IN THE CORONERS COURT

OF VICTORIA

AT MELBOURNE

Court Reference: COR 2014 3714

FINDING INTO DEATH WITHOUT INQUEST

Form 38 Rule 60(2)

*Section 67 of the **Coroners Act 2008***

I, AUDREY JAMIESON, Coroner having investigated the death of CLAIRE MARGUERITE MARTIN

without holding an inquest:

find that the identity of the deceased was CLAIRE MARGUERITE MARTIN

born 21 April 1986

and the death occurred between 20 and 22 July 2014

at Room 2, 30 Langford Street, Moe Victoria 3825

from:

1 (a) METHADONE TOXICITY

Pursuant to section 67(1) of the **Coroners Act 2008**, I make findings with respect to **the following circumstances**:

1. Claire Marguerite Martin was 28 years of age at the time of her death. Ms Martin grew up in the Latrobe Valley region; she was unemployed and lived at a female-only boarding house in Moe. Her medical history included depression, self-harm and suicidal ideation; she had

previously suffered from anorexia nervosa. Ms Martin was known to have used heroin, cannabis and amphetamines. She had a valid permit for methadone maintenance management.

2. At approximately 8.30am on 22 July 2014, Ms Martin was located in her room by two boarding house co-residents. They had become concerned after Ms Martin had not answered her door the previous evening, and had used a spare key to enter the premises. Ms Martin was lying on her bed, under the blankets, and appeared to have vomited. She was not moving. Emergency services were contacted and an ambulance arrived shortly afterwards. After assessing Ms Martin and failing to find signs of life, ambulance paramedics declared her to be deceased. Police were also in attendance.

INVESTIGATIONS

Forensic pathology investigation

3. Dr Malcolm Dodd, Senior Forensic Pathologist at the Victorian Institute of Forensic Medicine performed a full post mortem examination upon the body of Ms Martin and referred to the Victoria Police Report of Death, Form 83. At autopsy, Dr Dodd observed scars on Ms Martin's left forearm, in keeping with past episodes of self-inflicted trauma.

4. Toxicological analysis of post mortem blood detected methadone and its metabolite EDDP at levels of approximately 0.4mg/L and 0.1mg/L respectively.[1] Dr Dodd noted that blood concentrations of methadone in patients receiving daily maintenance doses of methadone overlap considerably with the blood concentrations in people who have apparently died from methadone toxicity, and it is difficult to distinguish between them. The toxicology report also identified diazepam and its metabolite nordiazepam,[2] and olanzapine[3] in Ms Martin's post mortem blood. Dr Dodd noted that there is an additive Central Nervous System (CNS) depressant effect with concurrent use of methadone and alcohol, barbiturates, neuromuscular blockers, phenothiazines, tranquilisers and other CNS depressant drugs, resulting in exaggerated respiratory depression and sedation. Dr Dodd ascribed the cause of Ms Martin's death to methadone toxicity.

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[1] Methadone is a synthetic narcotic analgesic. It is used for the treatment of opioid dependency or for the treatment of severe pain. Persons prescribed methadone as a pharmacotherapy for drug addiction must have a permit issued from the Drugs and Poison Regulation Group at the Victorian Department of Health and Human Services.

[2] Diazepam is a sedative/hypnotic drug of the benzodiazepines class. Its active metabolite is nordiazepam.

[3] Olanzapine indicated for the treatment of schizophrenia and related psychoses. It can also be used for mood stabilisation and as an anti-manic drug.

Police investigation

5. Upon attending the Moe premises after Ms Martin's death, Victoria Police did not identify any signs of third party involvement. Medications were found in Ms Martin's room, including diazepam and apo-olanzapine, alongside a prescription for methadone. Police also found documentation indicating Ms Martin had recently obtained money from Centrelink and was searching for her own residence nearby.

6. Detective Senior Constable Benjamin Hodson, the nominated coroner's investigator,[4] conducted an investigation of the circumstances surrounding Ms Martin's death, at my direction, including the preparation of the coronial brief. The coronial brief contained, *inter alia*, statements made by Ms Martin's mother Vicki Martin, father Darrell Martin, four co-residents at the boarding house, addiction medicine doctor at the First Step Program in St Kilda, Dr John Gunzburg and pharmacist at the Chemist Discount Centre in Moe, Rania Hanoun.

7. In the course of the investigation, police learned that Ms Martin had an extensive history of mental illness, which dated back to a diagnosis of anorexia nervosa at the age of 12 in 1999. Throughout her adolescence, Ms Martin was frequently admitted to hospitals including the Flynn Ward at Latrobe Regional Hospital, Monash Medical Centre and the Royal Children's Hospital. Ms Martin once told her father she was a victim of sexual assault while at one of the hospitals. The coronial brief also contained an unsigned statement made by Ms Martin, in which she detailed being sexual assaulted by a stranger in September 2008.

8. Vicki Martin reported that her daughter self-harmed on numerous occasions. The police summary to the coronial brief indicated that Ms Martin reported being stabbed in November 2008, but a police investigation concluded that this injury was self-inflicted. After entering an abusive relationship, Ms Martin became involved in illicit drugs and prostitution, and moved to St Kilda in around February 2011. During this period, she maintained regular contact with her parents and appeared to have overcome her eating disorder.

9. Dr John Gunzburg reported that he first saw Ms Martin on 6 August 2012, when she sought help for polysubstance dependence, including heroin, morphine, speed, 'ice' and cannabis. Ms

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[4] A coroner's investigator is a police officer nominated by the Chief Commissioner of Police or any other person nominated by the coroner to assist the coroner with his/her investigation into a reportable death. The coroner's investigator takes instructions direction from a coroner and carries out the role subject to the direction of a corner.

Martin was already engaged in a methadone program, which she transferred to Dr Gunzburg. She had a long psychiatric history, including depression and anxiety. Dr Gunzburg referred her to counselling, and she attended regular sessions between September 2012 and March 2014. He observed that Ms Martin began to express more positive feelings about her life. While she continued to regularly use her methadone and infrequently used illicit drugs, overall, Ms Martin's progress appeared to be one of positive improvement.

10. Vicki Martin reported that her daughter returned to the Latrobe Valley in February 2014, with a desire to get away from prostitution. In May 2014, Ms Martin obtained a residence at a women's boarding house in Langford Street, Moe. Mr Martin reported that his daughter appeared very happy and settled during this period. On 30 June 2014, Mr Martin received a text message from his daughter, saying she loved him. He later spoke to Ms Martin; she was looking to move out of the boarding house and into a separate home. Vicki Martin spoke to her daughter on the telephone on 7 or 8 July 2014 and noted that she sounded happy. In light of their most recent interactions, she did not believe her Ms Martin's death was deliberate.

11. On Tuesday 15 July 2014, Ms Martin attended an appointment with Dr Gunzburg in St Kilda. Dr Gunzburg reported that Ms Martin said she felt well physically and had ceased working in the sex industry. She was depressed and suffering financial stress, but was not suicidal – an HONOS Score for mental health showed 13 out of 48, which Dr Gunzburg said indicated a low risk of suicide.[5] At the appointment, Ms Martin said she had last used heroin in September 2013, Endone 5mg in July 2014, cannabis in July 2014, and amphetamines in January 2013. Ms Martin advised that she had taken some illegal olanzapine the previous evening. She had last taken mirtazapine in March 2014, and diazepam in April 2014. Dr Gunzburg encouraged Ms Martin to resume olanzapine and diazepam.

12. On 16 July 2014, Ms Martin asked Dr Gunzburg to place her back on the methadone program. She had last taken 60mg methadone on 12 March 2014. He prescribed a dose of methadone 40mg commencing on 16 July 2014, dosing daily with no takeaway doses. Dr Gunzburg arranged to review Ms Martin in one week's time. He noted that she appeared to be positive about her future at this last consultation.

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[5] HONOS connotes 'Health of the Nation Outcome Scales' and involves 12 simple scales on which service users with severe mental illness are rated by clinical staff. Each of the 12 scales is scored out of 4, with 0 being no problem, and 4 being a severe to very severe problem.

13. A co-resident observed Ms Martin throwing up on 16 July 2014, and believed it was her first day back on the methadone. The co-resident noted that she was pretty quiet for the rest of the week.

14. Pharmacist Rania Hanoun reported that Ms Martin was last dispensed methadone at 11.10am on Sunday 20 July 2014, at the Chemist Discount Centre in Moe. An attendance report indicated she was dispensed 40mg methadone on 16, 17 and 18 July 2014, and 50mg on 19 and 20 July 2014. After visiting the pharmacy, Ms Martin purchased some groceries at Woolworths in Moe, before returning to her room at approximately 2.00pm on 20 July 2014.

15. A co-resident knocked on Ms Martin's door at 6.00pm on Monday 21 July 2014, but received no answer.

Further investigations

16. Following the receipt of the coronial brief, I directed that a further statement be sought from Dr Gunzburg to address the recommencement of Ms Martin on methadone. I sought to ascertain the gap between Ms Martin stopping methadone and recommencing on 16 July 2014. I asked that Dr Gunzburg confirm his dosing regimen for Ms Martin and the rationale behind the incremental increases from 40mgs for three days, to 50mgs for three days, and then 60mgs of methadone.

17. By way of statement dated 13 April 2015, Dr Gunzburg confirmed that before the recommencement, Ms Martin's last dose of methadone was 60mg on 12 March 2014. He added that the safest starting dose of methadone, advised by the guidelines, is 40mg daily. Dr Gunzburg noted that often this dose is not enough to curb a patient's cravings. He wanted to increase Ms Martin's dose, as safely and rapidly as possible, from 40mg daily to her previous dose of 60mg daily, by increasing her dose by 10mg every three days.

Coroners Prevention Unit investigation

18. Upon review of the additional material, I referred this matter to the Coroner's Prevention Unit[6] (CPU) to review the circumstances of Ms Martin's death. In particular, I sought to know

[6] The Coroners Prevention Unit (CPU) was established in 2008 to strengthen the prevention role of the coroner. The unit assists the coroner with research in matters related to public health and safety and in relation to the formulation of prevention recommendations, as well as assisting in monitoring and evaluating the effectiveness of the recommendations. The CPU comprises a team with training in medicine, nursing, law, public health and the social sciences.

whether the four month break from methadone substantially put Ms Martin at risk of death from toxicity, and whether Dr Gunzburg's 'recommencement' regime was consistent with accepted guidelines.

Ms Martin's Methadone Maintenance Therapy

19. The review noted that Dr Gunzburg commenced Ms Martin on methadone maintenance therapy (MMT) for opioid dependence on 7 August 2012. His initial scripts were for 35mg methadone daily rising to 65mg daily, and by January 2013 she was taking 95mg daily methadone. Detailed notes by Dr Gunzburg and other clinicians at the First Step Program clinic showed that she attended quite regularly through 2013. Her methadone dose was varied over time, between approximately 80mg daily and 20mg daily, in response to her changing presentation and drug use.

20. On 13 March 2014 Dr Gunzburg recorded in his progress notes that Ms Martin attended the clinic and: *'[...] wants to come off methadone; fairly wild and 'high'; encouraged to reduce by 5mg daily but wants to jump off; told would only keep prescribing daily pickups of Valium.'* After this date, Ms Martin did not attend the clinic until 15 July 2014. The review noted that there was nothing in the coronial brief about health treatment she might have been receiving between 13 March 2014 and 15 July 2014, but based on statements of other residents at the Moe women's boarding house, she was probably not engaged in MMT during this period. One co-resident stated – *'she told me she used to live in St Kilda and she was on the methadone program but when she moved down here [to Moe] she had gone off the methadone cold turkey and that she wanted to get back on it...'*

21. The review also identified that Dr Gunzburg's progress notes for the appointment on 15 July 2014, contain details not mentioned in his subsequent statement, including that Ms Martin was experiencing benzodiazepine withdrawal and bipolar affective disorder.

Deaths in Victoria involving an overdose of methadone

22. The review noted there were 610 Victorian deaths involving a methadone overdose in the period from 2000 to 2013. In 431 of these deaths, it was possible to identify the source of the contributing methadone. Among those 431 deaths, the methadone source was dispensed to the deceased for MMT in 267 cases. These 267 deaths included 131 where the deceased had been engaged (or re-engaged) in MMT for less than a year. The review established that in 58 of

these 131 deaths, the evidence indicated the deceased had commenced or re-commenced MMT within seven days of their death.

Literature on risk of overdose in commencing Methadone Maintenance Therapy

23. The review noted that the possibility that opioid addicted patients commencing MMT might be at increased risk of fatal methadone overdose, was first raised in a 1990 case series review of 10 Victorian deaths that occurred within seven days of commencing MMT.[7] In a subsequent, more detailed analysis of the case series, the authors put forward several explanations for why such a risk might exist:

- Methadone's residence time in the body is very long, and it accumulates over time in the body with daily dosing until a steady state is reached. This accumulation phase might increase the risk of toxic effects developing before the patient develops tolerance to the methadone.

- The respiratory depressant effect of methadone (its main toxic effect) can last for up to 48 hours after a single dose, but its analgesic effect (the effect that the patient 'feels') lasts for only around four to six hours; a patient may therefore report that the effect of methadone wears off too quickly, causing the doctor to increase the dose and thus boosting respiratory depression.

- People commencing MMT may be involved in current unstable opioid use, increasing the risk of combined drug toxicity.

- Clinicians often assume that a person who reports using large amounts of opioids must have greater opioid tolerance and therefore requires a higher starting dose of methadone to control opioid cravings in MMT; however assessment of tolerance is generally very subjective, as is any attempt to infer methadone tolerance from (for example) reported heroin tolerance.

[7] Drummer OH, Syrjanen M, Opeskin K, Cordner S, "Deaths of heroin addicts starting on a methadone maintenance program", *The Lancet*, 13 January 1990, p.108.

- Liver disease in patients commencing methadone can reduce methadone metabolism and clearance from the body, leading to greater accumulation in the first days of treatment.[8]

24. The risk of fatal methadone overdoses during MMT commencement has subsequently been documented in a range of studies, including:

    - A 2000 study of deaths among MMT patients in New South Wales, found that the most common cause of death was drug-related, and 42% of drug-related deaths occurred in the first week of MMT. The authors concluded that the first seven days after commencing MMT are particularly high risk.[9]

    - A 2006 literature review was conducted in combination with an analysis of Ontario methadone deaths. The authors noted the evidence regarding the risk of methadone overdose soon after commencement, and explained that the accumulation of methadone in the body combined with large variability in how fast people can metabolise it means that overdoses can occur at unpredictable times. They recommended an initial dose of no higher than 30mg daily methadone, and that doses should not be escalated by more than 20mg per week in high risk patients.[10]

    - A 2009 study linked data between New South Wales MMT clients and the National Deaths Index, and found that mortality among MMT clients was significantly higher in the first weeks after commencing treatment.[11]

    - A 2015 case control study of opioid-related mortality among MMT clients in Ontario, found that there was increased risk of mortality during initiation into the MMT program.[12]

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[8] Drummer OH, Opeskin K, Syrjanen M, Cordner S, "Methadone toxicity causing death in ten subjects starting on a methadone maintenance program", *The American Journal of Forensic Medicine and Pathology*, 13(4), 1992, pp.346-350.

[9] Zador D, Sunjic S, "Deaths in methadone maintenance treatment in New South Wales, Australia 1990-1995", *Addiction*, 95(1), 2000, pp.77-84.

[10] Srivastava A, Kahan M, "Methadone Induction Doses: Are Our Current Practices Safe?", *Journal of Addictive Diseases*, 25(3), 2006, pp.5-13.

[11] Degenhardt L, Randall D, Hall W, Law M, Butler T, Burns L, "Mortality among clients of a state-wide opioid pharmacotherapy program over 20 years: Risk factors and lives saved", *Drug and Alcohol Dependence*, 105, 2009, pp.9-15.

State and national guidelines and policies

25. The review noted that the 2006 Victorian Department of Human Services'[13] *Policy for Maintenance Pharmacotherapy for Opioid Dependence* was designed to be used by Victorian clinicians providing MMT and other opioid pharmacotherapies in conjunction with the 2003 National Clinical Guidelines. In the 2006 Policy it was noted that:

    - 'The highest risk of drug overdose occurs during commencement of treatment with methadone when ingested methadone is equilibrating with tissue reservoirs and accumulating in the body. During this time the patient's lifestyle and drug taking may still be chaotic. Blood levels during this period may not be sufficient to prevent craving, or may reach toxic levels if the clinical judgment about neuroadaptation is incorrect. The patient may continue using illicit opioids or high doses of prescription drugs to self-manage symptoms.'[14]

26. Recommended countermeasures to reduce this risk included assessing the patient's risk of "unsanctioned drug use" and frequently reviewing the patient during the first ten days of treatment, and particularly the first three days. Another recommendation was: *'Maintain good communication with the patient's dosing point, particularly about the recognition and management of pharmacotherapy toxicity while the patient is being stabilised.'*[15]

27. In 2013 the Victorian Department of Health updated the 2006 Victorian Policy, producing the 2013 *Policy for Maintenance Pharmacotherapy for Opioid Dependence*. The 2013 version of the Policy included alerts and recommendations regarding overdose risk in MMT initiation that were practically identical to those in the 2006 Policy.[16]

28. In 2003 the Australian Government Department of Health and Ageing produced the *Clinical Guidelines and Procedures for the Use of Methadone in the Maintenance Treatment of Opioid Dependence*, which set out the clinical context for MMT delivery in all Australian

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[12] Leece P, Cavacuiti C, Macdonald E, Gomes T, Kahan M, et al, "Predictors of Opioid-Related Death During Methadone Therapy", *Journal of Substance Abuse Treatment*, 57, 2015, pp.30-35.

[13] I note that this department is now known as the Department of Health and Human Services.

[14] Drugs and Poisons Regulation Group, Victorian Department of Human Services, *Policy for Maintenance Pharmacotherapy for Opioid Dependence*, 2006, p.12.

[15] Drugs and Poisons Regulation Group, Victorian Department of Human Services, *Policy for Maintenance Pharmacotherapy for Opioid Dependence*, 2006, p.12.

[16] See Drugs and Poisons Regulation, Victorian Department of Health, *Policy for Maintenance Pharmacotherapy for Opioid Dependence*, 2013, p.10.

jurisdictions. The Clinical Guidelines 2003 included a large section on induction into treatment, which commenced with warnings regarding the risk of death during induction. Considerations in determining a commencement dose were: history of opioid use; discussion of patient with any other treating practitioners to corroborate elements of patient history; initial observation of the patient three or four hours after first dose, for signs of toxicity or opioid withdrawal; time since last opioid use; whether the patient is using benzodiazepines or alcohol.[17] There was also a recommendation to "exercise extreme caution if an initial dose of methadone exceeding 40mg is considered necessary".

29. The Clinical Guidelines 2003 provided direction on how MMT dosing should be monitored in the first week after commencement. It was recommended that the patient should be reviewed at least once (and preferably twice) by an experienced clinician to assess methadone intoxication, and dose increases should only be considered subject to prescriber assessment. Other recommendations in safely achieving a stable dose (titrating the dose so the patient does not oscillate between intoxication and opioid withdrawal) were:

- Do not increase the methadone dose for at least the first 3 days of treatment unless there are clear signs of withdrawal at the time of peak effect (i.e 3-4 hours after dose) as the patient will experience increasing effects from the methadone each day.
- Consider dose increments of 5-10mg every 3 days subject to assessment.
- Total weekly increase should not exceed 20mg.
- The maximum dose at the end of the first week should typically be no more than 40mg.[18]

30. In 2014 the Commonwealth Department of Health released its updated National Guidelines for Medication-Assisted Treatment of Opioid Dependence, replacing the Clinical Guidelines 2003. These included a significantly expanded section on induction into MMT, which included the following recommendations for patients who are being treated in the community with

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[17] See Henry-Edwards S, Gowing L, White J, Ali R, Bell J, et al, *Clinical Guidelines and Procedures for the Use of Methadone in the Maintenance Treatment of Opioid Dependence*, Canberra: Australian Government Department of Health and Ageing, August 2003, p.14.

[18] Henry-Edwards S, Gowing L, White J, Ali R, Bell J, et al, *Clinical Guidelines and Procedures for the Use of Methadone in the Maintenance Treatment of Opioid Dependence*, Canberra: Australian Government Department of Health and Ageing, August 2003, p.15.

methadone for unsanctioned opioid use (the patient group that most closely matches Ms Martin):

- All doses of methadone should be supervised, where possible, and a clinician (doctor, nurse, pharmacist) should review the patient daily during the first week of treatment, corresponding to the greatest risk period for methadone-related overdose. The review provides an opportunity to assess intoxication (e.g. sedation, constricted pupils) or withdrawal symptoms, side effects, other substance use and the patient's general well-being.

- Commence with 20 to 30mg daily. Lower doses (e.g. 20mg or less) are suited to those with low or uncertain levels of opioid dependence, with high risk polydrug use (alcohol, benzodiazepines) or with severe other medical complications. Higher doses (30-40mg) should be considered with caution if clinically indicated, at the discretion of the prescriber. Consultation with a specialist is recommended before commencing patients at doses greater than 40mg because of the risk of overdose.

- Dose increases should be made following review of the patient and should reflect side effects, features of withdrawal (suggesting not enough methadone) or intoxication (suggesting too much methadone or other drug use), ongoing cravings and substance use.

- Dose increments of 5 to 10mg every three to five days will result in most patients being on doses of between 30 and 50mg by the end of the first week, and 40 to 60mg by the end of the second week.[19]

31. The recommendations for dose adjustment after commencement are:

- Adjust doses by 5 to 10mg at a time, as needed, with at least three days between each dose adjustment.

- Methadone in doses of 60mg/day or greater is more effective than lower doses in terms of retention in treatment, reduction in unsanctioned opioid use and associated high risk behaviours.

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[19] Gowing L, Ali R, Dunlop A, Farrell M, Lintzeris N, Clinical Guidelines and Procedures for the Use of Methadone in the Maintenance Treatment of Opioid Dependence, Canberra: Australian Government Department of Health and Ageing, August 2003, p.15.

- Most patients require methadone doses in the range 60-120mg/day to achieve stabilisation and this should be regarded as an appropriate range for maintenance doses.[20]

Conclusions of the CPU review

32. The review concluded that the circumstances in which Ms Martin died are consistent with the MMT initiation-related deaths described in the extant literature. Specifically, Ms Martin attended Chemist Discount Centre Moe for daily supervised doses on five consecutive days after re-commencing MMT, then died from methadone overdose with no evidence she obtained methadone from any other source, suggesting that the prescribed methadone may have accumulated to toxic levels in her body over time.

33. Several elements of the methadone prescribing to Ms Martin were consistent with the 2013 Victorian policy and 2014 National Clinical Guidelines:

    - Dr Gunzburg commenced her on 40mg daily, a level which was permissible under the National Clinical Guidelines.
    - The dose increment of 10mg in three days was permissible under the National Clinical Guidelines.
    - Dosing was all supervised, requiring Ms Martin to present at the Chemist Discount Centre Moe each day.

34. However, the review did note some inconsistencies, in particular:

    - Dr Gunzburg stated that 40mg daily is "the safest starting dose of methadone" in the guidelines. However, 40mg daily is considered a high starting dose in both the 2003 and 2014 National Clinical Guidelines. Further to this point, Dr Gunzburg wrote in his progress notes that Ms Martin was experiencing benzodiazepine withdrawal, which potentially was a sign of high-risk polydrug use, which would suggest a lower starting dose (20mg or 30mg daily) was more appropriate according to the National Clinical Guidelines.

[20] Gowing L, Ali R, Dunlop A, Farrell M, Lintzeris N, Clinical Guidelines and Procedures for the Use of Methadone in the Maintenance Treatment of Opioid Dependence, Canberra: Australian Government Department of Health and Ageing, August 2003, p.29.

Additional statement from Pharmacist Rania Hanoun

35. Following the CPU's investigation, I noted that the National Clinical Guidelines recommend that a clinician (which may be a doctor or pharmacist) should review the patient daily during the first week of treatment. In addition, both the National Clinical Guidelines and the Victorian policy require that any increase to methadone dose only occurs after careful review. I requested that a statement be sought from pharmacist Rania Hanoun at Chemist Discount Centre Moe, to determine if she performed a review of Ms Martin before dispensing the methadone to her and subsequently each day thereafter. In particular, I sought to understand what review was conducted on 19 July 2014 before following Dr Gunzburg's script directions to increase the daily dose from 40mg daily to 50mg daily.

36. By way of email dated 10 November 2016, Ms Hanoun stated that she accessed records and identified that Ms Martin commenced methadone at the Chemist Discount Centre Moe on 16 July 2014, on 40mg supervised daily dosing with no takeaways. Ms Hanoun did not recall any special instructions given by Dr Gunzburg or anything specific about Ms Martin, as she only attended the pharmacy for five days and there were other pharmacists providing doses over these days.

37. Ms Hanoun stated that the pharmacy follows guidelines when supplying opioid replacement therapy, following regulations including but not limited to Department of Health and Human Services' policy for opioid replacement therapy, Victorian Pharmacy Authority guidelines and the Pharmacy Board of Australia code of conduct. When a new patient is started on the program, the pharmacist on duty contacts the prescriber to confirm the dose and other prescription details. Ms Hanoun said that the pharmacists do their clinical check before supplying daily doses to all patients, to rule out any possible intoxication. During these checks, they look for common signs of intoxication or toxicity, which are slurred speech, unsteady gait, drowsiness, pupil constriction and shallow breathing. They also engage the patients in conversation to confirm no noticeable signs of intoxication. Ms Hanoun wrote that if any signs of intoxication or toxicity are present, the pharmacist on duty will contact the prescriber immediately for instructions before dosing. Instructions may include asking the patient to return later in the day, referring the patient to their prescriber directly, or sending the patient to hospital. Each patient is also observed taking their dose, to reduce the risk of potential dose diversion.

38. Ms Hanoun confirmed that Ms Martin underwent the review process, which involved confirming the prescribed dose with Dr Gunzburg. Ms Martin was subject to a clinical check to detect potential intoxication or toxicity and this review was conducted by the pharmacist on duty on all five days she attended. According to Ms Hanoun, there were no signs of concern observed at each of these five daily doses.

COMMENTS

Pursuant to section 67(3) of the Coroners Act 2008, I make the following comment connected with the death:

1. Given the passage of time since Ms Martin's death, some aspects of her recommencement of methadone from 16 July 2014, including the nature of reviews by the pharmacists at Chemist Discount Centre Moe, cannot be ascertained with certainty. The investigation has identified that several elements of Dr John Gunzburg's prescribing of methadone were consistent with the 2013 Victorian policy and 2014 National Clinical Guidelines. In particular, the commencement on a dose of 40mg daily, the dose increment of 10mg after three days, and the supervision of each dose at the Chemist Discount Centre Moe were consistent with guidelines. However, I do note that 40mg of methadone daily is considered a high starting dose in both the 2003 and 2014 National Clinical Guidelines. In addition, given there was some suggestion in the progress notes that Ms Martin was experiencing benzodiazepine withdrawal on 15 July 2014 – potentially a sign of high-risk polydrug use – there may have been an indication for a lower starting dose (20mg or 30mg daily) according to the National Clinical Guidelines.

2. Ms Martin's death provides a stark reminder of the perils of treating opioid dependence, and the importance of clinicians being vigilant in treating affected patients. Deaths involving methadone have arisen all too frequently in the coronial jurisdiction. On 4 April 2016, I delivered the Finding following the investigation into the death of Frank Frood, who died from bronchopneumonia on a background of methadone and benzodiazepine use.[21] In that Finding, I emphasised the importance of the role of relevant authorities in providing adequate and explicit guidance to clinicians on best clinical practice. Ms Martin's death has also highlighted the importance of both state and national guidelines, and the need for related education for – and vigilance by - clinicians.

[21] COR 2014 4080

FINDINGS

The investigation has identified that the risk of fatal methadone overdose following the recent commencement or recommencement of methadone maintenance therapy has been widely documented.

I acknowledge that Ms Martin had a history of mental ill-health, including depression, self-harm and suicidal ideation. However, in the circumstances, where Ms Martin was apparently positive in the months prior to her death and making plans for the future, in conjunction with a lack of evidence that Ms Martin obtained methadone illegally, I find that her death was the unintentional, unexpected consequence of recently recommencing methadone maintenance therapy.

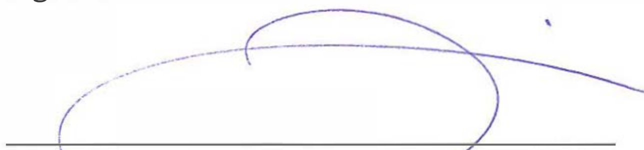
I accept and adopt the medical cause of death as identified by Dr Malcolm Dodd and find that Claire Marguerite Martin died from methadone toxicity.

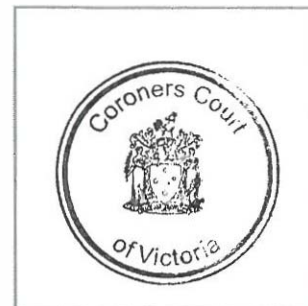
Pursuant to section 73(1A) of the *Coroners Act 2008,* I order that this Finding be published on the internet.

I direct that a copy of this finding be provided to the following:

Mr Darrell Martin and Mrs Vicki Martin
Dr Simon Fraser, Latrobe Regional Hospital
Dr John Gunzburg
Ms Rania Hanoun, Chemist Discount Centre Moe
Chief Psychiatrist of Victoria
Ms Kym Peake, Secretary of the Department of Health and Human Services
Detective Senior Constable Benjamin Hodson

Signature:





AUDREY JAMIESON
CORONER

Date: 22 November 2016