IN THE CORONERS COURT

OF VICTORIA

AT MELBOURNE

Court Reference: COR 2019 0145

FINDING INTO DEATH WITHOUT INQUEST

Form 38 Rule 63(2)

Section 67 of the Coroners Act 2008

Findings of:	**AUDREY JAMIESON, CORONER**
Deceased:	**Mary Veronica Payne**
Date of birth:	**22 August 1947**
Date of death:	**Between 7 January 2019 and 8 January 2019**
Cause of death:	**Combined drug toxicity in a woman with emphysema**
Place of death:	**1/37 Wilsons Lane, Sebastopol Victoria 3356**

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

1. Mary Veronica Payne was a 71-year-old widowed woman who lived alone at 1/37 Wilsons Lane, Sebastopol Victoria 3356.

2. On 8 January 2019, Mrs Payne's neighbour, Stuart Wells, located Mrs Payne deceased in the living room of her residence.

3. Mrs Payne's death was reportable pursuant to section 4 of the *Coroners Act 2008* (Vic) (**the Act**), because it occurred in Victoria, and was considered unexpected, unnatural or to have resulted, directly or indirectly, from an accident or injury.

INVESTIGATIONS

Forensic pathology investigation

4. Dr Michael Burke, Forensic Pathologist at the Victorian Institute of Forensic Medicine (**VIFM**), performed an autopsy upon the body of Mrs Payne, reviewed a post mortem computed tomography (**CT**) scan, medical records from Alfredton Medical Centre and referred to the Victoria Police Report of Death, Form 83.

5. Dr Burke commented that the post mortem examination showed underlying chest disease. There were changes of emphysema and chronic asthma. Microscopic examination of the heart showed mild perivascular fibrosis.

6. Toxicological analysis of post mortem samples detected the presence of methadone[1], codeine[2], diazepam and its metabolite nordiazepam[3], nitrazepam and its metabolite 7-aminonitrazepam[4], venlafaxine and its metabolite desmethylvenlafaxine[5], metoclopramide[6] and paracetamol[7].

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[1] Methadone is a synthetic narcotic analgesic available in Australia and used for the treatment of opioid dependency or for the treatment of severe pain.

[2] Codeine is a narcotic analgesic related closely to morphine. Other drugs may contribute to the toxic effects of codeine. These include central nervous system depressants, such as alcohol, opioids and benzodiazepines.

[3] Diazepam is a sedative/ hypnotic drug of the benzodiazepines class.

[4] Nitrazepam is a sedative (hypnotic drug) of the benzodiazepine class.

[5] Venlafaxine is indicated for the treatment of depression.

[6] Metoclopramide is an anti-emetic drug used for the treatment of nausea and vomiting.

7. Dr Burke further commented that individuals on long term analgesics and other drugs may develop resistance the therapeutic and side effects of the drugs.

8. There was no current Department of Health and Human Services permit in the name of Mrs Payne for the use of methadone and Dr Burke could not see any reference to the use of methadone for Ms Payne's chronic pain in her medical records.

9. Dr Burke ascribed the cause of death to combined drug toxicity in a woman with emphysema.

Police investigation

10. Upon attending the Sebastopol residence after Mrs Payne's death, Mrs Payne's daughter, Leanne Payne, advised that her mother suffered back pain and took various pain medications. Investigating officers located mirabegron 50 milligrams, tiotropium inhalation capsules 18 mcg, solifenacin 5 milligrams, oxycodone with naloxone CR-tablets 12 milligrams- 7.5 milligrams and nitrazepam 5 milligrams. Also located at the residence was Ducolax and Ventolin inhalers.

11. First Constable (**FC**) Leonie Stizza was the nominated Coroner's Investigator.[8] At my direction, FC Stizza investigated the circumstances surrounding Mrs Payne's death, including the preparation of the coronial brief. The coronial brief contained, *inter alia*, statements made by family and treating clinicians.

12. During the investigation, police learned that Mrs Payne attended the Alfredton Medical Centre (**the Centre**). She consulted on Dr Joanne Love. Dr Love retired at some point prior to Mrs Payne's death. Subsequently on 3 January 2019, Mrs Payne consulted on Dr James Kieran Lalor. At this consultation, Mrs Payne was prescribed Targin.

13. Dr Lalor detailed that Mrs Payne's main morbidities for which she consulted on the Centre included chronic back and other pain and depression. Mrs Payne's grandson, Michael Chew-Payne, stated that for as long as he can recall, he remembers his grandmother being either in pain or unwell and that she was often in bed with many

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[7] Paracetamol is an analgesic drug.

[8] 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 receives directions from a Coroner and carries out the role subject to those directions.

blankets and an electric blanket to keep her warm. He further detailed that she had suffered from emphysema for a long time and was a heavy smoker of approximately 40 cigarettes a day. Mrs Payne had Webster packs for the distribution of her medications.

14. Mrs Payne's back pain is said to have resulted from a car accident that occurred approximately 23 years prior to her death. Mr Chew-Payne detailed that his grandmother broke her back in this accident that resulted in "life-long problems".

15. Dr Lalor further stated that Mrs Payne had never been prescribed methadone at the Centre, nor was the Centre aware of her having been prescribed the medication anywhere else.

16. Investigations revealed that Mrs Payne's daughter, Ms L. Payne, was being treated with methadone through her general practitioner at a separate medical centre. Ms L. Payne had been treated with opiate replacement therapy continuously from the year 2002. In the period proximate to her mother's death, Ms L. Payne was prescribed 60 milligrams daily of liquid methadone, with which she was allowed up to two takeaway doses with each supervised dose.

17. Mr Chew-Payne detailed that his mother, Ms L. Payne, was Mrs Payne's "full time carer and would go around every day and stay at least two or three nights a week…" Ms. L. Payne would take her methadone with her and place it in the fridge when she stayed at her mother's house.

18. In the year prior to Mrs Payne's death, Ms L. Payne became increasingly ill and spent a significant amount of time in hospital. Mr Chew-Payne estimated that his mother was taken by ambulance to hospital approximately 20 times. "If Mum was ever taken by ambulance from Nan's it would remain in the fridge. Nan didn't like it being there but she knew it was helping Mum."

19. In the days proximate to Mrs Payne's death, Ms L. Payne was admitted to hospital.

20. On the evening of 7 January 2019, Mr Chew-Payne's sister, Sharni Chew-Payne, spoke with their grandmother over the phone. Mrs Payne was concerned about her daughter and grandchildren and expressed being in pain. Ms S. Chew-Payne told her brother that Mrs Payne sounded as though she was struggling to breathe.

21. The Victoria Police Summary details that at on 8 January 2019 at approximately 3.00pm, Mr Wells entered Mrs Payne residence using a key.

22. Upon entering the residence, he found Mrs Payne slumped on the couch in her living room. Believing her to be deceased, Mr Wells called Ms S. Chew-Payne and emergency services.

23. Ambulance Victoria paramedics arrived shortly after and confirmed Mrs Payne was deceased.

COMMENTS

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

1. Records from the Victorian Department of Health and Human Services did not evidence a permit for the prescribing of methadone to Mrs Payne in the state of Victoria.

2. Medical records and statements obtained throughout the course of the investigation confirm that Mrs Payne's treating medical practitioner was not providing her with methadone.

3. The Victoria Police Coronial Brief Summary details that Mr Chew-Payne stated that he would be surprised if his grandmother consumed his mother's methadone because she was against drugs and only accepted the methadone because it was assisting Ms L. Payne.

4. Despite Mr Chew-Payne's assertion that he would be surprised if his grandmother had taken his mother's methadone, in the absence of any evidence that Mrs Payne was prescribed methadone, the likelihood on the balance of probabilities is that she consumed methadone that was diverted from her daughter, Ms L. Payne.

5. I recently asked the Coroners Prevention Unit (CPU)[9] to prepare a summary of Victorian overdose deaths for the period 2010-2019 (see **Attachment A**) whilst investigating the 15

[9] The Coroners Prevention Unit is a specialist service created for coroners to strengthen their prevention role and provide them with professional assistance on issues pertaining to public health and safety.

November 2018 death of Wayne Laurence Marshall[10]. Given the contribution of methadone in the death of both Mr Marshall and Mrs Payne, I consider it appropriate to refer to this content again.

6. This summary shows (in table 5) that over the past decade methadone has consistently been one of the most frequent contributors to overdose death in Victoria, playing a role in more fatal overdoses than drugs that attract far more public attention, such as methamphetamine and oxycodone and codeine and alprazolam.

7. The deaths reflect the significant risks that methadone consumption entails, even for people who are otherwise experienced opioid users. Methadone has a particularly long period of action; its effects on individuals are highly variable; it can continue to have a respiratory depressant effect after its subjective effects are no longer experienced; and it interacts with many other drugs. All these properties heighten the risk of overdose in users.

8. Consumption of diverted methadone, as occurred in the death of Mrs Payne, is a common theme Victorian coroners encounter in their investigations. The CPU analysis showed that in 2019, the year Mrs Payne died, the evidence suggested methadone diversion amounted to 19 deaths (table 6) for a single year, which is a substantial number.

9. Reducing methadone diversion and non-clinical use of methadone is essential to reducing Victoria's overdose death toll, and coroners have repeatedly made recommendations aimed at addressing this.

10. For example and as appears to be the case with Mrs Payne, in many Victorian deaths a person has been prescribed methadone to treat opioid dependence (methadone maintenance therapy) and given the methadone in takeaway doses for unsupervised consumption at home, but does not store the methadone safely and securely, leading to another person (usually a co-resident) accessing the drug and overdosing. In response, coroners have made multiple recommendations that the Victorian Department of Health and Human Services (which is responsible for opioid pharmacotherapy policy) improve policy and education pertaining to methadone safe storage.

[10] MARSHALL Wayne Laurence, COR2018 5754

11. Another common scenario is where a person has been dispensed unsupervised methadone for opioid dependence and sells, trades or gifts the methadone to another person who fatally overdoses. Coroners have, again, made multiple recommendations that this issue be addressed through the Victorian Department of Health and Human Services tightening access to unsupervised methadone dosing and doctors conducting better assessment of patient suitability for unsupervised methadone dosing.

12. For this reason, I have included the Victorian Department of Health and Human Services in the distribution list of this Finding. I would encourage the Medicines and Poisons Regulation Unit within the Department to consider the circumstances of the death in light of their current Policy for Maintenance Pharmacotherapy for Opioid Dependence, and whether there are any safeguards for unsupervised methadone dosing not described in the Policy which might reasonably have prevented this death from occurring.

STANDARD OF PROOF

1. All coronial findings must be made based on proof of relevant facts on the balance of probabilities. In determining whether a matter is proven to that standard, I should give effect to the principles enunciated in *Briginshaw v Briginshaw (1938)* 60 CLR 336. These principles state that in deciding whether a matter is proven on the balance of probabilities, in considering the weight of the evidence, I should bear in mind:

    a) the nature and consequence of the facts to be proved;

    b) the seriousness of any allegations made;

    c) the inherent unlikelihood of the occurrence alleged;

    d) the gravity of the consequences flowing from an adverse finding; and

    e) if the allegation involves conduct of a criminal nature, weight must be given to the presumption of innocence, and the court should not be satisfied by inexact proofs, indefinite testimony or indirect inferences.

2. The effect of the authorities is that coroners should not make adverse findings against or comments about individuals, unless the evidence provides a comfortable level of satisfaction that they caused or contributed to the death.

3. There is no presumption for or against a finding of suicide. Nevertheless, a finding that a person has deliberately taken his or her life can have long lasting ramifications for families and friends of that person. Therefore, a coroner should only make this finding when they are satisfied to the abovementioned standard. In this matter, I am not satisfied to the requisite standard that Mary Vernonia Payne intended to end her own life.

FINDINGS

1. I find that Mary Veronica Payne, born 22 August 1947, died between 7 January 2019 and 8 January 2019 at 1/37 Wilsons Lane, Sebastopol Victoria 3356.

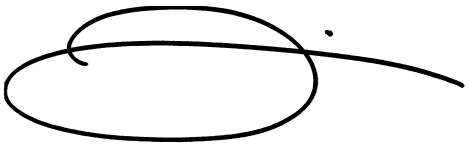
2. I accept and adopt the cause of death ascribed by Dr Michael Burke and I find that Mary Veronica Payne, a woman with emphysema, has died from combined drug toxicity in circumstances where I find she ingested her daughter's methadone.

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

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

Michael Chew-Payne
Danielle Wooltorton, Department of Health and Human Services
First Constable Leonie Stizza

Signature:



AUDREY JAMIESON
CORONER
Date**: 28 September 2020**

Coroners Court of Victoria

COR 2019 0145

CORONIAL FINDING INTO THE DEATH OF MARY VERONICA PAYNE

ATTACHMENT A

Data Summary: Overdose Deaths, Victoria 2010-2019

Coroners Court of Victoria
65 Kavanagh Street, Southbank
Tel: (03) 8688 0700
Email: courtadmin@coronerscourt.vic.gov.au

Coroners Prevention Unit
Data Summary

Coroners Court of Victoria

Subject: Overdose deaths, Victoria 2010-2019

Date: 20 August 2020

1. Background

The Coroners Prevention Unit (CPU) prepared this data summary at the direction of the Coroner to assist the Coroner's death investigation.

2. Data source

The data source for this data summary was the CPU's Victorian Overdose Deaths Register ('the Register').[1] To prepare the summary, on 17 August 2020 the Register was used to identify all Victorian overdose deaths reported to the CCOV between 2010 and 2019, and to extract data on the individual drugs that contributed to each death.

The contents of the Register are regularly revised and updated as coronial investigations progress. Through the coroner's investigation, an overdose death initially characterised as involving one drug might be determined to have involved two other drugs; or a death initially thought to be unrelated to drug consumption might be found to be a fatal overdose. Therefore, data reported from the Register about Victorian overdose deaths occurring in any given period can change over time.

3. Overdose deaths, Victoria 2010-2019

The 18 August 2020 data extract included 4365 overdose deaths investigated by Victorian coroners between 2010 and 2019. The following tables describe the patterns of drug contribution over time in the deaths.

3.1 Annual frequency of Victorian overdose deaths

Table 1 shows the annual frequency of overdose deaths in Victoria for the period 2010-2019, and the frequency and proportion of overdose deaths each year which were due to the toxic effects of a single drug versus multiple drugs.

The annual frequency of Victorian overdose deaths fell in 2019, after a decade of consistent year-on-year increases. While the magnitude of the decrease was not particularly substantial (from 542 deaths in 2018 to 516 deaths in 2019, a decline of 26 deaths or 4.8%) it occurred against a backdrop of Victoria's continually growing population. Figure 1 shows that Victoria's crude overdose death rate per 100,000 population,[2] declined quite notably in 2019 for the first time in a decade.

1 For the Register design, definitions, case inclusion criteria and coding process see Dwyer J, Ogeil O, Bugeja L, Heilbronn C, Lloyd B, *Victorian Overdose Deaths: The Role of Pharmaceutical Drugs and Drug Combinations*, Richmond: Turning Point, February 2017.

2 Crude rates were calculated by dividing the annual overdose death frequency by the estimated resident population of Victoria at June each year for 2010-2019 (the latter is published in Australian Bureau of Statistics Catalogue 3101.0).

Table 1: Annual frequency and proportion of single- and multiple-drug overdose deaths, Victoria 2010-2019

Overdose deaths	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Overall frequency	**341**	**362**	**366**	**380**	**387**	**454**	**494**	**523**	**542**	**516**
Single drug	123	134	115	119	101	131	137	123	133	129
Multiple drug	218	228	251	261	286	323	357	400	409	387
Overall proportion	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Single drug	36.1	37.0	31.4	31.3	26.1	28.9	27.7	23.5	24.5	25.0
Multiple drug	63.9	63.0	68.6	68.7	73.9	71.1	72.3	76.5	75.5	75.0

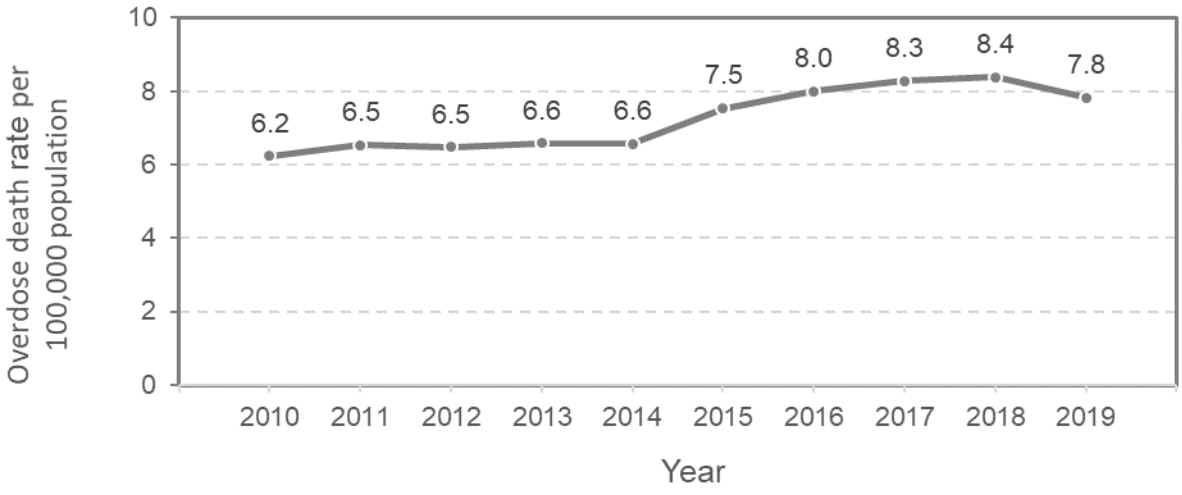


Figure 1: Annual crude overdose death rate per 100,000 population, Victoria 2010-2019

The proportion of Victorian overdose deaths involving multiple drugs increased across the period, from 63.9% of deaths (218 of 341) in 2010 to 75.0% of deaths (387 of 516) in 2019. This underscores the importance of focusing on combinations of drugs used in harm reduction education and other overdose prevention initiatives.

3.2. Overdose deaths by contributing drug types

Contributing drugs across all Victorian overdose deaths were classified into three main types: pharmaceutical, illegal and alcohol. Table 2 shows the annual frequency of Victorian overdose deaths involving each of these three contributing drug types. Most overdose deaths were from combined (multiple) drug toxicity, which is why the annual frequencies for each drug type in Table 2 sum to greater than the overall annual frequency.

Table 2: Annual frequency and proportion of overdose deaths by contributing drug types, Victoria 2010-2019

Overdose deaths	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Overall frequency	**341**	**362**	**366**	**380**	**387**	**454**	**494**	**523**	**542**	**516**
Pharmaceutical	263	274	302	312	316	356	383	414	424	405
Illegal	146	150	130	163	164	227	265	271	263	270
Alcohol	85	89	80	95	94	106	124	151	161	145
Overall proportion	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Pharmaceutical	77.1	75.7	82.5	82.1	81.7	78.4	77.5	79.2	78.2	78.5
Illegal	42.8	41.4	35.5	42.9	42.4	50.0	53.6	51.8	48.5	52.3
Alcohol	24.9	24.6	21.9	25.0	24.3	23.3	25.1	28.9	29.7	28.1

The decline in the frequency of Victorian overdose deaths between 2018 and 2019 appears to be driven largely by a decline in the number of fatal overdoses involving pharmaceutical drugs (from 424

deaths in 2018 to 405 in 2019) and alcohol (from 161 deaths in 2018 to 145 in 2019), but not illegal drugs (which rose from 263 deaths in 2018 to 270 deaths in 2019).

The 2019 increase in overdose deaths involving illegal drugs, in the context of a slight drop in the overall frequency of overdose deaths, is consistent with a broader five-year pattern. Between 2010 and 2014, the annual proportion of Victorian overdose deaths involving illegal drugs average 41.0%, but then increased suddenly to 50.0% of overdose deaths in 2015 and contributed in an average 51.3% of overdose deaths per year through to 2019.

3.3. Overdose deaths by combinations of contributing drug types

To explore further how pharmaceutical drugs, illegal drugs and alcohol interacted with one another, each death was classified according to the combination of drug types that contributed to the fatal overdose. The seven mutually exclusive combinations were:

- Pharmaceutical drugs only (no contributing illegal drugs or alcohol).
- Pharmaceutical and illegal drugs (no alcohol).
- Illegal drugs only (no pharmaceutical drugs or alcohol).
- Pharmaceutical drugs and alcohol (no illegal drugs).
- Pharmaceutical and illegal drugs and alcohol.
- Alcohol only (no contributing pharmaceutical or illegal drugs).
- Illegal drugs and alcohol (no contributing pharmaceutical or illegal drugs).

Table 3 shows the annual frequency and proportion of Victorian overdose deaths for each combination of contributing drugs.

Table 3: Annual frequency and proportion of overdose deaths by combinations of contributing drug types, Victoria 2010-2019

Combination of drug types	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Overall frequency	**341**	**362**	**366**	**380**	**387**	**454**	**494**	**523**	**542**	**516**
Pharma only	141	148	170	148	160	153	153	165	173	154
Pharma + illegal	64	63	74	82	91	125	146	139	134	155
Illegal only	51	62	42	55	42	70	71	68	73	62
Pharma + alc	33	45	47	57	45	52	47	61	72	56
Pharma + ill + alc	25	18	11	25	20	26	37	49	45	40
Alcohol only	21	19	19	12	18	22	29	26	34	36
Illegal + alcohol	6	7	3	1	11	6	11	15	11	13
Overall proportion	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Pharma only	41.3	40.9	46.4	38.9	41.3	33.7	31.0	31.5	31.9	29.8
Pharma + illegal	18.8	17.4	20.2	21.6	23.5	27.5	29.6	26.6	24.7	30.0
Illegal only	15.0	17.1	11.5	14.5	10.9	15.4	14.4	13.0	13.5	12.0
Pharma + alc	9.7	12.4	12.8	15.0	11.6	11.5	9.5	11.7	13.3	10.9
Pharma + ill + alc	7.3	5.0	3.0	6.6	5.2	5.7	7.5	9.4	8.3	7.8
Alcohol only	6.2	5.2	5.2	3.2	4.7	4.8	5.9	5.0	6.3	7.0
Illegal + alcohol	1.8	1.9	0.8	0.3	2.8	1.3	2.2	2.9	2.0	2.5

Pharmaceutical drug only overdose deaths were consistently the most frequent type of Victorian overdose death between 2010 and 2018. However, over time there was a decline in the proportion of pharmaceutical drug only overdose deaths, and a shift towards overdose deaths involving pharmaceutical drugs in combination with illegal drugs; in 2019 for the first time this combination

contributed in more overdose deaths than the pharmaceutical only group. The other notable trend over time has been the increase in alcohol-only overdose deaths (deaths from the acute toxic effects of alcohol), which nearly doubled over the decade.

3.4. Overdose deaths by contributing pharmaceutical drug groups

Pharmaceutical drugs were disaggregated into drug groups for more detailed analysis. Table 4 shows the annual frequency of Victorian overdose deaths 2010-2019 involving each of the major contributing pharmaceutical drug groups, with illegal drugs and alcohol included for context. Most overdose deaths were from combined drug toxicity, which is why the annual frequencies for each drug group in Table 4 sum to greater than the overall annual frequency.

Table 4: Annual frequency and proportion of contribution to overdose deaths, among major contributing pharmaceutical drug groups plus alcohol and illegal drugs, Victoria 2010-2019. (^ Non-benzodiazepine anxiolytics; * Non-opioid analgesics.)

Drug groups	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Overall frequency	**341**	**362**	**366**	**380**	**387**	**454**	**494**	**523**	**542**	**516**
Benzodiazepines	168	180	199	212	215	238	263	303	305	288
Illegal drugs	146	150	130	163	164	227	265	271	263	270
Pharma opioids	127	165	188	175	182	185	183	198	207	207
Antidepressants	105	101	141	134	144	161	165	196	195	171
Alcohol	85	89	80	95	94	106	124	151	161	145
Antipsychotics	64	65	78	75	81	91	107	136	108	103
Anticonvulsants	14	13	10	37	45	51	54	75	87	85
Non-benzo anx.^	28	33	38	56	48	60	40	56	47	54
Non-opioid anlg.*	25	30	44	39	49	46	35	38	40	50
Overall proportion	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Benzodiazepines	49.3	49.7	54.4	55.8	55.6	52.4	53.2	57.9	56.3	55.8
Illegal drugs	42.8	41.4	35.5	42.9	42.4	50.0	53.6	51.8	48.5	52.3
Pharma opioids	37.2	45.6	51.4	46.1	47.0	40.7	37.0	37.9	38.2	40.1
Antidepressants	30.8	27.9	38.5	35.3	37.2	35.5	33.4	37.5	36.0	33.1
Alcohol	24.9	24.6	21.9	25.0	24.3	23.3	25.1	28.9	29.7	28.1
Antipsychotics	18.8	18.0	21.3	19.7	20.9	20.0	21.7	26.0	19.9	20.0
Anticonvulsants	4.1	3.6	2.7	9.7	11.6	11.2	10.9	14.3	16.1	16.5
Non-benzo anx.^	8.2	9.1	10.4	14.7	12.4	13.2	8.1	10.7	8.7	10.5
Non-opioid anlg.*	7.3	8.3	12.0	10.3	12.7	10.1	7.1	7.3	7.4	9.7

Benzodiazepines were the most frequent contributing pharmaceutical drug group, playing a role in an average 54.3% of overdose deaths annually across the period. The next most frequent pharmaceutical drug groups were opioids (an average 41.6% of overdose deaths each year), antidepressants (annual average 34.7%) and antipsychotics (annual average 20.8%). Notable trends in the data included the gradual increase over time in antidepressant and anticonvulsant involvement in overdose deaths.

3.5. Overdose deaths by individual contributing drugs

Table 5 shows the annual frequency of overdose deaths, Victoria 2010-2019, involving the most frequent contributing individual drugs. The individual drugs are tabulated by the major drug groups to which they belong.

Table 5: Annual frequency and proportion of contribution to overdose deaths, among major contributing pharmaceutical drug groups plus alcohol and illegal drugs, Victoria 2010-2019. (^ Non-benzodiazepine anxiolytics; * Non-opioid analgesics.)

Individual drugs	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Benzodiazepines	**168**	**180**	**199**	**212**	**215**	**238**	**263**	**303**	**305**	**288**
Diazepam	109	124	133	164	169	192	204	242	235	232
Alprazolam	56	43	57	45	28	23	23	27	31	28
Oxazepam	19	44	40	17	19	34	27	23	35	28
Temazepam	22	48	34	22	20	25	26	32	29	20
Clonazepam	8	14	18	19	25	33	31	48	40	35
Nitrazepam	15	11	24	26	13	17	22	11	16	13
Lorazepam	0	3	1	4	6	2	7	7	6	9
Etizolam	0	0	0	0	0	1	0	0	1	10
Illegal drugs	**146**	**150**	**130**	**163**	**164**	**227**	**265**	**271**	**263**	**270**
Heroin	136	125	107	128	136	171	191	220	202	212
Methamphetamine	14	29	34	51	53	72	120	93	95	111
Cocaine	1	2	4	5	7	15	11	10	17	20
Amphetamine	4	19	10	10	8	9	1	3	5	3
MDMA	1	1	1	3	4	5	12	7	4	13
Pharma opioids	**127**	**165**	**188**	**175**	**182**	**185**	**183**	**198**	**207**	**207**
Methadone	55	72	75	70	67	67	72	71	72	74
Oxycodone	38	46	46	60	46	58	54	66	62	59
Codeine	32	38	55	46	47	48	46	37	34	42
Tramadol	9	15	18	23	23	32	26	32	35	37
Morphine	12	12	13	9	12	9	13	18	19	18
Fentanyl	2	5	17	11	11	23	13	14	18	5
Buprenorphine	4	14	4	3	7	4	2	8	20	11
Tapentadol	0	0	0	0	0	0	0	1	9	13
Antidepressants	**105**	**101**	**141**	**134**	**144**	**161**	**165**	**196**	**195**	**171**
Mirtazapine	21	23	26	30	29	50	25	42	59	45
Amitriptyline	26	22	32	25	41	28	34	47	40	41
Citalopram	22	21	25	24	25	26	28	35	25	26
Venlafaxine	12	16	15	20	19	10	22	27	18	20
Duloxetine	5	7	14	11	12	12	15	12	19	20
Sertraline	6	4	12	13	9	12	11	18	19	20
Fluoxetine	9	8	13	10	7	12	16	10	12	12
Desvenlafaxine	1	3	6	8	11	15	19	15	18	12
Alcohol	**85**	**89**	**80**	**95**	**94**	**106**	**124**	**151**	**161**	**145**
Antipsychotics	**64**	**65**	**78**	**75**	**81**	**91**	**107**	**136**	**108**	**103**
Quetiapine	36	34	41	41	48	49	57	74	52	50
Olanzapine	18	17	22	15	21	30	36	41	42	33
Risperidone	3	11	8	10	7	9	14	9	13	10
Zuclopenthixol	4	4	6	3	3	5	4	14	4	7
Chlorpromazine	2	4	10	6	3	5	5	5	4	5
Clozapine	6	0	4	6	2	4	5	3	3	3
Anticonvulsants	**14**	**13**	**10**	**37**	**45**	**51**	**54**	**75**	**87**	**85**
Pregabalin	0	0	0	17	27	34	34	52	69	66
Sodium valproate	9	5	6	13	9	9	6	7	5	7
Lamotrigine	2	1	2	2	2	2	3	6	10	7

Table 5 continued over page

Table 5 continued from previous page

Individual drugs	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Non-benzo anx.	**28**	**33**	**38**	**56**	**48**	**60**	**40**	**56**	**47**	**54**
Doxylamine	16	11	21	23	13	14	13	18	18	16
Zopiclone	3	6	13	14	11	17	13	17	13	22
Pentobarbitone[3]	5	11	1	8	15	18	9	10	6	9
Zolpidem	3	5	5	4	6	11	6	8	6	8
Diphenhydramine	1	4	2	7	5	5	4	6	6	7
Non-opioid anlg.	**25**	**30**	**44**	**39**	**49**	**46**	**35**	**38**	**40**	**50**
Paracetamol	21	24	42	37	37	42	30	32	32	47
Ibuprofen	5	4	5	2	7	5	4	1	7	4
Antihistamines	**11**	**11**	**10**	**11**	**14**	**14**	**14**	**21**	**33**	**27**
Promethazine	10	8	8	6	11	11	11	16	27	18
Pheniramine	0	1	1	3	3	3	2	4	4	4

The following is a brief description of some notable findings in table 5:

- The frequency of Victorian overdose deaths involving benzodiazepine contribution declined for the first time in a decade. Antidepressant and antipsychotic involvement also declined slightly from 2017-2018 peaks. While it is not possible to confirm the reasons why this occurred, two major initiatives focused on improving appropriate prescribing may have had an influence. The first is the Victorian Department of Health and Human Services (DHHS) SafeScript real-time prescription monitoring program, which became available for all medical practices and pharmacies in October 2018. The second is the Royal Australian College of General Practitioners suite of clinical resources, *Prescribing Drugs of Dependence in Clinical Practice*, which have been progressively developed and disseminated over the past five years.

- The frequency of overdose deaths involving illegal drugs heroin and methamphetamine has increased again in 2019 after a 2018 decline that gave some hope that drug harm reduction strategies that target injecting drug users might be having a positive impact. In addition, overdose deaths involving cocaine and MDMA reached 10-year highs.

- Pregabalin continued to be a substantial contributor to Victorian overdose deaths in 2019. In deaths investigated by Victorian coroners, doctors have been found to prescribe it widely without regard to its risk of misuse and abuse. Despite this, the Victorian Department of Health and Human Services has on multiple occasions refused to add pregabalin to the list of drugs monitored in the SafeScript system.[4]

- Methadone remained the most frequent contributing opioid to Victorian overdose deaths in 2019, and opioid involvement in Victorian overdose deaths generally remained at its highest level in a decade despite several interventions such as the implementation of SafeScript, rescheduling of codeine, and oxycodone reformulation.

- The benzodiazepine etizolam contributed in 10 deaths in 2019, having not appeared more than once in previous years. Etizolam is not approved by the Therapeutic Goods Administration for prescription in Australia but can be purchased via the internet and imported.

3 Pentobarbitone prescribing to humans is not permitted in Australia, and the drug could be alternatively classified as illegal.

4 For the most recent example of DHHS refusal to monitor pregabalin, see Coroner Sarah Gebert's finding in the death of Mr A (case reference COR 2016 4886 delivered 18 October 2019) and the DHHS response, which can be accessed on the Coroners Court of Victoria website at <https://www.coronerscourt.vic.gov.au/inquests-findings/findings>.

- The opioid tapentadol contributed in 13 deaths in 2019, up from nine in 2018 and one in 2017. Tapentadol is widely promoted for its improved safety profile compared to other opioids.

4. Methadone overdose deaths and permits

As table 5 shows, opioids were one group of pharmaceutical drugs for which involvement in Victorian overdose deaths did not decline; and among them, methadone remained (for the tenth straight year) the most frequent contributor to overdose deaths.

This finding is consistent with the risk profile of the drugs. Opioids generally present a risk of misuse, addiction and other harms (including fatal overdose), and methadone is associated with a particularly elevated overdose risk because it has a long half-life of action; there is wide variation in how it affects individuals; its respiratory depressant effects can last well beyond the experience of its subjective (analgesic and euphoric) effects; and its respiratory depressant effects are additive with the effects of most other central nervous system depressants.

Methadone access is tightly regulated in Victoria. Except for certain specific circumstances (such as treatment in palliative settings; treatment of cancer pain; and treatment in prisons, hospitals and aged care facilities), a doctor prescribing methadone to a patient must have applied to the Victorian Department of Health and Human Services (DHHS) for a permit to do so. The purpose of the permit system is to assist in managing the risk of misuse and addiction and harm in patients prescribed methadone.

Each year Victorian coroners investigate several overdose deaths involving methadone for which the DHHS has no record of a permit application to prescribe to the deceased. In most of these cases, if the source of contributing methadone can be identified it has been diverted: that is, gifted or sold to the deceased by another person, or accessed by the deceased without the knowledge of the person to whom it was originally prescribed and dispensed. The permit status of a person who died from a methadone-involved overdose, is a generally reliable heuristic indicator of whether the contributing methadone was dispensed to the deceased (permit held) or diverted (no permit held).

Table 6 shows the annual frequency and proportion of methadone-involved overdose deaths in Victoria, disaggregated by whether there was evidence a doctor held a permit to prescribe methadone to the deceased.

Table 6: Annual frequency and proportion of methadone-involved overdose deaths by permit status of deceased, Victoria 2010-2019

Overdose deaths	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Overall frequency	**55**	**72**	**75**	**70**	**67**	**67**	**72**	**71**	**72**	**74**
Permit	21	33	40	28	45	45	50	47	48	55
No permit	31	38	35	41	22	22	22	24	24	19
Unknown	3	1	0	1	0	0	0	0	0	0
Overall proportion	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Permit	38.2	45.8	53.3	40.0	67.2	67.2	69.4	66.2	66.7	74.3
No permit	56.4	52.8	46.7	58.6	32.8	32.8	30.6	33.8	33.3	25.7
Unknown	5.5	1.4	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0

In 2010 a clinician held a permit to prescribe methadone to the deceased in only 38.2% of fatal Victorian methadone-involved overdose. This proportion increased over time, and by 2019 there was evidence of a permit held in 74.3% of deaths. This suggests the frequency and proportion of overdose deaths involving methadone decreased over time, with most deaths now occurring among people who were prescribed the drug.