STATE CORONER'S COURT
OF NEW SOUTH WALES

Inquest:	Inquest into the death of Kevin O'Halloran
Hearing dates:	17-18 October, 6-7 December 2018
Date of findings:	12 February 2019
Place of findings:	NSW State Coroner's Court, Lidcombe
Findings of:	Magistrate Teresa O'Sullivan, Acting State Coroner
Catchwords:	CORONIAL LAW – death in mental health intensive care unit – effects of sedation – positional asphyxia
File numbers:	2015/121417
Representation:	Mr J Harris, Counsel Assisting, instructed by Ms K Hainsworth, Crown Solicitor's Office; Ms A Horvath instructed by Ms R Cooke of McCabe Curwood Solicitors, for Northern Sydney Local Health District; Ms K Doust, solicitor, NSW Nurses and Midwives Association, for Nurses Muchene, Partridge, Taylor and Xiang.

Findings:

The findings I make under section 81(1) of the *Coroners Act 2009* (NSW) are:

Identity
The person who died was Kevin O'Halloran.

Date of death
He died on 20 September 2014.

Place of death
He died in the Mental Health Intensive Care Unit, at Hornsby Ku-ring-gai Hospital, Hornsby NSW 2077.

Cause of death
He died from positional asphyxia, with sedation as an underlying risk factor.

Manner of death
Kevin O'Halloran received sedation during admission to Royal North Shore Hospital in the context of a psychotic episode. After transfer to Hornsby Ku-ring-gai Hospital MHICU, he was left unobserved by nursing staff for a period of an hour, during which time his death occurred.

Non-publication orders:

Pursuant to s.74 of *the Coroners Act 2009*, there is to be no publication of the CCTV footage contained in tab 38 of Exhibit 1.

Table of Contents

Introduction

1. Kevin O'Halloran suffered from schizophrenia, an illness with which he was first diagnosed in 1983. His illness was difficult to control, and it led to over 75 hospital admissions. On 19 September 2014, he was admitted to the Emergency Department at Royal North Shore Hospital. He was given significant amounts of sedation due to his highly agitated behaviour. He was transferred to Hornsby Ku-ring-gai Hospital the following day. After being assessed at Hornsby, he was transferred to a single room, and left there unobserved by nursing staff for a period of an hour, during which time his death occurred. The cause of his death was positional asphyxia, with sedation being an underlying risk factor.

The role of the coroner

2. An inquest is a public examination of the circumstances of death. Unlike other proceedings, the purpose of an inquest is not to blame or punish anyone for the death. Neither does the holding of an inquest itself suggest that any wrongdoing has occurred by any particular person.

3. The primary function of an inquest is to identify how and in what circumstances the death has occurred. Section 81 of *the Coroners Act 2009* requires the Coroner, at the conclusion of this inquest, to record in writing the fact that a person has died and also record:

    a. the person's identity;

    b. the date and place of the person's death; and

    c. the manner and cause of death.

4. Accordingly, the questions for this inquest to answer are: who died, where and when he died, and how and in what circumstances he died.

5. A secondary purpose of an inquest is to consider whether it is necessary or desirable to make recommendations in relation to any matter connected with the death. This will involve considering whether anything should or could be done to prevent a death in similar circumstances in the future.

Background

6. Kevin had received treatment for his illness over a number of years from the Lower North Shore Assertive Outreach Team. His case manager there from 2008 was Alex Roa, with whom he had a relatively good relationship.[1] He was under the care of psychiatrist, Dr Shankar, and she reviewed him on about a monthly basis.[2] They each gave a statement to this inquest. They reported that Kevin's mental condition was exacerbated when he took illicit drugs. His behaviour could sometimes become threatening and aggressive.

[1] Statement of Alex Roa, Tab 30 at [7]
[2] Statement of Dr Sumitra Shankar, Tab 31

7. During a hospital admission in November 2012 Kevin was commenced on the antipsychotic drug Clozapine and following this he experienced a period of relative mental stability.[3] He was required by the terms of a Community Treatment Order to receive that drug as directed and to engage with the Assertive Outreach Team.[4] That order was renewed most recently in April 2014.[5]

8. Due to Kevin's stable presentation over this time, he was only required to attend the clinic every other day. He would receive his medication for that night and would also receive a takeaway dose for the intervening night.[6]

9. From mid-2014 Kevin began to ask his treating team to change his medication.[7] The Clozapine was making Kevin tired and lethargic and there is some evidence that he was gaining weight and hypercholesterolaemia.[8] The treating team was cautious about his request. However, consistent with the need to allow people with mental health problems to participate in treating decisions to the extent possible, and desirous to keep Kevin engaged with their service, the team agreed to accede to Kevin's request. Accordingly, on 7 August 2014 Dr Shankar began to slowly reduce the dose of Clozapine from 500mg to 400mg nocte. At the same time, she commenced a different antipsychotic, Risperidone.[9]

10. Initially, Kevin's response was good. Kevin was said to be "overjoyed" at the change.[10] His presentation deteriorated at the end of August 2014, although this change seems to have been transient and was not unusual in the context of his history. At a further review on 11 September 2014, Dr Shankar and Mr Roa found Kevin to be progressing well, and so Dr Shankar further reduced Kevin's Clozapine to 350mg, intending to increase the Risperidone at the next review.[11]

11. The fact that Kevin appeared well at this time is supported by his father, David, who gave a statement to the inquest in which he describes seeing Kevin on about 9 September and also speaking to him a few days after that. There was nothing of concern about Kevin's presentation on either occasion.[12]

12. On 15 September 2014, Kevin presented to the clinic. He seemed irritable, and Mr Roa formed the impression that Kevin might be starting to experience a relapse of his condition.[13] Why he was relapsing is not clear. It is possible that the change in medication was responsible for this change. However, other possibilities exist. For example, it is not clear from the available evidence that Kevin was taking his takeaway doses as required. There is also the possibility that he may have been drinking or

[3] Statement of Dr Sumitra Shankar, Tab 31 at [13-15]
[4] Statement of Dr Sumitra Shankar, Tab 31 at [12]
[5] Statement of Dr Sumitra Shankar, Tab 31 at [22]; Community Treatment Order and Plan, tab 43
[6] Statement of Alex Roa, Tab 30 at [18]
[7] Statement of Alex Roa, Tab 30 at [10]; Statement of Dr Sumitra Shankar, Tab 31 at [17]
[8] Statement of Dr Sumitra Shankar, Tab 31 at [25]; Statement of Alex Roa, Tab 30 at [21]
[9] Statement of Dr Sumitra Shankar, Tab 31 at [30]
[10] Statement of Alex Roa, Tab 30 at [25]; MH Progress Note, 13 August 2014
[11] Statement of Dr Sumitra Shankar, Tab 31 at [45]
[12] Statement of David O'Halloran, Tab 32 at [5]
[13] Statement of Alex Roa, Tab 30 at [39]

using illicit drugs. The available evidence does not allow me to conclude which of these alternatives is more likely.

19 September 2018

13. On Friday 19 September 2014, Kevin presented at the clinic talking to himself and apparently responding to hallucinations. He abruptly left without taking his medication. Mr Roa attempted to locate him but could not. The plan was to see whether Kevin presented for his dose the following day, Saturday, and if not then more assertive follow up would be taken, which may have involved taking Kevin to hospital.[14]

14. Given the events that transpired later that evening, there is no criticism of that approach.

15. In the evening of 19 September 2014, Kevin attended the home of a friend, Paul Turnbridge. Mr Turnbridge recalls that Kevin was acting bizarrely and at some stage aggressively. Another person in the home became concerned and called 000.[15]

16. Police attended and found Kevin lying on the lounge and rambling incoherently.[16] They believed the home smelled of cannabis, and toxicology taken after Kevin's death shows that he ingested cannabis at some stage.[17] Mr Turnbridge denies that this was at his home. Police told Kevin he was required to leave, and Kevin then abruptly left the home, went downstairs, and lay down on a bench in the lobby.[18] Due to concerns that Kevin was mentally unwell, police called an ambulance. The ambulance officers determined that Kevin should be taken to hospital, and with police assistance Kevin was taken to Royal North Shore Hospital, where he was admitted just prior to 9pm.[19]

Admission to Royal North Shore Hospital

17. Kevin was triaged and allocated category 2, requiring an assessment within 10 minutes, due to his apparently disordered mental state. Dr Spelman, the Emergency Department Registrar, assessed Kevin promptly and reviewed his past medical notes from the community team. She noted Kevin's recent deterioration and also read that he had a history of intimidating and threatening behaviour. She perceived the need to ensure his safety and that of others and therefore prescribed some sedation.[20]

18. At 9.30pm she administered Diazepam (10mg) and Olanzapine (10mg), both orally. A further 10mg diazepam was given a few minutes later. However, these drugs were not having the desired effect. Kevin was still verbally abusive and intimidating. Dr Spelman therefore administered another sedative, Midazolam and also an antipsychotic, Haloperidol, both intravenously. Due to the significant sedative effects of those drugs,

[14] Statement of Alex Roa, Tab 30 at [45]
[15] Statement of Paul Turnbridge, Tab 33 at [6] – [7]
[16] Statement of Senior Constable Bradley Duke, Tab 10 at [7]-[8]; Statement of Sergeant Brendan Smith, Tab 10A, [8]-[9]
[17] Certificate of Analysis, Tab 6; Ibid
[18] Ibid
[19] Medical records from Royal North Shore Hospital, Tab 39
[20] Statement of Dr Michelle Spelman, Tab 29 at [14]

Kevin was moved to the resuscitation area and placed on oxygen and monitoring equipment first.[21]

19. During his time at Royal North Shore Hospital, Kevin's behaviour again became difficult to manage and he was given further doses of Midazolam and Haloperidol. Dr Spelman initially prescribed a maximum amount of 30mg Midazolam to be administered in 24 hours. Despite that, by the time of his discharge, Kevin had received a total of 75mg of Midazolam and 35mg of Haloperidol, over a 20-hour period. These drugs had a significant sedative effect, and the decision to administer them is an issue to which I will return.

20. Once Kevin was sedated, investigations were commenced. Dr Spelman had the impression that Kevin was suffering an acute psychotic episode, but she wanted to rule out other conditions. An ECG was performed, which was normal. Blood results were abnormal, showing a raised white cell count and creatinine kinase level, raised urea and creatinine.[22] These results may have suggested an infection, but chest x-ray and urine results showed no source of infection and there were no other clinical signs. Kevin also did not have a fever. Dr Spelman's impression was that the blood results were as a result of Kevin's stressed and agitated state. She also considered conditions related to the use of antipsychotic drugs, including neuroleptic malignant syndrome and serotonin syndrome.[23] However, Kevin did not have characteristic symptoms for these conditions. Due to an uncertain diagnosis, Kevin was kept in the resuscitation area overnight.

21. The next morning, 20 September 2014, Dr Spelman handed over to the oncoming team, Drs Gillett and Wood. They moved Kevin from the resuscitation bay to an acute bed and ordered an individual patient special nurse to monitor him. Kevin was again sedated with Midazolam while investigations continued. Antibiotics were also commenced in case Kevin did have an infection.[24]

22. The plan was to move Kevin to a more suitable environment to manage his psychiatric condition. Royal North Shore Hospital did not have a mental health intensive care unit ("MHICU"), and so Hornsby Ku-ring-gai Hospital MHICU was contacted. Initially, Hornsby did not agree to Kevin's transfer, because of his abnormal blood results, which appeared to show he had a medical condition that needed treatment.[25] Investigations were therefore continued, including further blood tests and a CT Brain scan.

23. There were a number of contacts between doctors from the two hospitals over the course of the morning. Ultimately, it was recognised that it was inappropriate for Kevin to remain in the Emergency Department, and if he was to be admitted to the Royal North Shore Hospital then he would have to be admitted to the Intensive Care Unit

[21] Statement of Dr Michelle Spelman, Tab 29 at [16] – [20]
[22] Medical records from Royal North Shore Hospital, Tab 39; Statement of Dr Michelle Spelman, Tab 29 at [30]
[23] Statement of Dr Michelle Spelman, Tab 29
[24] Statement of Dr Mark Gillett, Tab 24; Statement of Dr Elizabeth Wood, Tab 26
[25] Statement of Dr Mark Gillett, Tab 24 at [19]

rather than a general ward as he required one on one supervision and sedation.[26] This was not appropriate where he had an underlying psychiatric condition that needed treatment. His blood test results were improving, which suggested that those results were indeed related to Kevin's agitation, as Dr Spelman had surmised, and not to infection or any other condition. Doctors at Royal North Shore Hospital concluded that, but for his psychiatric condition, Kevin was medically fit for discharge.[27]

24. Matters came to a head at about 2.30pm, when Dr Elizabeth Wood arranged for the General Medical Consultant at Royal North Shore, Dr Kate Ahmad, to speak directly with the on-call Psychiatric Consultant at Hornsby, Dr Kevin Vaughan. Following that discussion, Dr Vaughan agreed to Kevin's transfer to Hornsby.[28] Dr Ahmad confirmed Kevin was medically fit for transfer. However, she also advised that there be repeat blood tests within 24 hours and a review by a physician if Kevin deteriorated from a medical perspective.[29]

25. In order to effect transfer to Hornsby, there was contact between the two treating teams. Dr Gopi Ilawala, Psychiatric Registrar at Hornsby MHICU, had been involved in a number of discussions already about Kevin. Dr Ilawala was aware that Kevin had received a significant amount of sedative medication. In the course of afternoon, Nurse Xiang at Hornsby spoke with Nurse Jewell at Royal North Shore Hospital. Among other things, she was advised about Kevin's abnormal blood results and his highly aroused state.

26. He was then taken by ambulance to Hornsby, with security staff and an individual patient special on board. He arrived at Hornsby at about 6.15pm.[30]

Admission to Hornsby Ku-ring-gai Hospital MHICU

27. On arrival, the nursing staff at Hornsby took Kevin's physical observations, which were broadly normal. At about 7pm, Dr Ilawala reviewed Kevin with Nurse Xiang (the nurse in charge at that time). Kevin was irritable and elated in mood.[31] Dr Ilawala contacted Dr Vaughan about treatment, and it was determined that, in light of the amount of sedation Kevin had already received, he would not be given the antipsychotic drug, Clopixol, which would ordinarily have occurred. Instead, Dr Ilawala charted Kevin's normal medications (Clozapine, Lorazepam, Olanzapine and Sodium Valproate) which he was subsequently given.[32] It seems Kevin was given 400mg Clozapine instead of the 350mg he was then prescribed, but this does not appear to be a significant matter.

28. Kevin was initially placed in room 1, but he was moved to Room 12 in POD 2. He was placed there because Nurse Xiang made an assessment that he was "care zone red", meaning he required particular attention, and because that room is nearest to the

[26] Statement of Dr Elizabeth Wood, Tab 26 at [37]
[27] Statement of Dr Elizabeth Wood, Tab 26 at [38]
[28] Statement of Dr Kevin Vaughn, Tab 21
[29] Statement of Dr Kate Ahmad, Tab 27
[30] Medical Records from Hornsby Hospital, Tab 41
[31] Statement of Dr Gopi Ilawala, Tab 16 at [4]
[32] Medical Records from Hornsby Hospital, Tab 41

nurses' station.[33] As he was on care level 2, he was required to be observed at least every 15 minutes.

29. There was then a handover with the oncoming nursing shift. There was a discussion about Kevin, his abnormal blood results and the reluctance to accept him at Hornsby MHICU. Nurse Partridge was the oncoming nurse in charge, and he allocated people to perform observations of the patients. He allocated himself care level 2 observations between 7.30pm and 8.59pm, and Nurse Taylor to do the period from 9pm onwards.

30. Those observations made by nursing staff are a significant matter in this inquest. The available records include a Mental Health Nursing Observation Chart.[34] That chart is intended to be completed contemporaneously, with observations every 15 minutes in the case of a level 2 patient. It is apparent from the evidence that this did not occur. That is an issue to which I will return.

31. Kevin did not remain in his room at this stage, but instead wandered around in the lounge area. At about 8pm, Nurses Xiang and Partridge directed Kevin back to his bedroom, but he refused and went to the lounge area.[35] Despite this, at 8pm and 8.15pm it was recorded on the observation chart that Kevin was still in his POD.

32. There was CCTV footage available to the inquest, over which a Non-Publication Order has been made. In summary, the footage shows the lounge area, nurses' station and Kevin's POD, and the footage commences at 8.19pm. At 8.19pm, Kevin can be seen on the CCTV sitting on a sofa with Nurse Muchene behind him. At about 8.21pm, Kevin can be seen slumping to the floor and falling onto his front. Nurses Muchene and Taylor can then be seen helping him up.

33. Despite the fact that Kevin had slumped to the floor, the nurses did not record any physical observations, call for a medical assessment or alert the Nurse in Charge.

34. Instead, Nurses Taylor and Muchene walked Kevin back to his room. Nurse Xiang was also present, and she opened the POD door. As shown on the CCTV footage, Nurses Taylor and Muchene placed Kevin's mattress on the floor, apparently concerned that he might fall out of bed and hurt himself. They rolled him onto his side and placed the covers over him. They then turned off the light and left the room, with Nurse Taylor checking again from the POD door at 8.24pm.

35. Kevin remained in his room from this point forward. The CCTV footage confirms that no nurse approached the POD again for over an hour. This was not in accordance with the intended observation regime.

Discovery of death

36. At 9.25pm Nurse Taylor entered Kevin's POD to perform an observation. The room was in darkness and he used a torch to check Kevin. He could not see Kevin breathing and he raised the alarm. Nurse Muchene entered the room next and the light was

[33] Statement of RN Jiajia Xiang, Tab 19 at [11]
[34] *Mental Health Nursing Observation Chart Level 1 & 2,* brief 2/39/373
[35] Statement of RN Jiajia Xiang, Tab 19 at [17]

turned on. At this point on the CCTV footage, Kevin can be seen lying prone, and slightly off the mattress. Nurse Xiang then entered the room and called the Clinical Emergency Response Team.

37. Dr Cooray and other staff with the CERT team attended promptly. Dr Cooray was the first to commence CPR at 9.31pm. Tragically, efforts to resuscitate Kevin failed, and he was declared deceased at 9.43pm

Cause of death

38. An autopsy conducted by Dr Kendall Bailey on 23 September 2014 did not ascertain the cause of death.[36] Toxicology results showed the presence of a number of prescribed drugs and cannabis.[37] Dr Bailey stated that over sedation causing apnoea could not be excluded as the cause of death, although she also posited other causes, including cardiac problems.[38]

39. An expert report was obtained from John Farrar, Consultant Forensic Pharmacologist, who also gave evidence to the inquest. He considered Kevin's toxicology results. Overall, he considered that the combination of clozapine, olanzapine, haloperidol, midazolam, and valproic acid would have produced significant sedation. Cannabis was not thought to be relevant to the cause of death.[39]

40. Mr Farrar noted that toxicology results showed a high level of Clozapine and a higher than expected level of Haloperidol. Part of the explanation for those results may have been due to post-mortem redistribution of the drugs.

41. In the case of Haloperidol, the higher than expected level might also be explained by the fact that the metabolisation of Midazolam is known to interfere with the metabolisation of Haloperidol; both of those drugs were administered to Mr O'Halloran at Royal North Shore Hospital.

42. Regarding Midazolam, if that drug had last been administered to Mr O'Halloran at Royal North Shore Hospital at about 3.23pm, some sedating effect would still have been expected at the time he was last observed some 5 hours later.

43. Mr Farrar also stated that, if Mr O'Halloran had not taken Clozapine in the community as prescribed, then his tolerance to that drug could have reduced, with the result that it would have caused a greater sedative effect when administered at Hornsby Hospital. However, if Mr O'Halloran had only missed a couple of doses and had continued to take the drug intermittently, that increased sedative effect would not have been significant.[40] That drug generally achieves peak sedative effect and peak blood levels within about 1.5 hours of administration.[41] That timing may be of significance, given that it was administered at about 7pm and Mr O'Halloran was observed to slump to the floor at about 8.21pm. However, given the uncertainty of the evidence about Mr

[36] Autopsy Report, Tab 5
[37] Certificate of Analysis, Tab 6
[38] Autopsy Report, Tab 5 at [3]
[39] Report of John Farrar, 31 October 2016 at [89], [91]
[40] John Farrar, oral evidence 6 December 2018
[41] Report of John Farrar, 31 October 2016 at [44]; oral evidence 6 December 2018

O'Halloran's compliance with that medication in the community, I am unable to make a clear finding on this issue.

44. In any event, Mr Farrar did not isolate any one of the drugs that were administered to Mr O'Halloran as being more sedating than another; rather, it was the combination of those drugs that caused significant sedation.[42] Furthermore, Mr Farrar did not consider that over sedation was a likely cause of death. Instead, he considered that positional asphyxia due to sedation was a possible cause of death.

45. An expert report was also obtained from Associate Professor Sally McCarthy, Senior Emergency Medicine Specialist at the Prince of Wales Hospital. A/Professor McCarthy gave a number of opinions regarding the treatment Mr O'Halloran received at Royal North Shore Hospital, to which I will return. In her opinion, over-sedation itself was not a likely cause of death.[43] After viewing the CCTV footage, she concluded that it appears Mr O'Halloran was lying prone when the first staff member found him non-responsive. Having viewed the footage, I agree. In her oral evidence, she explained that a patient lying prone, with his body weight on his chest, causes "chest splinting", which prevents inward and outward movement of the chest and leads to asphyxia. This is especially the case in a heavily sedated patient, although she also notes there may have been other mechanisms at play.[44]

46. On this basis of the evidence of both Mr Farrar and Associate Professor McCarthy, I find that the most likely cause of death was positional asphyxia, with sedation as an underlying risk factor.

The decision to administer intravenous Midazolam

47. Only one issue arose on the evidence regarding the adequacy of care provided to Mr O'Halloran at Royal North Shore Hospital. In Associate Professor McCarthy's view, the administration of IV Midazolam to Mr O'Halloran, both initially and its continued administration of that drug throughout his admission, was not appropriate.[45] She gave that opinion because intravenous use of that drug has been associated with cases of respiratory depression. She pointed out that a 2009 warning had been issued regarding this risk, and that this warning was repeated, albeit obliquely, in other relevant guidance existing at the time.[46] In general, this guidance cautioned against the use of IV midazolam and suggested a ceiling of 20mg per sedation event where it was used. Associate Professor McCarthy also considered that there should have been a review of the use of midazolam at some stage during 20 September 2014.

48. Associate Professor McCarthy's views were contentious. Each of the doctors principally involved in Mr O'Halloran's care were asked about the use of midazolam, namely: Dr Michelle Spelman, who first made a decision to administer midazolam on

[42] Report of John Farrar, 31 October 2016; oral evidence 6 December 2018
[43] Report of A/Prof McCarthy, 30 March 2018 at [97]
[44] A/Prof McCarthy, oral evidence 6 December 2018
[45] A/Prof McCarthy, report 30 March 2018, brief 1/35/228 at [45]
[46] *Safety Notice 022/09 – Safe use of Midazolam*, brief 3/57/870; *Behavioural Disturbance within Mental Health Facilities – Sedation Guidelines* GE2007_004, brief 3/45/652; *Mental Health for Emergency Departments: A Reference Guide 2009*, brief 2/36C/345.353

19 September 2014; Dr Elizabeth Wood, who continued to administer it during 20 September 2014; and Associate Professor Mark Gillett, the head of the Emergency Department at Royal North Shore Hospital, under whose overall care Mr O'Halloran came on 20 September 2014. Their evidence was broadly consistent. They each considered midazolam an appropriate drug, mainly for four reasons.

49. Firstly, it has a rapid onset rapid offset, meaning that it achieves sedation quickly and the effects wear off quickly. This was, in their view, desirable where a person presented with Acute Severe Behavioural Disturbance ("ASBD"), as was the case with Mr O'Halloran. Second, the advice they had received from their psychiatry team was that patients with ASBD should not be sedated with drugs that achieved a more long-term sedation, because it was desirable to allow patients to become alert periodically so that their mental state could be assessed. For these reasons, other similar drugs such as diazepam were undesirable, as the sedative effects would last many hours. Thirdly, midazolam was a drug that the doctors were each familiar with; in an emergency situation, it would be undesirable to use a drug with which they were not familiar. Fourthly, the possible side effect of respiratory depression was well-known to the team. As such, it was a side-effect that could be appropriately monitored and managed, given that Mr O'Halloran was being cared for in the resuscitation bay within a large, well-staffed Emergency Department in a tertiary hospital. The guidance referred to by Associate Professor McCarthy, they reasoned, was of more general application, intended for a variety of settings where such resources would not be available. As a consequence, IV midazolam is still used at Royal North Shore Hospital currently to sedate ASBD patients.

50. It was the view of the Royal North Shore doctors that another drug, droperidol, which has similar rapid onset to IV midazolam, was not available to them in 2014 due to warnings about its use. That drug had been subject of a "black box" warning from the Federal Drug Administration in the USA, issued in the early 2000s due to a perceived risk of cardiac problems. However, subsequent studies suggested that this risk was overstated, and as a result revised guidance, issued in 2015, recommended its use as a sedative.[47] That guidance also revised the position on the use of IV midazolam, and advised that it could be used as a sedative, albeit as a "third line" agent. However, the position in 2014, according to the doctors at Royal North Shore Hospital, was that droperidol was still not recommended.

51. Associate Professor McCarthy, in contrast, considered that droperidol was available as a viable alternative in 2014, and that due to the risks associated with midazolam it was not optimal to use that drug as intravenous sedation. In her experience, it was not a drug that was used commonly for ASBD patients. Associate Professor McCarthy considered that diazepam could also have been used in preference to midazolam, precisely because it had a longer lasting effect.[48]

[47] *GL2015-007 Management of patients with Acute Severe Behavioural Disturbance in Emergency Departments* brief 2/36B/f/345.142 part 5.1.1 and 345.140
[48] A/Prof McCarthy, oral evidence 6 December 2018

52. The opinions stated by Associate Professor Gillett and the other doctors at Royal North Shore Hospital and Associate Professor McCarthy were finely balanced. The appropriateness of using IV midazolam as a sedative for ASBD patients is an issue about which experienced and respected professionals appear to differ. The evidence available to the inquest does not permit me to determine that the use of that drug was inappropriate in Mr O'Halloran's case.

The care provided to Mr O'Halloran at Hornsby Ku-ring-gai Hospital MHICU

53. The care provided to Mr O'Halloran at Hornsby Ku-ring-gai Hospital MHICU was not optimal. It was understood prior to his transfer that he could present as a problematic patient, and there had been continuing discussions over the course of the day on 20 September 2014 regarding whether or not it was appropriate for him to be transferred. Dr Ilawala and Nurse Xiang were each involved in those discussions. Although by the time Mr O'Halloran arrived at the MHICU in the evening he was no longer considered to be a medical concern, the admitting staff at Hornsby knew that he previously had been a concern. They also appreciated that he had received a significant amount of sedation, and also that he had been allocated an Individual Patient Nurse Special at Royal North Shore Hospital. These matters informed the development of the treatment plan, which was to administer his regular medication (rather than Clopixol), to allocate him to care level 2 observations/care zone red, and to place him in a room that was close to the nurses' station. I find that this treatment plan was an appropriate one in the circumstances.

54. It appears to me likely that the other members of the nursing team would have become aware of the treatment plan in the course of their handover meeting at around 7pm that evening. Accordingly, the oncoming nurse in charge, Nurse Partridge, and Nurses Muchene and Taylor, were all aware of the requirements of the plan, including the need for observations to be performed every 15 minutes.

55. When Nurses Taylor, Muchene and Xiang observed Mr O'Halloran slump to the floor, none of them considered taking observations, alerting the Nurse in Charge or calling for a medical review.[49] Having reviewed the CCTV footage, the manner in which Mr O'Halloran falls to the floor does suggest that he is sedated, rather than merely "sleepy", as Nurse Xiang suggested in her evidence.[50] However, as the Nurse explained, some level of sedation was expected, and not an unusual occurrence in the MHICU at that time of day.

56. Associate Professor McCarthy's opinion was that a medical review should have been sought when Kevin slumped to the floor. In her view, it would also have been appropriate for Mr O'Halloran to be placed on continuous observations at that point. Nurse Partridge, after viewing the footage of Mr O'Halloran falling to the floor during the inquest, said he would have considered it significant, and expected to have been told about it. He would have completed an incident report and telephoned a psychiatric

[49] Taylor T18.10.18 at 102.19; Muchene T18.10.18 at 117.41-118.16; Xiang, oral evidence 6 December 2018
[50] See, e.g. Nurse Xiang, oral evidence 6 December 2018

registrar and sought a medical review.[51] Mark Joyce, the Director of Nursing, was also of the view that vital observations ought to have been performed. In my view, given that staff were already on notice about the amount of sedation Mr O'Halloran had received, when he slumped to the floor this called for action, it would have been appropriate for nursing staff to request a medical review at that point to determine whether his condition had deteriorated. At this time vital observations of Mr O'Halloran should also have been taken, which together with the medical review, would have informed any decision to change the level of observations being conducted on him.

57. As I have already stated, Nurses Taylor and Muchene then put Mr O'Halloran to bed. They had some awareness that he may be at risk, but the only action they took was to place his mattress on the floor and position him on his side. Associate Professor McCarthy considers that, due to his sedated state, he should have been placed in the coma position.[52] This would have prevented him from falling onto his front, as appears to have occurred. I agree that it would have been appropriate for nursing staff to do so. However, this was not something they were specifically trained to do at the time.

58. As I have already described, the required 15-minute observations were not performed after this point. It emerged in the course of the evidence that, in 2014, staff at Hornsby MHICU had developed a practice where observations would be performed by a nurse for a period of time, but not noted down until the end of that period, when the nurse returned to the nurses' station.[53] Sometimes this would involve making multiple observations of multiple patients, and then returning to record those observations over an hour after they had occurred. It was pointed out, and I accept, that this practice involves a risk that errors in recording will occur. There is also a risk that observations will not actually be performed at all, because the staff member is not prompted to both perform observations and record them contemporaneously.

59. Part of the reason for the adoption of this method was that, as at 2014, the observation chart was placed on a clip board. Staff did not want to take the clip board onto the ward because it could be used as a weapon. [54] As a consequence, observations were not recorded at the time they were performed, as was required by the policy guidance then in force.[55]

60. Furthermore, the CCTV footage demonstrates that, not only were observations not recorded contemporaneously, but no observations were made at all between about 8.24pm and the discovery of Mr O'Halloran's death over an hour later.[56] During that time at least 4 observations should have been made.

61. There is no CCTV available prior to 8.19pm, so it is not possible to confirm the accuracy of the observation chart prior to that point. The CCTV footage shows that the

[51] Nurse Partridge, T17.10.18 at 64-65
[52] Expert report of Dr Sally McCarthy, Tab 35 at [91]
[53] See, e.g. Nurse Partridge T17.10.18 at 57.6-58.40; Nurse Taylor T18.10.18 at 98.12-99.10
[54] See, e.g. Nurse Partridge T17.10.18 at 57.16; Nurse Taylor T18.10.18 at 98.23
[55] See NSLHD Procedure PR2008_043 *Nursing Observation / Patient Acuity Levels – Mental Health / Drug & Alcohol*, brief 3/52/803 at 4.3
[56] *Mental Health Nursing Observation Chart Level 1 & 2,* brief 2/39/373

entry made by Nurse Xiang at 8.30pm, recording that Mr O'Halloran was in the lounge, is incorrect. The following entry, by Nurse Partridge at 8.45pm, recording that Mr O'Halloran was "sitting on cube", is also incorrect, as is the next, by Nurse Taylor, recording that Mr O'Halloran was "asleep, heard him snoring".[57]

62. The explanation given by staff members as to how these entries were made was broadly consistent and I accept that it is accurate. They told the inquest that, following Mr O'Halloran's death, Nurses Partridge, Xiang and Taylor assembled at the nurses' station and completed the Observation chart.[58] They each maintained that the observations they recorded reflected their best recollection of events that occurred, but accepted that the timings they recorded were not accurate.

63. That was not an appropriate way to record those observations. However, on the available evidence I do not find that there was an effort to deliberately falsify the observation chart, for the purposes of making it appear that Mr O'Halloran was observed during periods when he was not. Instead, on the evidence, I accept that the staff were making a genuine effort to record accurate entries in retrospect, after the tragic death of Mr O'Halloran had been discovered.

64. It is clear on the evidence that no observations were made at all of Mr O'Halloran for about an hour prior to the discovery of his death. Up until 9pm, the responsibility for those observations fell upon Nurse Partridge, and after that point on Nurse Taylor, who had each been rostered to perform those observations during the handover meeting. Nurse Partridge stated in evidence that Nurse Xiang had performed those observations. Nurse partridge said that staff members would on occasion request others to assist and do the observations allocated to them, although when pressed he could not recall a conversation with Nurse Xiang to that effect, or taking any action to ensure those observations were being performed by Nurse Xiang.[59] Nurse Xiang did not recall being requested to perform any of those observations, but accepted that she performed some observations, as she later recorded in the observation chart.[60] Ultimately, it was Nurse Partridge's responsibility, as the Nurse in Charge, to ensure that the observations were performed. I find that Nurse Partridge and Nurse Taylor failed to act in accordance with their responsibilities to make observations of Mr O'Halloran's condition during those times. I also find that Nurses Partidge, Taylor and Xiang did not accurately record their observations at the time they were performed. Those actions, while reflecting the practice that had been adopted within Hornsby MHICU at the time, do not in my view represent adequate nursing care.

65. Had observations been made every 15 minutes, as per the plan, it is likely that the deterioration in Mr O'Halloran's condition would have been appreciated sooner. While it is not possible to make a finding that his death would thereby have been avoided, it is

[57] *Mental Health Nursing Observation Chart Level 1 & 2,* brief 2/39/373
[58] Nurse Partridge T17.10.18 at 61.24ff; Nurse Taylor T18.10.18 at 105.7ff; Nurse Xiang, oral evidence 6 December 2018
[59] Nurse Partridge T17.10.18 at 59.18ff
[60] Nurse Xiang, oral evidence 6 December 2018

clear to me that the failure to make those observations represents a missed opportunity.

Consideration of recommendations

66. Section 82 of *the Coroners Act 2009* confers on a coroner the power to make recommendations that he or she may consider necessary or desirable in relation to any matter connected with the death with which the inquest is concerned. It is essential that a coroner keeps in mind the limited nature of the evidence that is presented and focuses on the specific lessons that may be learnt from the particular death.

67. In this case, the most compelling area for recommendations would be the system of observation of patients in mental health units. However, since the time of Mr O'Halloran's death, significant changes have been brought in to the observation regime.

68. In July 2017, a new Policy Directive was issued by NSW Health regarding observation in mental health units.[61] This required Local Health Districts to implement new local procedures including new observation charts in alignment with the terms of the Policy Directive. The aim of the new policy was to improve patient care and safety, by recognizing the importance of observation and engagement of patients as a critical and continuous aspect of nursing care. The emphasis of the new policy is on engagement of patients, and reliance on "tick box" forms and superficial observation is discouraged.[62]

69. Mark Joyce, the Director of Nursing, Mental Health Drug and Alcohol, Northern Sydney Local Health District ("the NSLHD") gave evidence to the inquest regarding the implementation of this policy within the NSLHD. A new LHD policy and new forms have been introduced, backed up with training for senior staff who then in turn train other staff. The new observation charts are no longer pre-filled with time intervals, to encourage actual times of observations to be entered. Those charts also require more detailed information about the patient's behaviour, activities and mental state to be recorded. The entries are audited, both on an ongoing basis by the Nurse Unit Manager, and also periodically, although a random audit is only performed once per year. In addition, the handwritten observations are entered again into the electronic medical record.

70. Mr Joyce was not aware that nursing staff in 2014 would complete blocks of observations in retrospect, nor that the observation chart was not taken onto the ward at Hornsby Ku-ring-gai Hospital MHICU. This is surprising, as all staff gave a consistent account that this was common practice. However, Nurse Partridge stated that, shortly after Mr O'Halloran's death, the observation chart was placed in a folder that could be taken onto the wards, and accordingly this is no longer an issue.

71. Mr Joyce also told the inquest that further training has been provided to MHICU nursing staff in basic life support. This now comprises annual practical training and an online

[61] *PD2017_025 Engagement and Observation in Mental Health Inpatient Units,* brief 2/36B/b/345.54
[62] Ibid, at 2.2, 3.1-3.7.

theory component. This training includes providing care to patients who appear sedated, and the need to place such patients in the "coma" or recovery position.

72. One potential downside of the new engagement and observation regime is that it places a much greater administrative burden on nursing staff than the previous one. For example, in addition to burden of completing more lengthy entries, it is also currently necessary for nursing staff to manually copy those entries onto the electronic record.[63] Whether this new system translates into greater engagement with patients and an improvement in patient care will need to be assessed in the long term. However, it is clear that the current policy represents an improvement over the previous one. And, in circumstances where those changes are still in the process of being rolled out across the NSLHD and NSW Health, I have concluded that it is not necessary or desirable to make any recommendations on this issue.

Findings

73. The findings I make under section 81(1) of *the Coroners Act 2009 (NSW)* are:

Identity

The person who died was Kevin O'Halloran.

Date of death

He died on 20 September 2014.

Place of death

He died in the Mental Health Intensive Care Unit, at Hornsby Ku-ring-gai Hospital, Hornsby NSW 2077.

Cause of death

He died from positional asphyxia, with sedation as an underlying risk factor.

Manner of death

Kevin O'Halloran received sedation during admission to Royal North Shore Hospital in the context of a psychotic episode. After transfer to Hornsby Ku-ring-gai Hospital MHICU, he was left unobserved by nursing staff for a period of an hour, during which time his death occurred.

Conclusion

74. Kevin O'Halloran's untimely death was tragic. Mr O'Halloran presented a highly complex, difficult patient to manage, and on the whole his treatment both at Royal North Shore Hospital and at the Hornsby MHICU cannot be faulted. However, there were clear errors made in his care while at Hornsby MHICU, following the time he

[63] Mark Joyce, oral evidence 7 December 2018

slumped to the floor, that resulted in him not being re-assessed and not being observed for a significant period of time. While it is not possible for me to determine whether the observations would have prevented Mr O'Halloran's death, the failure to perform those observations represents a missed opportunity to appreciate the deterioration in Mr O'Halloran's condition.

75. Kevin's father, David, gave the inquest a moving insight his son's condition, which had resulted in lifelong problems for Mr O'Halloran and his family. The dignity and compassion David showed throughout his attendance at the inquest is a credit to Kevin O'Halloran's memory. I offer my sincere condolences to David and to his family for their loss.

76. I close this inquest.

Magistrate Teresa O'Sullivan
Acting State Coroner
NSW State Coroner's Court
Lidcombe, NSW

12 February 2019