olanzapine was administered. Rather she died from an acute event sometime before the majority of the Olanzapine had entered her system.

I am satisfied the deceased died sometime after 4.05 pm on 3 February 2016 and could not be recovered despite aggressive resuscitation.

Manner and Cause of Death

I am satisfied the deceased was experiencing a prolonged period of extreme mental unwellness which depleted her physiological reserves. By the time she was in Banksia Ward her system was seriously stressed. She was provided with IM Olanzapine and appeared to settle despite there not having been enough time for the drug in her system to have become effective. She then fell asleep. Her post mortem toxicology does not indicate her death was drug related.

I am satisfied she experienced a sudden malignant arrhythmia due to all the circumstances, both clinical and psychiatric, surrounding her death and died. I am prepared to find, on the balance of probabilities, the deceased died following a sudden fatal arrhythmia on a background of her highly aroused state, body habitus, severe obstructive sleep apnoea and sleep deprivation. All her co-morbidities acted together to cause her death.

I am satisfied the deceased died as the result of a fatal cardiac arrhythmia in a lady with obstructed sleep apnoea, obesity and suffering an acute psychotic episode to the extent sedation was necessary in an attempt to reduce her level of agitation.

I find death occurred by way of natural causes.

SUPERVISION, TREATMENT AND CARE

The deceased's management in AKDMH was reviewed by Dr Adam Brett on behalf of the OSC. Dr Brett is a consultant psychiatrist who has worked in both the community, private and public mental health areas. Without a definite cause of death it was difficult for Dr Brett to pinpoint the exact contributions to the deceased's death, but he was able to say in general terms, there were difficulties with the current mental health system which made it almost impossible for mental health facilities to properly care for acutely unwell

mental health patients, with the deceased's additional clinical risk factors, not uncommon in those suffering acute mental health issues.[104]

Hand-over

The current Director of Mental Health Services at AKDMH, Monica Taylor, stated in evidence that the policies current at the time of the deceased's death made the ED's observation regime applicable on the other wards in the hospital, without specific change by a doctor. The clinical observations in the ED had been carried out at an appropriate rate of every 15 minutes. Ms Taylor indicated that should have been continued on Banksia Ward.

While I appreciate that apparently was the effect of the policies it is clear no one, including the doctors on Banksia Ward, understood that to be the case. It would also have been impossible in the deceased's agitated state once on Banksia Ward, without the appropriate level of staffing and monitoring equipment which was not available. It would have been unsafe and EMHN Tetley pointed out that she had removed objects from room 23, as part of her concern for the safety of the deceased.[105]

In addition, the hand over from the ED PLN to the two shift coordinators did not outline any clinical concerns for the

[104] Ex 1, tab 25; t 14.11.18, p452
[105] t 23.10.18, p245

deceased, possibly due to the incorrect recording in the ED charts as to the deceased's observations and desaturation while sedated.[106]

Ms Taylor's evidence was she believed policies were in place, or have now been put in place, which would ensure appropriate handover in 2018.[107]

Observations

While the deceased's clinical observations were not taken formally on Banksia Ward it is clear from the hand over it was understood by the shift co-ordinators they were satisfactory. There was no instruction for the nurses on Banksia Ward to continue that level of observation, nor the ability to do so in accordance with the policies described by Ms Taylor. Despite the lack of instruction I am satisfied the nurses on Banksia Ward did undertake visual observations of the deceased which involved assessing her respiration rate visually. There was no abnormality detected in her breathing prior to 4.05 pm, and at 4.05 pm EMHN Tetley physically assessed her breathing and was satisfied that despite being on her stomach, with her face towards the wall, she was breathing appropriately.[108]

[106] t 22.10.18, p32-42
[107] Ex 4
[108] t 23.10.18, p243

It is clear there is a need for the monitoring of patients with medically high risk factors when sedated and currently that can only be done on a ward with acute facilities.[109] While that is impracticable in most current mental health facilities it does support the need for special observation areas attached to EDs for highly aroused mental health patients as discussed by Dr Brett.

It would remove them from the agitation of an active emergency department and provide them with a more therapeutic environment necessary for their recovery, but with the availability of effective monitoring. In the case of the deceased it is unclear as to whether such close monitoring would have prevented her death. It would have ensured her very prompt resuscitation, if she was recoverable.

On the whole of the evidence the deceased needed to be in an acute clinical setting without the environmental stressors of an active ED. Something which was simply not available. Banksia Ward was a compromise, but done with the deceased's highly distressed state in mind, with no viable alternative.

This was a systems problem. The deceased was managed as well as those on Banksia Ward were in a position to manage her with the resources available to them. The issue was more

[109] t 23.201.2018, p.276

to do with the availability of appropriate resources by way of staff and monitors.[110]

However, the evidence of all the witnesses, including those completely independent from the facts of the case, could not conclude the lack of effective clinical hand over from ED and clinical monitoring of the deceased once on Banksia Ward, were responsible for her death or directly contributed to her death.

The sad reality is the deceased was at risk of sudden cardiac death regardless of the level of monitoring applied.

On the evidence of the independent experts I am satisfied it was more likely the death of the deceased was a sudden acute event, supported by the biochemical evidence at the time of the MET call, rather than a prolonged deterioration leading up to that point.

The deceased suffered a sudden fatal malignant arrhythmia and could not revived by the attending MET.

RECOMMENDATION

It is clear the death of the deceased had already instigated some changes in the AKDMH to do with appropriate hand over and clarification of the need for specific observations in

[110] t 23.10.18, p248-249

sedated patients with high risk factors.[111] It is not clear these would have prevented the deceased's death.

Both in this case and that of Debnam (Inquest 34/18) the deceased died in mental health facilities at times of acute unwellness related to their mental health issues. In both cases their levels of sedation, necessary to try and reduce their levels of arousal, were assessed not to be directly relevant to their deaths. Their levels of arousal, however, in conjunction with known clinically high risk factors, such as body habitus, diabetes and especially sleep apnoea, were considered relevant to the overall circumstances related to their deaths.

These patients are at risk of sudden cardiac death, as Professor Joyce said *"severe psychiatric illnesses, because they cause sudden arrhythmias, and undoubtedly there is some definable pathophysiology which leads to that, but we never get to know what it is because of course we can't study people"*.[112]

Highly aroused patients have to be treated, but the environment in a dedicated psychiatric facility is not protective of their clinical state, while an ED or acute setting is not therapeutic for their mental state.[113]

[111] Ex 4
[112] t 23.10.18, p0282
[113] t 23.10.18, p276

In the case of an acute fatal arrhythmia in response to everything that is occurring for a patient in this setting it is irrelevant, because the death was not preventable. But, where there are clinical indicators, or if the arrhythmia is not immediately fatal, then constant monitoring may prevent death. The tension for a patient who is highly aroused and may be at risk to themselves or others is the need to be heavily sedated for the risk to themselves or others to be minimised. For patients not understood to be at risk of sudden death, a more therapeutic environment is beneficial to their mental health.

These difficulties lead to the desirability of environments with good access to acute care, but not the level of activity seen in EDs, ICUs and HDUs. Dr Brett referred to mental health observation units which have been set up in two major hospitals as an ideal model for dealing with patients in the circumstances of the deceased and Mr Debnam.[114] For Mr Debnam constant monitoring may have been more likely to improve his outcome, where Dr Claxton believed his sleep apnoea could have caused hypoventilation.[115]

In both cases it is not clear this would have prevented the deaths, but it certainly would have ensured prompt aggressive resuscitation to give them the best chance for survival.

[114] t 14.11.18, p451, 452
[115] C J Debnam Inquest 34/18

I recommend the provision of mental health observation units attached to EDs, ICUs, HDUs in all hospitals which also have mental health facilities to allow appropriate transition of mental health patients, with high clinical risk factors for sudden death, from acute areas to general mental health facilities.

E F Vicker
Deputy State Coroner
22 May 2019