Waitemata District Health Board
Best Care for Everyone

AOTS 2. Facts about OST medications

Methadone was first used to treat opioid addiction in the 1960s and the first NZ methadone clinics opened 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 Auckland the methadone formulation used is Biodone Forte.

Buprenorphine is a more recent addition to the treatment of opioid dependence in NZ. It is available only in Suboxone® a pill which also contains naloxone - also known as Narcan the drug used to bring people out of overdose. Naloxone has been added to buprenorphine to deter people from injecting.

Benefits of OST meds

Methadone is taken orally and buprenorphine under the tongue so both can help IV users move away from injecting and its associated risks. Other benefits include:

Methadone

- is long-acting with an average half-life of 25 hours (tho it can range from 13-55 hours) meaning most people can be stabilised on one dose of methadone per day
- When starting daily dosing methadone levels build up very slowly in the bloodstream, much more slowly than other opiates. Once you are on a regular daily dose of methadone the differences between peak and trough blood levels are very small so you shouldn't experience any highs (sedation/ nodding) or lows (withdrawals) over a 24 hour period when you're on the dose that is right for you

Buprenorphine

- is an alternative for people who experience intolerable effects from methadone or have adverse side effects including methadone-related changes in heart rhythm
- Starting on buprenorphine and finding the right dose is more rapid than starting on methadone
- It is safer than methadone in accidental poisonings (e.g. if taken by a child, tho if a child does take buprenorphine this is an emergency and medical help should be sought)

Potential risks of OST medications

There are risks with any medications especially if they are combined with other substances including alcohol which increases the risk of black outs and overdose as, like opioids, it depresses the central nervous system.

- Using other central nervous systems depressants such as benzos (diazepam, temazepam, clonazepam etc), tranquilisers, barbiturates and other opioids significantly increases the risk of sedation and overdose
- Methadone and buprenorphine can interact with a number of medicines including some antibiotics, some antidepressants and some anti-epilepsy drugs. Make sure you tell the prescriber if you're taking any other medicines. (For info on prescribed drugs see *AOTS Information Sheet 18 Methadone and medication interactions*.)
- Be aware that the metabolism of methadone can be affected by some herbal medications so use these with caution. Check with your pharmacist or doctor to see if there are any likely interactions before starting any herbal medications and make sure you tell the prescriber if you're already taking any.

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 (See *OST and You* pp.30-31)

People starting out on methadone may think they need more methadone because they're not experiencing the effects they're after - but a larger dose only makes people feel like they've had more methadone and increases the risk of overdose.

Possible side effects

Although most opioid dependent people tolerate substitution meds well some people experience side effects which may be mild or severe and may or may not last long. People taking methadone report experiencing increased sweating, dry mouth, eyes and nose, and constipation. (For more info see *OST and You* p.15)

Constipation from any opioid can be alleviated by maintaining a high fibre diet and drinking lots of water and non-alcoholic fluids.	Opioids slow movement in the gut so constipation caused by opiates can benefit from a stimulant laxative. Laxatives which increase bulk in the gut can actually make the problem worse. Ask your doctor, nurse or pharmacist for advice in managing constipation associated with opioids.

The side effects of buprenorphine tend to occur early in treatment, are mild and subside with time. Although these effects appear to be generally unrelated to dose, nausea is more common with doses over eight milligrams and dizziness occurs more commonly at high doses. The most commonly reported side effects are:

• Headaches	are very common early in treatment but usually settle down in a few days
• Tiredness or drowsiness (especially after a dose)	usually stops within days to weeks
• Nausea and vomiting	usually stop after a few days
• Abdominal pain (cramps)	usually settle down quickly
• Skin rashes, hives and itching	If this happens please tell the doctor, nurse or pharmacist. It may be nothing to worry about, but could also be a sign of something more serious like an allergy.
People experiencing significant side effects from Suboxone® may need to transfer to an alternative medication.	Breathing difficulty and/or swelling of the face, lips, tongue, or throat require immediate medical attention.

Less common (though no less significant) side effects of methadone and buprenorphine include difficulty passing urine and reduced sexual functioning due to a reduction in sex hormones which can also cause changes to women's menstrual cycle and increase the risk of osteoporosis in both men and women as we age.

Methadone and your teeth

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

- 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
- Dry mouth. All opioids inhibit saliva production. Saliva protects against plaque which causes decay. Most dentists have products available (tooth mousse, gum etc.) to help alleviate dry mouth and reduce plaque and decay

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.

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Facts about methadone

- Methadone hydrochloride is a synthetic opioid. It acts on the same opioid receptors as natural opiates and has many of the same effects. Due to its long duration of action, strong analgesic effect, and very low cost it is useful for the treatment of opioid dependence and relief of pain
- Methadone is absorbed and stored in various sites in the body and is gradually released into the bloodstream. It takes 4 hours for your methadone dose to 'peak' in your system. It takes about 72 hours (3 days) to get the maximum effect of your first dose
- People receiving methadone treatment do become dependent on methadone in that they will experience withdrawal symptoms if they stop taking it; they need it to feel 'normal'. 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 compared to when you suddenly stop taking other opiates
- Methadone overdose is potentially fatal especially for people with no or little tolerance. Keep it away from children!

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
- Congenital abnormalities in unborn children (abnormalities existing at and usually before birth)
- Decreased cognitive ability - thinking, perception, and remembering - except possibly during stabilisation or restabilisation on methadone. (Excessive alcohol use however is known to cause cognitive impairment)

All of this applies only if methadone is not being used in combination with other drugs that act on the nervous system (including some prescribed drugs)

Other health issues:

- If you have asthma, diabetes, epilepsy, hepatitis, liver disease, chronic pain or another medical condition it's important to tell your key worker and/ or doctor as this could affect your treatment and AOTS may need to liaise with your GP and/or specialist
- Methadone is metabolised in the liver so if your liver function changes abruptly (you may notice your urine gets darker or the whites of your eyes go yellow) tell your key worker or doctor. Entering OST is a good time to have your liver function checked out
- Kidney disease can also alter your body's ability to excrete methadone.

If you have a date to enter hospital or you unexpectedly end up in hospital let AOTS know so there can be liaison with the medical staff to ensure your OST meds continue and that you receive adequate pain relief during and if necessary after you leave hospital.

Facts about Buprenorphine with naloxone (Suboxone®)

Like methadone buprenorphine is designed to stop withdrawals and reduce the craving to use but has some differences in that:

- People report feeling more clear-headed, less 'cloudy' than with methadone (though not everyone likes that clear-headed feeling)
- Buprenorphine is much less likely than methadone to cause overdose and possible death if it's the only thing you're taking. This is because of its 'ceiling effect': after a certain dose the drug produces no more effect, but the effect it does produce lasts longer. However if you try to override the blockade effect by using higher doses of opiates then the risk of overdose is significantly increased because when the buprenorphine wears off the effects of the other drugs kick in and over you go
- Many people find it easier to withdraw from buprenorphine than methadone. Anecdotal reports from CADS clients who have previously used both buprenorphine and methadone to withdraw from opiates are that most prefer Suboxone® for withdrawal though they do warn of post-withdrawal symptoms
- As with methadone, you do become dependent on buprenorphine. A missed dose on daily dispensing should not cause any substantial withdrawal symptoms because of the long lasting effect of buprenorphine though people on low doses may become uncomfortable
- Suboxone® currently comes as a lemon-lime flavoured sub-lingual tablet in 2 mg and 8 mg. The effects come on within 30 - 60 minutes and the full effects after 1 - 4 hours. The duration of effects varies according to the dose and the person taking it. In general, the higher the dose, the longer the effects
- As yet there's limited research available about pregnancy and Suboxone®. If you become pregnant whilst on Suboxone® the AOTS doctor and keyworker will decide with you the best option for you and your baby. See *AOTS information sheet 12 Pregnancy and OST* for more information.
- Buprenorphine has proven to be a safe medication, effective in keeping people in treatment and in preventing the use of illicit opiates, though not more effective than methadone. The differences in treatment outcomes for people using buprenorphine as compared to people using methadone are small.

The risks of injecting buprenorphine

- Suboxone® isn't designed for injecting which can be painful and can cause tissue and vein damage and blood clots and long term effects on the lungs due to particles getting into the lungs via veins.
- Injecting buprenorphine that's been in someone's mouth (even if it's your own) can result in fungal endophthalmitis – an infection forms INSIDE the eye. This is a big deal, as the internal eye is mostly filled with fluid and quickly turns into a giant abscess. Also the retina is a sensitive structure and can get damaged easily.

Pain management

- People taking Suboxone® can use non-opioid analgesics such as paracetamol, aspirin and NSAIDs/non-steroidal anti-inflammatory drugs like diclofenac and ibuprofen for mild to moderate pain relief. Opioid medications are less effective if you are taking Suboxone®. Speak to the doctor about other options for severe pain
- Just in case you are in an accident and require emergency medical assistance CADS will supply you with an information card you can keep in your wallet saying you are taking Suboxone®. This is to inform the emergency medical personnel that usual opioid pain-relief medications such as morphine may not give you the pain relief you need and you may need to be given alternative pain medication or a different dose.

Hospitals may not carry a stock of Suboxone® so if you have any planned admissions it's important to tell your nurse, doctor or key worker so they can help arrange your medication for you.