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The BOP Addiction Service Facts about Opioid Substitution Treatment (OST) - Methadone

Te Whatu Ora
Health New Zealand
Hauora a Toi Bay of Plenty

Methadone was first used to treat opioid addiction in America in the 1960s, and the first methadone clinics opened in NZ in 1971. Early services focused on abstinence as the goal whether clients wanted abstinence or not, but the arrival of HIV/AIDS brought about a change in philosophy and practice with services aiming to minimise the harms caused by illicit opiate use and injecting. In BOPAS, the methadone formulation used is *Biodone Forte*.

Methadone differs from other opiates in that there is no initial 'rush' and you don't feel stoned in the same way. People who have little or no experience of methadone often think they need more methadone because they're not experiencing the same effects, but a larger dose only makes people feel like they've had more methadone – it doesn't make you feel like you've taken MSTs, heroin, etc. Indeed, a larger dose could cause you to overdose.

It takes about 72 hours (3 days) to get the maximum effect of your first dose.

Oral methadone has a much longer onset, where your dose will have measurable amounts in the plasma at 30 minutes, 'when your 'done comes on' and your dose peaks at four hours (this is why we ask you to return to BOPAS four hours after your first dose and why the laboratory will ask you to return for another blood test four hours which is a peak and trough testing your serum-levels, staff may request this if you are having a dose increase.

Methadone is absorbed and stored in various sites in the body and is gradually released into the bloodstream.

When receiving opioid substitution treatment, you will become dependent on the methadone (i.e., you need it to feel 'normal'). So, you will experience withdrawal symptoms if you stop taking the methadone. However, because of methadone's long half-life (how long it lasts in your body), the withdrawal symptoms take a bit longer to kick in than if you suddenly stop taking other opiates.

Withdrawal symptoms are mainly caused by the body's reaction to having less, or no methadone in the nervous system (the same as with other drugs).

Methadone overdose is potentially fatal

Most opioid dependent people tolerate methadone well, though there can be side-effects.

Side effects to methadone include:

- increased sweating
- dryness of the mouth, eyes, and nose
- constipation, which can be alleviated by maintaining a high fibre diet and drinking lots of (non-alcoholic) fluids

- altered sleep pattern
- nausea
- sexual dysfunction, difficulty passing urine, reduced or absent menstrual cycle (though these are less common).

The term 'opiates' refers to those that are naturally occurring (i.e., from the opium poppy); the term 'opioids' refers to synthetics (such as methadone) and natural opiates.

Dental problems

Are reported by many methadone users. When people stop using, they can become aware of dental problems that have existed for some time, but they had previously ignored or didn't notice the symptoms. Methadone often gets blamed for dental problems, but research shows problems with teeth and gums are due to:

- Reduced saliva production (a side-effect of opioids) which lessens protection against plaque. However, poor health, a high sugar or poor general diet, and/or poor oral hygiene while using may also cause dental problems. There is also the possibility that such problems have existed for some time but were previously unnoticed or ignored. Most dentists have products available (tooth mousse, gum etc.) to help alleviate dry mouth and reduce plaque and decay.
- Poor diet including a high sugar intake (more than the recommended max. of 3 teaspoons a day)
- Irregular or non-existent dental care and oral hygiene

To prevent tooth decay, it is important to maintain good oral hygiene (brush teeth regularly, use dental floss), minimise sugar intake and have regular dental check-ups.

BOPAS can refer you for free dental care.

Methadone in therapeutic doses is not known to cause:

- Damage to any of the major organs or systems of the body (even in long-term high dose use)
- Significant un-coordination and slurred speech,
- Congenital abnormalities in unborn children (congenital means existing at, and usually before birth; refers to conditions that are present at birth regardless of their cause),
- A reduction in cognitive ability (i.e., thinking, perception, and memory) except possibly during stabilisation or restabilisation on methadone. (Alcohol is known to cause cognitive impairment.)

NB. Where other drugs are used in combination with methadone the above information becomes invalid.

Benefits of Opioid Substitution Treatment

- It is cross-tolerant with most opiates so acts as a substitution for them.
- It can be taken orally, helping opiate users move away from injecting and the risks associated with injecting.
- It's long acting, with a half-life of 25 hours on average (though it can range from 13-55 hours). This means that most people can be stabilised on one dose of methadone per day.

Tolerance to methadone builds up very slowly, much more slowly than tolerance to other opiates.

This means that when methadone is taken orally the differences between peak and trough blood levels are very small, so that over 24 hours no highs or lows should be experienced if the dose is appropriate. Over time, your response to methadone should become and remain fairly constant (until you start to withdraw).

Potential Risks of Opioid Substitution Treatment

- When stabilising or increasing your dose it's not advisable to operate heavy machinery or to drive because of the potential for increased sedation i.e., nodding off.
- Many prescribed drugs and herbal medications are known to affect methadone metabolism so should be used with caution (if at all). (Ask your case manager for a list of Drug Interactions.).
- Alcohol use increases the risk of overdose because both methadone and alcohol depress the central nervous system.
- Using benzos, tranquilisers, or barbiturates with methadone increases the risk of sedation and overdose.

If you have a medical condition:

- It is important to tell your case manager and the BOPAS medical officer/MO (doctor) as this could mean additional monitoring and require liaison with your GP. This includes respiratory: chronic obstructive pulmonary disorder (COPD) and asthma; endocarditis; liver disease; diabetes, epilepsy, or chronic pain.
- Liver disease may affect your serum levels of methadone as methadone is metabolised in the liver. If you have Hepatitis or experience an abrupt change in your liver function, tell your case manager and the BOPAS medical officer as your dose may need to be adjusted. (Going on OST is a good time to have your liver function checked out; you can organise that through your GP). Other medical conditions and medications also affect methadone i.e., epilepsy.

P.S. If you have a date to enter hospital for any reason or you unexpectedly end up in hospital, let BOPAS know so they can liaise with the medical staff to ensure the continuation of your dose.

If you need more information about methadone speak with your Case Manager, phone 07 579 8391.

*Te Whatu Ora Hauora a Toi Bay of Plenty has an active commitment
to the Treaty of Waitangi and the improvement of Māori health.*

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