

# Pharmaceutical Drugs & Real-Time Prescription Monitoring.

## 1 What is Real-Time Prescription Monitoring?

Real-Time Prescription Monitoring enables prescribing doctors and dispensing pharmacists to access accurate information regarding a patient's medication history with respect to specific high-risk drugs.

Real-time prescription monitoring systems do not require prescribers to enter any new data. It is a separate piece of software that keeps track of when specific high-risk medications are prescribed or dispensed. This allows prescribers to be notified if someone is receiving high-risk medications beyond their medical need and make informed decisions regarding this medication. Real-time prescription monitoring systems do not prevent prescribers from writing or dispensing a script.<sup>1</sup>

SafeScript is the Victorian real-time prescription monitoring system. In late 2018, the Victorian Government trialled SafeScript in the Western Victorian Primary Health Network and the wider rollout is scheduled for early 2019.<sup>1</sup>

SafeScript will monitor the medicines that present the greatest risk to the Victorian community based on historical trends.<sup>1</sup> This includes strong opioid painkillers, strong medicines for anxiety or insomnia, stimulants used to treat ADHD or narcolepsy and some other high-risk medicines. The section below includes information on opioids and benzodiazepines and why they're included in SafeScript. It also outlines how SafeScript will help monitor poly-drug use.

## 2 What SafeScript will monitor

### 2.1 Opioid painkillers

Opioid painkillers are derived from the opium poppy or chemically synthesized to mimic the effects of chemicals from the opium poppy.<sup>2</sup> Legal forms of opioids include drugs such as morphine, codeine and oxycodone. Illegal forms include drugs such as heroin.<sup>2</sup>

Opioid painkillers are regularly and legally used by Australians for two reasons:

- pain management after an event such as surgery or dental work
- to treat opioid dependence using a technique called 'opioid substitution therapy' through the prescription of methadone (a synthetic opioid).<sup>3</sup>

One of the key risks associated with opioid use is the potential for developing dependence. When used over a longer period, people can develop a tolerance of the effects and therefore require increased amounts to feel the same effects.<sup>2,3</sup> Over time, this effect can make it harder for the person to stop using opioids.

## 2.2 Benzodiazepines

Benzodiazepines are also known as mild tranquilisers (common brand names include Valium© and Xanax©). These drugs are typically prescribed for managing conditions such as acute stress, anxiety and insomnia in the short-term.<sup>4</sup> Benzodiazepines can be short-, intermediate- or long-acting.

Common side effects associated with benzodiazepines include risk of dependence, poor concentration, dizziness, daytime drowsiness and lack of coordination. Short-acting benzodiazepines carry some additional risk associated with dependence as their effectiveness reduces over time.<sup>5</sup> This means that withdrawal symptoms and cravings can occur with extended use. Research clearly shows that benzodiazepines are not an effective long-term treatment for stress, anxiety and insomnia.<sup>4,6</sup>

## 2.3 Poly-drug use

Poly-drug use is when someone takes different drugs at the same time. Poly-drug use can compound the risks associated with individual drug use and therefore lead to an increased risk of harm. Opioids, benzodiazepines and alcohol are depressant drugs, which slow down the messages travelling between the body and the brain (alcohol use is not recorded as part of Real-Time Prescription Monitoring).<sup>5,7</sup> When taken together, these drugs increase the risk of overdose.<sup>7</sup> A Real-Time Prescription Monitoring system would provide critical information to prescribers and pharmacists when a patient is already taking a specific drug. For example, if someone is already prescribed benzodiazepines, the prescriber will take this into account if they also require a pain management medicine. They can then discuss the risks associated with taking these medications alongside lifestyle choices such as drinking alcohol.

## 3 Why are these drugs included in Victoria's SafeScript?

In 2016, benzodiazepines were the drugs most commonly involved in drug-induced death in Australia, followed by prescription opioids. Of the 1,808 drug-induced deaths across the country, benzodiazepines were present in approximately 36.7% of cases, while opioids were present 30% of the time. Over 70% of drug-induced deaths in 2016 were a result of accidental overdoses.<sup>7</sup> The data also clearly show that the majority of drug-induced deaths involved the use of more than one drug. In the instance of drug-induced deaths involving benzodiazepines for example, over 96% of these deaths also involved the use of other drugs such as alcohol.

In Victoria, data from 2017 indicate that 414 Victorians died from overdoses involving prescription medications.<sup>8</sup> This number has been higher than the Victorian road toll since 2012, by an average of 27%.<sup>8</sup>

## 4 Two key risks associated with benzodiazepine and opioid use

### 4.1 Dependence

Dependence includes a combination of physiological, behavioural and cognitive factors that can create an overwhelming desire to take a specific drug.<sup>9</sup>

Dependence includes the following signs and symptoms:<sup>9</sup>

- a sense of compulsion to take a drug
- experiencing difficulty in controlling the regular use of a drug
- tolerance to the drug
- the presence of withdrawal when a person stops taking the drug.

Dependence is complex. It can vary depending on the drug in question and how it affects the person taking it. When someone is having difficulty with the use of a prescription medication, there are steps that can be taken to prevent harm. This process should include consultation with a medical professional.

## 4.2 Overdose

If someone takes a large amount of a depressant drug, the messages travelling between the body and the brain will decrease, which means that vital activities such as breathing and heart rate reduce.<sup>10</sup> If someone takes a combination of depressant drugs such as benzodiazepines, opioids or alcohol, the risk of overdose is increased. The signs of a depressant drug overdose include:

- vomiting
- being unresponsive, but awake
- limp body
- pale and/or clammy face
- bluish fingernails and/or lips
- shallow or erratic breathing, or not breathing at all
- slow or erratic pulse (heartbeat)
- choking sounds or a gurgling noise
- loss of consciousness
- death.<sup>11</sup>

If you or someone you know has any of these symptoms after taking these drugs, call 000 urgently. Emergency services do not have to involve the police and can provide medical advice on how to support you or a person in your care until paramedics arrive.

## 5 Naloxone – a harm reduction strategy

Naloxone is a drug that can temporarily reverse opioid overdose. It works by blocking opioids from attaching to opioid receptors in the brain. Naloxone is effective in reversing overdose from both legal and illegal forms of opioids. This drug can be injected intramuscularly (into a muscle) or delivered by using a nasal spray. Naloxone can be administered by medical professionals such as paramedics, or by friends, family or bystanders who might be responding to an overdose.<sup>12</sup>

Naloxone is used as a harm reduction strategy. This means that it is not a strategy to stop the use of specific drugs. It is used to reduce the immediate dangers associated with an overdose, such as accidental death. Naloxone is available from pharmacies without a prescription, however it is also possible to have naloxone prescribed alongside prescription medication. This way, if someone experiences prescription opioid overdose, naloxone is available if required. Evidence shows that there is no potential for the development of dependence on this drug.<sup>12</sup>

Best practice is to provide training to those who administer naloxone. Refer to 'Taking Action' at the end of this document for more information on where to find training providers.

### 5.1 Opioid use following administration of naloxone

If someone is administered with naloxone following opioid overdose, they may experience an urge to use more opioids once they are revived. This is especially the case if they are experiencing dependence; they may feel the beginning of withdrawal symptoms.

Naloxone is a short acting drug, meaning it stays in the body for a short period of time. However, some prescription opioids can stay in the body for much longer (some for over 12 hours). This means that while naloxone will wear off, the opioids will remain in the system. If the person takes more opioids after taking naloxone, they may experience a second overdose.<sup>10</sup>

Taking opioids after the administration of naloxone is very dangerous and should be avoided.

## 6 Other pain and anxiety management methods

### 6.1 Chronic pain management

Ongoing chronic pain is highly complex and requires a multi-pronged approach, possibly including medication, physical therapy and cognitive behavioural therapy.<sup>13</sup> Medication may be necessary in the short-term to manage acute pain and should be done in consultation with a general practitioner or a pain management specialist. Physical therapy may allow for temporary relief of pain and the strengthening of specific parts of the body to better support the painful area. Cognitive behavioural therapy refers to the treatment of psychological distress associated with long term pain.<sup>14</sup> In the process of cognitive behavioural therapy, a person will learn new ways of behaving when it comes to their pain, rather than the negative and often very troubling thoughts that can come with chronic pain.

### 6.2 Anxiety and insomnia management

Anxiety and insomnia are complex conditions which are difficult to treat through the sole use of medications. Similar to long-term pain management, treatments other than benzodiazepines require a multi-pronged approach, including tapering and cognitive behavioural therapy. Tapering is important for people who have been using benzodiazepines for a long time. It requires the person to gradually reduce the amount of the drug consumed before stopping.<sup>6</sup> Cognitive behavioural therapy addresses the underlying causes of anxiety and provides an opportunity for the person to better manage stressful situations without ongoing medication.<sup>6</sup>

### 6.3 Mindfulness

There is some early research exploring the potential use of mindfulness techniques to manage pain and mood disorders such as depression and anxiety.<sup>15</sup> Mindfulness is where a person pays deliberate attention to specific bodily functions when they are experiencing pain or anxiety. This attention is intended to provide a new perspective on their pain. Through this perspective, the intention is to reduce the level of discomfort both physically and emotionally. Early research suggests that mindfulness may have a positive effect and could form an important part of treatment. However, further research is required to understand the strength in this approach and potential long-term effects.<sup>15</sup>

## 7 Taking action

If you have an enquiry relating to any drug use, including prescription medication, you can call DrugInfo on 1300 85 85 84 or email [druginfo@adf.org.au](mailto:druginfo@adf.org.au).

To find out more information about Victoria's real-time prescription monitoring system, SafeScript, visit: <https://www2.health.vic.gov.au/public-health/drugs-and-poisons/safescript>

If you or a family member/friend would like to join a Pain Support Group, The Australian Pain Management Association has a nation-wide network. You can find more information here: <https://www.painmanagement.org.au/>

The Pain Management Network provides information and resources about long-term and chronic pain. They provide content for a general audience, for young people and for Aboriginal and Torres Strait Islander communities. This content is available online at: <http://www.aci.health.nsw.gov.au/chronic-pain/chronic-pain>

If you would like to attend training for administration of naloxone, Penington Institute provide training throughout Australia. You can find more information here: <http://www.penington.org.au/programs-and-campaigns/workforce-development/naloxone-training/>

## 8 References

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