Clinical Excellence Division

Queensland Medication-Assisted Treatment of Opioid Dependence:

Clinical Guidelines 2018

Queensland Government

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An electronic version of this document is available at https://www.health.qld.gov.au/clinical-practice/guidelines-procedures/clinical-staff/mental-health/guidelines.

Acknowledgements

These clinical guidelines have been based on evidence derived from research literature, consultation with clinicians, national policies and clinical guidelines and other jurisdictional consultation and opioid treatment policy documents. It is acknowledged that these guidelines draw on:

- National Guidelines for Medication-Assisted Treatment of Opioid Dependence (Commonwealth of Australia, 2014)
- Consultation with the New South Wales Ministry of Health
- Policy for maintenance pharmacotherapy for opioid dependence (Victorian Department of Health and Human Services, 2016)
- The West Australian Community Program for Opioid Pharmacotherapy (CPOP) Clinical policies and procedures for the use of methadone and buprenorphine in the treatment of opioid dependence (2014)

They seek to give clinicians the information they require to give optimal care to our client population.

Many clinicians have contributed to these guidelines. While not all have been individually named below, the input of each is equally appreciated. In particular, preparation of these guidelines was undertaken by the MATOD Reference Group as follows:

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Foreword

The Queensland Medication-Assisted Treatment of Opioid Dependence: Clinical Guidelines 2018 (Queensland Health) represents a revision of the Queensland Opioid Treatment Program: Clinical Guidelines 2012. The term "medication-assisted treatment of opioid dependence" (MATOD) used in the title signifies a more encompassing approach, indicating the use of medication and psychosocial support in combination for treatment of people who are opioid dependent.

These guidelines align with national directions and recommendations, and incorporate the latest clinical evidence for treatment of opioid dependence. The clinical guidelines cannot provide detailed direction for managing every client in every situation. In some circumstances, clinicians may need to vary their clinical practices from what is suggested in this document. It is essential that, under such circumstances, clinicians clearly document the reasons for going outside the guidelines in the client's clinical file. Individual medical practitioners, nurse practitioners, pharmacists and other clinical staff are responsible for decisions about the safety and effectiveness of treatment for each client. The guidelines are not intended to replace professional judgement in individual cases.

This document may also be referred to as a Health Management Protocol (as required by the Drug Therapy Protocol – Opioid Treatment Program). Alcohol and Other Drug Services and private practitioners offering OTP should operate in a manner that is consistent with the Queensland Medication-Assisted Treatment of Opioid Dependence: Clinical Guidelines 2018 (Queensland Health). Individual services should develop workplace instructions and procedures that remain consistent with both the national and state guidelines while reflecting local needs and circumstances.

Disclaimers

In these guidelines, 'Opioid treatment program (OTP)' refers specifically to medication-assisted treatment of opioid dependence using opioid agonists (methadone, buprenorphine), while 'Queensland Opioid Treatment Program (QOTP)' relates to the associated Queensland legislative and regulatory processes.

The term 'OTP service provider' refers to a private prescriber or Queensland Health OTP Clinic holding an approval to treat a client on OTP. This has been adopted to delineate the process of communication between OTP providers and agencies. It acknowledges that in an OTP Clinic, clinicians within the multi-disciplinary team represent the prescriber/treating team when communicating with agencies. 'Prescriber' is inclusive of medical and nurse practitioners, while 'delegate' covers clinicians functioning within their scope of practice in an OTP Clinic. 'Medical addiction specialist' includes addiction psychiatrists and addiction medicine specialists. Where mention is made of OTP service provider and GP concurrently, this relates to when the GP is not the private OTP prescriber for the client.

In this document the term 'client' is used to refer to people seeking assistance with opioid dependence issues and engaged with OTP service providers. The terms patient, service user, consumer, person who uses drugs or person who injects drugs are used in various other settings.

For the purpose of this document, buprenorphine refers to both buprenorphine-mono (Subutex®) and buprenorphine/naloxone (Suboxone®) unless specifically stated.

Executive summary

The Queensland Opioid Treatment Program began in 1977 with the opening of the first Queensland Drug Dependence Clinic. The policy and procedures manuals and clinical guidelines have each gone through several editions, up to the current 6th edition - The Queensland Medication-Assisted Treatment of Opioid Dependence: Clinical Guidelines 2018 (Queensland Health).

Changes made in the 2018 Guidelines include:

- increased focus on combination of medication and psychosocial support for clients
- combined chapters previously titled 'managing treatment-related issues' and 'clients with particular needs' into a single chapter titled 'issues affecting treatment"
- categorisation of clinical needs for clients, with varying frequency of reviews according to clinical parameters (i.e. a 'case acuity' approach)
- inclusion of OTP Clinic case reviews
- risk assessment to determine suitability for take-away and unsupervised doses with attribution of lower, moderate or higher risk rating. Varying access to take-away and unsupervised doses accordingly. Inclusion of risk mitigation strategies to reduce potential harms associated with take-away and unsupervised doses.
- inclusion of early access to buprenorphine/naloxone take-away doses for clients with nil injecting history and assessed as lower risk
- restart of client's usual dose of OTP medication after 3 missed doses
- expanded section covering poly-substance use, with addition of nicotine and cannabis, and inclusion of management of different scenarios with benzodiazepine use.
- methadone take-away doses approved for travel to include limited supply of liquid formulation, due to concerns about stability of diluted product. Methadone tablets to be prescribed for remainder of period.
- pharmacist chapter - added sections on blind dose, split dose, stop dose, dose above recommended levels, and expanded section on diversion
- addition of International Travel letter (sample)
- addition of Quick Reference Guide – Hospital, to assist with process for dosing inpatients on OTP
- amended Quick Reference Guide – Pharmacists, to reflect common clinical scenarios
- removal of references to buprenorphine/naloxone tablets
- removal of full product information for OTP medication, and replaced with reference links
- summary of additional new sections:
    - persistent pain
    - ageing clients
    - palliative care
    - rural and remote
    - nicotine
    - cannabis
    - early access to buprenorphine/naloxone take away doses
    - buprenorphine dose exceeding 32mg
    - authorised agent
    - take home naloxone

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1.1 Opioid dependence

Opioid dependence is a chronic, relapsing disorder that affects the physical and mental health of people as well as their social wellbeing and function. It is a complex biopsychosocial disorder. People affected feel a loss of control over their use of opioids, and continue regular and often heavy opioid use despite health, legal and relationship problems.

Some harm may occur with any opioid use, but problems (particularly dependence) are more common with regular use over long periods of time. Not everyone who takes opioids, even long term, develops dependence. Multiple risk and protective factors interact to determine the likelihood of dependence. These factors are biological, psychological, social and cultural [1].

1.1.1 Why treat opioid dependence?

In the 2016 National Drug Strategy Household Survey, 3.6% of Australians aged 14 years and over had used opioid containing pharmaceutical analgesics for non-medical purposes in the last 12 months. 75% of these had misused over the counter codeine products. The population prevalence of recent heroin use was 0.2%, while non-medical use of methadone or buprenorphine was 0.1% [2].

Despite the relatively low prevalence, the economic and social cost of opioid drug use is relatively high due to:

- loss of life through fatal overdose, with opioid-related deaths occurring at a much younger age than deaths attributed to alcohol or tobacco
- medical and mental health consequences, including transmission of hepatitis C, hepatitis B and Human Immunodeficiency Virus (HIV)
- social consequences to individuals and their communities, including the impact upon relationships, employment, education, housing, parenting, finances and crime
- cost to health and social services, law enforcement and judicial systems [1].

1.2 Treatment considerations

1.2.1 Goals and expectations

The broad goal of opioid dependence treatment is reducing harm due to unsanctioned use of opioids. Queensland Opioid Treatment Program (OTP) functions within a harm minimisation framework, seeking to work collaboratively with clients, to achieve realistic individual goals.

While abstinence can be an important long-term goal, this expectation does not reflect the reality of drug dependence treatment in terms of complexity, the use of pharmacotherapy or the extended duration of treatment needed by some people.

OTP can lead to psychological stability, improved control over drug use and eventual abstinence from opioid drugs. Improvements tend to become significant after 3 months of treatment, with the majority of benefit gained after at least twelve months in treatment. Benefits may be sustained with continued treatment.

An emphasis on abstinence to some extent devalues other achievements that can be made through treatment. For most people entering treatment, short-term achievable goals are important, such as:

- staying alive
- reducing unsanctioned drug use
- reducing high-risk activities (e.g. overdose, disease transmission, suicide)
- improving physical and psychological health
- improved psychosocial functioning, including relationships, finances, employment and parenting
- reducing criminal behaviour [1].

1.2.2 Client journeys

These goals represent steps along a continuum: from dependent drug use, through reduced safer use, to abstinence. Reduced or controlled use, stable relationships, employment or better health are important changes that may encourage abstinence in the future. 'Slip ups' or lapses are a normal part of changing any human behaviour. Every time they occur, a person can learn from the experience and develop better ways of dealing with a similar situation in the future.

People commonly seek treatment when they are in crisis. For example, their drug use may have escalated to a point of being out of control, they have been given an ultimatum from family, or they may face criminal charges. In these crises, people often develop a resolve to stop using drugs and change their lifestyle. They tend to seek short-term treatment, hoping that an attempt at withdrawal will be sufficient to stop drug use, without necessarily having considered all treatment options or realistic goals.

To respond effectively to opioid use, a treatment system must provide a range of options. Some options need to be accessed quickly and there should be multiple points and levels of entry. To ensure the client's broader needs are addressed, the treatment system also needs links to primary and other specialist health, welfare and social service providers [1].

1.3 Treatment interventions

1.3.1 Medication Assisted Treatment of Opioid Dependence (MATOD)

MATOD is a combination of medication and psychosocial support. The medications eliminate withdrawal, control or eliminate cravings and attenuate or block the euphoric effect of further opioid use [3]. While medication alone can bring about some behavioural change [4, 5], psychosocial support is seen as critical to sustainable change.

The medications used in MATOD are of two broad types - opioid agonists and opioid antagonists.

Opioid agonists

- Methadone is a full opioid agonist, and therefore binds to and activates mu opioid receptors in the brain. Increasing doses of full agonists produce increasing effects.
- Buprenorphine, as a partial opioid agonist, binds strongly to mu opioid receptors yet has a lower intrinsic activity, thus producing a ceiling effect. Partial agonists will block activation by a full agonist, similar to antagonists.
- The pharmacological properties of methadone and buprenorphine make them excellent replacements for problematic opioid drugs.

Opioid antagonists

- Naltrexone is an opioid antagonist. It binds to mu opioid receptors, but does not activate them, and prevents the receptors from being activated by agonists. Naltrexone is used in abstinence-oriented programs to support relapse prevention [3].

Treatment retention rates for clients prescribed methadone or buprenorphine for six months are around 44%, compared to 4% for clients prescribed naltrexone [6].

Psychosocial support

Psychosocial support is integral to a comprehensive approach to recovery. It entails interventions to support health, psychological, social and other issues occurring for the client. The combination of psychosocial interventions (e.g. cognitive behaviour therapy) and pharmacotherapy can improve therapeutic outcomes, such as retention in treatment, reduced substance use, and less risky injecting behaviours [7, 8]. Treatment builds on gains, and enhances the resolve and commitment for behaviour change as appropriate for each individual.

Psychosocial support should be phased and layered to reflect changing client needs over time, with the style and content adapted to fit preparedness for change and cognitive capacity [1]. This typically involves monitoring progress in treatment over time and establishing multiple, achievable milestones to map a treatment pathway. During treatment, goals are likely to change making ongoing goal-setting essential. At different points, emphasis may be on quality of life, and reduction of problematic risk behaviours. Abstinence from drug use may arise from behavioural change, but will not necessarily be a goal throughout the treatment pathway [3].

1.3.2 Withdrawal interventions

Withdrawal interventions aim to help clients to safely and comfortably reduce and stop taking opioids. This treatment may be elective, or occur because of interrupted access to opioids (e.g. hospitalisation, incarceration, travel). Withdrawal alone rarely results in long-term changes in opioid use. However, it is a treatment that many clients wish to access, and may attract some who would otherwise not seek help. It can be considered a starting point for ongoing treatment rather than as a complete treatment in its own right. The loss of tolerance and consequent risk of overdose if the client relapses should be strongly emphasised if a client chooses this route, the hope being they may switch to maintenance after a few days of withdrawal treatment.

Better outcomes usually require longer-term treatment. Given this, clients additionally need access to services such as:

- OTP
- counselling
- residential rehabilitation
- self-help programs
- naltrexone treatment (see Section 2.3)
- naloxone / overdose intervention (see Section 3.4).

There is an increased overdose risk following withdrawal due to loss of tolerance.

1.3.3 Counselling services

Counselling for opioid dependence can be delivered in individual (one-to-one) or group settings and many different approaches are used. Evidence suggests that counselling services on their own are generally not effective in achieving long-term abstinence in people who are opioid dependent. Counselling is more effective when delivered after withdrawal, and/or in conjunction with other long-term

treatment approaches (e.g. medication-assisted treatment, residential programs).

1.4 Principles of OTP

The broad goal of OTP is to reduce health, social and economic harms to individuals and the community arising from unsanctioned opioid use. Specific aims include:

- significantly reduced use of unsanctioned opioids
- reduced risk of overdose
- reduced transmission of blood-borne viruses (BBV)
- improved health and social functioning, including a reduction in crime.

These objectives may not be achieved with every person, nor will they be achieved to the same degree in every OTP setting. The aim is to reduce drug-related harm as much as circumstances allow for each client. Benefits are greatest when OTP is easily accessible, entry into treatment is prompt and retention in treatment is high. The following principles should guide the provision of OTP in Queensland:

- **Availability**: Services should be available where a need for opioid treatment services exists.
- **Access:** To be accessible to clients, services should be located at appropriate sites and opening hours should support optimal service use. Treatment should be affordable. Clients who cease treatment and relapse should have prompt access back into treatment.
- **Acceptability:** The operation of opioid treatment services should be acceptable to key stakeholders including clients, service providers and the local community. Opioid treatment services should develop protocols that encourage good therapeutic relationships between clinicians and clients.
- **Collaboration:** A collaborative approach, involving the client in treatment decisions as far as possible, is likely to maximise their engagement and retention in treatment. Private prescribers will usually see their clients monthly; in public clinics, the case manager often has the most regular contact with the client.
- **Equity:** Opioid treatment services should be planned and operated to reduce inequities between target groups in terms of access to services and the quality of services offered. All clients should be treated in a non-judgmental manner and offered access to a full range of services, including medical, psychological and welfare.
- **Quality of care:** Opioid treatment services should be planned and operated in a manner that ensures quality services are provided, consistent with state and national guidelines. People who manage and operate opioid treatment services should be accountable for the performance of these services, and have processes in place to ensure accountability.
- **Choice:** Unless there are compelling reasons (for example, a known allergy or repeated diversion) clients should be provided enough information to make an informed choice between the medications. Influences about medication choice include client experience, practical considerations around dosing and individual responses to a particular drug. When client and/or community safety is at risk, the choice of treatment may be restricted to reduce the potential for harm. Reasons for restrictions on treatment options should be clearly documented in the client's clinical file.

Ideally, complex clients should be managed in a recognised opioid treatment clinic.

1.5 OTP Treatment services in Queensland

1.5.1 OTP service providers

OTP in Queensland is provided by Queensland Health OTP Clinics, and medical prescribers authorised as private OTP prescribers.

Queensland Health OTP clinics use a multidisciplinary team approach. Specialist medical, nursing, allied health and pharmacy professionals provide a mix of medical care (including prescribing), case management, counselling and psychosocial support.

Private OTP prescribers work in a variety of settings, ranging from general practitioners in primary care, to addiction medicine specialists and psychiatrists working in private clinics. Interventions to reduce risks associated with use of opioids and other substances are integral, while adjunctive treatment may vary depending on the specialty of the private prescriber. Holistic care and management of co-morbidities may be managed independently by the private prescriber, in consultation/collaboration with other health service providers, or by referral to other services.

1.5.2 OTP pharmacy services

OTP pharmacotherapy is primarily dispensed through community pharmacies. Some OTP Clinics can dose clients during the induction period, with stabilised clients then transferred to community pharmacies (see Section 5.7).

1.6 Optimising the benefits of opioid treatment

1.6.1 Length of time in treatment

Clients should be encouraged to remain in treatment for at least 12 months to ensure enduring lifestyle changes. Opioid treatment services should routinely monitor retention rates as a quality activity and aim for retention rates of at least 40 per cent at 12 months.

1.6.2 Quality of the therapeutic relationship

Program policies, practices and staff attitudes are critical factors influencing the quality of opioid treatment programs. In more effective programs, clients have a good therapeutic relationship with at least one staff member. In addition, certain staff attitudes – notably, acceptance of the idea of indefinite maintenance rather than abstinence – are associated with better treatment outcomes. Such factors contribute to the success of the program in attracting and retaining clients in treatment. This, in turn, is the key to achieving good outcomes from both individual and public health perspectives.

1.6.3 Medical and counselling services

Where the prescriber does not offer ancillary services on site, every effort should be made to refer clients to an appropriate facility.

1.6.4 Avoiding hazards of opioid treatment

Hazards associated with opioid treatment include overdose, accidental poisoning of someone other than the client, and diversion of methadone and buprenorphine. To minimise these hazards:

- medical and nurse practitioners should be authorised to prescribe OTP medication and trained in providing opioid treatment services
- opioid treatment should be voluntary and received only by those individuals assessed as suitable by an approved opioid treatment clinician
- OTP medication should generally be consumed under supervision
- opioid treatment should occur in an environment safe for clients, staff and the community.

2. Pharmacology of OTP

2.1 Methadone

Methadone is a potent synthetic opioid agonist that is absorbed well orally and has a long, although variable, plasma half-life (see Section 11.9). Methadone is usually administered as an oral liquid (5mg/mL) for the treatment of dependence on opioid drugs, and is effective because:

- the long half-life and a single daily dose of methadone produce a steady state which allows the person to function normally without withdrawal symptoms
- methadone is orally active and slowly absorbed resulting in less intoxication
- methadone is cross-tolerant with other opioid drugs allowing people who are opioid dependent to reduce drug-seeking, develop normal interests and pursue a healthy and productive lifestyle [3].

Two preparations are registered for the treatment of opioid dependence in Australia:

- methadone syrup: This formulation contains 5 mg/1 mL methadone hydrochloride, sorbitol, glycerol, ethanol (4.75 per cent), caramel, flavouring and sodium benzoate
- Biodone Forte®: This formulation contains 5 mg/1 mL methadone hydrochloride and permicol-red colouring.

2.1.1 Pharmacokinetics

Onset and duration of effects

Methadone is well absorbed after oral administration, with a mean bioavailability of around 75% (see Section 11.9). Methadone can be detected in the blood 15-45 minutes after oral administration, with peak plasma concentration at 2.5-4 hours [3].

There is considerable variability in estimates of the elimination half-life of methadone with a mean value of around 22 hours, and with most values in the range of 20 to 36 hours [3, 9]. The long half-life of methadone contributes to a continued rise in blood levels during the first week of dosing, and a relatively slow fall in blood levels between doses.

Methadone reaches a steady state (where drug elimination equals the rate of drug administration) after approximately five half-lives, or 3–10 days. Once stabilised, variations in blood concentration levels are relatively small and suppression of withdrawal symptoms is achieved. For some, however, fluctuations in methadone concentrations may lead to withdrawal symptoms in the latter part of the inter-dosing interval. If dose increases or split-dosing within a 24-hour period do not prevent this, other agonist replacement treatment approaches such as buprenorphine should be considered [10].

Table 1 Onset and duration of effects of methadone [3]

Onset of effects	15-45 minutes
Peak clinical effects	2.5-4 hours
Duration of effects	20-36 hours

Metabolism

Methadone is primarily metabolised in the liver via the cytochrome (CY) P450 3A4 and 2B6 isoenzymes, as well as 1A2, 2C8, 2C19, 2D6 and 2C9 systems [11]. Approximately 10% of methadone administered orally is eliminated unchanged. The rest is metabolised and the (mainly inactive) metabolites are eliminated in the urine and faeces. Methadone is also secreted in small amounts in breast milk [3].

Withdrawal

Onset of methadone withdrawal typically occurs 36 to 48 hours after last dose, with peak symptoms at 5-7 days. A staged reduction of methadone will reduce the severity of withdrawal symptoms and associated discomfort [12].

2.1.2 Safety and side effects

The effects of methadone are qualitatively similar to morphine and other opioids. Most people who have used opioids will experience few side-effects from methadone. Side effects of oral methadone in controlled doses are relatively minor however the long-term effects on teeth, constipation, sexuality and sleep can cause distress and need to be managed. Methadone does not damage any of the major organ systems of the body and those side effects that do occur are considerably less harmful than the effects of tobacco, alcohol and unsanctioned opioid use [3]. Central sleep apnoea is a complication of methadone treatment for some [13, 14] while others experience increased sweating.

Loss of libido and other symptoms of hypogonadism should be investigated with serum testosterone measurement, as low values may warrant testosterone supplements. Prescribers should seek specialist advice in these cases. High rates of osteoporosis are found in clients on methadone maintenance, particularly in males. Calcium and vitamin D supplements should be considered for at-risk clients, along with addressing other lifestyle and nutritional risk factors (e.g. smoking) [15, 16].

The major hazard associated with methadone is the risk of overdose [3] (see Section 7.3.1). The slow onset of action and long half-life mean that methadone overdose can be deceptive and toxic effects may become life-threatening many hours after ingestion. Because methadone levels rise progressively with successive doses during induction, most deaths occur on the third or fourth day of treatment, often in association with benzodiazepine and/or alcohol use [3]. Risks during induction can be minimised by adhering to the guidelines for doses and dose changes.

Methadone has been associated with QTc prolongation, particularly for clients on high doses. The normal QTc interval upper limit is 450 msec in men and 470 msec in women [17]. A markedly prolonged QTc interval (>500 msec) may lead to torsade de pointes, a potentially fatal form of polymorphic ventricular tachycardia. While the incidence of clinically significant QTc prolongation appears to be low, this condition is found in greater numbers in those on methadone than the estimated 2% prevalence in the general population [18]. Caution should be exercised in clients with additional risk factors for QTc prolongation, such as stimulant use, advanced age, female gender, bradycardia, electrolyte disturbances, heart disease and pre-existing QTc prolongation. Electrocardiogram (ECG) monitoring may be advisable. In the absence of other risk factors, local guidance suggests clients on or above a threshold dose of 150 mg/day, should have ECG monitoring every 3–6 months as part of their treatment plan.

2.1.3 Drug interactions and methadone

Toxicity and death have resulted from interactions between methadone and other drugs (see Section 11.10). Some psychotropic drugs may increase the actions of methadone because of additive effects. For example, benzodiazepines, anti-psychotic agents and alcohol may add to the respiratory depressant effects of methadone [19].

Other drugs interact with methadone by influencing methadone metabolism. CYP450-3A4 inhibitors can decrease the metabolism of methadone and cause overdose. These include some macrolides such as erythromycin, SSRIs (particularly fluvoxamine), antifungals such as ketoconazole, and some HIV medications. Inducers (such as phenytoin, carbamazepine or rifampicin) can cause a withdrawal syndrome if administered to clients on methadone and should be avoided if possible. If a CYP450-inducing drug is clinically indicated for the treatment of another condition, seek specialist advice [10].

Just as plasma levels of clozapine and olanzapine may increase dramatically with smoking cessation, concern has been raised about methadone toxicity with smoking cessation. This is due to the loss of induction of isoenzyme CYP1A2 by the tar in cigarettes [20]. Clients planning to quit smoking should be advised of this risk. There are case reports of suspected serotonin toxicity resulting in fatalities with use of monoamine oxidase inhibitors (MAOIs) in combination with methadone [21].

2.2 Buprenorphine

Buprenorphine is a derivative of an opioid alkaloid, thebaine. It is a partial opioid agonist with high receptor affinity (see Section 11.9). Buprenorphine has actions similar to the full agonist drugs but with less efficacy such that increases in dose have progressively less increase in effect. Dose increases beyond those required to saturate the majority of mu opioid receptor sites (usually 16mg) will cause a prolonged duration of action with additional full agonist opioids having little or no effect [3].

Buprenorphine can block the effects of other opioid agonists in a dose-dependent fashion. By its dual effects of reducing craving and attenuating the response to opioid drugs, buprenorphine reduces the self-administration of opioids [3]. Buprenorphine also exhibits antagonist effects at the kappa opioid receptor, which may contribute to an antidepressant action [22].

Buprenorphine is supplied as a film or tablet designed for sublingual absorption. These formulations are available as either buprenorphine-mono (tablet) or as a 4:1 combination with naloxone (film) [23]. Buprenorphine-mono tablet is available as 0.4mg, 2mg and 8mg strengths. Buprenorphine/naloxone film is available in Australia as 2mg/0.5mg and 8mg/2mg strengths.

The general chemical name ‘buprenorphine’ is used for information that applies to either preparation. Where it is necessary to distinguish between the preparations, the terms “buprenorphine-mono” or “mono preparation” are used for Subutex® and “buprenorphine/naloxone” or “combination preparation” are used for Suboxone® [3].

The properties of buprenorphine and naloxone are such that, when taken sublingually, buprenorphine/naloxone will act as if it is buprenorphine alone. However, if the combined preparation is injected, the naloxone will have a clinically significant effect such that it is likely to attenuate the effects of the buprenorphine in the short-term, and is also likely to precipitate withdrawal symptoms in opioid-dependent individuals using other opioid drugs. These properties of the combination preparation are intended to limit potential misuse and diversion as buprenorphine/naloxone combination preparations are less likely to be injected than mono preparations [24, 25].

The mono and combination buprenorphine preparations are largely interchangeable [26-28]. The combination preparation should not be used in women who are pregnant or breastfeeding or for clients with a proven allergy to naloxone [3].

2.2.1 Pharmacokinetics

Onset and duration of action

Buprenorphine is a long-acting drug with a terminal elimination half-life of 24–37 hours (see Section 11.9). Peak plasma concentrations are achieved 1-4 hours after sublingual administration. Typically, effects will continue to be experienced for up to 12 hours at low doses (2mg), but as long as 48–72 hours at higher doses (16 or 32mg) [3]. The prolonged duration of effect at high doses enables double (alternate-day dosing), and even triple (third-day dosing) dispensing regimens [29].

Table 2 Onset and duration of effects of buprenorphine [3]

Onset of effects	30 - 60 minutes
Peak clinical effects	1 - 4 hours
Duration of effects	8 - 12 hours (low dose, e.g. 2mg) 24 - 72 hours (high dose, e.g. > 16mg)

Metabolism

Buprenorphine is principally metabolised by two hepatic pathways: conjugation with glucuronic acid and N-dealkylation, mediated by the CYP450 3A4 isozyme. The metabolites are excreted in the biliary system, with enterohepatic cycling of buprenorphine and its metabolites. Most of the drug is excreted in the faeces and, to a lesser extent, in the urine [3].

Buprenorphine undergoes extensive first pass metabolism in the small intestine and the liver when taken orally. The use of buprenorphine by the enteral route is therefore inappropriate. The bioavailability of sublingual buprenorphine reflects the time the drug is in contact with the oral mucosa, and is approximately 30-40%.

Females exposed to the same doses of buprenorphine as males have higher blood concentrations of buprenorphine and active metabolites. The difference is likely to be due to differences in body composition, and is considered unlikely to be a major concern [30].

Withdrawal

The partial agonist properties of buprenorphine, along with its slow dissociation from opioid receptors, result in a withdrawal syndrome that is milder than that from heroin, morphine and methadone. Typically, the withdrawal syndrome following the abrupt cessation of long-term buprenorphine treatment emerges within three to five days of the last dose, and mild withdrawal features continue for several weeks [29].

2.2.2 Safety and side effects

The side effects of buprenorphine are similar to those of other opioids [31], the most common being constipation, disturbed sleep, drowsiness, sweating, headaches, nausea and reduced libido [3]. Unlike methadone, the effect of buprenorphine on respiratory depression reaches a ceiling. This action makes buprenorphine safer than methadone in overdose. However, even low doses of buprenorphine can be toxic when combined with sedatives such as benzodiazepines and alcohol [3].

Dose response studies show that high doses of buprenorphine (16mg daily or more) do not result in substantially greater peak opioid effects than lower doses (8 or 12mg). A 16 mg dose results in 85-92 per cent reduction in mu receptor availability [29]. Doses many times greater than normal therapeutic doses appear to be well-tolerated in most individuals, and rarely result in clinically-significant respiratory depression, except in individuals who are not opioid tolerant.

2.2.3 Drug interactions

Precaution should be exercised when buprenorphine is administered with CYP3A4 inhibitors (e.g. protease inhibitors, some drugs in the class of azole antimycotics such as ketoconazole, calcium channel antagonists such as nifedipine, and some antiviral medications such as atazanavir) as this may lead to increased plasma concentrations of buprenorphine [19] (see Section 11.10). There is a case report of serotonin toxicity that may have been associated with buprenorphine in a client on tricyclic antidepressants [32], and three reports of serotonin toxicity associated with buprenorphine in combination with MAOIs [33]. However, buprenorphine appears to have less serotonergic potential than methadone [33].

Buprenorphine exerts a degree of competitive blockade to the effects of full agonist opioids, which may complicate the use of additional opioids for analgesia.

Under certain circumstances, buprenorphine may precipitate opioid withdrawal symptoms one to four hours after the first dose [34]. It has a higher affinity and lower intrinsic activity than full agonists such as methadone, morphine or heroin. Consequently, buprenorphine displaces agonists from opioid receptors and, in the short term, may not produce sufficient agonist effects to compensate for the displaced opioid, producing withdrawal as the buprenorphine reaches its peak effects [3]. This can largely be avoided by using appropriate dose induction procedures [34].

2.3 Naltrexone

Naltrexone is an antagonist at the mu opioid receptor (see Section 11.9). In doses of 50mg/day, oral naltrexone will block the effects of opioid drugs. In naltrexone maintenance treatment, this blockade of opioid drugs provides support for relapse prevention treatment. Sustained release and implant preparations of naltrexone are currently not registered in Australia and remain experimental.

Naltrexone is indicated as an adjunctive relapse prevention treatment in people who have withdrawn from opioids and are seeking to remain abstinent. Given the potential for overdose after relapse, naltrexone treatment is most likely to be useful for those with a reasonable chance of remaining abstinent. Such groups include employed clients, those who have been using drugs for only a brief time (e.g. younger clients) and those under threat of legal sanctions [1].

Contraindications to naltrexone treatment are:

- current physiological dependence on opioids – those currently physiologically dependent should be offered withdrawal management or referred to specialist services
- acute opioid withdrawal – there needs to be a drug-free interval before commencing naltrexone
- opioid use for chronic pain states – this requires specialist assessment
- acute hepatitis or liver failure - as naltrexone can be hepatotoxic in high doses. The margin of separation between the apparently safe dose of naltrexone and the dose causing hepatic injury appear to be only fivefold or less
- known adverse reactions or sensitivity to naltrexone [1].

Administration of naltrexone to a client who is physically dependent on opioids will precipitate a severe withdrawal syndrome.

3. Assessment

3.1 Initial assessment

A comprehensive biopsychosocial assessment is essential to determine the client's needs and the most effective evidence-based treatment [35].

Assessing a client for opioid dependence aims to:

- establish an effective therapeutic relationship with the client
- clarify diagnosis of opioid dependence
- determine the evidence-based treatment suitable for the client
- determine treatment goals with client (with harm-reduction principles in mind)
- enable the client to make an informed decision about treatment
- meet the legislative requirements (e.g. documentation)
- formulate an initial treatment plan [36].

The initial assessment may be conducted by health practitioners from different professional backgrounds. A medical assessment must be conducted by a doctor or nurse practitioner when the proposed treatment includes pharmacotherapy.

Initial assessment consists of history-taking, examination, investigations, and a review of relevant collateral information [1]. It should cover the broad range of medical and mental health conditions that frequently accompany opioid dependence [3, 35]. Detail included in the following domains is pertinent:

3.1.1 Substance use history:

- OTP treatment history (contact MRQ - see section 11.15)
- age when first used substances and relevant circumstances
- age when first used opioid(s) and relevant circumstances
- age when first dependent on opioids
- longest opioid-free period: how was it achieved?
- number of substance-free periods: how were they achieved?
- all current substance use, including alcohol, tobacco, cannabis, over-the-counter medications, psychostimulants, prescribed medications and caffeine
- confirmation of, and duration of, dependence on opioids
- cues for substance use
- history of substance- related problems (e.g. substance-induced psychosis, withdrawal seizures)
- the perceived advantages versus disadvantages of substance use in contrast to non-substance use
- time of last use of opioids and other substances
- route of administration (including needle-sharing and equipment-cleaning practices)
- past substance treatment history [35]

Current OTP registration status and treatment history can be obtained from MRQ (see Section 11.15)

3.1.2 Medical history:

- capacity to give informed consent
- allergies, adverse reactions
- medications
- pain conditions, diagnosis, treatment, therapeutic opioid dependence (see Sections 3.3, 7.16)
- childhood illnesses
- obstetric and gynaecological conditions (see Section 3.2)
- surgery
- accidents
- infectious diseases especially viral hepatitis, HIV and tuberculosis [37]

3.1.3 Mental health history including:

- history of psychiatric symptoms e.g. depression, anxiety
- prior psychiatric treatment
- past attempts at suicide or self-harm
- areas in life requiring support
- history of violence [38]

3.1.4 Risk behaviours including infections/overdose:

- use of sterile injecting equipment (e.g. needles and syringes, water for injection)
- sharing of injecting paraphernalia
- using situations and settings
- history of overdose and severity
- any other previous complications of injecting drug use

3.1.5 Family history including:

- medical history, drug use and psychiatric history in family
- childhood history, past and current relationships with family of origin
- marriage/de-facto relationships, children and quality of relationships
- child protection and domestic violence issues

3.1.6 Social history including:

- work history (including home duties), educational level attained, qualifications
- legal problems, previous incarceration, drug court, current charges
- interests and activities, hobbies
- relationships, extent and quality of friendships within and outside the context of drug use
- cultural history, religious/spiritual beliefs
- sexual relationships: sexual preference(s), sexual practices and sexual health
- accommodation: living alone, with family, with friends, type (e.g. house, flat, caravan, etc.), rental or mortgage

- current income source, finances, debt

3.1.7 Examinations:

- mental state examination
- general physical examination with emphasis on systems that may have been affected by drug use e.g. cardiovascular, gastrointestinal and neurological systems [35]
- presence of needle track marks
- signs of opioid (or other drug) intoxication or withdrawal (see Sections 11.5, 11.6, 11.7, 11.8)

3.1.8 Investigations:

- A series of investigations may be performed to gauge the general health status of newly registered clients, when indicated. These may include:
- full blood count
- biochemical screen (electrolytes, hepatic and renal function, C-reactive protein)
- BBV screen (see Section 7.9)
- sexual health screen
- other as indicated by history or examination – e.g. electrocardiogram, chest x-ray

3.1.9 Urine screening for drugs of dependence

Urine drug screens collected on the first visit may be valuable to confirm drug use history. The place of ongoing urine tests is addressed in Section 6.5.4 of this manual.

Investigations are not compulsory for entry into the Queensland OTP.
Rather, they should be offered in the context of good medical management.

3.2 Pregnancy and lactation

As most opioid-dependent women are of child-bearing age when they present for opioid treatment, the following should be explored:

- plans about becoming pregnant
- education about contraception for those not wishing to become pregnant
- plans regarding current pregnancy
- discussion about the effect of treatment on pregnancy and birth
- discussion about breastfeeding [39, 40].

It is good practice to conduct a pregnancy test at assessment, as the outcome of the test can assist with treatment planning and medication choices. Section 7.8 provides more detail on managing opioid-dependent clients who are pregnant or breastfeeding.

3.3 Therapeutic opioid dependence

Therapeutic opioid dependence may be defined as opioid dependence that has developed in the context of opioid treatment of a painful (non-malignant) medical condition. Approximately 3% of people with persistent pain meet the criteria for this diagnosis [41, 42]. For these people, dependence on prescription opioid medication can become a more significant problem than the original underlying medical condition, which may have resolved or diminished in importance.

Assessment and recommendations

Dependence on pharmaceutical opioids in the context of persistent pain can pose a diagnostic dilemma [3]. Medical practitioners may refer clients receiving opioid medication for pain to an Alcohol and Other Drug (AOD) service/medical addiction specialist for assessment and recommendations regarding their opioid use (see Section 11.15) [35]. Such referrals are often initiated by Medicines, Regulation and Quality (MRQ) (see Section 11.15), though clients can also self-refer.

Assessment should include the following:

- alcohol and drug history
- any signs or evidence of injecting drug use
- any signs or evidence of illicit drug use, including misuse of prescribed medication
- urine drug screen
- collateral information from the GP regarding the pain condition
- collateral information from MRQ.

Features consistent with diminished control over opioid use (e.g. multiple dose escalations, unsanctioned routes of administration, use for reasons other than pain, difficulties reducing opioid use) should be explored [3]. Evidence of injecting drug use is a clear indication for OTP. While OTP may be the most effective treatment for opioid use disorder, it does not necessarily mean the client will be admitted to OTP.

The GP and client will consider the recommendations and review their treatment plan, often in conjunction with MRQ. Therapeutic opioid dependence is best managed by negotiating a realistic goal, which may be cessation of opioids or review of the maintenance dose of opioid medication. The latter may be the only realistic option for people who have used large quantities of opioids for a number of years. In this instance, the recommendation may be a change to a long acting, oral administration formulation (such as methadone tablets), and that medication supplies be issued frequently and in small quantities, to aid concordance. Advice that the maximum dose not be increased, and that lost or stolen doses should not be replaced may be warranted. Clients not compliant with the treatment regime, and whose predominant problem is judged to be opioid dependence, will generally need to be transferred to OTP (see Section 7.16.1).

If assessment reveals the client is using their opioids as prescribed and organic pathology resulting in persistent pain is judged to be the predominant problem, the client is usually best treated by the GP (the appropriate prescriber to treat persistent pain). Multi-disciplinary team involvement is advised where non-pharmacological and psychosocial strategies can be incorporated.

Parenteral opioids (particularly self-administered) are not appropriate for persistent pain management.

3.4 Naloxone

When assessing clients for opioid use disorder, OTP service providers are encouraged to provide a prescription for ‘take home’ naloxone (THN). This initial contact may be the only time the client is seen by the prescriber, and discussion about naloxone and how to administer it as part of an overdose response plan is an effective brief intervention [1].

Naloxone injection is dual listed, as a Schedule 4 medicine subsided by the Pharmaceutical Benefits Scheme, and as a Schedule 3 medicine available from a pharmacist (See Section 9.10, 11.9). Clients and their carers should be advised how to recognise and respond to an opioid overdose and how to use THN [23].

Directing the client to the following resources is advised:

- online education at Community Overdose Prevention and Education (COPE), www.copeaustralia.com.au
- download Overdose Aware App at Penington Institute website
- contact QuIHN for naloxone training (See Section 11.15).

For clients on OTP, access to THN is especially pertinent when methadone take-away doses are commenced, or when OTP is ceased [23].

3.5 Treatment planning

MATOD encompasses the different treatment approaches that combine psychosocial support and medication for people who are opioid dependent. As in other areas of chronic disease management, addiction treatment planning should:

- be an iterative process
- involve the client and reflect their circumstances and case complexity
- be based on coordinated care across service providers to address multiple domains
- be documented so as to be meaningful to the client, their carer and other service providers [3].

3.5.1 Psychosocial support

Psychosocial assistance in the treatment of opioid dependence refers to the many ways in which professional and non-professional members of society can support the psychological health and social environment of the opioid user, to help improve both the quality and duration of life [37]. Assistance can range from simple (e.g. provision of food and shelter) to complex (e.g. structured psychotherapy) [35].

One of the key roles of treating clinicians is to assist in this process, either as direct service providers, or by referring the client to appropriate services. Giving reinforcement, and organising referral to vocational, financial, housing and family assistance contributes positively to the progress of treatment. Studies of self-recovery by drug users have shown that access to formal welfare supports, together with encouragement from friends, partners, children, parents and other significant individuals, is commonly involved in the pathway out of addiction [3, 43].

Psychotherapeutic interventions

An important consideration is to match treatment and counselling approaches to the individual needs and circumstances of each client [35]. A range of different therapies have been demonstrated to benefit clients and support them in their recovery. In Queensland, Alcohol and Other Drug sector endorsed psychotherapeutic interventions include:

- contingency management
- cognitive behavioural therapy
- narrative therapy
- mindfulness
- motivation enhancement/interviewing
- solution focused therapy
- emotion regulation therapy
- acceptance and commitment therapy [35].

See: https://qheps.health.qld.gov.au/__data/assets/pdf_file/0028/594325/3_aod20therapies20a3.pdf

While medications alone can bring about some behavioural change, psychosocial support is seen as critical to sustainable change [3].

3.5.2 Medication treatment

MATOD refers to methadone or buprenorphine for substitution treatment, or naltrexone for relapse prevention treatment. The medications eliminate withdrawal and control or eliminate cravings, or block the euphoric effect of opioid use [3]. OTP is the recommended treatment for opioid dependence, with robust evidence of capacity to reduce opioid use, decrease mortality and improve health and quality of life [3]. Naltrexone-assisted treatment uses oral naltrexone, however poor retention and the potential for overdose after relapse, means naltrexone is rarely used and is reserved for highly motivated clients with good psychosocial supports [1].

All types of available treatment for opioid dependence should be considered in consultation with the client, considering their circumstances and treatment preferences and based upon the evidence of effectiveness and safety of available options. Issues that may influence treatment choice include acute medical conditions, poly-drug use, psychiatric co-morbidity, persistent pain and therapeutic opioid dependence, and difficulty attending dosing facilities [3].

3.6 The initial treatment plan

For each client, a treatment plan should be developed at the initial assessment to prioritise identified needs, and document treatment goals and processes [36, 44].

The initial treatment plan should document:

- diagnosis of opioid dependence
- OTP medication to be used and the basis for this choice
- psychotherapeutic interventions/counselling plan
- other identified issues and their targeted interventions [35].

When alternative treatment strategies are negotiated, these are to be included in the treatment plan, such as:

- withdrawal management
- AOD counselling
- liaise with the client's GP (e.g. Mental Health Care Plan referral, anti-craving medication for alcohol dependence)
- provide information about rehabilitation programs
- provide information about peer-based support organisations (e.g. QPAMS) (See Section 11.15)
- commence naltrexone treatment [35].

4. Admission to OTP

4.1 Definitions of opioid dependence

4.1.1 ICD-10 - Opioid dependence

In the International Classification of Diseases and related health problems (ICD-10), opioid dependence is defined by the presence of three or more of the following features present simultaneously at any one time during the preceding year:

- a strong desire or sense of compulsion to take opioids
- difficulties in controlling opioid use
- a physiological withdrawal state
- tolerance
- progressive neglect of alternative pleasures or interests because of opioid use
- persisting with opioid use despite clear evidence of overtly harmful consequences [1].

4.1.2 DSM-5 - Opioid use disorder

In the Diagnostic Statistical Manual, fifth edition (DSM-5), opioid use disorder combines the categories of opioid abuse and opioid dependence from DSM-IV into a single disorder [1, 45]. Opioid use disorder is defined as a problematic pattern of opioid use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:

- opioids are often taken in larger amounts or over a longer period than was intended
- there is a persistent desire or unsuccessful efforts to cut down or control opioid use
- a great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects
- craving, or a strong desire or urge to use opioids
- recurrent opioid use resulting in a failure to fulfil major role obligations at work, school or home
- continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids
- important social, occupational, or recreational activities are given up or reduced because of opioid use
- recurrent opioid use in situations in which it is physically hazardous
- continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance
- tolerance, as defined by either of the following:
  - a need for markedly increased amounts of opioids to achieve intoxication or desired effect
  - a markedly diminished effect with continued use of the same amount of an opioid
  - **note:** This criterion is not considered to be met for those taking opioids solely under appropriate medical supervision
- withdrawal, as manifested by either of the following:
  - the characteristic opioid withdrawal syndrome
  - opioids (or a closely related substance) are taken to relieve or avoid withdrawal symptoms
  - **note:** This criterion is not considered to be met for those taking opioids solely under appropriate medical supervision.

Specify if:

- **in a controlled environment** - This additional specifier is used if the individual is in an environment where access to opioid is restricted.
- **in early remission** - Full criteria for opioid use disorder were previously met. For at least 3 months within the previous year, none of the criteria for opioid use disorder were met. The symptom of "cravings, or a strong desire or urge to use opioids" is the exception.
- **in sustained remission** - Full criteria for opioid use disorder were previously met. None of the criteria for opioid use disorder have been met during a period of 12 months or longer. The symptom of "cravings, or a strong desire or urge to use opioids" is the exception.

Severity of opioid use disorder correlates to the number of symptom criteria identified as follows:

Mild: Presence of 2-3 symptoms

Moderate: Presence of 4-5 symptoms

Severe: Presence of 6 or more symptoms [45].

4.1.3 Diagnostic considerations

A person may not necessarily be physically dependent on opioids at the time of presentation. Some clients may have a prior diagnosis of opioid dependence, be in remission, and seek treatment to prevent relapse. Others may be younger than average, with a shorter opioid use history. In the absence of current neuroadaptation, the level of effort to refrain from relapsing to opioid use is a factor in considering interventions and OTP may still be a treatment option.

People recently released from prison with a prior diagnosis of opioid dependence are at significant risk of relapse. Given the high rate of death from opioid overdose in this group [46], OTP is appropriate in these circumstances.

4.2 Proof of identity

Client identity must be verified prior to admission to OTP. Health service procedures relating to identification should be followed. On rare occasions where a client is not able to provide standard proofs of identification for verification, exception to such requirements may be considered. This may be in situations where there are significant urgent concerns about harm. To assist with verification of identity, the OTP service provider can contact MRQ to see if a prior photograph is held on file from a previous QOTP admission (see Section 11.15).

4.3 Priority entry to OTP

Entry into OTP should not be delayed. Particular groups should have priority of access due to the risk non-treatment poses to the health of the individual and the wider community. Specifically:

- pregnant women and their opioid-using partners
- people with HIV and their opioid-using partners
- people who are hepatitis B carriers (HBsAg, HBeAg positive) and their opioid-using partners
- people recently released from prison (within the previous month)
- people commenced on OTP while a hospital inpatient. Good clinical practice should ensure effective communication between hospital and clinic occurs well before discharge.
- people with serious medical and psychiatric conditions.

If a client is considered to be at significantly higher risk than if they were not in treatment, clinical judgement should also be used to prioritise their treatment.

4.4 Contraindications to OTP

There are no absolute contraindications for OTP. A client should not be excluded merely based on previous unsuccessful attempts at OTP. Certain health conditions are strong relative contraindications:

- people with severe hepatic impairment (decompensated cirrhosis), severe renal impairment or respiratory insufficiency.
- people who are unable to give informed consent to treatment due to acquired brain injury and/or significant cognitive impairment.
- people who are unable to give informed consent to treatment due to acute psychosis. Those with serious mental health problems should have these conditions stabilised prior to commencement of OTP. This is to ensure informed consent can be obtained and adherence can be optimised. (There should be conjoint management with mental health services of clients with co-occurring disorders).
- people younger than 18 years should generally be considered for treatment other than methadone/buprenorphine. Although OTP should not be precluded on the grounds of age alone, caution is to be exercised in prescribing a drug of dependence to anyone aged 16–17 years. Consultation with a Child and Adolescent Psychiatrist is recommended if OTP is being considered (see Section 7.11).
- people who are poly-substance users, and whose opioid use does not meet the criteria for opioid dependence.

4.4.1 Precautions

- OTP should be approached with caution for clients who are misusing other substances, particularly depressants such as alcohol or benzodiazepines (see Section 7.7). Emphasis should be given to assessing their level of dependence on opioids, the likelihood of continued use of other sedating drugs, and the risk of overdose.
- People with a history of violent behaviour on OTP (at the clinic/surgery, the dosing pharmacy or nearby) may pose a threat to the personal safety of other clients and health professionals, and to the program's integrity. Careful consideration should be given to the relative benefits and potential harms of treatment (See Section 7.1).
- Caution should be exercised for clients with head injury and raised intracranial pressure, ulcerative colitis or biliary and renal tract spasm. Likewise, prescriber caution should be exercised for clients receiving MAOIs (or within 14 days of stopping such treatment). Seek medical addiction specialist advice in these cases [21, 32].
- People with persistent pain may require management by a medical addiction specialist [42] (see Section 7.16).
- Women who are pregnant, breastfeeding or planning a pregnancy are required to be assessed on the risks and benefits of treatment (See Section 7.8).

4.5 Client engagement and OTP

Some clients may enter treatment only to 'drop off' OTP and return to unsanctioned drug use after a brief period. Such presentations may be linked to fluctuating availability of 'street' opioids, and should not be regarded as unacceptable. Often the client's trust in the staff increases over time and the client may return to stabilise on the program. Generally, treatment duration increases with subsequent admissions.

A motivation for abstinence from all substances is not a condition for entry onto OTP. The client's motivation may change after a period of stability on OTP, and abstinence, or reduced and less risky drug-taking may be more desirable and achievable. The client's confidence and belief in their capacity to achieve and sustain progressively higher-order treatment goals (self-efficacy) also tends to grow during a stable period in OTP. The client's level of self-efficacy is a strong predictor of treatment outcome [47].

The clinician's counselling style and technique can have a positive or negative effect on a client's progress in treatment. The 'therapist effect' cannot, therefore, be ignored in the goal of providing OTP.

4.6 Establishing an effective therapeutic relationship

The importance of the first clinical contact in establishing a positive therapeutic alliance between client and clinician cannot be overstated.

Clients present for OTP with a variety of attitudes and emotions. Sometimes they are in crisis, feel vulnerable or desperate and out of control in their lives [3]. Because of previous experience, they might be suspicious of people in authority. They may be apprehensive about the response they will receive from the clinician conducting the assessment.

Clients often have a clear idea of what they want, but are ambivalent about entering OTP because of the restrictions involved. They may regard OTP as a last resort, and feelings of failure and inadequacy can be present. It is important to clearly discuss the potential benefits, limitations and frustrations associated with entering OTP. This enables them to make an informed decision about committing to a treatment that can impact their daily activities for many years.

The initial assessment is an important opportunity to begin building an effective therapeutic relationship with the client. A non-judgmental attitude, empathy, respect and willingness to listen lay the foundations for a positive therapeutic alliance [3]. Adequate time, encouragement of active client participation in the process, and discussion about the client's concerns are essential [48].

4.7 Informed consent

Determination of a client's decision-making capacity is an integral part of the initial assessment.

Clients have a right to make their own decisions about medical treatment and a right to grant, withhold or withdraw consent before or during treatment. The following should apply:

- the free and informed consent of each client to undertake treatment should be obtained in writing before OTP begins (see Section 11.11)
- full disclosure of consumer rights and responsibilities and the service provider's role and responsibilities should occur at the commencement of treatment [3].

Clients should be given information on all aspects of treatment and their rights and responsibilities, including:

- the nature of the treatment
- an overview of policies and procedures of the treatment program
- procedures for protecting clients' personal information (and circumstances in which services may be obliged to disclose information)
- mechanisms for resolving grievances
- the costs of treatment
- frequency of appointments
- details of when client will receive their first dose
- any potential hazards and problems, such as risks of overdose and impaired ability to drive if other depressants are combined with methadone or buprenorphine (see Section 4.8)
- information about relevant health issues e.g. pregnancy and breastfeeding, HIV, hepatitis C (see Sections 7.8, 7.9)
- information about safe procedures for storing medications, particularly out of reach of children (see Section 6.6.11)
- availability of support services (e.g. QPAMS) (see Section 11.15)
- risks associated with ceasing treatment [3] (see Section 8).

It is particularly important to set boundaries for behaviour while they are on OTP and that these boundaries are fully explained at the start of treatment. Information about behavioural expectations should include conditions under which a client may be involuntarily discharged from OTP. Experience shows that if limits are well understood, then aggressive, inappropriate or unacceptable behaviour can be minimised (see Sections 7.1, 8.9, 11.11).

A consistent and transparent approach to client care - one that has regard for client wishes and uses a team-based decision-making approach within the framework of the guidelines - is most likely to produce optimal outcomes.

4.7.1 Written information

Written information should be provided to each client in a form the client can take away. Clients who cannot read should be advised of their rights and responsibilities at the time they enter the program. A competent interpreter should be used for clients who are not fluent in English [3].

4.7.2 Confidentiality and Privacy

All Queensland Health employees are subject to privacy and confidentiality legislation which sets standards for handling personal and confidential information. The two primary pieces of legislation are the Information Privacy Act 2009 (the IP Act), and Part 7 of the Hospital and Health Boards Act 2011 (the HHB Act) [49, 50].

'Confidential information' is information that could identify someone (including a deceased person) who has received, or is receiving a public-sector health service. It is an offence to disclose confidential information about a person unless one of the exceptions in Part 7 of the HHB Act applies. Refer to the Confidentiality General Principles at: https://qheps.health.qld.gov.au/governance/privacy-rti/privacy.

The Commonwealth Privacy Act 1988 applies for private sector health service providers, including OTP private prescribers.

Clinicians must always respect the privacy of clients. Staff should not pass on messages, notes,

packages or goods of any kind from anyone. Staff should politely decline to answer even simple requests like “Has X been in yet?” By observing these policies, and discussing the rationale with clients, the privacy of each client is protected and a commitment to privacy is demonstrated.

4.8 Driving or operating machinery

All clients are to be advised that methadone and buprenorphine may affect their capacity to drive or operate machinery, particularly:

- during the initial stages of treatment (the first 2–4 weeks)
- after a dose increase
- when they take other CNS depressant substances (such as benzodiazepines and/or alcohol).

According to Austroads (2017):

There is little direct evidence that opioid analgesics (e.g. hydromorphone, morphine or oxycodone) have direct adverse effects on driving behaviour. Cognitive performance is reduced early in treatment, largely due to their sedative effects, but neuroadaptation is rapidly established. This means that clients on a stable dose of an opioid may not have a higher risk of a crash. This includes clients on buprenorphine and methadone for their opioid dependency, providing the dose has been stabilised over some weeks and they are not abusing other impairing drugs. Driving at night may be a problem due to the persistent miotic effects of these drugs reducing peripheral vision (p.12) [52].

4.9 Treatment goals

For a client commencing on OTP, the treatment plan should document:

- starting date and dose of buprenorphine or methadone
- initial monitoring arrangements (e.g. frequency of reviews)
- initial harm-reduction actions (e.g. BBV test)
- case management arrangements [35].

The client should be reassessed once stabilised on their OTP medication. Ideally, they will be in an improved physical and mental state that better allows them to process information and make decisions about their future. The treatment goals and management plan should then be reviewed and discussed in more detail. A desire to achieve total abstinence from drug use – including, ultimately, methadone or buprenorphine – is a legitimate goal. However long-term opioid maintenance might be more realistic in some cases. Where abstinence is the client’s desired outcome of treatment, the barriers to achieving this should be examined and the client’s confidence to achieve this goal (self-efficacy) also considered.

4.10 Client records

Each client file should contain all information relevant to the client assessment and entry onto OTP, including:

- ‘OTP conditions of treatment’ form (see Section 11.11)
- copy of client photo identification
- photograph of client (updated every 2 years, or sooner if significant changes in appearance)
- completed ‘consent to release/obtain information’ forms (e.g. GP, other service providers)
- treatment plan
- copy of QOTP Admission Form (notification completed/sent to MRQ within 24 hours of first dose) (see Sections 11.1, 11.15).

5. Commencing treatment

5.1 Choice of OTP medication

Methadone and buprenorphine are both safe and effective in the treatment of opioid dependence [3]. The choice between them should be made in consultation with the client, and informed by the client's preference and goals. Some factors can inform that choice, as summarised below.

- It is easier to transition in and out of treatment with buprenorphine. This is both an advantage in terms of greater client flexibility, and a disadvantage with lower rates of retention in treatment with buprenorphine [3].
- Buprenorphine, particularly at higher doses, has a longer duration of action, which allows for longer dosing intervals for many clients (e.g. dosing every second or third day).
- Both have a range of opioid-like side effects, with considerable individual variation. If side effects occur with one medication, it is worth trying the other. Some longer-term side effects are more common with methadone [3].
- Drug interactions are more likely to be clinically relevant with methadone, in particular interactions with medications metabolised by the CYP450 hepatic system. Induction of methadone metabolism will reduce methadone effects; while inhibition of metabolism will increase methadone effects (see Section 11.10). Monitoring of symptoms and dose adjustment may be required [3].
- Methadone may have stronger sedation and opioid-like subjective effects, which can be an advantage for some clients with concurrent psychological distress. In contrast, many clients describe greater 'clarity' with buprenorphine – an advantage for clients requiring good cognitive function (e.g. those employed, caring for children, studying, driving, elderly clients with other conditions affecting cognition, and clients taking other sedative medications) [3].
- Methadone is more commonly associated with overdose than buprenorphine, particularly:
  - during the first two weeks of treatment as tolerance increases
  - combined with other sedatives (alcohol, benzodiazepines), and
  - in individuals for whom the medication was not prescribed – in particular children and opioid-naïve adults. Consequently, buprenorphine is the preferred medication where there is limited opportunity for regular monitoring or supervision of dosing [3].
- Induction with buprenorphine is usually safer and easier, with maintenance doses reached more quickly than is the case with methadone. However, fear of precipitated withdrawal can be a barrier for some clients [3].
- It is 'easier' to switch from buprenorphine to methadone than the reverse.
- For clients who have not done well on one medication, the other should be considered.

Clients suitable for OTP should be given enough information to make an informed choice between buprenorphine and methadone.

Table 3 Comparison of methadone and buprenorphine

	Methadone	Buprenorphine
Classification	Full μ agonist Used for OTP	Partial μ agonist (high affinity, lower intrinsic activity, and slow dissociation) κ antagonist Used for OTP or withdrawal treatment
Substitutes for opioids	+ + + Reduces craving for opioids	+ + Reduces craving for opioids
Blocks effects of opioids	+ + At high doses (e.g. >60 mg)	+ + + + At low doses (e.g. ≥4 mg)
Side effects	Opioid like	Less sedating Can precipitate withdrawal
Withdrawal on cessation	+ + + Described as severe and prolonged	+ + Less severe, but may still be prolonged
Onset of effects	15-45 minutes	30–60 minutes
Peak effects	2.5-4 hours	1–4 hours
Duration of clinical effects	20-36 hours	Dose dependent 24–72 hours at high doses
Metabolism	Hepatic CYP450 + + + affected by CYP3A4, 2D6 & 1A2 inducers/inhibitors	Hepatic CYP450, (3A4) and conjugation. Less clinical impact on liver metabolism
Mode of administration	Oral	Sublingual
Drug interactions	Sedatives, opioid antagonists, inducers/inhibitors CYP450	Sedatives, opioid agonists and antagonists

5.2 Induction

The goal of the first month of treatment is to safely achieve an adequate dose of medication, stabilise the client's opioid use, and address co-existing conditions.

Key objectives of the induction dose regimen are:

- reduction of withdrawal symptoms
- reduction of cravings
- reduced unsanctioned opioid and other drug use
- client satisfaction and engagement in treatment.

The pharmacological properties of methadone and buprenorphine require different induction strategies. The greater risk of opioid toxicity and overdose during methadone induction requires a low starting dose and a slow rate of dose increase (usually over weeks in outpatient settings). The partial agonist properties of buprenorphine allow for more rapid induction. Rapidly achieving an adequate dose of buprenorphine (usually within three days) is associated with an improved rate of retention in treatment [3]. The contrasting induction strategies are as follows.

5.3 Methadone

Methadone has a delayed onset of action – with peak effects 2.5-4 hours after dosing. Clients should be cautious in using other drugs (e.g. benzodiazepines, alcohol) during initiation of methadone treatment. Clients may be assessed 2.5-4 hours after a dose to observe the peak effects of methadone (assessing for intoxication), and 24 hours after a dose to assess the extent to which the dose is preventing withdrawal [3].

The elimination half-life of methadone is typically between 24-48 hours, though extremes beyond this range are seen. Methadone accumulates in the plasma during induction, with achievement of steady state equilibrium on a dose after approximately three to five half-lives (4-7 days). Clients should be told to expect increasing opioid effects after each dose during this time [3].

Deaths during methadone induction have been related to:

- inadequate assessment of tolerance
- inadequate observation and supervision of dosing
- concomitant use of other drugs (particularly sedatives such as alcohol and benzodiazepines) [53]
- lack of understanding of the cumulative effect of methadone
- individual variation in metabolising methadone [54, 55].

5.3.1 Initial methadone dose

New clients should be dosed with caution. Initial doses should be 5-20mg/1-4mL. The initial dose should **never** exceed 30mg/6mL.

The first dose of methadone is to be determined for each client based on assessment of their severity of dependence and level of tolerance to opioids. Indicators for tolerance include:

- history of opioid use (quantity, frequency and route of administration)
- withdrawal symptoms
- findings on examination
- collateral history
- urine testing.

Importantly, these indicators cannot predict the client's tolerance with certainty [12]. A period of observation for signs and symptoms of opioid toxicity and withdrawal is a more accurate method of assessing opioid tolerance than history alone. In circumstances where there is doubt about the degree of dependence, a review when the client has withdrawal symptoms may help to resolve uncertainty about a safe starting dose.

When deciding on the initial dose, consider:

- time since last opioid use
- where dosing is to occur
- whether staff and facilities are available to observe and assess the client before and after dosing
- who will assess client prior to dosing (i.e. for signs of withdrawal/intoxication)
- use of benzodiazepines, alcohol or other sedating agents (the risk of overdose increases markedly when other central nervous system depressants are also used)
- withholding or reducing the dose if the client shows signs of intoxication with drugs such as benzodiazepines, alcohol or opioids.

The starting daily dose of methadone should be low. Usually **20mg/4mL or less** is sufficient to modify withdrawal significantly, even for clients with severe opioid dependence. Occasionally higher doses may be justified however the **maximum starting dose should never exceed 30mg/6mL**.

This maximum dose should only be prescribed when there is substantial clinical evidence of a significant opioid dependence and unequivocal signs of more severe withdrawal. The following table should guide prescribers in determining the initial dose of methadone:

Table 4 Initial methadone doses

Situation	Initial daily dose
In general, start low. The dose can always be increased. Prescribe this dose for people with low or uncertain levels of opioid dependence, high risk poly-substance use, or with severe other medical conditions [1].	5–20mg / 1–4mL methadone
Client using opioids regularly for more than six months and in the past two weeks using twice a day or more and, in addition, they have obvious needle tracks marks.	20–25mg / 4–5mL methadone
On methadone previously, has a long history of opioid dependence and is using large amounts of opioids now.	25–30mg / 5–6mL methadone

Calculating an equivalent starting dose of methadone from comparative strength opioid tables should **never** be attempted. These tables are approximations only. Additionally, some clients may have been prescribed opioids, however their medication administration was not supervised. Therefore, it is impossible to be certain that the clients consumed the quantity they report.

The client should be seen immediately before the initial dose of methadone to determine that they are not intoxicated and ensure it is safe to dose.

The client is then to be sent directly to the pharmacist for their dose or given their dose in the clinic.

Supplementary dose

Upon review by the OTP service provider, a supplementary dose can be considered for clients in severe withdrawal 4-6 hours after the induction dose [3]. This ensures safe titration of an initial daily dose for the client, subject to the recommended maximum first day dose of 30mg/6mL.

5.3.2 Methadone stabilisation: Dose adjustments

Careful assessment is necessary each day and the dose titrated against the client's clinical state. During stabilisation, dose increases should not exceed 5mg/1mL on any day except in extraordinary circumstances. The daily dose should not exceed 40mg/8mL in the first week (seven days). This is to safeguard the client from receiving a dose that significantly overshoots their opioid tolerance, with the risks of over-sedation and even fatal consequences.

5.3.3 Transfer to methadone from other pharmacotherapies

Transferring to methadone from buprenorphine

Buprenorphine to methadone transfer should be considered in the case of:

- intolerable side-effects from buprenorphine
- inadequate response to buprenorphine treatment
- transfer/travel to a setting where buprenorphine is not available (e.g. overseas)

- buprenorphine medication diversion
- client on buprenorphine facing an elective surgical admission for a significant procedure.

Methadone can be commenced 24 hours after the last dose of buprenorphine. The initial methadone dose should not exceed 30mg/6mL and clients transferring from lower doses of buprenorphine (4mg or less) should be commenced on 20mg/4mL or less of methadone. Care should be taken not to increase the dose of methadone too quickly.

Transferring to methadone from naltrexone

Where a client on naltrexone is seeking OTP, it is recommended to consult with a medical addiction specialist. If needed, MRQ can advise on a contact person for consultation (See Section 11.15).

5.4 Buprenorphine

Clients choosing buprenorphine should be commenced on buprenorphine/naloxone film unless pregnant or breastfeeding, or with a proven allergy to naloxone. Buprenorphine/naloxone combination preparations are less likely to be injected than buprenorphine only preparations. It is also easier to supervise the dosing of the film preparation, compared to buprenorphine-mono tablets [3].

As a partial agonist, buprenorphine is safer than methadone with less risk of over-sedation, respiratory depression and overdose. Hence, dose increases can be more rapid and, in general, most clients can achieve their target dose within two to three days [3].

The general principle for safe induction is that the first dose of buprenorphine should be delayed until there are objective signs of withdrawal, as assessed by a suitably trained clinician [3].

5.4.1 Initial buprenorphine dose

The first dose of buprenorphine should be administered when the client has obvious signs of withdrawal.

The aim is to stabilise clients on an effective dose of buprenorphine as quickly as possible, which leads to better treatment retention [56]. Rapid induction is most easily achieved with an initial dose in the range of 4-8mg. An exception is transfer from methadone (> 40mg/day) to buprenorphine when higher day one doses may be required (see section 5.4.3).

When considering the initial dose of buprenorphine, important considerations are:

- severity of opioid withdrawal signs and symptoms just prior to dosing
- time since last opioid used, and formulation (e.g. long-acting opioid)
- evidence of other substance use
- medical issues.

Administering a test dose

A safeguard against precipitated withdrawal, particularly if there are limited objective features of opioid withdrawal, is to administer a test dose of 2–4mg of buprenorphine (see section 5.4.4). This can be followed after 1-2 hours by the balance of desired dose (up to 8mg total) on the first day. The test dose reduces the risk of severe precipitated withdrawal, while at the same time allowing an effective total dose of buprenorphine to be given on the day of induction [1, 56].

Table 5 Initial buprenorphine doses

Situation	Initial daily dose
Clients with low or uncertain levels of opioid dependence, high risk poly-substance use, or with severe other medical conditions.	2-4mg
Clients with mild opioid withdrawal (Split dosing reduces risk of precipitated withdrawals).	2-4mg initial dose Further supplementary dose after 1-2 hours, up to maximum 8mg for first day
Moderate to severe opioid withdrawal at time of first dose [1].	Up to 8mg

An appropriate dose to reach on the first day is 8mg. The initial dose should not be greater than 8mg (with the exception of high dose methadone transfers).

5.4.2 Buprenorphine stabilisation: Dose adjustments

Careful assessment is necessary each day and the dose titrated in response to the client's clinical presentation. The following factors are pertinent:

- absorption of buprenorphine (correct dose technique is important)
- experience of side effects
- continued use of other drugs [56].

The buprenorphine dose can be increased by 2, 4 or 8mg increments daily, with upper limits of 16mg on day 2 and 24mg on day 3. Dose increments that are too small are associated with higher rates of treatment drop-out [3]. Typically, a maintenance dose will be in the range of 8–24mg/day. This can generally be achieved well within the first week of treatment, subject to adherence to the treatment plan by the client.

5.4.3 Transfer to buprenorphine from other pharmacotherapies

Transfer to buprenorphine from methadone

Buprenorphine has a higher affinity for μ opioid receptors than methadone, but a weaker action (lower intrinsic activity) at these receptors. When clients transfer from methadone to buprenorphine, methadone is displaced from the opioid receptors. Clients on low doses of methadone generally tolerate this transition with minimal discomfort. However, clients on higher doses of methadone risk precipitated withdrawal [56].

Transferring to buprenorphine from doses of methadone of 40mg/8mL or less

Wherever possible, clients should be on a methadone dose of less than 40mg/8mL for at least one week prior to receiving their first dose of buprenorphine. The first dose of buprenorphine should only be administered in the presence of objective opioid withdrawal symptoms. Optimally, the dose prior to transfer would be below 30mg/6mL of methadone [56, 57].

The following conversion rates should be used as a guide when changing from low-dose methadone to buprenorphine.

Table 6 Guide to conversion rates - transfer from methadone to buprenorphine

Last oral methadone dose	Initial buprenorphine dose	Day 2 buprenorphine dose
20–40mg / 4–8mL	4mg–8mg	8–12mg
10–20mg / 2–4mL	4mg–6mg	4–10mg
5–10mg / 1–2mL	2mg	2–6mg

The likelihood of precipitated withdrawal is reduced as the time between the last methadone dose and the first buprenorphine dose increases.

Transferring to buprenorphine from doses of methadone greater than 40mg/8mL

Most clients on methadone treatment require maintenance doses of greater than 40mg/8mL of methadone, and are unable to reduce their dose of methadone below 40mg/8mL without considerable discomfort or relapsing to other opioid use. In these cases, the inherent risks of a higher dose transfer need to be explained fully to the client [56]. It is possible to transfer to buprenorphine from methadone doses of 40–60mg/8–12mL for willing clients. The general principles are:

- Inform the client about potential risks.
- Transfer in an ambulatory setting (although inpatient care may be considered in the case of unstable substance use, co-morbidities or very high doses of methadone (>100mg/20mL). Referral to Hospital Alcohol and Drug Service (HADS) may be indicated - see Section 11.15).
- Reduce the methadone dose gradually until the dose no longer holds the client for 24 hours (aiming for less than 40mg/8mL if possible).
- Initiate buprenorphine at least 24 hours after the last methadone dose or when the client has significant, objective features of opioid withdrawal. This sometimes means that buprenorphine may not be commenced until 48–96 hours after the last dose of methadone. Clients are encouraged to wait as long as possible between the last dose of methadone and the first dose of buprenorphine to minimise the risk of precipitated withdrawal.
- Begin with a small test dose of buprenorphine (2–4mg) to reduce the risk of precipitated withdrawal. Ensure a total of at least 8mg is given on the first day. Often 12mg or more is required to manage withdrawal symptoms.
- Review frequently, titrate buprenorphine and give reassurance.

5.4.4 Precipitated Withdrawal

Precipitated withdrawal may occur if the first dose of buprenorphine is given too soon after other opioid use [3]. Clinically, it presents as rapid onset of significant opioid withdrawal symptoms, 1-4 hours after the first buprenorphine dose, as buprenorphine reaches its peak effects [3]. Recommended treatment is to continue with buprenorphine dosing and provide symptomatic medication as needed [58].

Transfer between OTP medication

Strategies can be used to minimise the risk of precipitated withdrawal when transferring a client from methadone to buprenorphine. These are summarised below (see Table 7).

Table 7 Key factors affecting precipitated withdrawal

Factor	Discussion	Recommended strategy
Dose of methadone	Doses greater than 30mg/6mL of methadone are more often associated with precipitated withdrawal. In general, the higher the methadone dose, the more severe the withdrawal experienced.	Attempt to transfer from less than 30 mg/6 mL where possible. Clients on >40mg/8mL methadone should not attempt transfer without specialist advice and support.
Time between last methadone dose and first buprenorphine dose	Buprenorphine should not be taken within 24 hours of the last methadone dose. Increasing the interval between the last dose of methadone and the first dose of buprenorphine reduces the incidence and severity of precipitated withdrawal.	Cease methadone and delay the first dose of buprenorphine until the client is showing features of methadone withdrawal.
Dose of buprenorphine	Low doses of buprenorphine (e.g. 2 mg) are generally inadequate as a substitute for methadone (unless the methadone dose is very low). High first doses of buprenorphine (e.g. 8mg or more) are more likely to precipitate withdrawal. This is a common mistake by inexperienced prescribers.	First dose of buprenorphine should generally be 4 mg, with review of the client 2–4 hours later (or early the following day).
Client expectations	Clients who are not prepared for the possibility of precipitated withdrawal are more likely to be distressed and confused by its onset, with potential negative consequences (e.g. treatment dropout, misuse of other medications).	Inform clients fully (and carers where relevant). Provide written information. Prepare a contingency management plan for severe symptoms.

5.5 Indicators for dose changes

Dose increases should only be made after the OTP service provider reviews the client.

At each review, dose changes should be considered based on the following:

- features of intoxication/withdrawal over previous 24 hours (self-report, examination)
- cravings for opioids
- additional substance use and the reason stated by the client for using
- side-effects
- adverse events (including intoxicated presentations, overdoses)
- adherence to dosing regimen (attendance for dosing, route of administration) [56, 57]
- client treatment goals (e.g. if the client requests a dose increase or decrease).

Table 8 Indicators for dose changes

Indicator	Decrease dose	Maintain dose	Increase dose
Intoxication	Features of intoxication at peak effect times after dosing		No features of intoxication particularly at peak effect times
Withdrawal		No features of withdrawal or intoxication	Features of withdrawal over preceding 24 hours, increasing in the period immediately prior to the next dose
Cravings +/or opioid use		Low or no cravings for opioids	Intense cravings for opioids in the past 24 hours or opioid use to avert withdrawal
Side-effects	Severe or intolerable side-effects	Nil or mild and tolerable side-effects	Nil or mild and tolerable side-effects

5.6 Client review during stabilisation

Initially, frequent reviews by the OTP service provider are required to:

- titrate the individual doses of methadone/buprenorphine
- undertake a more comprehensive assessment of the client
- determine the level of treatment needs and support required (see Section 6.5.2, Tables 9, 10)
- discuss treatment plans [57].

The following minimal schedule of reviews is recommended:

- daily for at least the first four days to determine the effectiveness of the dose
- then every 2–4 days until dose stabilisation is achieved (in the case of methadone)
- once OTP medication is stabilised, review weekly for the following 4–6 weeks, then each fortnight for a further 6-8 weeks (see Section 6.5).

5.7 Dosing locations

5.7.1 Community pharmacist

Pharmacists play a key role in delivering opioid treatment services. They provide a community setting, and offer flexibility and convenience for clients to be dosed near where they live or work. Their role includes assessing the client for safety to dose, administration and supply of OTP medication, and advising the OTP service provider of any concerns regarding the client's clinical presentation (see Section 9.1.2).

Once a pharmacist has agreed to accept a client, the OTP service provider faxes the pharmacist a Written Instruction and a letter of introduction with a photograph of the client attached. Written Instructions are subject to the same legal/regulatory requirements as prescriptions, therefore, original documentation is to be sent by mail to the pharmacist as soon as possible (see Sections 9.1.3, 10.9, 11.3, 11.4, 11.12).

Prescribers can verbally authorise the supply of methadone or buprenorphine, provided that within 24 hours of giving the verbal order, a Written Instruction for the medication order is faxed to the pharmacist. In the clinic setting, a delegate of the prescriber can advise the pharmacist of the OTP medication order. Within seven days of giving the verbal order, the OTP service provider must send the original Written Instruction to the dispenser [59].

5.7.2 OTP clinic

In general, clients receive their dose from a pharmacist at a community pharmacy. However where OTP clinics stock methadone and buprenorphine a client may be dosed onsite:

- during the first few days of stabilisation, when the client requires close observation for clinical safety reasons
- when there are acute clinical safety concerns (e.g. acute medical/mental health concerns and increased monitoring indicated)
- days when pharmacy is closed, and the client is not authorised for a take-away dose (TAD) (e.g. pharmacy closed on Sundays or public holidays).

5.7.3 Administering methadone or buprenorphine to clients at home

The capacity to provide methadone or buprenorphine to clients in their own home is limited by available resources. In general, if a client has a medical condition that prevents them attending their usual pharmacy, the preferred options are to provide an alternate dosing point or, if it is considered safe to do so, to provide TADs for periods of illness or incapacity.

If these options are not available/acceptable, home dosing may be necessary if the client has a verifiable medical condition requiring immobilisation or strict bed rest. OTP service providers should determine what resources are available locally to facilitate home delivery. Resources may include home delivery by the pharmacist, liaison with the GP involved in the care of the care of the client regarding options, or where appropriate approval of an authorised agent to collect the medication (see Section 6.6.8).

6. Maintenance

6.1 Psychosocial support

People with a background of opioid dependence may have a range of social problems and psychological difficulties. The stability afforded by long-term opioid substitution treatment provides an opportunity for these issues to be addressed.

In the first instance, counselling interventions play a key role in helping clients stabilise substance use and related behaviours. The psychosocial focus additionally includes stabilisation of immediate social and health issues, which often requires early implementation of a range of interventions (e.g. housing, relationship issues, budgeting, social isolation, overdose prevention, needle syringe programs) [35].

For private OTP prescribers, provision of psychological services may be integral to their practice. Where this is not available, referral for the client to access psychological support under a Mental Health Care Plan is suggested. In OTP clinics, suitably trained medical, nursing and allied health professionals can deliver AOD sector endorsed psychotherapeutic interventions. Clients may also require assistance with other health and lifestyle concerns, such as depression, anxiety, sleep disorders, post-traumatic stress, parenting, and employment, and referrals made where necessary.

While psychosocial services should be made available to all clients, their wishes should be respected if they choose not to engage with these services. Supportive style counselling skills (client-centred active listening and problem-solving approaches) are of value when not in focused, formal counselling. These skills can be useful in the day-to-day treatment of clients on OTP.

Commonly, problems arise relating to disputes over program rules, behaviour and adherence. Resolving these often requires considerable skill, negotiation and restraint. In any treatment program, there must be frequent interaction between treating clinicians and clients. How these interactions are managed can have a major impact on treatment outcome [3].

6.2 Optimal dose

Collaboration on dosing levels promotes a good therapeutic relationship by enhancing client trust and responsibility. Doses should be tailored to each client and adjusted based on:

- medication effects – intoxication/sedation or withdrawal
- side effects – many opioid side effects subside in the first 2–4 weeks of treatment, but some are persistent and may require dose adjustment
- continued drug use – increasing doses of methadone or buprenorphine is often an effective response to unsanctioned opioid use, but has a limited role in addressing use of other drugs (e.g. alcohol, cannabis, benzodiazepines, stimulants)
- client report of dose adequacy and treatment goals
- if irregular dosing attendance or dose diversion occurring [1].

Dose stability is when pharmacological equilibrium is reached, and the client no longer fluctuates between the physical states of withdrawal and intoxication [60].

6.3 Methadone

Most clients require methadone doses in the range 60-120mg/day to achieve stabilisation and this should be regarded as an appropriate range for maintenance doses [3, 37]. A small proportion of clients may require higher (e.g. up to 150mg/day) or lower (e.g. 30-40mg/day) doses to achieve their treatment goals. 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 [3, 61].

6.3.1 Dose in excess of methadone 150mg/day

Broadly, the upper limit in Queensland for a methadone maintenance dose is 150mg/day. Doses of greater than 150mg/day are generally associated with little additional benefit and may be associated with dose-related adverse events [1]. Caution is therefore advised if considering a dose increase beyond this, and it is recommended the prescriber seeks a second opinion by consulting with a medical addiction specialist or AOD service. (If needed, MRQ can suggest a contact person for consultation - see Section 11.15). For a client of an OTP Clinic, a clinical team consultation is advised. ECG monitoring is recommended at doses equal to or greater than 150mg/30mL.

6.3.2 Methadone maintenance: dose adjustments

Dose increases should only be made after the OTP service provider has reviewed the client. Adjust doses by 5 to 10mg at a time, with at least three days between each dose adjustment. In the clinic setting, a delegate can conduct the review and consult with the medical or nurse practitioner (or their documented medication orders) regarding dose changes.

Dose reductions are usually made in consultation with the client. The exception to this is when safety concerns arise, such as the client presents intoxicated or sedated. At such times, the methadone dose may be decreased or withheld.

Dose increases should be made only after the client is reviewed by their OTP service provider.

6.3.3 Split doses

Some clients may benefit from ‘split’ or multiples doses of methadone within one day, in particular:

- Clients using methadone for management of persistent pain typically require methadone doses every 8-12 hours for effective analgesia.
- Clients who are rapid metabolisers of methadone due to genetic variation or interaction with medications that induce CYP enzymes. For these clients there is some role for therapeutic monitoring of methadone plasma levels, usually in consultation with a medical addiction specialist [1].
- Pregnant women, due to increased metabolism at this time [3] (see Section 7.8.6).

Suitability for supply of a split dose as a TAD needs to be considered (see Section 6.6.2, 6.6.3, 9.3.7).

6.4 Buprenorphine

Most clients require buprenorphine doses in the range 12-24mg to achieve stabilisation, although some clients require higher (e.g. up to 32mg/day) or lower (4-8mg/day) doses to achieve their treatment goal [3]. Retention in treatment is effectively achieved with any dose above 2mg/day [62]. Daily buprenorphine doses of 12mg or more are superior to lower doses in terms of reduction in unsanctioned opioid use and associated high risk behaviours [1]. Suppression of illicit opioid use is greatest when doses are 16mg or higher [62].

6.4.1 Daily dose above buprenorphine 32mg per day

Australian product information states the maximum daily dose of buprenorphine is 32mg. Prescribing above this level is beyond the licensed limit. There is limited evidence regarding the safety of doses exceeding 32mg, and risks may include associated dose-related adverse events such as hepatitis [1].

On rare occasions, a prescriber may consider it clinically indicated to prescribe a regular daily dose above 32mg. At such times, it is suggested the prescriber seeks a second opinion by consulting with a medical addiction specialist or AOD service. (If needed, MRQ can advise on a contact person for consultation - see Section 11.15). For a client of an OTP Clinic, a clinical team consultation is advised. Fully informed consent is required from the client regarding the medication being prescribed outside licensing limits, the clinical basis for the decision, and the possible associated risks.

To clearly inform the pharmacist, OTP service providers are advised to make a notation in the 'Prescriber Instructions' section on the Written Instruction, verifying an order above the recommended level (see Section 9.3.5).

6.4.2 Buprenorphine maintenance: dose adjustments

Dose increases should only be made after the OTP service provider has reviewed the client. Buprenorphine dose adjustment is more flexible than methadone, and can be done on a daily basis with increases of 2-8mg/day [1]. In the clinic setting, a delegate can conduct the review and consult with the medical or nurse practitioner (or their documented medication orders) regarding dose changes.

Dose reductions are usually made in consultation with the client. The exception to this is when safety concerns arise, such as the client presents intoxicated or sedated. At such times, the buprenorphine dose may be decreased or withheld.

6.4.3 Reduced frequency dosing regimens

The characteristics of buprenorphine allow a wide range of dosing regimens from several times daily (e.g. management of acute pain) to once every 2-3 days. For clients who are stable based on assessment of risk factors (e.g. other substance use, intoxicated presentations, recent overdose history), reduced frequency dosing options may be considered. Options such as double or triple dosing can be convenient for clients, and assist with clinical management during pharmacy closing hours [1].

Double dose regimen

Clients should first be stabilised on a daily dose prior to alternate-day dosing. When moving to alternate day dosing, dispense double the normal daily (24 hour) buprenorphine dose, then the client is to be reviewed following the first or second 48-hour dose. Dose adequacy can be inferred if clients report being as comfortable on the second day as the first, sleeping as well on the second night as on the day of dosing, and no more cravings on the second day than on the first [1]. If the client reports onset of withdrawal or cravings, or sleep difficulties in the second day then the 48-hour buprenorphine dose should be increased. If the client reports features of intoxication from the dose of buprenorphine during its peak effects (normally at about 4 hours) the 48-hour dose should be reduced.

Where the daily dose exceeds 16mg it may still be appropriate to double dose, despite exceeding the 32mg per day ceiling, having regard to all the circumstances in each individual case [1]. It is recommended to seek a second opinion by consulting with a medical addiction specialist or AOD service, where the total dose to be administered is between 32mg to 48mg. (If needed, MRQ can suggest a contact person for consultation - see Section 11.15). For a client of an OTP Clinic, a clinical team consultation is advised. In this instance, a notation in the 'Prescriber Instructions' section of the Written Instruction can ensure clarity of the medication order (see Section 9.1.3, 9.3.4, 10.9, 11.3, 11.4). While recognising that this is an arbitrary limit, doses above 48mg in a single day are not advised.

Some clients may not be comfortable with double dosing, and if they cannot be stabilised on such a regime, they should be returned to daily dosing [1]. Clients on low doses of buprenorphine may find that double the dose does not last for 48 hours. Clients on reducing doses of buprenorphine may need to switch to daily dosing as the dose becomes lower (i.e. < 4mg).

Triple dose regimen

Some clients may tolerate a triple dose regimen, whereby every 3 days they receive equivalent to three times their 24-hour dose. This should only be attempted once a double dose regimen has been shown to be successful for the client. The client should be reviewed in the week following the first 72-hour dose, and the dose titrated accordingly. If the client cannot be stabilised on a triple-dosing regimen, they can return to double dosing.

Where the daily dose is 12mg or higher it may still be appropriate to triple dose, despite exceeding the 32mg per day ceiling. Consideration about all the circumstances in each individual case is required [1]. It is recommended to seek a second opinion by consulting with an medical addiction specialist or AOD service, where the total dose to be administered is between 32mg to 48mg. (If needed, MRQ can suggest a contact person for consultation - see Section 11.15). For a client of an OTP Clinic, a clinical team consultation is advised. In this instance, a notation in the 'Prescriber Instructions' section of the Written Instruction can ensure clarity of the medication order (see Section 9.1.3, 9.3.4, 10.9, 11.3, 11.4).

6.5 Client reviews during maintenance

6.5.1 Clinical review

Regular reviews by a clinician are an essential component of safe and effective OTP, with the frequency dependent on client needs (see Tables 9, 10) [1]. At each clinical review, the following are assessed:

Client's clinical circumstances

- general health and wellbeing
- quantity and frequency of any substance use since the last review
- social circumstances
- relevant risk factors (e.g. child protection, harm to self or others, domestic violence, overdose, BBV risk)
- any recent investigations (e.g. urine drug screen (UDS) results) [1].

Current treatment conditions

- attendance for dosing
- adequacy of medication dose
- side effects
- TADs
- frequency of reviews
- treatment plan including the client's engagement with other health and social services [1].

In OTP Clinics, a delegate of the prescriber (such as a suitably trained nurse) often undertakes clinical reviews, with reference to the prescriber where necessary.

OTP Clinic case reviews

A case review for each client is to be conducted by the interdisciplinary team on a regular basis, frequency as determined by the team, as outlined in the Alcohol and Other Drug Services - Model of Service (Companion Document)(2016) [35]. This is to include discussion about the initial treatment plan, and any changes that have occurred throughout the course of treatment. Outcomes are to be communicated to the client, significant others and key service providers, as appropriate. Documentation in the client record is to include team members present, clinical issues raised, updated care plan, and those designated as responsible for identified interventions [35].

Ad hoc case reviews are also to occur where indicated; such as to address complex clinical issues, and in response to a critical event [35].

6.5.2 Categorising treatment needs (case acuity)

The frequency of reviews will vary according to a range of clinical parameters. A categorisation system based upon **'case acuity'** principles can assist in grading client's clinical needs for treatment and support [1].

Three **case acuity** categories have been used as guide to clinical grouping [1]:

- Higher treatment needs – considerable clinical complexity and generally require more intensive clinical reviews, care coordination and monitoring, and access to specialist drug and alcohol professionals.
- Moderate treatment needs – some degree of clinical complexity but their treatment needs are being adequately addressed, and have no recent high-risk presentations. Clients with moderate treatment needs should have regular case coordination and support, monitoring and reviews.
- Lower treatment needs – no features of high-risk or problematic substance use, and where medical, psychiatric and psychosocial conditions exist, they are stable. These clients display good treatment adherence, with regular attendance for appointments [1].

Table 9 Case acuity [1]

	Higher treatment needs	Moderate treatment needs	Lower treatment needs
Adherence to treatment conditions	Frequent high-risk presentations (e.g. intoxicated, missed doses) Poor treatment engagement (e.g. missed appointments)	No (or infrequent) high-risk presentations Generally adherent with treatment conditions (e.g. dosing, appointments)	No high-risk presentations (e.g. intoxicated presentations, missed doses) Adherent with treatment
Substance use	High-risk or harmful polydrug use (e.g. misuse of, or dependence on alcohol, benzodiazepines, other opioids, psychostimulants)	Polydrug use identified but not high-risk (e.g. intoxicated presentations, overdoses)	No significant use of alcohol or other substances
Mental and physical health conditions and cognitive impairment	Serious mental health (including significant risk of harm to self or others), physical health or cognitive impairment issues that require specialist input, intensive care coordination and regular monitoring May include clients recently discharged from hospital	Issues generally stable, or being addressed in treatment care plan May include clients recently discharged from hospital	Generally stable
Pregnant	Pregnancy with significant perinatal risk factors	Pregnant without other significant perinatal risk factors	Not pregnant
Social circumstances	Significant issues (e.g. homelessness, domestic violence, child protection) May include clients recently released from custody	Stable but still need some assistance No significant child protection or domestic violence concerns May include clients recently released from custody	No significant concerns

The case acuity system provides a framework for matching components of care (clinical review and monitoring activities) according to the complexity and needs of each individual client.

Table 10 Matching treatment components according to treatment needs * [1]

	Higher treatment needs	Moderate treatment needs	Lower treatment needs
Minimum clinical review frequency	Every month	Every 2 months	Every 3 months
In OTP clinic settings - minimum medical review frequency	Every 2 months	Every 3 months	Every 6 months
Urine drug screening ***(see Section 6.5.4)***	As clinically indicated	As clinically indicated	As clinically indicated
Supervised dosing conditions	Generally no TADs (special circumstances apply)	Generally limited TADs available (e.g. 1-2 TADs per week)	Generally greater number of TADs (e.g.2-4 per week) or unsupervised dosing (buprenorphine/naloxone only)
***This is a guide - treatments should be tailored to the circumstances of the individual client and service provider			

6.5.3 Missed appointments and 'stop dose'

Regular reviews with the OTP service provider are a significant risk mitigation strategy. If the client does not attend their scheduled appointment, the imperative for a review may necessitate their dose being suspended ('stop dose'). Each client should be advised of this process at commencement on OTP.

Whenever a 'stop dose' is to be initiated, attempts should be made to discuss this with the client first. The client record is to be updated following any such attempts/communication. The pharmacist will then be instructed by the OTP service provider to withhold the dose on a particular date (see section 9.3.8). In all but exceptional circumstances, the 'stop dose' appointment date should be communicated to the client well in advance.

Once the client has been reviewed by the OTP service provider, the treating clinician will then advise the pharmacist when to resume dosing.

This process should not be used routinely to ensure clients attend their appointments. Alternative strategies should be used first. For example, if a client has failed to attend two appointments, their TADs could be reviewed and, as a final measure, suspension of the dose may be instituted.

6.5.4 Urine Drug Screens

Urine drug screens (UDS) can be used to identify the type of substances used in recent days, with some drugs detectable for up to six weeks. Results depend on the type of substance used, the amount and duration of substance use, and individual metabolism of the client.

Urine drug screens are an important means to:

- enhance the validity of clients' self-reported use of substances

- identify substances not reported by the client that may assist diagnosis and management (e.g. identifying amphetamine or cannabis use in a client developing features of psychosis)
- assist in assessing suitability for TADs.

As with any diagnostic test, discussion with the client about the purpose is important. A respectful therapeutic approach is required, as a request for a urine drug screen can be confrontational for the client [3].

Schedule

A UDS is useful at treatment initiation, to corroborate client history and establish recent opioid and other substance use. Delays in obtaining results should not delay treatment initiation where the diagnosis of opioid dependence can otherwise be clearly established.

Ongoing UDS should be performed based on clinical indications. An intermittent schedule of random testing is adequate for program requirements and client safety, and is likely to ensure more useful information than a system of frequent screening [1].

Results

Clinicians should check with their local pathology service for information on the screening tests used, the drugs or drug classes tested for and the cut-offs applied.

UDS should be used with caution. Screening tests may provide false positive or false negative results. Clinicians should liaise with their local pathology service to obtain optimal interpretation of screening tests and to discuss whether further testing is necessary for an individual client's management. Buprenorphine may not be detected in some routine urine toxicology screens, and gas chromatography mass spectrometry (GCMS) may be required.

Benchtop (dipstick) testing systems can be useful, however limitations include cost, and the range and amount of substances able to be detected.

Funding

The Medicare Benefits Schedule imposes limits on the number of drug screens that will be funded, and this is currently capped at 36 per year. Prescribers should endorse the UDS pathology request to the effect that the client is undertaking a drug rehabilitation program. It should be noted that the level of reimbursement does not cover confirmatory testing by specialised techniques such as gas chromatography mass spectrometry (GCMS).

Considerations

Clinicians should not order urine drug screens for legal purposes. Doing so may confuse the therapeutic role of the clinician with the forensic role of the legal and child safety systems.

Directly observed urine samples are intrusive and impact negatively on therapeutic engagement. As such, they should be avoided wherever possible. Other mechanisms, such as management of toilet facilities, checking UDS sample temperature and testing for non-human sources or dilution, are generally sufficient to ensure the sample is genuine [1].

6.6 Take-away doses

In general, treatment of opioid dependence with methadone or buprenorphine is based on daily supervised dosing at a pharmacy or clinic. Supervised dosing provides:

- daily structure and routine that can be important for many clients early in treatment

- greater adherence to the medication regimen, with less diversion to others and less medication misuse
- less risk of overdose with pre-dosing assessment [3].

Many clients find the requirements of daily supervised dosing intrusive and not compatible with community re-integration activities such as work or study. The provision of TADs can improve their chances of recovery by reducing the inconvenience of daily pharmacy attendance, support engagement with normal daily activities, and encourage client autonomy in the management of their medication and treatment [1]. This is consistent with the principles of chronic disease management [1, 63].

An understanding of the potential harms associated with TADs can assist with risk assessment and mitigation strategies. Potential harms include:

- client taking a different dose to that prescribed
- client using an alternative route of administration
- client taking the medication while intoxicated
- medication restarted by the client after several missed doses
- intentional or accidental use of the opioid medication by person for whom not prescribed (with risks of intoxication, overdose, or development of dependence if regular use)
- reduced reputation of OTP from misuse of TAD medication, with risk of increased stigma for clients and treatment services [1].

6.6.1 Take-away dose guidelines

Take-away guidelines reflect the need to individually tailor dosing conditions according to the relative benefits and risks for the client, the service and the broader community. The guidelines aim to strike a balance between client autonomy, prescriber duty of care and public concerns about diversion of medication [1].

Dosing decisions are based on the phase of treatment, medication used and risk assessment (Tables 11, 12).

Table 11 Summary of dosing recommendations [1]

Treatment period	Dosing recommendation
Induction and stabilisation	Induction and stabilisation phase of treatment should involve a supervised dosing regimen, with routine supervision of all doses Exceptions may apply for special circumstances (e.g. necessary travel or usual dosing site not being open 7 days a week) This period usually refers to the first 3 months for methadone, and 1–3 months for buprenorphine/naloxone treatment
Maintenance phase	Decisions regarding the level of supervised dosing should reflect: – indication for TADs or unsupervised dosing – risk assessment of the potential harms – strategies that aim to minimise potential harms

Generally, during the induction and stabilisation period supervised dosing is recommended. This is because of frequent dose adjustments, development of tolerance to medications, development of a treatment care plan, and changing patterns of substance use, general health and living conditions. The risk of harms from TADs is higher during this period [1].

Treatment with buprenorphine enables a faster and safer induction and stabilisation phase than methadone, accommodating earlier access to TADs and unsupervised doses of buprenorphine/naloxone.

During the maintenance phase, when the client has engaged in the treatment program to stabilise their dose and address other issues (e.g. substance use, medical, psychiatric and social problems), TADs may be considered. The level of TADs will depend on risk [1].

Table 12 Take-away framework for QLD OTP [1]

Methadone		
Induction and stabilisation. Usually first 3 months of treatment.	Supervised dosing No TADs except special circumstances	
Maintenance phase. TAD availability based on risk assessment.	Higher risk	Supervised dosing No TADs except special circumstances
	Moderate risk	0–2 TADs per week Consider if TADs should be non-consecutive
	Lower risk	2–4 TADs per week
Buprenorphine (mono)		
Induction and stabilisation period. Usually first 1–3 months of treatment.	Supervised dosing. No TADs except special circumstances Consider alternate day dosing to reduce attendance requirements.	
Maintenance phase. TAD availability based on risk assessment	Higher risk	Supervised dosing No TADs except special circumstances
	Moderate or lower risk	0–4 TADs per week (for clients who are pregnant, breastfeeding or allergic to naloxone and assessed as suitable for TADs)
Buprenorphine/naloxone		
Induction and stabilisation period Usually first 1–3 months of treatment	Supervised dosing No TADs except special circumstances Consider alternate day dosing to reduce attendance requirements	
Maintenance phase TAD availability based on risk assessment	Higher risk	Supervised dosing No TADs except special circumstances
	Moderate risk	0–4 TADs per week
	Lower risk	Unsupervised (1week-1month dispensed)

For clients prescribed buprenorphine/naloxone and assessed as suitable for unsupervised dosing, a notation is to be made in the 'prescriber instruction' section of the written instruction. The pharmacist must also be advised by telephone (see Section 9.4.4).

The maximum number of buprenorphine/naloxone take-away doses is 31 consecutive doses.

6.6.2 Indications for take-away doses

TADs may be indicated for reasons such as:

- participation in activities that enhance social and community re-integration (e.g. study, employment, care of others, sporting, religious or recreational pursuits)
- accessibility of dosing and/or transport options (e.g. pharmacies or transport may not be available 7 days a week)
- associated costs of transport or supervised dosing
- need for travel.

Other arrangements that avoid TADs should be considered before authorising TADs. Options include dosing at alternative pharmacies, or double/triple buprenorphine dosing [1].

6.6.3 Risk assessment for take-away doses

OTP service providers should conduct and document regular risk assessments regarding the suitability of TADs. When assessing the risk of TADs, harms to the client, to others and to the broader OTP need to be considered.

A risk assessment for TADs can be generally performed using clinical information routinely obtained as part of regular clinical reviews by the OTP service provider. Risk assessments require communication and exchange of relevant clinical information between prescribers, case managers, pharmacists, and others involved in provision of care for the client.

Table 13 Risk assessment for TADs [1]

Risk factor	Lower risk	Higher risk
Stability of OTP medication	Stable dose with good attendance for dosing	Recent induction (within 1 month)
Adherence with medication, particularly current TADs and/or other medications	No significant adherence problems	Frequent missed doses or interruptions to treatment. Significant use of higher doses than authorised, alternate route of administration (e.g. injecting), diversion to others
Adherence with other treatment conditions	Good attendance with appointments, and UDS monitoring	Poor attendance with appointments and UDS monitoring
Use of alcohol or other substances	No significant use of alcohol or other substances	Frequent and heavy use of alcohol, illicit or pharmaceutical drugs, particularly sedatives
Other health or social conditions that impact upon medication adherence and/or safety of TADs	No significant medical, psychiatric, cognitive or social conditions that impair medication adherence or safety of TADs	Medical (e.g. respiratory or liver failure), psychiatric conditions (e.g. suicidality, severe anxiety and/or depression, psychosis), impaired cognition (e.g. impaired memory), homelessness, child safety concerns
After considering each of these factors, the overall risk rating for take-away dosing is identified as one of three levels: **higher risk** – presence of one or more significant risk factors **moderate risk** – presence of some risk factors, but no significant high-risk factors **lower risk** – no significant risk factors identified		

The global risk rating for TADs recognises that each individual client may have distinct levels of risk for different factors. Prescribers should tend towards conservative TAD prescribing. Where they seek to prescribe more TADs than is suggested within these guidelines, they should seek specialist advice (or conduct a team consultation if in a clinic setting), and clearly document their decision making [1].

The maximum quantity of methadone take-away doses should never exceed four in a week.

Risk mitigation strategies

There are multiple strategies that aim to minimise potential harms associated with TADs. These include:

- Clear communication
  - With the client and relevant others (e.g. carers, family members) regarding the conditions for TADs, and their responsible storage and use of their medication.
  - Between agencies, particularly around concerns for the safety of TADs.
  - Regarding the roles and responsibilities of the OTP service provider, pharmacist and client (see Table 14).
- Use of safer opioid preparations
  - TADs of buprenorphine are generally associated with fewer safety concerns than methadone. This is due to the lower risks of overdose and respiratory depression, the greater flexibility of dosing (e.g. safety of 'double dosing' with buprenorphine), and the fewer concerns regarding interactions with medications and other substances.
  - The reduced injecting risk profile of buprenorphine/naloxone compared to buprenorphine-mono or other opioids more safely enables TADs to be dispensed on a weekly, fortnightly or monthly basis.
  - Clients with a history of injecting buprenorphine-mono tablets should consider transfer to buprenorphine/naloxone or to methadone (with greater capacity for supervised dosing) in order to access TADs.
- Limiting the number of consecutive TADs
  - Multiple consecutive doses of methadone, especially higher doses of methadone (e.g. >80 mg methadone daily) carry significant risks if used non-medically by a client (or if diverted to others). Limiting the number of consecutive TADs provided in any week may be an appropriate way to reduce risk of poor adherence or non-medical use.
- Regular clinical reviews
  - Clients receiving TADs should have a clinical review at least every 3 months by their OTP service provider, and more frequently for clients with more complex treatment needs.
  - Clients in receipt of (or being assessed for) TADs should also have regular UDS as part of the risk assessment process.
  - Reviews should include assessment and documentation of key risk factors (e.g. recent substance use, injecting practice, social and health status).
  - If clients regularly miss scheduled appointments, the reason for missing appointments should be explored (may include problems with transport, child care, work). Clients at high risk (e.g. sedative use, risk of non-medical use of OTP) should have their dosing conditions reviewed. This should also include checking on client progress at community pharmacy (e.g. dosing debts, requests for additional TADs directly to pharmacists only, shoplifting, aggression).
- Addressing use of medications other than as prescribed

- Clinicians have a responsibility to address medication not taken as prescribed, such as missed doses, using additional doses than prescribed, 'lost' or 'misplaced' medications, diversion to others, unauthorised routes (e.g. injecting) or intoxicated presentations (see Section 7.1, 7.2).
- Aberrant behaviours or incidents require a review of the client's dosing conditions and are generally markers of the need for greater levels of supervised dosing and monitoring.

- Clear documentation of the indications, risks and strategies to mitigate identified risks [1].

Table 14 Roles and responsibilities regarding TADs [1]

OTP service provider responsibilities	Client responsibilities	Pharmacists responsibilities
Authorising TADs and clearly documenting dosing instructions on the Written Instruction and communicating with pharmacies Regularly reviewing dosing conditions for each client, involving regular assessment and documentation of the indications, risks and risk mitigation strategies Communicating TADs guidelines and conditions to clients, enabling clients a clear understanding of decision-making processes regarding access to TADs Regularly communicating with the client regarding safe use and storage of TADs	Using medication as prescribed and according to the instructions on dispensed medication Safe storage of medication, and ensuring that medication is kept out of reach of children Notifying prescriber of any issues or concerns regarding medication (including lost or misplaced doses, consumption by others, or use of the medication not as prescribed) Seeking emergency medical assistance if medication is consumed by others, particularly children or adults with low opioid tolerance, due to the risk of overdose and death	Ensuring supervised doses and TADs are administered and dispensed as per prescription, unless there are safety concerns (such as providing TADs to intoxicated clients, or where clients have been routinely missing doses), in which case they should communicate with the OTP service provider Keeping accurate records regarding dispensed medications Regularly communicating with the OTP service provider regarding factors that impact upon the safety of TADs including intoxicated presentations, missed doses, attempts at not consuming supervised doses, or evidence of diversion to others Regularly communicating with the client regarding safe use and storage of TADs

6.6.4 Early access to buprenorphine/naloxone take-away doses

Clients recently stabilised on buprenorphine/naloxone may be considered for early access to TADs, where there is:

- no history of intravenous drug use (IVDU)
- lower risk assessment rating.

Clients commence OTP with differing levels of stability, particularly in relation to substance use and social/personal functioning. Treatment plans vary accordingly. A client with codeine dependence, healthy levels of social/personal function and minimal other substance use, may require less intensive monitoring than a similar client with significant psychosocial issues.

Some clients quickly return to healthy functioning once stabilised on OTP medication. At the discretion

of the prescriber, timely access to TADs can be considered for a client assessed as lower risk. This can facilitate continued treatment engagement, and thus enhance recovery. Regular reviews and ongoing risk assessment are recommended.

Approval for take-away doses is at the discretion of the OTP service provider.

6.6.5 Floating take-away doses

Floating TADs should be discussed with the pharmacist to ensure they are happy with the proposed arrangement (see Section 9.4.3). A floating TAD enables the pharmacist and the client to determine which day is best suited for the TAD on a weekly basis, according to work and study commitments.

TAD regimens are to be clearly documented on the Written Instruction including:

- the number of floating TADS per week
- the designated days the week commences and finishes (e.g. Monday - Sunday)
- the maximum number of consecutive TADs to be provided.

6.6.6 Take-away dose provision for rural and remote areas

Access to OTP medication in rural and remote areas can be difficult. OTP service providers may need to develop an approach to TADs that acknowledges the impracticality of seven-day-a-week supervised dosing for some clients. Such an approach must address the needs of the individual client while maintaining program objectives, and define the degree of geographical inaccessibility that will exempt a rural client from the standard restrictions on TADS (see Section 7.15).

6.6.7 Short-term take-away doses

TADs can be provided for specific short periods in response to unforeseen circumstances, such as:

- a medical issue that prevents the client from attending their pharmacy/clinic
- a serious illness or death in the family
- other urgent situations that may arise.

The risk/benefit of providing TADs need to be considered, recognising that a crisis may destabilise the client. If there are significant concerns about risk, alternatives to TADs include interval dosing for suitable clients on buprenorphine, or organising the client to dose at a more convenient pharmacy. Alternatively, the provision of short-term TADs may be beneficial to the client's emotional and psychological wellbeing, and facilitate continued treatment engagement.

Travel

Provision of TADs is at the discretion of the prescriber (see section 6.9). For clients assessed as lower risk, and seeking TADs for travel (e.g. holiday, out-of-area work), flexibility regarding the weekly limit of methadone TADs may be applied judiciously to cover a discrete period. In consideration of the stability of the diluted product, a maximum of seven consecutive days of Biodone or Methadone syrup can be given as 200mL diluted TADs. From day eight onwards, TADs are to be given in the form of methadone tablets. The OTP prescriber is to contact MRQ to obtain an approval for this medication, and provide a prescription to the pharmacist for the methadone tablets (see Sections 6.9, 9.4.2, 11.15).

6.6.8 Authorised agent

On rare occasions an agent can be authorised to collect TADs on behalf of a client. This can be considered where other options for OTP dosing are not available (such as home dispensing by pharmacist), and where significant acute medical issues preclude pharmacy attendance. Authorisation is for a brief, specified period, and is contingent upon:

- OTP prescriber verifying the medical condition with the client's treating physician
- clarification of current medications prescribed to client
- assessment of continued safe treatment with OTP medication based on current medical issues.

The OTP service provider is to advise the pharmacist of the client details, the name of the nominated agent (e.g. family member), and the period they are authorised to collect the TADS. The authorised agent is to provide photo identification when they attend pharmacy to collect the OTP medication (see Sections 5.7.3, 9.4.6).

6.6.9 Take-away doses for declared emergencies

Where a State Emergency declaration is in place or imminent (e.g. cyclone, flood), TADs can be issued for the expected duration of the emergency, normally three to five days. The prescriber (or delegate in a Clinic) is the only person authorised to approve these TADs, and in this rare scenario there is limited consideration for client stability.

6.6.10 Transfer from another OTP prescriber

TAD arrangements are not automatically transferred when clients change prescriber. The new prescriber is responsible for reassessing risk in relation to TADs and is advised to contact the previous prescriber for collateral information. Changes to the prior TAD regimen should not be made without good reason, and the basis for any changes are to be discussed with the client. It is recommended the new prescriber should not increase the number of TADs provided to the client until current stability is demonstrated.

6.6.11 Safe storage

Clients are to be advised they are responsible for the care and proper consumption of TADs, and that it is unlikely doses will be replaced if they are lost or stolen. It is important to highlight that TADs should be stored securely, in a place not easily accessible to others, and particularly, out of reach of children [1]. A locked receptacle like a small cash box is recommended to minimise the risk of accidental consumption. TADs should not be stored in a refrigerator.

6.6.12 Reported lost/stolen take-away doses

If a client reports their TADs have been lost, stolen or damaged, they should not be replaced unless there is a medical reason to do so (such as to prevent withdrawal symptoms in a pregnant client) (see Section 9.7.3). When a replacement dose is indicated, the client is to be reviewed by the OTP service provider, their clinical condition assessed, and the supplementary dose titrated accordingly. Replacement doses are usually not full doses. Careful assessment and monitoring are required to ensure that the client is not overdosed.

The client should report lost or stolen TADs to the police [12]. Suitability of the client to continue receiving TADs should be reviewed.

Any increase in risk factors for a client should prompt review of their take-away dose arrangement.

6.6.13 When to stop providing take-away doses

Once a client is receiving TADs, they may become very distressed at any suggestion that their continued access to TADs will be curtailed. This can be a difficult issue for the prescriber to manage. Clinicians usually have good relationships with their clients, and may be unwilling to cause distress and conflict. There is often considerable pressure on clinicians to overlook a client's instability and continue to authorise TADs. This is not good clinical practice [64].

It is common for clients to do well in treatment for a time, and then relapse, often for unknown reasons or changes in life circumstances. This does not necessarily mean a return to opioid use but may involve other substances such as stimulants, benzodiazepines or alcohol. While it is not possible to control the behaviour of others, it is possible to intervene, and a return to supervised daily dosing is an important measure to reduce risk. If any of the higher risk factors are present, reassessment of TADs is required to reduce risk and support return to stability [64].

Issues showing a client may need to return to supervised dosing include:

- self-report or clinical evidence of relapse to opioid or other dependent substance use
- evidence of diversion
- recent injection marks
- deterioration in psychological, physical or social well-being [64].

Re-introduction of TADs should occur gradually based on assessment of risk, with at least 12 weeks of evident stability.

6.6.14 Authorisation, preparation and supply of take-away doses

The OTP prescriber is the only person authorised to prescribe TADs. For clients in Queensland Health OTP clinics where medical officers, nurses and allied health professionals provide OTP services, it is acceptable practice for a treating clinician from the service to notify the pharmacist of changes regarding authorised TADs. Written notification is to be faxed to the pharmacist, and clear documentation should be made in the client's file (see Section 9.4). There is no requirement for an amended Written Instruction based on a change in TADs.

For clients in receipt of regular TADs, the Written Instruction must specify the days of the week the client is to receive TADs. When floating TADs are authorised, the Written Instruction is to state the number of floating TADs per week, maximum number of consecutive TADs, and designated week (see Sections 6.6.5, 9.4.3).

Under current legislation, TADs may only be prepared by an OTP prescriber or pharmacist, or under a pharmacist's direct personal supervision.

TADs should only be collected on the day prior to the prescribed take-away dose(s). With the rare exception of a nominated authorised agent, no other person is to collect the TADs on behalf of the client.

It is recommended each TAD of Methadone or Biodone is diluted to 200mL with purified water [37] (See Section 9.4.1).

6.7 Missed doses

The pharmacist should notify the OTP service provider when a client fails to attend for their dose, and when the client has been restarted on their OTP medication at pharmacy after missed doses (see Section 9.5). A 'missed dose' is calculated based on the equivalent of daily doses not administered or supplied. Repeated missed doses can be associated with reduced opioid tolerance, opioid withdrawal and/or use of other substances, which in turn impact on treatment safety and effectiveness [3]. Given this, the response to missed doses varies depending on the medication, the number of days missed and the client's clinical presentation when they next attend for dosing.

An overriding principle is if a client is intoxicated, no dose should be given.

6.7.1 Methadone

Missed 1 - 2 consecutive daily doses

Normal dosing can be resumed if there are no concerns regarding intoxication or other issues. The pharmacist should consult the OTP service provider if there are any concerns, and a review by the prescriber (or delegate) may then be required prior to resumption of OTP medication.

Missed 3 consecutive doses

The prescriber (or delegate) should review the client prior to dosing, including:

- the circumstances around the missed doses, reasons for non-attendance
- recent substance use
- any relevant medical, psychiatric or social issues.

If there are no concerns regarding intoxication or other clinical issues, the normal dose can be resumed [3].

Missed 4-5 consecutive doses

Clients who recommence methadone after four or more consecutive missed doses are at risk of reduced opioid tolerance and overdose, particularly if other sedative drugs have been used. The prescriber should review the client prior to dosing, as detailed above.

The prescribed dose for that day should be equivalent to half their regular daily methadone dose or 40mg (whichever is lower). Clients should be monitored by a clinician on subsequent days prior to dosing, aiming to return to the regular dose within 5 to 7 days, usually in increments of up to 20mg per day [3]. Rather than following the cautious approach stipulated during induction, this rapid titration can occur given the prescriber's knowledge of the client's opioid tolerance.

Missed 6 or more consecutive doses

In this case, the prescriber needs to treat the client as a new induction into treatment when reinstating the client back onto a stable dose.

6.7.2 Buprenorphine

Missed 1 - 2 consecutive daily doses

Normal dosing can be resumed if there are no concerns regarding intoxication or other issues. The pharmacist should consult the OTP service provider if there are any concerns, and a review by the prescriber (or delegate) may then be required prior to resumption of OTP medication.

Missed 3 consecutive doses

The prescriber (or delegate) should review the client prior to dosing, including:

- the circumstances around the missed doses, reasons for non-attendance
- recent substance use
- any relevant medical, psychiatric or social issues.

If there are no concerns regarding intoxication or other clinical issues, the normal dose can be resumed.

Missed 4-5 consecutive daily doses

Clients who recommence buprenorphine after four or more consecutive missed doses are at risk of precipitated withdrawal, if they have been using opioid agonists. The prescriber (or delegate) should review the client prior to dosing, as detailed above. If there are obvious signs of withdrawal, resume normal daily dosing up to a maximum of 24mg.

Missed 6 or more consecutive daily doses

In this case, the prescriber needs to treat the client as a new induction into treatment when reinstating the client back onto a stable dose.

6.7.3 Regular missed doses

A small proportion of clients have poor attendance for dosing. This may be due to ambivalence about treatment, access issues (e.g. transport, work commitments, limited dosing hours) or medical issues (mobility problems, cognitive impairment). The treating team should consider options for enhancing treatment adherence, which may involve changes in dosing sites or take-away conditions [1].

Some clients who repeatedly miss doses may report that their doses of methadone or buprenorphine are inadequate. It is recommended that regular attendance be encouraged prior to any dose increases [3].

6.8 Vomited doses

6.8.1 Methadone

If a client vomits shortly after consuming their dose there is uncertainty about how much of their methadone dose has been absorbed. If vomiting occurs more than 10 minutes after ingestion, reassuring the client that their dose has been adequately absorbed is all that is required [1] (see Section 9.7.4).

If vomiting occurs within 10 minutes of ingestion of the dose, uncertainty about the amount of methadone absorbed dictates that a prescriber review is required [1]. No extra methadone is to be given without prescriber review, and this will ideally occur three to four hours after consumption of the dose when plasma levels peak. If there is good evidence of opioid withdrawal at this time, a supplementary dose of half their usual dose (up to a maximum of 40mg) may be considered. If there are doubts about the amount of methadone absorbed, it is better to be cautious and not administer a supplementary dose.

Pregnant women and vomited doses

Extra care is required with pregnant clients as withdrawal symptoms can cause foetal distress. A medical review is required. If it is not possible to review the client three to four hours after dosing, and vomiting was observed within ten minutes after ingestion, the prescriber may consider a supplementary dose of half the client's usual dose, up to a maximum of 40mg.

6.8.2 Buprenorphine

Buprenorphine is absorbed sublingually within 2–3 minutes. Vomiting should make no difference to the absorbed dose [1].

6.8.3 Clients with recurrent vomiting of doses

Clients who repeatedly vomit should be reviewed by their prescriber. Strategies to consider include:

- having a light meal or drink at least 10–20 minutes prior to dosing
- trying an alternate formulation of methadone or buprenorphine
- consuming the dose slowly or as partial doses
- an anti-emetic (e.g. metoclopramide 10mg oral or IM) at least 30 minutes prior to dosing [1].

6.9 Travel and OTP

6.9.1 Within Queensland

Depending on QOTP pharmacy availability, clients may have the option to collect their OTP medication from an alternative pharmacy when they travel within Queensland. A Written Instruction and letter of introduction is to be provided to the temporary pharmacy for the period of travel. Clear communication of dates/arrangements by the OTP service provider, to the client's regular pharmacy and the temporary pharmacy is essential. Provision of TADs is at the discretion of the OTP service provider (see Section 6.6.3, 6.6.7).

6.9.2 Interstate

OTP requirements vary depending where the client is travelling. Given this, the OTP service provider is to contact the OTP regulatory body in the relevant State or Territory, and determine regulations and processes for that jurisdiction. Contact details for OTP in each State and Territory are in Section 11.16. Provision of TADs for travel is at the discretion of the prescriber (see Section 6.6.3, 6.6.7).

6.9.3 International

Clients should contact the embassy or consulate of the transit and destination countries, and ensure it is legal to arrive with, transit through, travel with and consume OTP medication. While each embassy/consulate is the definitive source, basic details about the possibility of travel to different countries can be found at https://indro-online.de/en/home/. Useful information can also be obtained at https://www.tga.gov.au/leaving-australia. Travel to some destinations while on OTP may not always be possible.

Arrangements with the OTP prescriber will need to be made at least one month prior to travel. Depending on the destination, the prescriber may be required to prepare a letter confirming the client is legally prescribed the medication for personal use under the laws of Australia. The client should keep this letter secure with their medication during travel (see Section 11.14). In some instances, it may be a requirement for the letter to be translated into the language of the destination country. If the overseas authorities require a letter from the Australian Government, this can be obtained from the Therapeutic Goods Administration [3].

Provision of TADs for travel is at the discretion of the prescriber (see Section 6.6.3, 6.6.7). For a client on methadone, TADs for international travel are usually given in the form of methadone tablets. The prescriber will need to contact MRQ to obtain an approval for this medication (see Section 11.15).

6.10 Transfer of care

OTP is often long term, spanning months or years, and may involve clients transferring their treatment between health providers. This requires coordination of care between providers through appropriate communication and clinical handover, and attending to necessary OTP jurisdictional requirements [1, 35]. Transfers may be intrastate, interstate or international, and may be either temporary or permanent [1] (see Section 11.15, 11.16). All client transfers should be organised well in advance of the intended date, and the usual requirements and risk assessment for providing TADs apply [23].

Generally, the transferring prescriber initiates contact with OTP service providers and once a new prescriber has agreed to accept the client, transfer arrangements can commence. Good communication between the transferring and receiving prescribers and pharmacies is important [1]. Written documentation containing the following details should be received by the new prescriber, prior to the arrival of the client:

- identifying information (including photograph)
- methadone or buprenorphine dose
- contact details of previous dosing point
- exact dates of transfer
- details of any TADs provided
- relevant clinical details (e.g. clinical progress, past and current medical/mental health issues, medications) [3].

To ensure medication safety, the transferring prescriber is to contact the client's regular dosing pharmacy advising the date for cancellation of any Written Instructions and prescriptions. A client can only be registered with one OTP prescriber. The transferring prescriber is to complete the Queensland Opioid Treatment Program Discharge form and forward this to MRQ within 72 hours of client's final dose (see Sections 11.2, 11.15).

6.10.1 Transfers within Queensland

The receiving prescriber should forward a completed QOTP Admission form to MRQ within 24 hours of the first dose (see Sections 11.1, 11.15).

6.10.2 Interstate transfer

For interstate transfers, the Queensland prescriber should provide the necessary clinical information for safe transfer to the receiving prescriber. Under usual circumstances, at least three weeks' notice of intention to transfer should be provided (see Section 6.9.2).

6.10.3 International transfer

See Section 6.9.3.

7. Issues affecting treatment

7.1 Behaviour

Prior to treatment, it is important that clients understand expectations about their behaviour while on OTP. The sustainability of OTP relies on the goodwill of the many prescribers and pharmacists who support the program, and the tolerance of people living and working nearby. When completing the initial 'OTP conditions of treatment' or consent form, discussion should include the possible consequences of unacceptable behaviour, extending to cessation of treatment in extreme cases (see Section 11.11).

Challenging behaviours exhibited by clients may indicate poor communication skills or emotional dysregulation. Identifying and managing these behaviours is an important skill for service providers [12]. Clients should be clearly informed that physical or verbal aggression is unacceptable, and that violence or threats will not be tolerated. They should be informed that inappropriate behaviour in or near dosing locations is unacceptable, and may result in pharmacists withdrawing their services.

7.2 Intoxication

Safety is the key consideration in responding to those who attend for dosing while intoxicated. Clients should be made aware at the commencement of treatment that medication will be withheld at these times [1].

Intoxication can result from a methadone or buprenorphine dose that is too high, or from other substance use (see Section 11.7). Extreme caution should be taken if a decision is made to prescribe benzodiazepines in combination with methadone or buprenorphine, particularly during the first two weeks of treatment. Generally, benzodiazepine prescribing is discouraged outside the context of an agreed withdrawal plan (see Section 7.7.3). Non-opioid drug use (e.g. benzodiazepines, alcohol or amphetamines) does not in general respond to increases in methadone or buprenorphine dose.

Clients with chronic liver disease may be at greater risk of intoxication/overdose due to reduced drug metabolism. Caution should be taken when increasing doses for these clients, particularly those on methadone.

When intoxication occurs, clinicians should support the client to decrease their extra drug use rather than lowering the methadone or buprenorphine dose. The overriding priority is reducing the potential for harm to the client. Every effort should be made to keep the client in treatment. OTP dose reduction in these circumstances may:

- result in an increase of illicit drug use
- inhibit the client's self-disclosure and compromise trust between the clinician and the client
- cause the client to cease participation in OTP.

7.2.1 Dose administration considerations

The clinician administering the OTP dose should always assess the client first. If a client presents as intoxicated, the risks associated with overdose must be considered. Do not increase the client's dose. If significantly intoxicated, withhold the medication or reduce the dose to a very low level to ensure the client's safety. Alternatively, ask the client to return when they are no longer intoxicated so they can be re-assessed and possibly dosed. A TAD (or unsupervised dose) should not be given to an intoxicated client. It is important to explain the rationale to the client, so they understand the change in treatment plan.

7.3 Responding to Overdose

As part of an overdose plan, an effective brief intervention is to provide the client with a prescription for THN, and education about its use (see Section 3.4).

For people who are opioid dependent, overdose accounts for approximately one third of deaths. Methadone related overdoses typically occur during the first 1–2 weeks of methadone treatment. Deaths commonly occur at home during sleep, many hours after blood methadone concentrations have peaked. Most overdose deaths involve other sedating drugs, particularly CNS depressants such as alcohol or benzodiazepines, and/or other psychotropic medications [1].

In an opioid tolerant client, the risk of lethal overdose with buprenorphine is less than other opioid medications, such as methadone. Overdoses with buprenorphine have nevertheless been reported, particularly in combination with other sedating drugs; in individuals with low-opioid tolerance, and following injection of buprenorphine products [1, 54]. Clients should be informed of the risks and features of opioid overdose [1, 3].

Signs and symptoms of opioid intoxication include:

- pin-point pupils
- nausea
- dizziness
- feeling intoxicated
- sedation/drowsiness
- unsteady gait
- slurred speech
- snoring
- hypotension
- slow pulse (bradycardia)
- shallow breathing (hypoventilation)
- frothing at the mouth (pulmonary oedema)
- coma [1].

Emergency procedures should be available for clients who demonstrate signs of opioid overdose. Procedures may include cardio-pulmonary resuscitation, calling for an ambulance (or the resuscitation team if associated with a hospital), calling for urgent medical assistance and closely monitoring the client. If possible, management may include giving oxygen, gaining venous access and administering naloxone [1].

Note that the effect of naloxone is shorter than the effect of opioids. The plasma half-life of naloxone is 1–2 hours and the duration of effect from a single intravenous dose is as short as 45 minutes, compared to 4–6 hours for the physiological effects of heroin or morphine, and 24–36 hours for methadone or buprenorphine [1].

7.3.1 Methadone overdose

The long half-life of methadone means methadone overdose can be deceptive. Clients who are thought to have taken a methadone overdose require prolonged observation as toxic effects may become life-threatening many hours after ingestion, including during sleep. Clients and their relatives should be

warned that deep snoring during induction to methadone treatment could be a sign of dangerous respiratory depression, and relatives should be encouraged to seek urgent medical attention. Heavy snoring during maintenance treatment may be associated with sleep apnoea and should also be reported [10].

A single dose of naloxone wears off within an hour and clients can then lapse back into a coma due to the long-lasting effects of methadone [10]. Hospitalisation is usually required for at least 24 hours. Clients may require naloxone and mechanical ventilation. Because of the long half-life of methadone, naloxone should be given as a continuous infusion when treating methadone overdose [1].

7.3.2 Buprenorphine overdose

Treating buprenorphine overdose usually requires inpatient hospitalisation, careful monitoring, and may require ventilatory support and naloxone. Due to buprenorphine's strong affinity for, and slow dissociation from mu opioid receptors, higher doses and prolonged infusion of naloxone may be required to reverse buprenorphine effects. Evidence suggests that many buprenorphine overdoses are reversed with usual naloxone doses (e.g. 2mg IV or IM), however, much higher doses (e.g. 10–30mg/70kg) may be required. The long duration of action of buprenorphine should be taken into consideration when determining the length of treatment needed to reverse the effects of an overdose [1].

At the time of admission to an opioid treatment program, encourage the client to nominate a contact person who can be notified in the event of an overdose or emergency.

7.4 Administering an incorrect methadone or buprenorphine dose

To minimise the possibility of medication errors, attach a photograph to each client record to ensure easy and accurate identification. This is particularly important for new clients. It is also recommended that when multiple clients have the same surname, to make a note on the relevant charts to alert staff (e.g. 'Caution: Another client has similar surname') (see Section 9.8).

Clinical management after an incorrect dose will depend upon:

- the medication
- the size of the incorrect dose as a proportion of the usual dose
- the length of time the client has been in treatment at the current dose
- other individual characteristics, including impaired liver or kidney function
- whether the client has recently consumed other drugs.

7.4.1 Incorrect methadone dose administered

A client who receives a methadone dose above that prescribed is at risk of overdose (see Section 7.3.1).

Clients in the first two weeks of induction who receive an excess dose require observation for four hours, when the effects of peak serum levels are apparent. If signs of intoxication develop, more prolonged observation is required which may involve sending the client to a hospital emergency department [3].

Clients who have been on a dose of methadone > 40mg/8mL per day consistently for two months will generally tolerate double their usual dose without significant symptoms. For an overdose that is greater than double the usual daily dose, the client will require observation for at least four hours. If signs of intoxication are observed, prolonged observation must be maintained [3].

If clients are receiving regular TADs, or if they do not attend daily, it cannot safely be assumed that they have been taking their daily dose and have a known level of tolerance. Therefore, such clients require observation in the event of overdose of more than 50% of their usual dose [3].

If a client's level of tolerance is uncertain (e.g. dose < 40mg/8mL per day, or in treatment <2 months), they require observation for at least four hours if given a dose more than 50% higher than their usual dose [3].

The critical issues that determine how clinicians should respond to an accidental overdose are the client's level of tolerance and the amount of methadone given in error.

The appropriate course of action, therefore, will depend on these variables.

Methadone excess dose up to 50 per cent of the normal dose

The dispensing staff should:

- Advise the client of the mistake. Carefully explain the consequences and warn against any additional drug use, and against driving or operating machinery.
- Notify the prescriber. If they cannot be contacted, it may be appropriate to contact a medical addiction specialist.
- Inform the client about signs and symptoms of overdose and advise the client to go to the nearest hospital emergency department should any symptoms develop.
- If possible, a contact person nominated by the client should be informed and advised of the event.
- Document the overdose event [3].

Methadone excess dose greater than 50 per cent of the normal dose

The dispensing staff should:

- Advise the client of the mistake and carefully explain the possible seriousness of the consequences.
- Contact the prescriber immediately for consultation. If they cannot be contacted, a medical addiction specialist should be consulted.

Emesis after the first 10 minutes is not enough to prevent a methadone overdose. Because it is impossible to determine whether the stomach has been emptied, it is impossible to determine if the risks of overdose and possible death have been eliminated.

Inducing emesis may be dangerous and is contraindicated, particularly if the client has respiratory depression, an obstructed airway, is drowsy, or has other signs of symptoms of central nervous system depression. If there is concern about the amount of methadone consumed, it is best to be cautious and have the client present to an emergency department without delay.

If it is decided by the prescriber that the client requires hospitalisation, explain this to the client and escort the client to the emergency department. The situation should be explained to the triage nurse. If a client refuses to present to the emergency department – despite being advised of the potential lethality of the dose consumed – try to ensure they understand the concerns of the prescriber and remain with another responsible adult over the next six hours. Give the client information regarding methadone overdose and urge him or her to seek medical attention if symptoms of overdose appear. Importantly, warn the client against any additional drug use, and against driving or operating machinery.

If the client leaves before the mistake is realised, the prescriber and, in a clinic, the senior registered nurse need to be informed. Depending on the advice of the prescriber, all efforts must be made to

contact the client or anybody who may know their whereabouts. In attempting to locate a client, their confidentiality should be maintained. If the client cannot be contacted, the prescriber should consider contacting the Queensland Police Service for a welfare check.

The prescriber should review the client before the next dose of methadone.

7.4.2 Excess buprenorphine dose administered

The risks associated with an incorrect dose of buprenorphine are less severe than with other opioid medications. In the event of an incorrect (excess) dose being administered:

- the dispensing staff should immediately notify the client and the prescriber of the error
- the client should be warned of the likely consequences (including increased sedation or drowsiness that may occur for several hours afterwards), warned against any additional drug use, and against driving or operating machinery for the rest of the day
- the client should be monitored for at least six hours by a clinician or in a hospital emergency department, if any of the following circumstances apply:
  - the client is sedated following the dose (for any reason)
  - the client is new to OTP (within the first two weeks of treatment)
  - the regular daily buprenorphine dose is ≤4mg and the client was incorrectly administered a dose of ≥ 16mg [12]
  - a buprenorphine dose ≥ 64mg was incorrectly administered (regardless of routine daily dose).

The prescriber should review the client before the next dose of buprenorphine.

It may be that a lower dose, or no dose, is required the following day (in effect, a two-day dose may have been administered).

7.5 Selective withdrawal management

Clients on opioid treatment with co-existing dependence on other drugs – in particular benzodiazepines, alcohol or psychostimulants – may require assistance to withdraw from those drugs while continuing opioid treatment [65]. The OTP service provider should support and encourage the client by offering selective withdrawal treatment.

The OTP service provider should:

- review the client frequently
- monitor the client closely for evidence of intoxication with sedative drugs in combination with methadone or buprenorphine
- provide only small quantities of withdrawal medication at a time (preferably daily pick-up of withdrawal medication with their opioid treatment).

The Queensland Alcohol and Drug Withdrawal Clinical Practice Guidelines (2012) [65] will be of assistance in managing the client's withdrawal regime.

Consultation with a medical addiction specialist should be undertaken in more complicated cases, or if the prescriber is unfamiliar with the appropriate withdrawal treatment.

7.6 Consumption of methadone or buprenorphine by a child

Methadone and buprenorphine TADs may be inadvertently taken or ingested by a child or deliberately administered to them by a client or other person. Ingestion of methadone or buprenorphine can be dangerous for children and can result in a potential life-threatening situation. Even small amounts can be fatal. Buprenorphine, while safer in adults, can still pose a significant risk to children if consumed [1].

When presented with a suspected opioid ingestion by a child:

- Assess the level of consciousness and monitor this continuously until the child is in the care of ambulance/medical staff.
- Refer the child to a hospital emergency department without delay, providing available information about the amount of medication consumed, and the time since ingestion.
- Administer oxygen if available.
- Consider naloxone administration if the child is showing signs of respiratory depression (document any treatment given).
- Notify the prescriber of the incident.
- Cease TADs for the parent/guardian/client immediately.
- If a child has ingested methadone or buprenorphine by any means, the child is at risk of harm and the authorities should be notified immediately.
- A 'Report of suspected child in need of protection form' should be submitted, and the Child Safety Regional Intake Service for the relevant area telephoned to confirm receipt of the Report.
- The treating medical officer should discuss concerns for the child; and next steps; with the Hospital Ward Social Worker and/or Child Protection Liaison Officer prior to discharge.
- Police may be involved in exceptional circumstances [1].

7.7 Polysubstance use:

Addressing polysubstance use which leads to poor outcomes and harms is an important aspect of safe and effective opioid treatment. The therapeutic relationship encourages open disclosure by clients without fear of recriminations. As with the management of any chronic condition, a partnership approach to addressing substance use should be fostered. This requires that clinicians recognise client autonomy in decision-making, and the client recognises the responsibilities of the service provider to ensure safe treatment and the role of the clinician to encourage improvements in the client's health [1].

Substance use may be disclosed by clients and should be systematically addressed in clinical reviews. Urine Drug Screen and breath alcohol level (BAL) monitoring can also identify undisclosed substance use. Continued high-risk drug use may also be evidenced by:

- frequent presentations when intoxicated
- evidence of regular substance use on examination (e.g. recent injecting sites)
- overdoses or other chaotic substance using behaviour
- deteriorating medical, mental or social wellbeing related to substance use [1]
- changes in behaviour/clinical presentation at dosing point.

Clients with high-risk substance use may be more appropriate for an AOD service, given increased safety concerns and review requirements may be difficult to coordinate in primary care settings. Attempts should be made to stabilise the client's substance use. A review of the client's goals regarding their substance use, precipitants to continued substance use, participation in psychosocial interventions and supports, and frequency of clinical reviews and monitoring is required (including UDS) [1].

OTP medication should also be reviewed, ensuring the client is taking an adequate dose of opioid as prescribed. Dose increases are beneficial in addressing additional opioid use, but less effective for alcohol or other substance use. Based on consideration of case acuity and risk rating, the client may require a period of supervised dosing and restriction of TADs. A change in OTP medication may be worth considering, such as a transfer from methadone to buprenorphine, particularly where persistent concerns exist about the use of methadone in combination with other CNS depressants [1].

If the client's safety is not at risk from ongoing drug use in combination with their OTP, it will generally be in the client's interest to persist with OTP. If the risks of combining methadone or buprenorphine with other drug use outweigh the benefits, then as a last resort a gradual withdrawal off OTP medication may be considered [1].

7.7.1 Use of other opioids

In instances where clients are regularly using other opioids and are not intoxicated, a dose increase of 5–10mg/1–2mL methadone or 4–8mg buprenorphine may help to decrease/cease other opioid use. The client should always be reviewed after a dose increase looking for features of intoxication. It is important to explain to the client that it may take four to five days for the full effects of the increase.

If significant other opioid use continues despite high-dose methadone (100–150mg/20–30mL per day) or buprenorphine (24–32mg/day), the prescriber must consider the relative merits of continuing such high doses compared to reducing the client to a lower dose. The prescriber should negotiate with the client so that a joint decision can be made that balances the potential benefits and harms.

7.7.2 Alcohol use disorder in OTP clients

About 33% of clients on OTP meet criteria for an alcohol use disorder [66, 67]. This cohort have an increased risk of overdose, impaired memory and cognitive performance, and altered pharmacokinetics (e.g. liver disease). These concerns may apply more to methadone than buprenorphine, due to greater risk of sedation and overdose in combination, and concerns about altered hepatic metabolism of methadone [1].

Specific strategies should be considered in alcohol dependent clients on OTP, including:

- treatment interventions for alcohol dependence (withdrawal, counselling and anti-craving treatment)
- investigations such as liver function tests and BAL testing. A client with a BAL concentration greater than 0.05% should not be dosed
- review case acuity - increased frequency of clinical reviews (see Tables 9, 10)
- restriction of TADs
- increased monitoring by pharmacy staff (including withholding dose and advising OTP service provider when client is intoxicated)
- methadone or buprenorphine dose increases alone are generally ineffective in addressing alcohol use, and may increase risks of over-sedation
- transfer to buprenorphine may be beneficial, where there are persistent safety concerns in alcohol dependent methadone clients [1].

7.7.3 Benzodiazepine use in OTP clients

Safety concerns arise in clients on OTP concurrently using high dose benzodiazepines due to the increased risk of overdose, impaired memory and cognition. These concerns may apply more with methadone than buprenorphine due to lower risk of sedation and overdose in combination, and uncertain hepatic metabolism of methadone in severe liver disease [1].

The management of benzodiazepine use disorders in OTP clients is complex. Whilst it is estimated that approximately 30–60% of OTP clients have used benzodiazepines in the preceding year, only a minority (estimated at 10–20%) have a benzodiazepine use disorder. These individuals may also experience complications from their benzodiazepine use such as increased anxiety, sleep disorders, intoxicated presentations for dosing, seizures, delirium, overdoses and hospital admissions [1].

A full clinical assessment (which may be challenging) should include:

- pattern of benzodiazepine use (frequency, amount, source, when benzodiazepines are used, extent of dependence)
- adverse events or harms linked to benzodiazepine use (overdoses, withdrawal seizures, high risk behaviours when intoxicated, memory or cognitive impairments)
- concurrent medical and mental health conditions (including anxiety and depression, neurological conditions, sleep disorders)
- conducting a urine drug screen (see Section 6.5.4)
- review of OTP conditions (adequacy of OTP dose, missed appointments, intoxicated presentations, TADs)
- collateral history (GP, MRQ S8 dispensing history, Medicare Australia Prescription Monitoring Service, other health services).

Benzodiazepine high dose/binge use

High-dose and/or binge patterns of benzodiazepine use are associated with significant harms (e.g. overdoses, intoxicated presentations). There is a limited role for prescribing benzodiazepines for clients registered on OTP with benzodiazepine misuse. Efforts should be directed to addressing concurrent psychiatric, medical and social conditions and minimising risks arising from benzodiazepine-opioid interactions. The degree of monitoring and multidisciplinary input required for such clients may not be possible in a primary care setting, and such clients may benefit from specialist multidisciplinary services/clinics [1].

Client education should target potential ‘immediate’ effects of benzodiazepine intoxication (e.g. impairment of memory, cognition and judgement, and how this can in turn lead to high risk behaviours and harms such as needle sharing, unsafe sex, deliberate self-harm, violence, crime and driving offences), as well as longer-term disturbances in sleep and mood. Also, education about the risk of seizure with sudden supply disruption for benzodiazepine dependent clients is important. Generally, OTP should not be discontinued for persistent benzodiazepine misuse. Instead, risk management strategies should be used, such as:

- consider ‘case acuity’ - regular reviews, supervised dosing with limited TADs
- consider reduction of high OTP doses to minimise overdose risk in client with frequent intoxicated presentations
- consider transfer to buprenorphine/naloxone for client with a history of benzodiazepine-related overdose (a partial opioid agonist carries less risk of respiratory depression than methadone and would therefore be a safer OTP agent) [1].

Benzodiazepine dependence

Prescribers should recognise their central role in managing benzodiazepine dependence for clients on OTP. Clinicians should exercise caution in prescribing benzodiazepines because of the increased risk of respiratory depression, coma and death [68]. Balanced with this, it is important not to cease benzodiazepines abruptly because of the risk of withdrawal seizures. The client should be educated about the potentially fatal combination of methadone or buprenorphine and benzodiazepines, and the risks of overdose and death, and agreement on a benzodiazepine withdrawal plan established.

Benzodiazepine Withdrawal regimen

The concerns regarding graduated withdrawal include relapse to illicit or opportunistic benzodiazepine use. The following strategies can assist with mitigating risk while managing this situation:

Table 15 Strategies for managing benzodiazepine dependence in OTP clients [1]

Strategy	Action
Coordinate treatment providers	Ensure that a single identified practitioner is prescribing benzodiazepines Prescriber to obtain Approval from MRQ to prescribe restricted Schedule 4 medication to a person on OTP Clients not prepared to reveal the clinician from which they obtain benzodiazepine prescriptions are poor candidates for a reducing regimen, suggesting ambivalence or lack of motivation to change
Address comorbidities	Including mood and sleep problems using evidence-based psychosocial and pharmacological approaches Treatment of benzodiazepine withdrawal is more than a prescription
Stabilise on a long-acting benzodiazepine	Diazepam is generally used for this purpose (although clonazepam and clobazam are less widely reported as benzodiazepines of misuse and enable easier monitoring of additional benzodiazepine use by UDS) Dose conversions between benzodiazepines are unreliable. It is important to differentiate the amount of benzodiazepines a client may report to achieve intoxication, compared to the amount required to avert severe withdrawal Doses of more than 40mg diazepam daily are rarely required to avert severe withdrawal Hospital admission may be required to stabilise clients reporting very high or erratic benzodiazepine use
Attempt gradual reductions	An 8–16 week reduction regime can be initially negotiated (up to 5mg diazepam equivalent dose reduction every 1–2 weeks), some clients require periods of stabilisation along the way Reduction regimens may extend to more than 6 months, although this requires a review of treatment conditions and ancillary interventions Such long-term prescribing should include regular assessment of functional outcomes, such as cognition, memory, affect (depression, anxiety) and sleep
Limit access to benzodiazepine medications	Dispense benzodiazepines with OTP medications Medications are the client's responsibility once dispensed, and 'lost' tablets are not replaced
Identify and address aberrant drug behaviours in the treatment plan	Clear understanding between client and all clinicians that persistent, severe aberrant drug behaviours may result in discontinuation of the treatment plan and cessation of benzodiazepine prescribing

	Aberrant drug behaviours include use of additional benzodiazepines, intoxicated presentations, missed OTP doses, persistent use of other drugs that may precipitate benzodiazepine use (e.g. stimulants) or increased safety concerns (e.g. alcohol or other opioids) A written care plan signed by the client and clinician may be helpful
Undertake regular client monitoring	Including clinical reviews, communication with pharmacy staff, and UDS, ideally with laboratory techniques (e.g. GC/MS or equivalent) to differentiate benzodiazepine type Prescription monitoring where available
Use contingency management principles regarding treatment conditions	TADs of OTP medication and frequency of dispensing benzodiazepines may be linked to clients reducing their benzodiazepine dose and adhering to the treatment plan A written care plan signed by the client and clinician may be helpful
Document treatment decisions	There is minimal evidence supporting long-term benzodiazepine prescribing in this population, and given the high risk of adverse events, clinicians must be able to defend their decisions and prescribing practices in the event of severe harms such as overdose and death

Benzodiazepine maintenance treatment

The concerns regarding maintenance benzodiazepine treatment include persistent additional benzodiazepine use (and related intoxication harms) and aberrant behaviours where medications are not supervised (e.g. injecting, diversion to others). Benzodiazepine dependence may lead to long-term impairment of cognition, memory and psychomotor function (impacting upon activities such as employment, driving and parenting), mood effects (e.g. depression, emotional 'blunting') and tolerance resulting in deterioration of anxiety and sleep quality [1].

If low-dose maintenance of benzodiazepine medication is being considered, the client should be referred to a medical addiction specialist or psychiatrist. A management plan should include periodic reviews by the medical addiction specialist or psychiatrist, regular collection of their benzodiazepine medication (e.g. with their OTP dose), and other risk mitigation strategies such as UDS, and regular reviews with their OTP service provider. MRQ should be contacted to seek an approval to treat under the Health (Drugs and Poisons) Regulation 1996, when prescribing benzodiazepines (regulated restricted drug) for clients on OTP.

Medicare Prescription Monitoring Program

Although the client's permission is not required by law, it is good practice for clients to be made aware that their history of obtaining benzodiazepines will be monitored through the Medicare Prescription Monitoring Program. Inform the client that periodic checks will be made with the Program to confirm the client is not receiving benzodiazepines from other doctors. Prescribers can register for the Medicare Prescription Monitoring Program by telephoning 1800 631 181. Once registered, doctors can telephone this number for prescription information 24 hours a day, seven days a week.

7.7.4 Use of psychostimulants

The major concerns about psychostimulant use in clients on OTP are an increase in risk-taking behaviour, ongoing injecting drug use and association with the related subculture. The most common problems seen with psychostimulant use are mental health issues, such as anxiety, agitation, misperception, delusions, paranoia, magical thinking, hallucinations and psychosis. Depression is also common in regular users [1].

Recognised physical health problems include loss of weight and insomnia, while regular or intensive users may be vulnerable to BBV infection or sexual health risks. Endocarditis can occur in injecting drug users. Other health problems may include cardiac arrhythmias or ischemia, and central nervous system issues such as stroke [1]. Psychostimulant use in a client on methadone may lead to hazardous, prolonged QTc intervals [18].

Some clients who use psychostimulants also use CNS depressants (e.g. cannabis, benzodiazepines, alcohol) to reduce anxiety or insomnia. Screening for problematic use of these substances in this population may be indicated. Counselling is advised for clients with problematic amphetamine use, using evidence-based psychosocial models such as CBT and motivational interviewing. Clients who are dependent on psychostimulants may require assistance with withdrawal management [1].

7.7.5 Cannabis use

Around half of OTP clients use cannabis, with many being regular users [69, 70]. Although most clients do not identify any significant harms with their cannabis use, it can be associated with significant medical (e.g. respiratory problems), psychiatric (e.g. anxiety, psychosis, paranoia, memory impairment) or social (e.g. financial, legal) consequences. When cannabis is mixed with tobacco there is the additional risk of tobacco-related harm and a need to assist with nicotine dependence [1].

Motivational interviewing approaches may help ambivalent clients address their cannabis use. Cessation of cannabis in dependent users can be associated with a clinically significant withdrawal syndrome. This is estimated to occur in about half of daily users and typically presents as sleep disturbance, cravings, agitation and low mood. However, symptoms are usually of short duration (1–2 weeks). There are currently no effective medications specifically for cannabis withdrawal, although symptomatic management may have a role. Counselling can be effective for some clients to address their cannabis use [1].

7.7.6 Nicotine

80-90% of OTP clients smoke tobacco, thus are at heightened long-term health risks. Many find it particularly difficult to quit [66, 71]. Quitting can enhance reductions in other substances in the short-term and long term. Opioid dependent people respond to similar approaches to quitting as the general population however they may need more intensive treatment. Pharmacotherapy can double the chances of successful quitting. Options include nicotine replacement therapy (NRT) and anti-craving medication (e.g. varenicline and bupropion). These can be prescribed for OTP clients for 3-6 months through the Pharmaceutical Benefits Scheme. Combination NRT (long acting patches, plus a short acting form such as gum or lozenge or spray) is recommended practice.

7.8 Opioid-dependent pregnant women

Women who are dependent on opioids are at particularly high risk of complications during pregnancy. This can be due to a variety of factors, and may include:

- infrequent and inconsistent antenatal care
- repeated cycles of opioid intoxication and withdrawal with resultant significant threat to the foetus
- biological issues such as inadequate nutrition, BBV exposure and overdose
- psychological issues such as anxiety, depression, PTSD and other mental health problems
- social problems including domestic violence, financial, accommodation, relationship and legal problems, and exposure to criminality
- other substance use, including tobacco and cannabis [3, 72-75].

There may be a range of obstetric complications including:

- premature labour
- intrauterine growth restriction and low birth weight
- miscarriage
- intrauterine infection
- antepartum and postpartum haemorrhage
- intrauterine hypoxia or anoxia
- pre-eclampsia [75].

Neonatal complications may include neonatal abstinence syndrome (NAS) and Sudden Infant Death Syndrome (SIDS).

The aims of treatment for pregnant women with opioid dependence are the same as for all pregnant women, specifically to minimise the likelihood of complications, and provide antenatal and postnatal care. Engagement in antenatal care improves outcomes for mother and infant, even in women with continued substance use [76, 77].

It is important to support the pregnant woman with early referral for antenatal care, particularly to specialist alcohol and drug antenatal services where available [35]. While referral is usually to local antenatal services, OTP prescribers can contact CHAMPS Clinic or SHADES Clinic for telephone advice/consultation for any alcohol and drug antenatal issues (see Section 11.15).

Antenatal and postnatal care should be managed in collaboration with a specialist obstetric service experienced in managing substance dependence during pregnancy.

7.8.1 Initial assessment

Most women are of child-bearing age when they present for OTP assessment. It is therefore good practice to conduct a pregnancy test, to assist with treatment planning and medication choices. Assessment should also include, where applicable:

- plans about becoming pregnant and contraception
- plans regarding current pregnancy
- discussion about the effect of treatment on pregnancy and birth
- discussion about breastfeeding.

Assessment of opioid dependence during pregnancy

If a client uses opioids less than three times per week, has been using opioids for less than three months or has been using very small quantities of opioids, they are unlikely to be dependent and alternative treatment options should be explored [78]. Where there is some uncertainty about the diagnosis of opioid dependence in a pregnant client, careful assessment of the risks associated with continued drug use need to be considered, along with the risks involved with treatment with a dependence-forming opioid.

For clients who are pregnant and meet the diagnosis for opioid dependence, OTP is the recommended evidence-based treatment [79].

Methadone and buprenorphine-mono are the treatments of choice for women assessed as appropriate for opioid treatment during pregnancy.

Other substance use

Other substances, licit and illicit – including nicotine, alcohol, cannabis, benzodiazepines, amphetamines and cocaine - pose potential risks to pregnant women and their babies. Nicotine is particularly associated with an increased risk of adverse outcomes such as ectopic pregnancy, premature birth and SIDS [80]. Interventions to reduce/cease substance use are a high priority, and targeted strategies may include counselling, relapse prevention and pharmacotherapy [81, 82].

Other prescribed medication

Prescribers often manage opioid-dependent women who additionally receive medication such as anti-depressants. The risks to mother and foetus of untreated moderate to severe maternal major depression, often outweigh the risks associated with antidepressants in pregnancy (information arising from low to moderate quality studies). However, concern remains about possible teratogenic effects and postnatal behavioural disorders as part of neonate withdrawals. Risks and benefits for each client need to be weighed carefully and collaboratively in relation to specific medications and overall clinical situation. Specialist advice, including from perinatal mental health services, can be sought in relation to medications and treatment. See: http://qheps.health.qld.gov.au/qcpimh/perinatal-referrals.htm. Overall, maintaining the mother's health during pregnancy will in turn promote the health of the unborn baby [83].

7.8.2 Opioid withdrawal-management in pregnancy

Opioid withdrawal-management is contraindicated during the first trimester due to risk of miscarriage and in the third trimester due to risk of foetal distress and premature labour. Any potential benefit from a withdrawal-management program must also be balanced against the risk of relapse to uncontrolled substance use [1]. For a pregnant woman committed to participating in an opioid withdrawal program during pregnancy, collaboration between alcohol and drug specialists and an obstetrics team is required [75, 78]. A structured attempt at withdrawal at some stage after pregnancy is preferred [1]. Overall, OTP is strongly recommended for opioid dependent women during pregnancy, with comprehensive obstetric care and psychosocial interventions [84].

7.8.3 Opioid antagonist medication and pregnancy

Caution is advised in prescribing naltrexone to women who are pregnant or breastfeeding as naltrexone is classified as a B3 risk in pregnancy [85], and may precipitate withdrawal in the foetus. Assessment by a medical addiction specialist is recommended prior to prescribing this medicine for such clients. An exception to the use of opioid antagonist medication in pregnancy is the case of opioid overdose. In this instance, the care of the pregnant woman will take precedence and naloxone may be indicated.

7.8.4 OTP and pregnancy

OTP is the preferred treatment approach for pregnant women with opioid use disorder due to its capacity to:

- enhance access to antenatal care with improved health outcomes
- reduce illicit opioid and other drug use, and improve the health of pregnant women
- reduce maternal and infant deaths associated with opioid use
- reduce the spread of BBV communicable diseases associated with injecting drug use
- facilitate the improvement in social functioning of the mother [3].

Pregnant women are prioritised for OTP registration, along with their partner if they are opioid dependent. Treating the partner helps reduce unsanctioned opioid use [77]. Early stabilisation of OTP medication is paramount, and the usual principle applies, whereby dose is titrated to control withdrawal symptoms and prevent ongoing opioid use. Clinical review by the OTP service provider should occur on a frequent and regular basis. This is particularly important as the pregnancy progresses, and should routinely include assessment of the client's alcohol and other drug use.

7.8.5 Medication selection

Methadone and buprenorphine-mono are both safe and effective treatments for pregnant clients [79, 83, 86]. In the case of buprenorphine/naloxone film, the absorption of naloxone is minimal when administered sublingually however the effect of long-term low-level naloxone exposure on the foetus is unknown. For this reason, in Australia buprenorphine-mono is preferred, although in the USA this distinction is no longer made and pregnant women may remain on buprenorphine/naloxone [87].

Before starting either medication, the client's preference, prior experience in treatment, other drug use, risk behaviours and ability to access treatment/pharmacy should be considered [75, 86, 88]. In comparing the recommended medications, studies have shown methadone to be associated with greater treatment satisfaction and retention for pregnant women, while it has a higher risk profile for drug interactions and adverse events. Buprenorphine has fewer drug interactions and has been associated with fewer maternal deaths attributable to overdose [88]. Buprenorphine related precipitated withdrawal and the risk this may pose to the foetus are considerations, particularly during the induction/stabilisation period.

7.8.6 Methadone treatment during pregnancy

Physiological changes in the later stages of pregnancy (e.g. expanded plasma volume; an increase in plasma proteins which bind methadone; and placental metabolism of methadone) may reduce the bioavailability of methadone, making treatment at a given dose potentially less effective. These pharmacokinetic changes may necessitate significant dose increases to manage withdrawal symptoms, particularly in the second and third trimesters [83, 89, 90]. The available data for methadone dose and incidence of NAS suggests minimal correlation.

Split doses

Given that the half-life of methadone can decrease to as low as 8 hours in pregnant women, split doses are occasionally considered as a treatment option [90]. Split-doses can result in more sustained plasma levels, and therefore reduced withdrawal symptoms, cravings and risk of illicit drug use in a pregnant client [88]. In relation to the foetus, split-dosing may normalise foetal behaviour, (such as heart rate and motor activity), compared to single daily doses with their greater peak dose effects [90]. Stability of the client needs to be carefully considered when assessing this option.

Dose reductions

National clinical guidelines advise it is preferable for a woman to be maintained on a dose of methadone or buprenorphine through pregnancy and beyond [3], however, some pregnant women are determined to reduce off OTP. In this situation, any dose reductions should be undertaken only if the pregnancy is stable and only in the second trimester, which is considered the time of lowest risk for dose reductions [10]. It is recommended not to attempt to transfer from methadone to buprenorphine during pregnancy because of the risk of precipitated withdrawal.

Methadone dose reductions of 5mg per fortnight are likely to be safe for doses above 40mg/day and reductions of 2.5mg per fortnight are safe when the dose is 40mg or less. Most importantly, tapering of doses needs to be flexible and undertaken in consultation with the client. While it may be possible to undertake more frequent dose reductions, the severity of opioid withdrawal symptoms and the client's capacity to cope must guide clinical decision-making [10]. Withdrawal symptoms should be avoided as far as possible as they may cause considerable distress to the foetus [83, 88].

If the prescriber decides with the client that dose reductions will occur, the second trimester is considered the least harmful period for an adverse obstetric event.

7.8.7 Buprenorphine treatment during pregnancy

The recommended treatment is buprenorphine-mono, rather than the combined buprenorphine/naloxone product. If a stable client receiving buprenorphine/naloxone becomes pregnant, it is appropriate to change to buprenorphine-mono [91]. The available data for buprenorphine dose and incidence of NAS suggests there is no significant correlation.

Dose considerations

General principles of opioid maintenance should be followed during pregnancy. Dose increases may be required throughout the pregnancy, especially during the second and third trimester [82, 83]. A proportion of clients on buprenorphine will experience withdrawal symptoms when buprenorphine dosing occurs less frequently (e.g. double dosing), therefore it is recommended clients dose daily during pregnancy [83].

It is recommended that all pregnant women on buprenorphine be placed on a daily dosing schedule during pregnancy.

7.8.8 Dose review after giving birth

The OTP maintenance dose should be reviewed post-partum and regularly thereafter. The priority is to support and enhance the stability of the woman by ensuring her OTP medication dose is optimal, monitoring for:

- signs of withdrawal or intoxication
- risk of relapsing to unsanctioned drug use.

Effective liaison between relevant services including midwifery and obstetric, neonatal, child protection and substance treatment services is crucial in the postnatal period. Additional agencies might include Aboriginal health or community mental health services, amongst others.

7.8.9 Neonatal abstinence syndrome

Neonates born to women on OTP (or women regularly taking opioids during pregnancy), are at risk of developing NAS from opioids [81].

NAS is a clinical diagnosis based on assessment of disturbances in the central nervous system, the gastrointestinal system and the respiratory system of opioid-exposed infants [76, 77]. Experienced staff should observe all babies born to opioid-dependent mothers for developing signs of withdrawal. A validated scale should be used to assess the presence and severity of NAS, for example the Finnegan scale [72, 73]. Withdrawal symptoms can start from the first 24 hours following delivery, up to 10 days post-natal, depending on the substance or substances to which the baby was exposed in utero. Withdrawal from additional substances (for example benzodiazepines) may delay the onset of symptoms and prolong and complicate the withdrawal process [82, 83].

Significantly, there is minimal evidence of a relationship between methadone or buprenorphine maternal dose at delivery and the severity of NAS [88, 92, 93]. The incidence of NAS may be less severe in women stabilised on buprenorphine rather than methadone [79, 94, 95]. Infants with NAS should remain with their mother where possible.

7.8.10 Breastfeeding while on methadone or buprenorphine

Breastfeeding promotes mother-child bonding and may decrease NAS severity [82, 96]. Recent data shows no significant differences between opioid-dependent mothers treated with methadone or buprenorphine and safety in breastfeeding. Concentrations of methadone and buprenorphine in breast milk are low and remain stable over time [3, 74].

Women who are stable on methadone or buprenorphine should be encouraged to breastfeed. The benefits of breastfeeding greatly outweigh minimal risks of low concentrations of methadone or buprenorphine present in breast milk [97].

Clients who use opioids in a ‘one-off’ pattern, should be advised against using substances when breastfeeding. If they choose to use illicit substances, they should be advised to express and discard breast milk for a 24-hour period afterwards, then return to breastfeeding. They should also be encouraged to have a ‘safety plan’ in place for the infant on occasions they use opioids [1].

Women who are unstable on OTP, continuing to use opioids, or using multiple substances, should be discouraged from breastfeeding, and support provided to help them stabilise their lifestyle [1].

To reduce risk of transmission of infectious disease to the newborn, women with HIV should be advised to avoid breastfeeding [98]. For mothers with hepatitis C, there is a theoretical risk of viral transmission if the breastmilk is contaminated by blood (such as when nipples are cracked or bleeding). Breastmilk is to be discarded in this instance [98].

The delay between delivery and appearance of NAS reflects similar concentrations of methadone or buprenorphine in the mother and neonate at birth, following which levels then gradually decline in the neonate. It is unclear if the effect of breastfeeding on NAS is due to the beneficial effects of breastfeeding itself or because of the low concentrations of methadone or buprenorphine present in breast milk mitigating withdrawal [97, 99].

7.8.11 Child Safety considerations

Some women may be reluctant to present for help with substance use during pregnancy due to stigma and concern regarding the involvement of child protection services. Similarly, those on OTP may be reluctant to advise other health practitioners about their pregnancy. Clients should be counselled about the importance of a partnership approach between the OTP service provider, GP, obstetric and other services providers involved in the care of their pregnancy [77]. Women on OTP are more likely to retain custody of their infant when discharged from hospital compared to women with opioid dependence not on OTP [76].

7.9 Infectious diseases

When assessing an individual for opioid use disorder it is important to obtain a detailed history of infectious disease transmission risk behaviours, specifically HIV and viral hepatitis. The history should include information about unsafe injecting practices, sexual relationships and at-risk sexual behaviours. Universal infection control precautions should be in place regardless of the HIV or hepatitis status of individual clients.

It is important to provide education to all clients regarding HIV and viral hepatitis at the initial assessment, particularly as some clients may not return for treatment. Brief interventions can have significant individual and public health benefits. For clients who commence on OTP, more detailed information can be provided once the client has stabilised on methadone or buprenorphine.

Education for clients should include the following components:

- information about safer injection practices (including where to obtain sterile injecting equipment)
- access to services for health, alcohol and drug issues
- information regarding safer sexual practices
- prevention, testing and treatment of other sexually transmitted infections
- pregnancy advice for women
- assertion and negotiation skills
- promotion of BBV testing.

7.9.1 Hepatitis C

The hepatitis C virus (HCV) is a major global public health issue. In Australia, unsafe injecting practices among people who inject drugs is the primary source of new infections. Over 50% of clients entering OTP have chronic hepatitis C (CHC) infection [3, 100, 101].

Revolutionary changes in CHC treatment in recent years have followed the introduction of direct-acting antiviral (DAA) therapies. Treatment adherence rates of 92% have been demonstrated among people who inject drugs undergoing DAA therapy in a community-based setting [102]. Once daily dosing, minimal side-effect profile, reduced treatment time and high efficacy has generated optimism about improved treatment outcomes, with cure rates in excess of 95% [103]. All clients should be strongly encouraged to undertake HCV testing and when indicated, CHC treatment. While an integrated approach in OTP settings has been shown to improve client engagement in CHC treatment, uptake of HCV assessment and treatment remains an issue [104-106].

The DAA's are co-listed on the Pharmaceutical Benefits Scheme as both s100 and s85 drugs. As such they are able to be prescribed by general practitioners and nurse practitioners either in consultation with a specialist doctor or independently [107]. There is no evidence of drug interactions between DAA and

OTP medication [108] http://www.hep-druginteractions.org/drug_enquiries.

For clients who are HCV negative (or hepatitis C reactive and have not yet commenced treatment), education and counselling should focus on minimising risk of further transmission and maintaining optimal health. Information should include advice on reducing hazardous use of all drugs (particularly alcohol, cannabis and tobacco). Detailed discussion about the risks associated with sharing injecting equipment (including tourniquets, spoons and water) as well as razors, toothbrushes etc. is suggested.

Hepatitis C reactive individuals should have their hepatitis B status checked (HBsAg, sAb and cAb), since co-infection may cause their illness to be more aggressive and may be a risk factor in DAA treatment for HCV.

7.9.2 Hepatitis B

Hepatitis B vaccination is recommended to all non-immune OTP clients. Further, it is recommended that vaccination should be offered to sero-negative partners and close family contacts of clients who are hepatitis B sero-positive and potentially infectious [109]. Chronic hepatitis B carriers (HBsAg or eAg positive) should be referred to a liver clinic or gastroenterologist for assessment.

The hepatitis B vaccination is free for at-risk groups and should be made available in all opioid treatment clinics. The identified at-risk group includes people who inject drugs, clients with chronic liver disease and/or hepatitis C, and Aboriginal and Torres Strait Islander people who do not have immunity [109]. Local Public Health Units (PHU) can be contacted regarding supply of hepatitis B vaccines (see Section 11.15).

7.9.3 HIV

Clients who are HIV-positive should, if possible, be managed in collaboration with specialist services and community-based support services. These clients may have a range of medical conditions, such as depression or tuberculosis, and assessment/management of possible drug interactions between OTP pharmacotherapy and other medications is necessary.

7.10 Dental health

OTP clients have a high prevalence of tooth decay and periodontal disease. All opioids reduce saliva flow (xerostomia) contributing to dental decay [110]. Another factor may be poor dental hygiene.

Methadone syrup contains sorbitol and glycerol; non-cariogenic sweetening agents intended to improve the flavour and counter the constipation caused by methadone. Methadone liquid (Biodone) is formulated without any sweetening agent.

A few simple counter-measures may help to manage the dental health of OTP clients:

- examine the mouth and gums regularly, and develop a management plan for any problems identified
- recommend sugar-free gum or sugar-free candy to stimulate saliva production
- provide information about diet and oral hygiene when appropriate
- recommend treatment at community dental clinics for concession card holders, or by private dentists in other cases.

7.11 Clients under 18 years of age

If treating a client under 18 years of age, the emphasis should be on psychosocial responses, harm reduction and family intervention approaches. If OTP is being considered caution is advised, and consultation with a practitioner with appropriate skills and experience, such as a child and adolescent psychiatrist or paediatrician is recommended (see Section 4.4). The importance of this consultation is increased, the younger the age of the client.

Pharmacotherapy should only be used:

- following careful assessment of the risks and benefits
- in the context of a comprehensive treatment plan embracing various psychosocial approaches
- after consideration of the client's competence to consent to OTP.

If commencing OTP, buprenorphine is preferable to methadone. Depending on their drug use history and social circumstances, adolescents may stabilise quickly on OTP enabling cessation of pharmacotherapy to be considered sooner than would be the case with adults [1].

7.12 Ageing clients

In 2015, 22% of clients on OTP in Australia were aged 50 years or over as compared to 8% in 2006 [111]. This increase in ageing clients on OTP is predicted to continue, thus the following consideration of issues for older clients.

In this group, previous substance use, trauma and other factors accumulated from a drug-using lifestyle increase the likelihood of associated problems. Issues around long-term use of high doses of opioids include adverse impacts on the usual ageing process, osteoporosis and sex hormone deficiencies (particularly androgens in men), reduced cognition from repeated hypoxia, risk of falls, changes in pharmacokinetics and poly-pharmacy [1, 69]. HCV, obesity and smoking-related issues are also likely in this population. Improved care coordination is needed to address the multiple issues [1].

There is no direct evidence about methadone dosing regimens for maintenance treatment in older adults. However, older people who use drugs are likely to metabolise drugs at a slower rate, making lower opioid doses and slower dose titration of methadone advisable in older clients. Large doses of methadone (>150 mg/day) are not necessarily best for this group and should be reviewed in consultation with the client [1].

For some ageing clients, continued access to OTP treatment can become problematic, particularly in the event of reduced mobility, early onset cognitive impairment, and social isolation [69]. Ongoing communication between the OTP prescriber, client, GP, family/carers and other health services involved in the care of the client is essential. Some clients require carer support to remain at home, or may transition to a nursing home setting [112]. In either setting, dependent on need, clinical management options could include:

- authorisation of an agent to collect TADs (see Section 6.6.8, 9.4.6)
- shared care with GP and OTP prescriber (see Section 7.18)
- transfer full care of the client to the GP. Substitution of OTP medication with other opioid medication may be considered, and MRQ should be contacted to seek an approval for prescription opioids (see Section 11.15).

Importantly, for clients transitioning to a nursing home, nursing home staff must be advised:

- methadone/buprenorphine is prescribed to manage opioid use disorder (not pain)
- treat pain when it arises with appropriate analgesia
- exercise caution around medication interactions with methadone/buprenorphine (e.g. benzodiazepines)
- consider need to slowly reduce the OTP medication as the client ages, due to reductions in opioid metabolism and greater sensitivity to depressant medication generally.

7.13 Palliative Care

When medical treatment transitions into palliative care for a client on OTP, collaboration with the client's GP, palliative care team and OTP prescriber is essential. Treatment planning requires a flexible approach. OTP dose increases can assist with pain management, while flexibility with TADs according to client's stability and clinical situation can support quality of life for the client.

Clear communication between involved health services regarding any additional Schedule 8 and restricted Schedule 4 medications is necessary (see Sections 10.3, 10.4), and Approval from MRQ is required for any such prescriptions. Clarity amongst all parties about the nominated Approval holder for this medication is needed. Where indicated, risk mitigation strategies can be incorporated into an Approval [59, 113]. MRQ Clinical Advisors are available to provide advice about clinical and legislative considerations for the prescriber (see Section 11.15).

Management will vary depending on the setting where palliative care occurs, and the client's medical and social issues. Ongoing communication between all parties involved in the care of the client may assist in determining the right time for possible treatment options such as:

- authorisation of an agent to collect TADs (see Section 6.6.8, 9.4.6)
- shared care with GP and OTP prescriber (see Section 7.18)
- transfer full care of the client to GP or palliative care. Substitution of OTP medication with other opioid medication may be considered and MRQ is to be contacted regarding Approval to prescribe opioids [59, 114] (see Sections 10.3, 11.15).

7.14 Clients with co-existing mental health problems

Depression and anxiety, personality disorders and other substance use disorders are significantly more prevalent among opioid users than in the general population [115, 116]. The presence of a co-existing mental health disorder amplifies the complexity of treatment, and heightens the risks associated with each condition [117, 118]. Treating only one disorder in this situation can increase relapse for both disorders. OTP is the recommended treatment for opioid dependence, and targeted care for psychiatric symptoms improves the client's overall treatment outcomes [118, 119].

Clinicians need to be skilled in the assessment, management and appropriate referral of people with co-existing mental health disorders [120, 121]. Where a diagnostic assessment is unclear, particularly where psychotic features are present, psychiatric opinion should be considered. People with significant comorbidity are likely to be best managed in settings with the capacity to manage both disorders. If this is not possible then should be via close linkage between the alcohol and drug and mental health service providers [3].

7.15 Rural and remote clients

Queensland has a shortage of OTP service providers and pharmacies in rural and remote areas, and this has a significant effect on access to treatment for clients [122, 123]. Each local AOD service can advise about access to OTP in their area, and MRQ can provide information about private OTP prescribers. Strategies to manage access and capacity for OTP services in regional areas vary but may include:

- Interim Approval issued by MRQ to GP to prescribe methadone tablets 20mg/day with daily supervised dosing, upon confirmation client has a registration appointment booked to commence OTP (see Section 11.15).
- Local AOD service to co-ordinate stabilisation via affiliated larger town/city (see Section 11.15). Client to stay for stabilisation period then return to local AOD service for ongoing management.
- OTP medical reviews conducted via video-conference or teleconference with an AOD nurse present to assess the client.
- Preferential prescribing of buprenorphine/naloxone film, with this formulation approved for more flexible dispensing and therefore reduced pharmacy attendance. As always, suitability of client to receive TADs is based on assessment of risk (see Sections 6.6.3, 6.6.6).
- Close liaison between OTP prescribers, AOD clinicians, GP's, pharmacies and local hospitals to assist with clinical management of OTP clients. Some OTP service providers have an established process to formalise collaboration and information sharing between their service and a nominated GP.
- Transfer suitable OTP clients to their GP for management of OTP prescribing under a shared care arrangement (see Section 7.18).
- Consult with MRQ Clinical Advisors regarding alternate signatories in the event of approved OTP prescriber absence (see Section 11.15). (This is only applicable for regional areas where there is limited access to an OTP prescriber. The approved OTP prescriber should be accessible by phone to give advice and experienced clinical staff should be available for direction).

Particular issues for clients include limited pharmacy options and opening hours, lack of confidentiality with dosing in a smaller community pharmacy, expense associated with travel to collect dose and pharmacy fees, difficulties with the time required to travel to collect their dose, and concern about the impact this can have on employment [124, 125]. Management of these issues requires a flexible and resourceful response by the OTP service provider as well as the client.

7.16 Persistent Pain

Approximately 20% of the Australian population have persistent pain, with projections this will increase as the population ages [42, 126, 127]. It is commonly defined as non-cancer pain experienced daily for a minimum of three months [126, 128]. Some common causes are osteoarthritis and back pain, with most clients rating their pain as mild to moderate in intensity [129].

Despite evidence about the limited benefit of opioids in treatment of persistent pain, supply of pharmaceutical opioids in this population has increased substantially in recent years [42, 130]. In Australia, the Defined Daily Dose (DDD) per 1,000 population/day of oxycodone dispensed in 2002 was 0.769, while in 2009 this increased to 2.157. Fentanyl increased from DDD of 0.212 to 0.832 in the same period [131]. Morphine showed a slight reduction from 1.801 to 1.571 DDD in that time, however oral morphine supply increased forty-fold between 1990 and 2006 [42, 131].

Alongside this increased prescribing, there is growing evidence that long term opioid therapy may be

associated with harms including opioid-induced hyperalgesia, opioid misuse, dependence, diversion and opioid toxicity, particularly with high dose opioid treatment (>100mg Oral Morphine Equivalent (OME) [132-135]. The risk of serious harms is dose-dependent [132]. Of note, 10-25% of long term therapeutic opioid clients develop opioid use disorder. In growing recognition of this harm and consideration of risk versus benefit for opioid use, the therapeutic ceiling OME dose has been reduced to 50-100mg per day.

Around 60% of clients on methadone in OTP have persistent pain, and similarly, at least 33% of clients on buprenorphine or buprenorphine/naloxone [133, 136-139]. While for many with persistent pain, a biomedical 'cure' may not be realistic, a reduction in pain and improved function can be achieved with active self-management [126, 140].

7.16.1 Persistent pain management in the OTP setting

As part of a comprehensive initial assessment, collateral information and results of investigations should be obtained where possible. The priority in the initial treatment plan should be stabilising the client's opioid use disorder. The client may be taking a higher or lower dose of opioids than prescribed [3]. Match induction dose to objective withdrawals, and then titrate to the point where no objective withdrawal signs are evident. It may then be timely to consider pain symptoms.

While prioritising management of opioid dependence, then considering pain, reassure the client their OTP medication is a strong opioid which will provide analgesia while treating dependence. Once the OTP dose is stabilised, pain is often effectively managed. For clients with continuing pain it is important to assess the origin of the pain, for example distinguishing between neuropathic and nociceptive pain. Interventions can then be appropriately targeted.

Persistent pain should be managed with an emphasis on psychosocial and non-opioid pharmacological approaches. Non-pharmacological strategies can include client education about healthy lifestyle modifications including a daily routine of structured activities incorporating sleep, nutrition, adequate exercise, social interaction and rest. Client education regarding the links between tobacco and pain may be indicated with discussion about quitting. Non-opioid pharmacological options might include simple analgesia and/or adjuvant medications, such as anticonvulsants and antidepressants. Benzodiazepines can exacerbate pain in the longer term, and should only be considered for extremely short episodic use [141].

Collaboration with the client's GP is essential, where the GP assumes primary responsibility for coordinating and communicating often multiple, complex health care needs [35, 140]. Ideally collateral information from other medical specialists involved in the care of the client will be available (e.g. persistent pain specialist, neurosurgeon, rheumatologist). Participation of a multi-disciplinary team is recommended and where indicated, the GP can refer to a psychologist, physiotherapist and/or exercise physiologist, preferably experienced in pain management, under a Chronic Disease Management Plan [126].

For existing OTP clients who develop a persistent pain problem, these same strategies apply. It is important to try and identify issues related to substance dependence and those related to pain, and where they overlap. Assessment of the client's current social situation is pertinent, as is any other substance use. An individualised management plan can then be formulated. OTP dose increase may be warranted, and for the very stable client, split doses may be trialled.

7.17 Clients in hospital

7.17.1 Treatment of an inpatient currently on OTP

In general, methadone or buprenorphine treatment should continue in hospital. Discontinuation of OTP can result in significant opioid withdrawal discomfort, complicate analgesia and other medical or mental health conditions, and contribute to unsanctioned drug use or behavioural disturbances. OTP should not be withheld or detoxification attempted without the specific consent of the client [1, 142].

On admitting the client, the admitting team should:

- verify the client's identity
- identify the OTP prescriber and pharmacy for the client. If the client is unable to provide this information, then contact MRQ (see Section 11.15).
- contact the client's prescriber/clinic to confirm the current dose of methadone or buprenorphine, medication orders, and obtain relevant clinical information
- the community pharmacist is also to be contacted to verify the date and time of last dose, details of any TADs given, and to ensure community pharmacy dispensing ceases while the client is in hospital. The dosing information must be established prior to administering the first dose of OTP medication in hospital, to avoid 'double dosing' and the risk of overdose.
- provided that no medical contraindications to the administration of an opioid exist, administer methadone or buprenorphine according to the dosing regimen of the client's OTP prescriber [1].

If contact cannot be made with the client's prescriber or OTP community pharmacist, the most appropriate AOD capable service should be consulted for advice (see Section 11.15). Depending on setting and timing, this may vary from the hospital Alcohol and Drug Consultation Liaison Service, the local AOD service or clinician or an integrated AOD and mental health service. It is worth noting that most clients taking methadone or buprenorphine will not exhibit withdrawal signs and symptoms until at least 24 hours after the last dose was administered.

Methadone oral liquid is administered once a day, while buprenorphine is administered sublingually according to the dosing frequency advised by the prescriber. Most clients are administered buprenorphine daily however some are prescribed double or triple doses, and so given double or triple their daily dose every second or third day respectively. Hospital dosing should be under direct supervision, and not left with the client to be taken later (see Section 11.19).

7.17.2 Co-ordination of care

Hospital staff responsibilities:

While a client is an inpatient, the hospital medical team is to take over prescribing their OTP medication, and is to contact the prescriber/clinic to co-ordinate this transfer of care. This collaboration between services ensures safety in dosing when the client is admitted to hospital. Further, this notification will mean the OTP prescriber does not cancel an authority to prescribe for the client (due to the client's unexplained missed doses at community pharmacy). The OTP community pharmacy is also to be contacted.

Prior to discharge, the hospital medical team is to inform the prescriber/clinic in advance regarding the client's pending discharge. This will ensure appropriate arrangements are made for the client to continue their OTP treatment without interruption. Confirmation of the current dose and date of last dose in hospital is to be advised [143].

Prescriber responsibilities:

Prescribers (or delegate) should provide appropriate clinical handover to hospital staff to ensure continuity of care. This includes relevant clinical history and advice regarding management of OTP while the client is an inpatient (e.g. significance of any dose changes, analgesic requirements) [1, 143].

When a prescriber (or delegate) is informed about a client's admission, they must contact the community pharmacy and advise to cancel doses until further notice. Conversely, when the client is discharged, the pharmacy is to be contacted and advised of the date to resume dosing the client.

Pharmacist responsibilities:

Any time the community pharmacist receives contact from hospital staff about a client, they are to advise the hospital staff to also contact the prescriber/clinic. The pharmacist can provide details regarding the client's OTP treatment, and a copy of the relevant Written Instruction could be provided to hospital staff to assist with clinical management (see sections 9.1.3, 10.9, 11.4). The pharmacist is also to advise the prescriber/clinic as soon as possible regarding such contact from hospital staff [143].

7.17.3 Take-away doses while in hospital

If a client has OTP TADs in their possession when admitted to hospital, they should be requested to hand these to the ward staff. Their OTP medication can then be dispensed from the hospital pharmacy, which will ensure certainty about the dose they are receiving. If a client declines to hand over their TADs, they should not be administered hospital stock methadone or buprenorphine for those dates. Further, the client's clinical condition should be monitored for intoxication or withdrawal and treated appropriately.

If a client is admitted unexpectedly to hospital and does not have in their possession TADs that have already been supplied, the admitting team should consult the prescriber/clinic and be guided by their advice. The local AOD service should be consulted if there are concerns about the client's clinical condition.

7.17.4 Acute pain management

When managing mild to moderate acute pain in clients receiving methadone or buprenorphine, it is important not to assume that the maintenance dose of opioid agonist treatment will manage the pain.

Strategies for management of acute pain can be broadly divided into the following categories:

- non-pharmacological
- manage cause/precipitant of pain (e.g. immobilise fractured limb)
- simple analgesics (e.g. paracetamol, ibuprofen)
- opioid analgesics
- adjuvants (e.g. antidepressants, gabapentinoids)
- nerve blocks (e.g. local or regional blocks, epidural).

Generally, analgesic options should start with the first category and work downwards. It is also important to identify if specific treatments are contraindicated (e.g. opioids should be avoided in headache) [1].

The Australian Faculty of Pain Medicine provides current evidence-based Acute Pain guidelines to assist practitioners.

Exploration of client's fears and explanation about the condition and likely progress and outcome are important. Both buprenorphine and methadone have analgesic properties, but have shorter analgesic inter-dosing intervals (i.e. the analgesic effects of methadone and buprenorphine each lasts 8–12 hours). Consider splitting the OTP dose, increasing OTP dose, or adding an opioid analgesic to the OTP pharmacotherapy.

Methadone and acute pain

In general, it is recommended that usual methadone is continued. If acceptable to the client, the dose can be divided in two or three aliquots across the day, and this may improve analgesia. Where clients cannot tolerate oral intake, methadone can be administered parenterally. Methadone oral bioavailability is approximately 80%. The suggested oral to IV conversion ratio is 2:1 initially, with dose escalation up to 1:1 required by some clients. When converting from IV to oral route a ratio of 1:1 is advised, with titration up to 1:2 where indicated [144, 145].

Clients on methadone requiring additional opioid analgesic typically require larger doses of opioids than in the opioid naïve client. While this is the case, the initial dose of any analgesia should be the usual recommended starting dose, and titration to the level needed to achieve effective analgesia. The route of administration should be the same as normally prescribed for their particular medical condition [146, 147]. Patient-controlled analgesia is an acceptable mode of opioid delivery acutely. If analgesia is not achieved, urgently consult practitioners with appropriate expertise in pain management. Consultation with the local AOD service may also be helpful.

Effective analgesia may sometimes be achieved with a short-term increase in the methadone dose. This is recommended for clients with acute pain that would normally be treated with oral opioid analgesics.

Buprenorphine and acute pain

If analgesia is required, the current buprenorphine dose should be maintained. The strong affinity of buprenorphine for μ opioid receptors and its partial agonist properties reduce the response of clients on buprenorphine to opioid agonists. As a consequence of this opioid 'blocking' effect, clients on buprenorphine who suffer severe or acute pain will require considerably higher doses of opioid analgesia than individuals not in buprenorphine treatment [12, 147].

The optimal management of the client on buprenorphine maintenance in the peri-operative period has been controversial. It is now recommended to continue buprenorphine and split the dose to BD or TDS with the addition of full agonist opioid [148]. Where additional opioid analgesia is required, the dose of opioid (e.g. morphine) should be clinically titrated according to clinical response. The dose of analgesia should be closely monitored if buprenorphine is reduced or stopped. The concern is that high morphine doses may be required while buprenorphine is exerting 'blockade' effects. Then, as the buprenorphine levels reduce (with a corresponding reduction in the 'blocking' effects of buprenorphine), this may lead to the potential for over-sedation – or even overdose – from high morphine doses. If buprenorphine treatment stops completely (e.g. due to the hospital pharmacy not having the drug, doctor uncertainty or inexperience, or client non-cooperation), the dose of morphine needs to be closely monitored daily for at least 4–5 days after the last buprenorphine dose. Analgesia dose will likely need to be reduced over time to avoid overdose.

In all situations, communication between hospital teams, community OTP prescribers and GPs about analgesic plans and projected duration of pain and medications is critical.

7.17.5 Treatment of an opioid-dependent client not currently on OTP

Opioid dependent clients who are not on OTP may experience withdrawal during a hospital admission, which in turn can complicate analgesia and other medical or mental health conditions [149, 150]. Some clients leave hospital against advice because they are not coping with the discomfort of withdrawal [150]. Alternatively, they may self-medicate with unsanctioned drugs that can confuse assessment and treatment in hospital [150]. Adequate treatment of opioid dependence in hospital minimises client discomfort and simplifies client management [1].

The admitting team should organise a comprehensive alcohol and drug assessment prior to initiating any treatment, discuss options with the client, and obtain informed consent prior to embarking upon a particular treatment. Specialist alcohol and drug services should be contacted to assist with the assessment and treatment planning of such clients [1].

Options for the treatment of opioid use disorder during hospital include:

- Short-term use of buprenorphine to manage opioid withdrawal whilst client is an inpatient, without continuation of OTP in the community [151].
  - This involves induction onto buprenorphine upon admission, and a rapid titrated reduction prior to discharge to the community.
  - Some clients may experience withdrawal discomfort as the buprenorphine dose is reduced, and many will relapse to unsanctioned opioid use on return to the community. As such, longer-term OTP should generally be recommended [1, 152].

- Initiation and stabilisation onto methadone or buprenorphine, with a view to continuation of OTP upon discharge from hospital [150, 151].
  - Before commencing a client on OTP in hospital, a community OTP prescriber must be organised to continue care after hospital discharge [1].
  - The local AOD service (see Section 11.15) can assist with any inquiries regarding initiation and stabilisation of OTP for these clients, as well as ongoing care co-ordination.
  - MRQ can be contacted for advice regarding local OTP prescribers (see Section 11.15).

- Use of symptomatic medications for the management of opioid withdrawal.
  - Where methadone or buprenorphine is contraindicated, or where the client does not consent to treatment with methadone or buprenorphine, symptomatic withdrawal medications can be used (refer to The Queensland Alcohol and Drug Withdrawal Clinical Practice Guidelines [65].

Buprenorphine should not be commenced in hospital until consideration has been given to the impact on analgesia. The partial agonist properties and strong binding to the μ receptors may complicate analgesic use where clients have a condition requiring potent analgesia. Alternatives for these clients include methadone or medications to treat withdrawal symptoms such as clonidine, anti-emetics and anti-diarrhoeal agents [65].

The treatment of opioid withdrawal using buprenorphine or methadone in the hospital setting should be consistent with 'The Queensland Alcohol and Drug Withdrawal Clinical Practice Guidelines' [65].

7.17.6 OTP clients attending Emergency Department/GP Surgery out of hours

Clients seeking replacement OTP medication

It is not uncommon for clients who are on OTP to present to hospitals or doctor's surgeries outside business hours with complaints of missed, lost, broken, vomited or theft of their methadone or buprenorphine dose. Such clients may state they are in severe withdrawal and request replacement or additional methadone or buprenorphine. In these situations, the following advice is offered:

- contact the client's prescriber/clinic if possible
- MRQ will have information on prescriber contact details (see Section 11.15)
- lost, broken, missed, vomited or stolen doses cannot be replaced in most circumstances
- if confirmation can be made that doses have been legitimately lost, then doses may be replaced at the prescriber's discretion

- if the prescriber cannot be contacted, symptom management medication can be given for opioid withdrawals where indicated (Refer to the QLD Alcohol and Other Drug Withdrawal Clinical Guidelines [65]). The client is to be advised to contact their prescriber at the earliest opportunity.

This policy has been developed to protect the safety of clients who may be drug-seeking, to encourage treatment adherence and to encourage self-responsibility in safeguarding TADs. Given the long half-life of methadone and buprenorphine, it is unlikely that missing one dose will cause significant physical discomfort, particularly in a client who is stable on their OTP dose.

Clients on OTP with medical issues

Clients on OTP may seek outpatient treatment for issues related to harm from their substance use, or for other medical concerns. Where indicated, a brief intervention around substance use can be provided at the time, in addition to any necessary medical management. The client can then be referred back to their OTP prescriber.

For clients with pain management concerns, consultation and liaison with their OTP prescriber at the earliest opportunity is advised. Pain management based on the principles detailed in Section 7.17.4 can be useful to guide interventions.

7.18 Shared Care

Shared care is a model of service delivery where stable clients in an OTP clinic are referred to their GP for OTP support [35]. Shared care is to be encouraged because it may normalise treatment, reduce perceptions of stigma and enhance client autonomy. Further benefits include:

- the GP (and other doctors in the practice) have a link with AOD that can assist with other referrals
- stable clients will have less AOD contact, allowing AOD resources to be redirected to new/complex clients.

In the case of a stable client with a willing GP, the OTP clinic is to contact MRQ to co-ordinate the arrangement, and an Approval is issued to the GP to prescribe OTP for that client (see Section 10.3, 11.15). The OTP clinic retains overall management of OTP for the client, with the responsibilities of each party documented in an agreement. The GP will review the client regularly, provide Written Instructions to pharmacy, and contact the OTP clinic to discuss any changes in OTP dose or client stability. Annual OTP clinic review is routine, in addition to minimum three-monthly client reviews with the GP. If the GP or client has concerns, care can be transferred back to the OTP clinic.

Some Hospital and Health Services have a Shared Care Policy with formalised agreement and consent forms for each party. The shared care model may also be appropriate for clients transitioning to other services, such as aged care or palliative care.

8. Withdrawal and completion of treatment

8.1 Duration of treatment

OTP is a maintenance intervention, and therefore is not time-limited [3]. The longer a client remains in OTP, the more likely they are to do well during and after treatment [1]. A combination of continuous time on OTP and behaviour change during treatment is predictive of positive post-treatment outcomes [37]. Most clients take at least one to two years of continuous OTP to achieve stability in social, personal, health and other areas of their life. Some attain stability more quickly, while others will not achieve this optimal state. Clients should be encouraged to remain in treatment for as long as they perceive there is continued benefit.

8.2 Planning for withdrawal

The client has a right to withdraw from OTP at any time. As with any chronic condition, premature cessation of treatment can be associated with relapse and may lead to deterioration in other aspects of the client's health and wellbeing. This risk is particularly high for clients who 'drop out' of treatment within the first year [1].

The issue of coming off OTP is important to many clients and should be discussed regularly throughout treatment. A collaborative approach about the timing and method of withdrawal generally results in reduction being more successful for the client [35].

Understanding the predictors of successful cessation of OTP can provide a framework for clients and clinicians to plan for this process [1]. The predictors include factors related to client stability and the treatment process such as:

Client stability factors:

- stability in alcohol or other substance use
- Stable medical and psychiatric conditions (consider impacts of withdrawal on mental health or chronic pain disorders)
- stable social/personal conditions (housing, occupational and recreational activities, psychosocial supports such as family, friends, carers) [1].

Treatment process factors:

- client centrally involved in decision making
- good client understanding of process for withdrawal
- gradual OTP dose taper over months
- regular review of progress and plans
- client participation in psychosocial approaches to withdrawal management addressing coping strategies, risk behaviours, support systems [1].

8.3 Psychosocial support

The principles of effective psychosocial support for clients undergoing withdrawal from OTP are:

- client information and engagement in treatment decision making [35]

- supportive care, including withdrawal counselling (maintaining motivation, coping strategies, identify risk behaviours), peer and self-help groups, community supports and stable living arrangements
- regular monitoring and increased frequency of reviews [1].

The period immediately following treatment represents a time of considerable risk for relapse. Supportive care should be offered for at least three to six months following cessation of substitution treatment, and this can be direct support from the OTP service provider, follow up care with the GP, or referral to another service [153]. Specific psychosocial support might include skills training (such as relapse prevention, problem-solving skills or vocational skills training), access to peer based community organisations, or attending motivational counselling sessions.

The likelihood of a client maintaining abstinence after leaving treatment is increased in people who have established drug-free social supports, are in stable family situations, employed, and with good psychological strengths [154].

8.4 Methadone reductions

Most clients tolerate dose reductions of 5–10% every 1 to 4 weeks (i.e. 5–10mg reductions for doses >50mg; 2.5–5mg reductions for doses <50mg). The rate of reduction may vary according to the indications and time frame for withdrawal, and the clinical stability of the client [1].

Some clients may reach a dosing level (often between 20 and 60mg) where they are unable to attempt further dose reductions on methadone, and continuing with dose reductions is not clinically indicated. This could be due to intolerable withdrawal discomfort, increased use of other drugs, or deterioration in general health and wellbeing. Such clients may benefit from re-stabilising on a higher methadone dose, or consider transfer to buprenorphine, which may enable an easier withdrawal process [1].

8.5 Buprenorphine reductions

Withdrawal from buprenorphine appears to be less prolonged and less severe than methadone withdrawal. Many clients tolerate greater incremental dose reductions with buprenorphine compared to methadone. Dose reductions of up to 25% every 1 to 4 weeks are generally possible (i.e. 4–8mg reductions for doses >16mg; 2–4mg reductions for doses <16mg) [1].

The smallest formulation of buprenorphine/naloxone available is 2mg film; and many clients find it difficult to cease from this level. Australian regulations relating to the prescription and dispensing of medications require that prescribers specify the dose of medication to be dispensed, and prescribing in terms of “half a piece of film” is problematic as it is off-label use. Options at this dose range include using alternate day dosing (although lower doses may not hold the client for 48 hours), or converting to buprenorphine tablets and dividing the tablets (which are scored for half doses) [3].

8.6 Considerations when reducing

The aim is to support the ability of clients to withdraw from OTP, while minimising the risk of relapse into opioid use, and retaining their overall stability. Even at slow rates of reduction, it is common for clients to experience some withdrawal discomfort. While reducing, it may be appropriate to maintain a client on a steady dose for some time, until they are better prepared for the next dose decrease [10, 155]. This enables the client to adjust to the necessary physiological, behavioural and social changes that arise during this process, and develop confidence in their ability to adapt to the changes [1].

Some clients remain on low doses of medication (<30mg/day methadone or 2mg buprenorphine) for extended periods. The key is stability. It is appropriate to discuss withdrawal strategies with the client, and address any concerns or fears they may have. Timing is important, and clients should be reassured that if they are stable and comfortable, there is no reason to push cessation of medication. Indeed, there are good reasons to maintain the medication.

At any time, if relapse is likely or has occurred, further reductions in dose may need to be suspended, or an increase in dose considered (see Section 3.4).

8.6.1 Blind dose methadone reductions

Blind dose reductions can be useful when a client is seeking to reduce their methadone dose however experiences anticipatory anxiety prior to any planned dose reduction. Under this regimen, the client chooses to not be informed of the exact strength of the dose they receive. Negotiation between the prescriber and client is required, and client consent must be obtained.

This option is only available when clients are administered a supervised dose at a pharmacy/dosing point (i.e. 'blind doses' cannot be given as TADs). Clear dose instructions are to be documented on the Written Instruction, with a notation that 'blind doses' are to be given to the client.

8.7 Withdrawal procedures

Withdrawal severity tends to increase as the dose approaches zero, with peak withdrawal discomfort usually described 1–4 weeks after cessation of dosing. Low severity symptoms (e.g. poor sleep, mood disturbances, and cravings) often persist for several months. As with any attempt at gradual withdrawal of medication, careful monitoring is required to identify a relapse or deterioration in the client's condition, indicating the need to reconsider the treatment plan [1].

8.7.1 Role for ancillary medications

There may be a role for symptomatic medication to assist in the management of withdrawal symptoms such as nausea, aches and pains, and diarrhoea. Caution should be used in prescribing sedatives and other hypnotics due to the long-term nature of the sleep problems (weeks to months), and the high risk of dependence or misuse of such medication in opioid users. If it is considered appropriate to prescribe sedative or hypnotic medication, it should be at a low dose for a specified short duration (3–5 days) (see Section 10.4). The client should be made aware of the reason for its prescription, the associated risks of taking such medication and the intended short duration of this treatment. Provide ongoing monitoring and it is suggested to restrict the supplied quantity of tablets to one or two days.

8.8 Failure to attend for treatment

If a client fails to attend for their OTP medication for 14 consecutive days, the client can then be discharged from OTP. In the event this timeline is extended, possible delays to access to treatment for new clients can be a factor to consider.

8.9 Involuntary termination of opioid treatment

It is occasionally necessary to discharge a client from treatment for the safety or well-being of the client, other clients or staff [10]. During admission to OTP, clients should be given written documentation about the conditions under which they may be involuntarily discharged. Situations that may warrant this action include:

- violence or threat of violence against staff or other clients

- property damage or theft from the prescriber/clinic/pharmacy
- drug dealing on or near program premises
- persistent poor treatment engagement and outcomes (e.g. repeated diversion of medication, non-attendance) that endangers the safety of the client or others [3].

It is preferable, where possible, to transfer the client to another program instead of withdrawing them entirely from OTP [1]. If the client is to be involuntarily withdrawn from OTP, reduction in dosage should be gradual. Rapid dose reduction or abrupt cessation of treatment is warranted only in cases of violence, assault or threatened assault [10]. Clients should be warned that their tolerance to other opioids may be reduced, reminded of the risks associated with resuming drug use, and offered relapse prevention strategies. Consideration may also be given to overdose management and education, including the provision of naloxone (see Section 3.4) [1].

Clients who are to be discharged should be advised of other treatment options. A management plan regarding alternative treatment options (e.g. withdrawal management, counselling, rehabilitation programs) and/or subsequent readmission should be developed, and recorded in the client's chart [1].

8.10 Appeals

Clients should have access to processes intended to resolve conflicts between themselves and those responsible for their OTP.

The following principles apply to the issue of appeals:

- At the time of admission to OTP, clients should be informed in writing of their rights to register a complaint and the procedures for doing so.
- Clients who cannot read should be advised of their rights and responsibilities at the time they enter treatment.
- If possible, clients should be retained on OTP with their current service provider pending the resolution of the complaint.

OTP providers are to provide an Appeals process for clients in their care. Clients should be advised they can register a complaint about their treatment through the Office of the Health Ombudsman, and can access advocacy and support from the peer-based organisation QPAMS (see Section 11.15).

8.11 QOTP Discharge Form

A QOTP Discharge Form is to be completed and forwarded to MRQ within 72 hours of a client's last dose (see Sections 10.8, 11.2). Reason for cessation of treatment is to be indicated on the form.

8.12 Readmission to treatment

If a client has recently completed OTP, relapsed and seeks readmission to OTP, this should be offered expeditiously and without recrimination [35].

Provided the client is clinically suitable for OTP, there should be no barriers for readmission for at least one month after leaving the program.

9. Information for pharmacists

9.1 Regulatory requirements

Pharmacies participating in the administration and supply of methadone and buprenorphine for opioid dependence must be authorised by MRQ (see Section 11.15). The involvement of pharmacies in QOTP is voluntary and plays a key role in the delivery of opioid treatment services. Participation enables clients to dose near where they live and work and supports the process of normalising the lifestyle of clients. Many clients develop valued relationships with their pharmacist [156].

9.1.1 To become a QOTP dispensing pharmacy

Pharmacists interested in participating in QOTP, should contact MRQ. MRQ will send documentation to the pharmacist to complete and return; with a pharmacist self-assessment forming part of this process. MRQ will then contact the nominated wholesale supplier, and advise them of the pharmacy details to enable ordering of methadone and buprenorphine. All pharmacists (including locum pharmacists) supplying an opioid pharmacotherapy must comply with the provisions of the Drug Therapy Protocol – Pharmacist Opioid Treatment Program. See: https://www.health.qld.gov.au/clinical-practice/guidelines-procedures/medicines/drugs-of-dependence?a=165954. The ownership structure of the pharmacy business must be also compliant with provisions of the Pharmacy Business Ownership Act, 2001 [157]. See: https://www.legislation.qld.gov.au/LEGISLTN/CURRENT/P/PharmRegA01.pdf.

Methadone and buprenorphine for use under the QOTP are Commonwealth Government subsidised and provided free of charge, however the supplier may charge a record fee. The Queensland Department of Health pays for the cost of wholesale transportation fees and charges. The management and use of all scheduled drugs must be in compliance with the relevant provisions of the Health (Drugs & Poisons) Regulation, 1996 [59]. See: https://www.legislation.qld.gov.au/LEGISLTN/CURRENT/H/HealDrAPoR96.pdf.

Compliance with the Health (Drugs & Poisons) Regulation, 1996 is managed by each local Hospital and Health Service Public Health Unit (PHU). They can assist with any enquiries regarding compliance issues. To find contacts for your local PHU, refer to website: https://www.health.qld.gov.au/system-governance/contact-us/contact/public-health-units. Non-compliance with relevant legislation can lead to action against an individual pharmacist and potentially reporting of matters to the Office of the Health Ombudsman.

9.1.2 Role of the dispensing pharmacist

The pharmacist's role includes:

- checking that the Written Instruction (see Sections 9.1.3, 10.9, 11.3, 11.4) satisfies the legal requirements
- ensuring positive identification of the client before administration of any dose
- explaining any side-effects of medication when appropriate
- assessing the client for intoxication and contacting the OTP service provider if necessary
- ensuring the dose is correct
- supervising the consumption of each administered dose
- supplying any TADs in accordance with the Written Instruction
- providing any relevant information regarding the client's progress, including missed doses, restart after missed doses, dose diversion, intoxicated presentations and other issues of concern to the OTP service provider
- supporting the client and encouraging a healthy lifestyle
- ensuring that client information is kept confidential
- ensuring all pharmacy staff (including locum pharmacists) are appropriately trained and informed regarding QOTP requirements
- reporting incidents to the OTP service provider and MRQ
- ensuring that methadone and buprenorphine are stored and recorded in compliance with Health (Drugs and Poisons) Regulation (1996) [12, 59].

9.1.3 Written Instruction Form

A specialised Written Instruction form (see Sections 10.9, 11.3, 11.4) that assists with monitoring the use of methadone and buprenorphine has been designed for use in the Queensland Opioid Treatment Program. Methadone syrup, Biodone solution, Subutex tablets and Suboxone film can only be dispensed in Queensland from a Written Instruction. A regular PBS prescription is not valid in this instance. All OTP prescribers are required to use this form, including those from interstate when their clients temporarily dose in Queensland. Written Instruction forms can be obtained from MRQ. The left side of the Written Instruction is for the prescriber's instructions. The pharmacist may not make any changes, additions or deletions to this information under any circumstances.

Under the Health (Drugs and Poisons) Regulation (1996) the pharmacist is required to record the OTP transaction each day [59]. To meet this requirement, the pharmacist can document on the Written Instruction, or use their own template ensuring their mechanism records the same information as the Written Instruction template. The pharmacist is to sign for any dose administered or supplied, and identify the dose transaction as per 'Dose Type Code' (see Table 16). For a client dispensed a double dose (see Section 9.3.4), the total dose given (equivalent of 2 daily doses) and the dose type '2D' is to be noted on the date the dose is administered. A notation is therefore not required the following day, as the dose transaction has already been documented.

Table 16 Dose Type Codes

Methadone and buprenorphine	
R	Regular (Supervised dose)
T	Take-away dose
NP	Not picked up
S	Supplementary dose (top up)
DW	Dose Withheld (for clinical reasons)
C	Cancelled (at request of prescriber)
P	Replacement dose (prescriber approved only)
Buprenorphine only	
2D	Double dose (2 daily dose equivalents)
3D	Triple dose (3 daily dose equivalents)

The pharmacist can make additional notes in the 'Dispenser Notes' section of the Written Instruction, or a similar section in the pharmacist template. There is a requirement the dose transaction information is retained on-site at pharmacy for two years.

The prescriber may alter dosing arrangements during the month, and send a new Written Instruction to the pharmacist. A faxed transmission of the amended Written Instruction is to be sent to the pharmacist while awaiting postal delivery of the original Written Instruction. An email transmission is not endorsed as it is not a secure process. It is essential the most current Written Instruction is used when dosing clients. Any superseded Written Instructions should be clearly marked.

The Written Instruction is **not transferable between pharmacies**. If a client asks for their Written Instruction to be sent to another pharmacy, always direct the client back to their OTP service provider, as a new Written Instruction needs to be arranged for the new pharmacy.

Written Instructions must not be given to clients under any circumstances.

9.1.4 Controlled Drugs Record

Pursuant to the Health (Drugs and Poisons) Regulation (1996) all transactions involving a controlled drug must be recorded on the day of transaction. At the end of each month the total amount dispensed is to be noted in the Controlled Drugs Book, either as a manual or electronic record. MRQ are to be provided with documentation detailing the medication and total dose administered or supplied to the client in that period. Pharmacists must ensure their recording process satisfies professional and legislative requirements. Pharmacists are required to retain their records for a minimum of two years [59].

9.1.5 Storage of methadone and buprenorphine

Methadone and buprenorphine are Schedule 8 drugs and must be stored in a Controlled Drugs safe as specified by the Health (Drugs and Poisons) Regulation 1996 [59].

Ensure that methadone and buprenorphine products are never accessible to clients except at the time of dosing, and even then they should remain under the strict supervision of the pharmacist. After preparation of a dose, any prepared doses or TADs should be returned to the safe immediately [23].

9.1.6 Confidentiality

The pharmacist has a duty of care to the client that may necessitate sharing of information. A relevant consideration is the legal provision about disclosure of personal information to lessen or prevent threat to the individual, or a serious threat to public health and safety. This needs to be balanced with the client's right to confidentiality [3].

Pharmacists deal with difficult scenarios, such as clients on OTP purchasing needles and syringes. In the interests of harm reduction, it is not considered necessary for pharmacists to report such behaviour to prescribers. However, the OTP service provider should be notified if there are any concerns regarding clinical safety issues that involve poly-drug use, intoxication with any substance, or diversion of medication. Similarly, the OTP service provider should be notified if a client presents with a medical prescription for opioids, sedatives or other psychoactive drugs [50].

9.2 Orientating and commencing new clients

9.2.1 The client interview and agreement

Pharmacies are under no obligation to accept any client for dispensing. It is recommended that the pharmacist interview the person before agreeing to act as their dispenser. If the pharmacist agrees to accept them as a client, it is recommended that a Pharmacist/Client Agreement (see Section 11.13) be completed outlining the conditions under which the dispensing is to occur [158].

Discussion should include:

- the cost of daily dosing and payment procedures
- opening and closing times and dosing hours
- the code of conduct and acceptable behaviour
- the consequences of diversion or attempted diversion
- supervised dosing procedures
- procedure for TADs [12].

Client behaviour

Although many clients may fluctuate in stability during their time in treatment and this can affect their behaviour, they are expected to be courteous and considerate of pharmacy staff and other customers at all times. Rude, aggressive or offensive behaviour and criminal behaviour (e.g. shoplifting and drug dealing) should not be tolerated. Referring to the Pharmacist/Client Agreement for any clients who exhibit inappropriate behaviour can support the pharmacist to manage the situation. Pharmacists are not expected to place themselves, their staff or their pharmacy at risk at any time. If a client demonstrates inappropriate behaviour, the pharmacist should contact the OTP service provider, and consider if they wish to continue dosing the client [12].

Dispensing fees

Community pharmacies charge clients a fee to cover the professional costs of dispensing methadone and buprenorphine. When accepting a client for dosing at pharmacy, it is important to explain clearly what is expected, the cost of dosing and the consequences of non-payment. This information should be included in a contract between the pharmacy and the client (see Section 11.13). To avoid any disagreement regarding payment, it is strongly recommended that accurate payment records are maintained and that clients are issued receipts.

Management of the financial arrangements is the responsibility of the pharmacy. A policy of 'no payment, no dose' is suggested and pharmacists are advised to request payment before doses are dispensed. Pharmacists may consider offering discounts for early pre-payment, or may negotiate payments through Centrelink. Pharmacies that choose to extend credit to clients should clearly discuss and document with the client the limitations/conditions. Issues surrounding repayment of debt may affect the stability of OTP for the client, and are best avoided by adherence to firm limits. Accumulation of debt can have unforeseen ramifications, such as when an OTP service provider contacts the pharmacy about a client seeking to change pharmacy. In this instance, outstanding pharmacy fees may delay or prevent such a move.

In the event of significant financial hardship, the client should be advised to contact their OTP service provider to discuss their situation. Where OTP clinics have the capacity to dose clients, the option of dosing the client for an agreed, finite period to support continuing OTP stability should be considered.

Client identification

The OTP service provider is required to provide the pharmacy with a client photo attached to a letter of introduction (see Section 11.12). Where the appropriate client photo identification is not provided by the prescriber (e.g. due to unscheduled or temporary transfer of the client, or the faxed identification is unclear) the pharmacy must confirm the client identity upon production of approved photo identification documentation [12].

9.2.2 Maintaining the client record

It is recommended that a separate record for each client is maintained so all necessary information is readily available to the pharmacist administering/supplying the doses. This will also help with the frequent enquiries made by prescribers, case managers and clients regarding TADs, missed doses, hospitalisation and other issues [23, 159]. Each record should contain:

- photo identification for the client - supplied with letter of introduction (see Section 11.12) from the prescriber
- current Written Instruction - also any prior Written Instructions for the same period, clearly marked as no longer current (see Sections 9.1.3, 10.9, 11.3, 11.4)
- copy of the Pharmacist/Client Agreement (see Section 11 13)
- relevant client details that may affect dosing - e.g. noting a client's speech impediment may assist a locum pharmacist to dose a client otherwise perceived as intoxicated
- notes such as communication with prescriber, variations in dose, details of TAD authorisation
- record of incidents - lost/stolen doses, diversion, receipt of scripts from other prescribers for medication that may be detrimental to treatment (e.g. other opioids or benzodiazepines)
- record of payments
- client address and telephone number.

Client details should be recorded in a permanent and consistent manner; with records kept up to date and accurate, and stored in a secure location.

9.3 Administration of OTP medication

9.3.1 The dosing environment

When considering the pharmacy environment for dosing clients with methadone and buprenorphine, attention needs to be given to issues of both security and confidentiality. Dosing areas should be suitably private for respectful dosing and confidential discussion with clients, while ensuring security of the medications and pharmacy staff. The layout of the dosing area should ensure that the pharmacist can adequately supervise the consumption of the dose of opioid pharmacotherapy to reduce the potential for dose diversion. The physical environment ideally should separate the client from the dispensary, and ensure that dispensing staff have adequate security in the event of any concerns regarding management of dosing issues. Many pharmacies have designed specific dosing areas that promote both security and confidentiality [12].

9.3.2 Written instructions

Written instructions should be checked and verified as authentic and unaltered upon receipt at the pharmacy (see Sections 9.1.3, 10.9, 11.3, 11.4). The Written Instruction must include:

- the drug to be administered/supplied
- the name and practice address of the prescriber
- date the Written Instruction was issued
- client's full name, address and date of birth
- the month and year for dispensing
- the pharmacy/dispensing point at which the Written Instruction is valid
- the daily dose expressed in milligrams and/or millilitres, written in both numbers and words
- any variations to daily dosing
- the date of administration of first dose
- the date of administration of last dose
- any TADs authorised or other prescriber instructions
- the signature of the prescriber.

Pharmacists must only administer and supply OTP medication in accordance with a valid Written Instruction received from an authorised prescriber. If a pharmacist receives a Written Instruction from a prescriber unknown to them, MRQ can be contacted for confirmation of the authorisation status of the prescriber. Expired Written Instructions are not valid and should not be used. The pharmacist should contact the OTP service provider for advice when a Written Instruction has expired, or contact MRQ when the OTP service provider is not available.

If a pharmacy receives a Written Instruction that is incomplete, unclear or ambiguous, the OTP service provider must be contacted to clarify the instruction.

Should situations arise where a client advises that a prescriber has approved a variation from the Written Instruction currently held at the pharmacy, the OTP service provider must be contacted for a verbal instruction before making any adjustment. Importantly, if an OTP service provider verbally advises of an adjustment to a Written Instruction, they must dispatch written confirmation of this verbal instruction within 24 hours, clearly indicating that it is confirmation of the direction given.

TADs that have not been documented for supply are not to be issued.

9.3.3 Dose administration

Dosing of OTP clients should be in accordance with these Guidelines and as directed by the prescriber. Pharmacists should note that conical measures are not accurate for measuring methadone. The use of syringes or suitable sized cylindrical measures is recommended. Pumps and syringe units are available to ensure accurate measuring [12, 159].

Correct supervision of dose

All supervision of opioid pharmacotherapy must be provided by the pharmacist. Clients are expected to adhere to requests made by the pharmacist regarding dosing procedures. Correct dosing technique is important to ensure the client receives the full benefit of their dose.

Clients should be advised that:

- the client's hands and mouth must be visible always
- the dose must be consumed in direct view of the pharmacist with no turning of the head
- the dose must be consumed directly from the cup/spoon
- the empty cup/spoon must be shown to the pharmacist before being disposed of
- clients are not allowed to handle buprenorphine tablets
- clients must speak to the pharmacist, open their mouth for inspection and have a drink of water after dosing if asked to do so
- clients should not provide their own drink container
- clients must not loiter in the pharmacy after dosing
- only the client can pick up their dose where TADs are prescribed.

Diversion of supervised doses can be minimised when the following procedures are followed:

For both methadone and buprenorphine:

- dose one client at a time
- do not allow other people (including children where possible) in the dosing area while a client is being dosed
- do not allow client bags, drinks or other containers in the dosing area
- ensure the client throws away (into a designated bin) or hands back any items used during dosing
- observe the client throughout the dosing process, especially when the dose is placed in the mouth and immediately after
- once the dose is placed in the mouth ensure that the client's hands are kept away from their mouth.

For methadone:

- use an individual disposable cup for each client
- the dose should be presented to the client undiluted. The client may dilute with water themselves if desired
- do not pour methadone into another drink container.

For buprenorphine-mono tablets:

- ask the client to remove anything from their mouth prior to dosing (e.g. chewing gum)
- offer the client a drink of water prior to dosing to moisten the mouth
- rough crumble the dose to large granule size (crushing to a fine powder tends to increase saliva, making it unpleasant for the client and may prolong the dissolving process)
- dispense the dose in a disposable cup or spoon and instruct the client to tip the granules from the cup/spoon under the tongue
- ask the client to show the granules are in place, and advise the client not to chew or swallow until the tablets are fully dissolved
- keep the client in full view until the tablets are dissolved
- view and inspect the mouth cavity after the client reports that the dose has been absorbed.

For buprenorphine sublingual film:

- ask the client to remove anything from their mouth prior to dosing
- offer the client a drink of water prior to dosing to moisten the mouth
- ensure the clients' hands are clean and dry as the film may stick to wet fingers
- film should not be cut
- open all film packages and offer the open packages to the client. Ask the client to remove the films from each package one at a time to place in their mouth. Alternatively, the pharmacist can remove each film from the package and place them in a dispensing container (e.g. disposable medication cup). Offer the container of films to the client to place in their mouth one at a time.
- discourage the client from overlapping films when placing them in their mouth. This impairs adherence to the mucosa and prolongs the time required for supervision.
- if multiple films, the first two are to be placed under the tongue either side of the frenulum, and the rest are placed inside the cheeks. (Although buccal administration is an off-licence method of use, the bioavailability of sublingual and buccal administration is similar).
- advise the client to refrain from attempts to move the films once they have been placed in the mouth
- advise the client not to chew or swallow until the films have fully dissolved
- if films accidentally become stuck to teeth or top of tongue, reassure the client that buprenorphine will still be absorbed. The client is to be advised to keep their mouth closed with the mucous membranes in contact with the films as they dissolve
- the films adhere to the mucous membranes within seconds and are difficult to remove within 30-60 seconds, therefore supervise client for one minute [12, 23, 159].

9.3.4 Double/triple dose

Double dosing involves pharmacy administering a supervised dose of buprenorphine that is twice the daily dose, and therefore a client does not attend pharmacy to dose the following day (see Section 6.4.3). Double doses are only to be administered when indicated on a Written Instruction.

Triple dosing involves administering a supervised dose of buprenorphine that is triple the daily dose, and the client then does not attend pharmacy to dose the following two days. Similarly, triple doses are only to be administered when indicated on a Written Instruction.

The pharmacokinetics of buprenorphine allows a client to remain opioid stable on such a regime without experiencing intoxication or withdrawal. Not all clients will be suited to such a regime as some will experience increased cravings or features of withdrawal on non-dosing days.

Buprenorphine dosing begins on a daily basis, however once dose stability is achieved a client can be maintained on a double or triple dose up to a maximum total dose of 32mg. On rare occasions a Written Instruction will authorise a double/triple dose that exceeds this limit (see Section 6.4.3). In this instance, a notation in the 'Prescriber Instructions' section of the Written Instruction should verify the order.

9.3.5 Dose above recommended levels

Rarely, a Written Instruction will state a daily dose that is above recommended levels (e.g. buprenorphine 40mg/day). To minimise confusion, prescribers are advised to make a notation in the 'Prescriber Instructions' section of the Written Instruction verifying this order (see Section 6.4.1). As always, the pharmacist is to contact the OTP service provider to clarify the dose if unsure.

9.3.6 Blind dose

Blind dosing is used when a client prescribed methadone is seeking to reduce their dose however experiences anticipatory anxiety prior to any planned dose reduction. This dosing regime is negotiated between the prescriber and the client, and is always undertaken with the client's consent. It involves the client receiving a dose and not being aware of the exact strength administered. Blind doses of buprenorphine are not possible as buprenorphine is supplied in original packaging.

Clear dose instructions are documented on the Written Instruction for the pharmacist, with a notation that 'blind doses' are to be given to the client. This option is only available when clients are administered their medication at a dosing point. In regard to TADs, legislation dictates that labels must specify dose strength, therefore a 'blind dose' is not possible in this instance [12].

9.3.7 Split dose

Some clients may benefit from 'split' or multiple doses of methadone within one day (see Sections 6.3.3). In particular:

- clients using methadone for management of persistent pain typically require methadone doses every 8-12 hours for effective analgesia
- clients who are rapid metabolisers of methadone due to genetic variation or interaction with medications that induce CYP enzymes.
- pregnant women, due to increased metabolism at this time (see Section 7.8.6) [1].

The Written Instruction will explicitly detail the regime for the client. In most instances a client is to be administered a supervised half dose when attending pharmacy, and is given the remainder half dose for that day as a TAD. Occasionally, a client is to attend for a supervised dose twice per day.

Split dosing generally does not apply to buprenorphine, although on rare occasions (such as a client with severe acute pain) a prescriber will approve a brief period of interval doses throughout the day. This will be clearly documented on the Written Instruction.

9.3.8 Stop dose

Clients are required to attend periodic reviews with their OTP service provider to ensure safety for ongoing prescribing of their OTP medication. When a pharmacist is advised to 'stop dose' a client for a particular date, the dose is to be withheld until a client attends their clinical review (see Section 6.5.3). Once the review is completed, the OTP service provider will contact the pharmacist regarding resumption of dosing. The stop dose remains in place until this advice from the prescriber/clinic is received.

9.3.9 Dosing at an alternative pharmacy

Where a client needs to dose at an alternative pharmacy temporarily (e.g. due to work/travel arrangements) the client is to contact the prescriber to co-ordinate this (see Section 10.9).

Likewise, if there is an incident at pharmacy and a change of dosing location is required, the pharmacist is to notify the OTP service provider.

9.4 Take-away doses

TADs may only be provided to the client for whom they are prescribed and can only be dispensed in accordance with prescriber instructions on a valid Written Instruction (see Section 6.6.14). If an OTP service provider authorises a TAD verbally to the pharmacist, the prescriber must dispatch written confirmation of the verbal instruction within 24 hours clearly indicating that it is confirmation of the direction given (see Section 6.6.14). In the event of declared emergencies or unexpected severe weather events, the OTP service provider will advise the pharmacist regarding authorisation for contingency TADs (see Section 6.6.9).

TAD(s) must be given directly to the client on the day(s) before the scheduled day(s) of absence from the pharmacy [159]. TADs must not be provided to a third party on behalf of any client without written approval by the OTP service provider (see Sections 6.6.8, 9.4.6).

The client is to be informed that methadone and buprenorphine are only for oral and sublingual consumption respectively. Further, advice should be given about the dangers of misuse, the hazards of using methadone and buprenorphine in combination with other drugs, and the toxic potential if taken a child or a person not tolerant to opioids.

Pharmacist should advise clients about secure storage of TADs, safe from the reach of children (see Section 6.6.11). It is recommended that TADs be stored in a locked box or secure lockable cupboard or safe, ideally not exposed to high temperatures. The refrigerator is not an appropriate place (condensation may affect stability of the medication, and the medication may be accessible to others). Clients are solely responsible for the care and proper consumption of each TAD once they have taken possession of it. Clients should be reminded to remove the labels and rinse single use take-away methadone containers after use and before disposal [12].

9.4.1 Dilution of Methadone or Biodone take-away doses

Diluting TADs of methadone lowers the concentration of a methadone dose in a given volume. This reduces the chance of an entire dose being accidentally swallowed by an opioid naïve person (e.g. a child), discourages injection, and reduces the value of diverted methadone.

It is recommended each TAD of Methadone or Biodone is made up to 200mL with purified water [37].

9.4.2 Methadone or Biodone take-away doses for travel

Clients approved TADs to cover an extended period for travel, are to be given a maximum of seven consecutive days of Biodone or Methadone syrup as 200mL diluted TADs. This is in consideration of the stability of the diluted product. The OTP prescriber is to provide a prescription to the pharmacist for methadone tablets to cover the approved TAD period from day eight onwards (see Section 6.6.7).

9.4.3 Floating take-away doses

Floating TADs are authorised for clients who require flexibility with their dosing due to work or study. The number of floating TADs a client may have will be clearly stated in the prescriber instructions section of the Written Instruction. The pharmacist and client can determine which day is best suited for a floating TAD on a weekly basis (see Section 6.6.5).

Due to the changing nature of floating TADs, it is important that pharmacists keep accurate records to avoid confusion with other health care professionals and the client.

9.4.4 Unsupervised doses

Unsupervised doses are authorised for clients on buprenorphine/naloxone assessed as lower risk rating regarding TADs. Such clients are generally approved extended TADs (between one week to one month), and are no longer required to have a supervised dose when they attend pharmacy. The prescriber is to make a notation in the 'prescriber instructions' section of the written instruction clearly stating the client is for unsupervised dosing (see Section 6.6.1).

9.4.5 Changes to take-away doses

The following changes cannot be made by the pharmacist and require written approval from the OTP service provider:

- change the day that the TAD can be collected (when the Written Instruction specifies the day)
- change the number of TADs
- provide an extra TAD
- provide a TAD from 'next weeks' doses
- change the way in which a TAD is supplied (e.g. providing two consecutive TADs when two non-consecutive TADs have been authorised)
- change the dilution volume of the TAD from a final volume of 200mL.

9.4.6 Authorised Agent

On rare occasions, an Agent is authorised to collect TADs on behalf of a client (see Section 6.6.8). An example of this is when a client is severely ill, and a family member has been approved to collect their OTP medication. The OTP service provider is to advise the pharmacist of the client details, the name of the nominated agent, and the period they are authorised to collect the TADs. The OTP medication is only to be supplied upon production of photo identification by the nominated agent.

9.4.7 Labelling and containers

TADs must be dispensed in accordance with the following instructions.

Methadone

Each methadone TAD should be supplied in a clean 200mL amber bottle (glass or plastic) and fitted with a child resistant closure. It is recommended each dose be diluted to 200mL with purified water.

Prepared TADs should be packed in clean, new bottles on each occasion. It is not acceptable to recycle

used bottles because of the risks associated with microbial contamination.

TADs are packaged as one daily dose per bottle. Each bottle must be labelled with:

- medication name, strength and quantity of the drug
- client's name
- adequate directions, including the date when the TAD is to be taken
- date when TAD was supplied
- medication expiry date (7 days from date TAD prepared).
- name, address and telephone number of the pharmacy or dosing site
- dispenser's initials
- 'keep out of reach of children' warning in red font on a white back ground affixed to bottle
- ancillary Label #1 [59, 159].

Sample label:

Methadone Liquid 5 mg/mL (60mg/12mL, diluted)

60mg take-away dose for Tuesday 14.02.18

Mr John Citizen 13.02.18

Expiry date: 20.02.17 IC

KEEP OUT OF REACH OF CHILDREN

SMITHTOWN PHARMACY 22 Browns Rd SMITHTOWN 4123

PH: 1234 5678

Ancillary label #1:

'This medication may cause drowsiness and may increase the effects of alcohol. If affected, do not drive a motor vehicle or operate machinery'.

Buprenorphine

Buprenorphine and buprenorphine/naloxone TADs should be supplied in the original blister packs or sealed pouches. Daily doses do not need to be individually packaged and labelled. Each strength of buprenorphine or buprenorphine/naloxone can be dispensed in its own envelope or box and labelled to reflect the daily dose prescribed. Each envelope or box must be labelled with:

- medication name, strength and quantity of the drug
- client's name
- adequate directions, including the date when the TAD is to be taken
- date when TAD was supplied
- medication expiry date
- name, address and telephone number of the pharmacy or dosing site
- dispenser's initials
- 'keep out of reach of children' warning in red font on a white back ground affixed to bottle
- ancillary Label #1 [59, 159].

Example: A client on a daily dose of Suboxone Film 18mg who receives 28 TADs at a time should get 2 boxes or envelopes of films labelled as follows:

Suboxone Sublingual Film 2mg/0.5mg (qty 28 films)

Take ONE film daily from 01/02/2018 to 28/02/2018, inclusive. (To be taken in conjunction with Suboxone 8mg/2 mg films to make up a total daily dose of 18mg.)

Mr John Citizen 31.01.18

Expiry date: 30.6.17 IC

KEEP OUT OF REACH OF CHILDREN

SMITHTOWN PHARMACY 22 Browns Rd SMITHTOWN 4123

PH: 1234 5678

Suboxone Sublingual Film 8mg/2mg (qty 56 films)

Take TWO films daily from 01/02/2018 to 28/02/2018, inclusive. (To be taken in conjunction with Suboxone 2mg/0.5mg films to make up a total daily dose of 18mg)

Mr John Citizen 31.01.18

Expiry date: 30.5.17 IC

KEEP OUT OF REACH OF CHILDREN

SMITHTOWN PHARMACY 22 Browns Rd SMITHTOWN 4123

PH: 1234 5678

Attach Ancillary label #1 to each box:

'This medication may cause drowsiness and may increase the effects of alcohol. If affected, do not drive a motor vehicle or operate machinery.'

It is advisable to count out the TADs in front of the client on pick-up so that parties are satisfied that the correct number of tablets or film have been supplied for the given take-away period.

9.5 Missed doses

A 'missed dose' refers to when a client does not attend pharmacy to collect their dose, and is calculated based on the equivalent of daily doses not administered or supplied (see Section 6.7). As such a daily dose that has not been administered is one missed dose, while a double dose that has not been administered is two missed doses. With TADs, each daily dose that has not been supplied to the client is also counted as a single missed dose.

Pharmacists are required to notify the OTP service provider when a client misses a dose [159], and when they restart a client on their OTP medication.

Some clients may respond to missed doses by accessing other substances [160]. Assessment of intoxication is particularly important when the client next attends, and any clients who are intoxicated are to have their dose withheld and the OTP service provider notified [159]. In regard to determining their responsibility for dosing clients who have missed their doses, pharmacists are to refer to table 17.

Table 17 Pharmacist Actions following missed doses

Equivalent of daily doses missed	Response
1 or 2 days dosing missed	If no evidence of intoxication dose as usual. Inform OTP service provider that client has resumed dosing.
3 or more days dosing missed	Withhold dose. Client must be reviewed by the OTP service provider. The prescriber may decide to reduce the re-commencing dose as the client's tolerance may be reduced [12].

9.6 Hospitalised clients

Generally, if clinically appropriate, methadone or buprenorphine treatment will be continued when clients are admitted to hospital. If the pharmacy is contacted by hospital medical staff regarding treatment details, hospital staff should be advised to contact the client's prescriber in the first instance (see Section 7.17).

In the event the prescriber is not available, assistance should be provided to ensure accurate and safe continuation of treatment. This includes information about the client's history and their current dosing regimen; particularly any TADs supplied (which the client may not have been consumed yet). A copy of the relevant Written Instruction can be provided to hospital staff to assist with clinical management. The pharmacist should record that the client is an inpatient and therefore being dosed continuously elsewhere. The pharmacist should also ensure the OTP service provider is advised at the earliest opportunity.

Upon discharge, hospital staff should contact the prescriber/clinic directly. The OTP service provider can then verify the client's last dose at hospital, and co-ordinate return to pharmacy for dosing. In the event this process does not occur (e.g. weekends), the pharmacist should obtain confirmation of discharge, and the date the client was last dosed at hospital before resuming dosing [12]. Hospital pharmacy staff should have this information. Alternatively, ward staff can assist. The community pharmacist should also inform the OTP service provider of client's hospital discharge.

9.7 Specific situations

9.7.1 Intoxicated clients presenting for dosing

Client safety is the key consideration in responding to those who present for methadone or buprenorphine dosing when intoxicated with opioids, alcohol, benzodiazepines or other drugs. **Clients who appear intoxicated (see section 11.7) should not be given their usual methadone or buprenorphine dose or any TADs at that time.** The pharmacist is to contact the OTP service provider for instructions [1, 23]. If the pharmacist is unable to contact the OTP service provider, and the pharmacist has safety concerns, the dose should still be withheld, and the client referred to the nearest hospital emergency department. The pharmacist is also to notify the OTP service provider at the earliest opportunity.

The pharmacist is not obliged to supply doses to clients who present, in their opinion, as intoxicated. Their professional obligation should be the health of the client.

9.7.2 Other medications

Some clients require treatment with prescribed medication for medical or psychiatric conditions or other legitimate purposes. In these circumstances, it is appropriate for the dosing pharmacy to dispense the associated prescriptions. Of note, a combination of opioid and sedating medication may be potentially hazardous. If a client presents with a prescription for such medication from a prescriber other than the OTP prescriber, the pharmacist should contact the prescribing physician to discuss any safety concerns. The OTP service provider should also be contacted [12].

Clients may need Pharmacy Only or Pharmacist Only products at certain times. Pharmacists should exercise the usual care in these circumstances. If there is any suspicion of inappropriate or hazardous use of medication, the OTP service provider should be notified.

9.7.3 Lost, stolen or broken take-away dose

Lost or stolen TADs should not be replaced by the pharmacist and should be reported by the client to both the OTP service provider and the police [12]. Similarly, broken or damaged TADs should not be replaced without advice from the OTP service provider (see Section 6.6.12).

9.7.4 Vomited doses

Vomiting after a dose of methadone creates uncertainty about the amount of dose absorbed. If the vomiting occurs 10 minutes or more after the dose is given, the pharmacist can give reassurance that the entire dose has been absorbed. If vomiting occurred less than 10 minutes after dosing, contact the OTP service provider [1]. A substitute dose cannot be supplied to a client who claims they have vomited a dose (and requests a replacement dose), without prior approval of the OTP service provider (see Section 6.8.1).

As buprenorphine is absorbed sublingually, there is no need for replacement of buprenorphine if a client vomits after dosing. However, the OTP service provider should be notified of the incident.

9.7.5 Diversion

Diversion refers to methadone or buprenorphine doses being used other than as intended, for example being removed from the dosing point.

Diversion of supervised doses and TADs of both methadone and buprenorphine does occur. While most clients do not divert their medication, the potential for some clients to attempt to divert their medication, for a range of reasons, always remains a risk and is treated very seriously [12, 161].

Identifying diversion

To minimise the risks of diversion, clients should be provided with clear guidance on how and why medication is given, and how they should present during the observed consumption of the dose to avoid unnecessary suspicion of diversion. Some behaviour that may give rise to suspicion of diversion includes:

- removing dose (e.g. buprenorphine) from mouth
- receptacles in the mouth (e.g. plastic caps, glad wrap, cotton wool)
- refusing to demonstrate buprenorphine dissolving in the mouth
- not wanting to speak or have mouth checked after dosing
- not wanting to stay for the supervision period
- walking out of the pharmacy with their dosing container
- causing distractions
- reading books, magazines etc., close to their face
- touching mouth with hand or sleeve
- browsing the shop
- attending for dose with others then attempting to pass the medication on (e.g. kissing immediately after dose)
- suspicious activity with cups, drink bottles and various kinds of containers
- spitting, coughing, sneezing
- out of character behaviour, nervousness, being 'overly-nice', watching the pharmacist closely
- observed 'fake' Suboxone film when checked client's mouth
- suspicious interaction with other clients or acquaintances after dosing
- reports of stockpiling TADs [12, 153].

Management of Diversion

In all situations discussion should occur with the client regarding their behaviour, and the OTP service provider should be notified. The dosing pharmacy may also ask the treating clinician to place the client at another dosing pharmacy.

Confirmed incidents of diversion or attempted diversion

Where diversion has occurred, the OTP service provider is to be notified. The prescriber/clinic will review the client's situation and advise the pharmacist of any treatment changes. Responses may include:

- removal of TADs
- where clients have diverted buprenorphine tablets, the prescriber may transfer the client to buprenorphine/naloxone film or methadone. Where clients have diverted buprenorphine/naloxone film the prescriber may transfer the client to methadone [162].
- consideration will be given to the particular clinical situation of the client (e.g. pregnancy) when deciding on the appropriateness of any action to change methadone and or buprenorphine treatment [12]
- discontinuation of clients' OTP
- the pharmacy may also ask the OTP service provider to dose the client elsewhere.

Suspected diversion

Where the pharmacist suspects the client of diverting or attempting to divert their medication, the pharmacist should discuss their concerns with the client. This may clarify any misunderstandings regarding the dosing requirements. If required, a formal first warning should be given by the pharmacist to the client, outlining their concerns as well as consequences of further diversion attempts. The OTP service provider should also be notified [12].

9.8 Medication errors

It is essential to the safe and effective working of OTP that all pharmacists, including locums and part-time staff, are familiar with OTP requirements. All Written Instructions, client identification records and other information should be readily accessible. A basic check prior to administration of doses should include:

- signs of intoxication
- a current Written Instruction with clear medication orders
- dosing history (e.g. missed doses)
- correct OTP medication
- correct client
- correct day (including ensure they have not already received a TAD for that day)
- correct dose.

It is recommended that the following procedures be adopted to reduce the possibility of dosing errors:

- use a day book, diary or computerised dosing system, to record and communicate important information to other pharmacists who practice at the premises. This book should be inspected by staff daily
- check the date range on the current Written Instruction to ensure validity. Indicate the end date of current Written Instruction on the client's record
- all clients must have a photograph provided by the prescriber attached to their client folder to establish identity
- do not confuse millilitres (mL) with milligrams (mg) of methadone as this may result in a fivefold error
- if the dose is written in millilitres check the dose with the OTP service provider
- if there is more than one client with the same surname, attach a cautionary note to the client's record card alerting staff to this
- check that telephone contact details for clients are kept up-to-date monthly [12].

9.8.1 Excess dose/overdose

Inducing vomiting may be dangerous and is contra-indicated, particularly if the client has respiratory depression, an obstructed airway, is drowsy, or has other signs and symptoms of central nervous system depression. If there is concern about the amount of methadone or buprenorphine consumed, it is best to be cautious and have the client present to an emergency department without delay.

A client who receives a methadone or buprenorphine dose in excess of that prescribed is at risk of overdose. The effect of the overdose will depend on the size of the overdose as a proportion of the usual dose, and the length of time the client has been in treatment on the current dose. Other individual characteristics are also significant such as impaired liver or kidney function; and whether the client has

recently consumed other drugs. Clients should be informed of the risks, in addition to signs and symptoms of opioid toxicity such as pinpoint pupils, nausea, dizziness, feeling intoxicated, sedation or nodding off, unsteady gait, slurred speech, snoring, hypotension, slow pulse, shallow breathing, frothing at the mouth, and coma [10, 23].

In the event of an excess dose the pharmacist is to:

- advise the client of the medication error
- advise the OTP service provider of the medication error
- ensure the client is taken to a place of safety (e.g. hospital emergency department)
- handover details of medication error to emergency staff.

Pharmacist clinical management will vary depending on whether the OTP service provider can be contacted. If the client can be contacted and the prescriber is available, the prescriber (or delegate in a clinic) will advise the pharmacist on what action is needed to ensure client safety (see Sections 7.3, 7.4). Responses will be based on the clinical scenario, and could include the client being advised to attend an Emergency Department for monitoring. If the client has left pharmacy and cannot be contacted, the OTP service provider will exercise clinical judgement and inform the pharmacist if there is a need to contact the Queensland Police Service for a welfare check.

If the OTP service provider is not available, the pharmacist is to contact relevant emergency services. In the event the client cannot be contacted by telephone, the pharmacist is to contact the Queensland Police Service to conduct a welfare check. If contact is made with the client, the Queensland Ambulance Service is to be called to take the client to Emergency Department for medical monitoring. The OTP service provider is to be notified about the medication error at the earliest opportunity.

The pharmacist is to withhold further doses until notification by the OTP service provider, to allow the client to be reviewed and possible dose adjustments made.

9.8.2 Documentation

For all dosing errors, the event is to be documented in the client record, including persons notified and actions taken.

9.9 Treatment of opioid withdrawal

Clients can experience opioid withdrawal symptoms when they are stabilising on the opioid treatment program, reducing their dose or have missed daily doses. To assist with managing withdrawal symptoms pharmacists can provide treatments such as paracetamol, ibuprofen, loperamide, hyoscine butylbromide, vitamin and mineral supplements as required. Sedating anti-histamines - especially doxylamine and diphenhydramine - may be misused and should not be used without approval by the OTP service provider. Other advice such as sleep hygiene, smoking cessation and guidelines on low-risk alcohol intake, may also be provided by the dosing pharmacist.

9.10 Naloxone

Pharmacists are authorised to sell naloxone as a Schedule 3 medicine to treat opioid overdose. When supplying naloxone, check if the client needs the additional equipment to administer the injection in an emergency (e.g. needle). The client should be directed to information about how to use naloxone, and management of an overdose, such as:

- online at Community Overdose Prevention and Education (COPE), www.copeaustralia.com.au

- download Overdose Aware App at Penington Institute website
- contact QuIHN (see Section 11.15).

9.11 Pharmacy opening hours

Some pharmacies close on weekends, public holidays and other times. When pharmacy is not open to dose for a designated period (e.g. public holiday), it is important there is no interruption to the client's treatment. Pharmacists are requested to inform OTP service providers with sufficient notice, so alternative dosing arrangements can be made for clients.

9.12 Client complaints mechanism

Clients who do not agree with a decision made by their pharmacists or prescribers may make a complaint using the mechanism appropriate to their service provider [12, 23]. Clients can also contact QPAMS for advocacy and support (See Section 11.15).

10. Regulatory issues

The Health (Drugs and Poisons) Regulation 1996 (the 'Regulation') is the legal instrument underpinning the prescribing of methadone, buprenorphine and other controlled drugs of dependency in Queensland [59]. Enquiries about the Regulation and its application can be directed to the Medicines Regulation and Quality (MRQ) Unit, Queensland Health (see Section 11.15).

10.1 Definition of a drug-dependent person

A drug-dependent person is defined by Part 1 Section 5 of the *Health Act 1937* as a person who demonstrates impaired control, or exhibits drug seeking behaviour that suggests impaired control over the person's continued use of controlled or restricted drugs or poisons; and who, when the administration to the person of controlled or restricted drugs or poisons ceases, suffers or is likely to suffer mental or physical distress or disorder [163].

10.2 Section 120 – Reporting requirements

Section 120 of the Regulation requires a prescriber to notify the Director-General, Queensland Health, if they intend to:

- prescribe a controlled drug for a period of two months or longer to a person who is not drug-dependent
- continue prescribing a controlled drug to a person that they reasonably suspect has been previously treated with a controlled drug by another prescriber for more than two months [59].

10.3 Section 122 – Approval to treat a drug dependent person with controlled drugs

Section 122 of the Regulation requires a prescriber to apply for a treatment approval from MRQ prior to administering, dispensing, prescribing or supplying a controlled drug to a person the prescriber reasonably believes is drug dependent [59].

In the context of pain management, each situation should be assessed individually. Approval is not required for hospital inpatient or emergency treatment, such as the acute treatment of a myocardial infarction, or a broken limb pending hospital admission. However, an approval is required for out-patient treatment or for ongoing treatment of an injury with controlled drugs. Where treatment is provided outside of business hours or prior to the prescriber seeking approval from MRQ, the prescriber must provide a written report to the Director-General, Queensland Health detailing the circumstances of the client's treatment as soon as possible.

The requirement to obtain an approval to treat a painful medical condition should not be seen as a reason to provide less than appropriate analgesia. Rather, it should be seen as a requirement to ensure any necessary medications are prescribed from a single source, with appropriate management and supervision, and that those medications are prescribed without compromising the duty of care to the client, while minimising the risks of diversion of the medication.

10.4 Section 213 – Approval to treat a drug dependent person with restricted drugs of dependency (benzodiazepines)

Section 213 of the Regulation requires a prescriber to apply for a treatment approval from MRQ prior to administering, dispensing, prescribing or supplying a restricted drug of dependency to a person the prescriber reasonably believes is drug dependent [59].

In the context of acute management, each situation should be assessed individually. Approval is not required for hospital inpatient or emergency treatment. However, an approval is required for out-patient treatment or for ongoing treatment. Where treatment is provided outside of business hours or prior to the prescriber seeking approval from MRQ, the prescriber must provide a written report to the Director-General, Queensland Health detailing the circumstances of the client's treatment as soon as possible.

The requirement to obtain an approval to treat an acute medical condition should not be seen as a reason to provide less than appropriate medical care. Rather, it should be seen as a requirement to ensure any necessary medications are prescribed from a single source, with appropriate management and supervision, and that those medications are prescribed without compromising the duty of care to the client, while minimising the risks of diversion of the medication.

10.5 The 13S8INFO Doctors enquiry service

The 13S8INFO enquiry service is available for all medical practitioners by calling 13 78 46 between 8am and 8pm, 7 days per week. This service can provide the following information:

- QOTP registration history
- S8 Drug dispensing history within Queensland
- history of previous enquiries made to the 13S8INFO service.

10.6 Requirements of the Regulation on a person

Section 121 of the Regulation requires a person must not obtain a controlled drug, (or a prescription for a controlled drug), unless the person informs the prescriber of all controlled or restricted drugs of dependence received from other prescribers in the preceding two months. A person must use their correct name and address [59].

10.7 Approval to prescribe for opioid dependent people

In Queensland, any prescriber who wants to treat an opioid dependent person with methadone or buprenorphine must be approved by the Director-General, Queensland Health or their delegate [59]. To become an approved prescriber, they must complete an appropriate training course and then apply to MRQ for approval to treat opioid dependent people.

For more information on the QOTP Prescriber Training Course, contact MRQ on 13 78 46 or MRQ@health.qld.gov.au.

10.8 Admission and discharge procedures

When clients are admitted to the QOTP, the Queensland Opioid Treatment Program – Admission Form is to be completed (see Section 11.1). This form is required for all new clients, re-admissions and transfers from another prescriber. The date of the first dose must be documented on the admission form, noting it may be after the date of the initial assessment. The QOTP Admission Form, with a client

photograph attached, is to be forwarded to MRQ within 24 hours of the first dose. A copy of the form and photograph is to be kept in the client's medical record.

On completion of treatment or transfer to another prescriber, the prescriber must complete a Queensland Opioid Treatment Program – Discharge Form (see Sections 8.11, 11.2). The discharge form should be forwarded to MRQ within 72 hours of last dose.

MRQ also require notification of any change in OTP treatment medication for a client. A QOTP Admission Form is to be used for this purpose, indicating change in treatment drug.

10.9 QOTP Prescriptions / Written Instructions

QOTP Prescriptions/Written Instructions must not be given to clients under any circumstances.

A special Written Instruction form that assists with monitoring the dispensing of methadone and buprenorphine has been designed for use in the QOTP (see Sections 9.1.3, 11.3, 11.4). All OTP prescribers are required to use this form, including those from interstate when their clients temporarily dose in Queensland. Written Instruction forms can be obtained from MRQ.

Each Written Instruction must include the name and address of the dosing pharmacy. As these are not transferable between pharmacies, a new Written Instruction needs to be completed for any pharmacy change. A Written Instruction can be faxed to pharmacy prior to the original being mailed. Email transmission is not endorsed as it is not a secure process. Written Instructions must not be given to clients under any circumstances.

The date of the Written Instruction cannot be later than the date of the first dose administered or supplied. The left side of the Written Instruction is for the prescriber's instructions, and only the prescriber can make changes, additions or deletions to this information. The 'Dispenser Notes' section of the Written Instruction is where additional notes can be made by the person administering the medication.

Under the Health (Drugs and Poisons) Regulation (1996) there is a requirement to record an OTP transaction each day [59]. This includes doses administered or supplied, as well as those not provided. The Written Instruction can be used to record these transactions however some pharmacists may instead use electronic dispensing/record systems. Pharmacists must ensure their recording process satisfy professional and legislative requirements.

Dose transactions are to be documented on the right side of the Written Instruction, with each dose recorded against the corresponding date, initialled, and designated with the appropriate 'Dose Type Code'. The legend for the 'Dose Type Code' is contained in the Written Instruction. If needed, MRQ can be contacted for assistance regarding completion of this form (See section 11.15).

If the prescriber makes an alteration to a client's medication or dose during the month, a new Written Instruction is to be forwarded to the pharmacist. It is essential the most current Written Instruction is used when dosing clients.

At the end of each month, MRQ are to be provided with documentation detailing the medication and total dose administered or supplied to the client in that period. Forwarding the completed QOTP Written Instruction to MRQ will fulfil this requirement. Records are to be retained for a minimum of two years.

11. Appendices

11.1 Guidelines for QOTP - Admission form

Client details: Name, address, date of birth, any aliases, height (cm), weight (kg).

Distinguishing marks (scars, features) or tattoos: This should include descriptions such as size, content of tattoos, colour/s, and physical location. Attention should be taken in providing details that could readily identify the client from the description provided. Preferably provide a detailed description of tattoos, scars etc. that may help differentiate between two clients with the same name. This information can be very helpful for MRQ when dealing with phone enquiries from general practitioners.

Indigenous and South Sea Islander status: Check the appropriate box by which the client identifies him or herself.

Drug use and treatment history: This box gives some indication of the client's history.

Age of first use of opioids: Self-reported age at which the client first used opioid drugs.

Age of first dependence on opioids: Self-reported age at which the client first considered themselves to be dependent on opioids.

Age at first admission on opioid treatment: Self-reported age at which the client was first admitted to an authorised opioid substitution treatment program (in any state or overseas).

Last discharge from opioid treatment: Date on which the client was last discharged from an authorised opioid treatment program. Information is available from MRQ if the client was last treated in Queensland, or an approximate date is satisfactory if the client cannot remember.

Australian state of discharge: Australian state or territory where the client was last admitted to an opioid treatment program.

Primary drug of dependence: The main drug, as assessed by the clinician, which has led a person to seek treatment from the service. When completing an admission form for a transfer, the primary drug of dependence should be recorded as the drug that led them to seek treatment initially and not the medication (methadone, buprenorphine or buprenorphine/naloxone) they are presently taking.

Mode of use for primary drug of dependence: The client's usual method of administering the primary drug of dependence, as assessed by the clinician.

Other drugs of use: A drug apart from the primary drug of dependence that the clinician assesses as being a concern. This section should include all other drugs that the client uses whether on a regular or spasmodic basis.

Drug dependence status: Non-therapeutic dependence refers to clients whose dependence results from use of mainly illicit or 'street' opioid drugs. Therapeutic dependence refers to clients that have been initiated on pharmaceutical opioid analgesia by a medical practitioner for treatment of a medical condition that was not primarily opioid dependence. Dependence might have then ensued from long-term treatment with therapeutic opioids (oral only). The underlying condition should be confirmed by supporting medical evidence.

Opioid treatment drug: Choose Suboxone®, Subutex® or methadone syrup/liquid.

Initial dose: Refers to the starting dose given on the first day of treatment.

Comments: This space can be used for any information you feel could be relevant. This could include information about where a client has transferred from or who their previous prescriber was. The prescriber's name and address should be completed, and the form should be signed and dated by the prescriber before being submitted (email, fax or post) promptly to MRQ.

Photograph: A photograph of the client should be attached to the original admission form before being submitted (email, fax or post) to MRQ. If you are submitting your admission form electronically, you may email an electronic photo to MRQ along with your admission form.

11.2 Guidelines for QOTP - Discharge form

Date of last dose: This should be confirmed with the client's pharmacy, particularly if the client is transferring to another prescriber, to ensure they are not double-dosed.

Opioid treatment drug: Choose Suboxone®, Subutex® or methadone syrup/liquid.

Client details: Ensure all fields are completed with the same client details as contained in the admission form.

Reason for cessation of opioid treatment program: Please choose the most relevant option.

Comments: Use this space to make any comments you feel would be helpful for tracking clients, for example the name of the prescriber that a client may be transferring to. The prescribing doctor's name and address should be completed, and the form should be signed and dated by the prescribing doctor before being submitted (email, fax or post) to MRQ.

11.3 Guidelines for QOTP Written Instruction

It is important the Written Instruction is printed clearly to avoid dosing errors.

Name of the drug: For buprenorphine state either Subutex® or Suboxone® (tablets or film). For methadone state either methadone syrup or Biodone. The prescriber name, address and prescriber number should be completed, and the Written Instruction dated on the date it is completed.

Client details: The client name, address and date of birth should be fully completed.

For month and year of: The month and year that the Written Instruction is for.

For supply/administration at: Name and address of the pharmacy/clinic where the client is to be dosed.

Dose: Buprenorphine (Subutex® or Suboxone® – tablets or film) doses should be recorded in milligrams (mg) and methadone should have both the milligrams and millilitres recorded (mg/mL).

Prescriber instructions: Should include instructions for dosing, including TADs and double or triple dosing – for example, 'Double dose Mondays and Wednesdays, triple dose Fridays'. If doses are supplied in the clinic setting, they should be recorded on the right-hand side of the written instruction and indicate the date, quantity, what type of dose it was (for example, regular supervised dose is recorded as 'R') and the signature of the supplier. The prescriber must specify what days that TADs are to be supplied. It is not acceptable to write 'three TADs per week' and leave that decision making to the supplier.

Record of supply/administration: The pharmacist/dispenser is to sign for any dose administered or supplied, and identify the dose transaction as per 'Dose Type Code' (see Section 11.4). For a client dispensed a double dose, the total dose given (equivalent of 2 daily doses) and the dose type '2D' is to be noted on the date the dose is administered. A notation is therefore not required the following day, as the dose transaction has already been documented.

11.4 Written Instruction sample form

Queensland Opioid Treatment Program (QOTP) – Written Instruction

Queensland Government

Name of Drug:.....

Doctor .....

Address.....

.....

Qld. Reg. No. ..... Date.....

Telephone No. ..... Fax No.....

Patient Details:

(Surname)

(Given Names) (Date of Birth)

Address:

(Number) (Street)

(Suburb) (Postcode)

For month & year of:

For supply/administra

Address:

Dose:

Give.....mg (.....mls) on dates.....to.....inclusive

Give.....mg (.....mls) on dates.....to.....inclusive

Give.....mg (.....mls) on dates.....to.....inclusive

Give.....mg (.....mls) on dates.....to.....inclusive

Give.....mg (.....mls) on dates.....to.....inclusive

Total Quantity to be given on this instruction.....mg

Prescriber Instructions:

Doctor's Signature .....

Dose Type Codes			
METHADONE AND BUPRENORPHINE:		C	Cancelled (at request of prescriber)
R	Regular (Supervised dose)	P	Replacement Dose (Prescriber approved only)
T	Take Away dose		
NP	Not Picked Up		BUPRENORPHINE ONLY:
S	Supplementary Dose (Top-up)	2D	Double Dose/ two day dose
DW	Dose Withheld (for clinical reasons)	3D	Triple dose/ three day dose

This written instruction must be forwarded to the Chief Executive in accordance with the Health (Drugs & Poisons) Regulation – 1996 within 14 days of completion of supply/administration.

Record of Supply/Administration

Please complete dose type column as indicated below. (e.g. if client picks up 2 doses on a Saturday, 1 being for Sunday, then T is marked on Sunday column).

Total quantity Methadone or Buprenorphine		Subutex			Suboxone			
Date	Quantity mg	0.4mg tablets	2mg tablets	8mg tablets	2mg	8mg	Dose type	Supplier's Signature
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
								Total

Dispenser Notes:

OFFICE USE ONLY

Version: Jan 2008

Date Received/Processing Number	Entered	Checked	Comments

11.5 Subjective Opioid Withdrawal Scale (SOWS)

Please score each of the 16 items below according to how you feel now:

(Circle one number per symptom)

Date: _____ Time: _____

	Symptom	Not at all	A little	Moderately	Quite a bit	Extremely
1	I feel anxious	0	1	2	3	4
2	I feel like yawning	0	1	2	3	4
3	I am perspiring	0	1	2	3	4
4	My eyes are teary	0	1	2	3	4
5	My nose is running	0	1	2	3	4
6	I have goose bumps	0	1	2	3	4
7	I am shaking	0	1	2	3	4
8	I have hot flushes	0	1	2	3	4
9	I have cold flushes	0	1	2	3	4
10	My bones and muscles ache	0	1	2	3	4
11	I feel restless	0	1	2	3	4
12	I feel nauseous	0	1	2	3	4
13	I feel like vomiting	0	1	2	3	4
14	My muscles twitch	0	1	2	3	4
15	I have stomach cramps	0	1	2	3	4
16	I feel like using now	0	1	2	3	4

Range 0–64.

Reference: [3, 164]

11.6 Objective Opioid Withdrawal Scale (OOWS)

Observe the client during a 5-minute period. Then indicate a score for each of the opioid withdrawal signs listed below (items 1-13). Add the scores for each to obtain the total score.

Date: _____ Time: _____

	Sign	Measures		Score
1	Yawning	0 = no yawning	1 = yawning	
2	Rhinorrhoea	0 <3 sniffs	1 = 3 or more sniffs	
3	Piloerection (observe arm)	0 = absent	1 = present	
4	Perspiration	0 = absent	1 = present	
5	Lacrimation	0 = absent	1 = present	
6	Tremor (hands)	0 = absent	1 = present	
7	Mydriasis	0 = absent	1 ≥3 mm	
8	Hot and cold flushes	0 = absent	1 = shivering/huddling for warmth	
9	Restlessness	0 = absent	1 = frequent shifts of position	
10	Vomiting	0 = absent	1 = present	
11	Muscle twitches	0 = absent	1 = present	
12	Abdominal cramps	0 = absent	1 = holding stomach	
13	Anxiety	0 = absent	1 = mild to severe	
Total score:				

Range 0-13

Reference: [3, 164]

11.7 Acute intoxication states

Class of drug	Intoxication	Overdose
Opioids (e.g. heroin, morphine)	Miosis Itching Sedation/somnolence Lowered blood pressure Slowed pulse Hypoventilation	Unconscious Respiratory depression Pinpoint pupils Hypotension Bradycardia Pulmonary oedema
Stimulants (e.g. cocaine, amphetamines)	Hyperactivity Restlessness Agitation Anxiety/nervousness Mydriasis Elevated blood pressure Increased pulse Raised temperature Sweating Tremor	Panic Acute paranoid psychosis Seizures Cardiac arrhythmias Myocardial ischemia (rarely infarct) Hypertensive crisis Cerebrovascular accidents Hyperpyrexia Dehydration
Benzodiazepines (e.g. diazepam, oxazepam, flunitrazepam)	Disinhibition Sedation Drooling Incoordination Slurred speech Lowered blood pressure Dizziness	Stupor/coma Ataxia Confusion Respiratory depression
Cannabis	Relaxation Decreased concentration Decreased psychomotor performance Impaired balance Conjunctival injection	Paranoid psychosis Confusion Agitation Anxiety/panic Hallucinations
Alcohol	Relaxation Disinhibition Impaired coordination Impaired judgement Decreased concentration Slurred speech Ataxia Vomiting	Disorientation/confusion Respiratory depression Loss of consciousness Loss of bladder control

Reference: [1]

11.8 Substance withdrawal states

Drug Class	Onset	Duration	Symptoms of withdrawal
Opioids	8–12 hours	Peaks 2–4 days, ceases 7–10 days	Anxiety, muscle tension, muscle and bone ache, muscle cramps, sleep disturbance, sweating, hot and cold flushes, piloerection, yawning, lacrimation, rhinorrhoea, abdominal cramps, nausea, vomiting, diarrhoea, palpitations, elevated blood pressure and pulse, dilated pupils
Stimulants	8–36 hours	Several days, occasionally 2–3 weeks	Lethargy, depression, irritability, hyperphagia, anhedonia, dysphoria, desire for sleep increased
Benzodiazepines	1–10 days (depending on half-life)	3–6 weeks (may be longer)	Anxiety, insomnia, muscle aching and twitching, perceptual changes, feelings of unreality, depersonalisation, seizures
Cannabis	Usually days	Weeks	Irritability, anxiety, insomnia, anorexia, sweating, muscle spasms, headaches
Alcohol	As blood alcohol level falls, depends on rate of fall and hours after last drink	5–7 days	Anxiety, agitation, sweating, tremor, nausea, vomiting, abdominal cramps, diarrhoea, anorexia, craving, insomnia, elevated blood pressure and pulse, temperature, headache, seizures, confusion, perceptual distortions, disorientation, hallucinations, hyperpyrexia

Reference: [1]

11.9 Product information

For product information, refer to the Therapeutic Goods Administration eBusiness Services - Product and Consumer Medicine Information:

- Methadone Product Information: https://www.ebs.tga.gov.au/ebs/picmi/picmirepository.nsf/pdf?OpenAgent&id=CP-2009-PI-00948-3&d=2016061416114622483
- Biodone Forte Product Information: https://www.ebs.tga.gov.au/ebs/picmi/picmirepository.nsf/pdf?OpenAgent&id=CP-2009-PI-00726-3&d=201606141611462248 3&d=2016080916114622483
- Suboxone Product Information: https://www.ebs.tga.gov.au/ebs/picmi/picmirepository.nsf/pdf?OpenAgent&id=CP-2011-PI-01894-3
- Subutex Product Information: https://www.ebs.tga.gov.au/ebs/picmi/picmirepository.nsf/pdf?OpenAgent&id=CP-2009-PI-00913-3
- Naltrexone Product Information: https://www.ebs.tga.gov.au/ebs/picmi/picmirepository.nsf/pdf?OpenAgent&id=CP-2013-PI-01168-1
- Naloxone Product Information: https://www.ebs.tga.gov.au/ebs/picmi/picmirepository.nsf/pdf?OpenAgent&id=CP-2010-PI-02490-3

11.10 Clinically significant drug interactions – OTP medication

This list includes prescription medications that are known to, or may potentially result in clinically significant interactions when used in combination with methadone or buprenorphine [1]. The list is not exhaustive: if in doubt, seek specialist advice. The list draws on information from www.opioiddruginteractions.com.

In the tables, ++ indicates a strong clinical interaction, + indicates an interaction of less significance and ? indicates the potential for interaction with limited supporting evidence. All interactions should be avoided if possible, or clients should be monitored, and drug regimens adjusted if necessary.

Increased sedative effects

The medications in this group may increase the risk of overdose through additive CNS depression, or increased plasma levels of methadone or buprenorphine resulting from deceased metabolism or decreased urinary clearance [1].

Clinical significance for:		Medication
Methadone	Buprenorphine	
++	++	Amitriptyline
	++	Atazanavir
++	++	Benzodiazepines (alprazolam, diazepam, triazolam)
?		Ciproflaxin
++		Citalopram/escitalopram
?		Erythromycin
++	?	Fluconazole
+	?	Fluoxetine
++	+	Fluvoxamine
+	?	Indinavir
?	?	Ketoconazole
+		Moclobemide
?		Ompeprazole
?	?	Ritonavir (avoid using in combination with atazanavir)
?		Sertraline
+		Urine alkalisers (e.g. sodium bicarbonate)
++	+	Zopiclone

Withdrawal symptoms or adverse effects

The medications in this group may cause decreased plasma levels and withdrawal symptoms due to increased metabolism of methadone or buprenorphine, or may cause adverse effects through other mechanisms [1].

Clinical significance for:		Medication
Methadone	Buprenorphine	
++		Carbamazepine
+	?	Cimetidine
+		Disulfiram (if used in conjunction with methadone formulations containing alcohol)
+	?	Hypericum perforatum (St John's Wort)
+		Moclobemide
+		Nevirapine
	?	Nifedipine
++	?	Phenytoin
++	?	Rifampicin
++	++	Rifabutin
+	+	Urine acidifiers (e.g. ascorbic acid) Ketoconazole

Prolongation of QTc interval

These medications may be contraindicated by the manufacturer for use in combination with methadone or buprenorphine due to their capacity to cause prolongation of the QTc interval [1].

Clinical significance for:		Medication
Methadone	Buprenorphine	
+	+	Domperidone
+		Citalopram/escitalopram
?	?	Erythromycin
+	?	Thioridazine

Effects on other medications

Methadone and buprenorphine may also impact adversely on the other medications that may be used in combination [1].

Clinical significance for:		Medication
Methadone	Buprenorphine	
++		Atazanavir (methadone may decrease serum levels)
++		Desipramine (metabolism decreased leading to increased plasma levels of desipramine)
++		Nifedipine (metabolism may inhibit methadone)
++		Zidovudine (metabolism is decreased leading to increased plasma levels of zidovudine. Symptoms of zidovudine toxicity can be misinterpreted as opioid withdrawal)

11.11 OTP conditions of treatment (sample)

Client responsibilities

Drug use

- Clients work with their prescriber to make the life changes necessary to achieve their treatment goals regarding substance use.

Behaviour

- Clients assist in maintaining a safe environment for health care workers and other clients, by not being verbally or physically threatening or violent, not damaging property, and keeping the environment free from unrestrained animals.
- Clients do not contribute to crowding around clinics and dispensing points by bringing friends or associates unnecessarily, or remaining around the premises for longer than necessary.
- Clients cooperate with the treatment team, or clearly and respectfully communicate to the treatment team the reasons behind the decision not to cooperate.
- Clients do not buy, sell or offer substances, including in the vicinity of the clinic/pharmacy.

Appointments/service rules

- Clients advise other health professionals they are on methadone/buprenorphine, any time they are prescribed/given other opioid medication or benzodiazepine/sedating medications.
- Clients attend appointments, or inform the prescriber if they need to reschedule. Attendance at appointments is necessary for the prescriber to continue prescribing their medication.
- Clients take their medication using correct technique, as directed by their pharmacist/prescriber.
- Clients are to be seen by the prescriber to restart their medication if they miss their dose for 3 or more days.

Take-away doses

- Clients must ensure that TADs are stored safely so the methadone/buprenorphine dose is not accessible to children or others.
- Take-away doses will not be replaced if lost, stolen or broken.
- It is the client's responsibility to adhere to take-away policies and acknowledge that any misuse of take-aways may result in the take-away privilege being revoked. Take-away doses are not a right of all clients on methadone/ buprenorphine treatment. Take-away doses may be provided at the discretion of the prescriber, based on need, and careful assessment of risk and potential harms.

Urine testing

- Clients will be required to provide urine tests randomly at the discretion of the prescriber.

Client's rights

- To receive health care given with consideration and respect, without bias or discrimination, thereby recognising personal dignity at all times.
- To be assured of privacy at interview, and during examination, and that any further discussion or consultation is conducted with discretion and confidentiality.
- To expect all communications and records pertaining to the care being provided will be treated as confidential according to legislation. As a health agency, employees are bound by statutory

obligations contained in the Information Privacy Act 2009, the Right to Information Act 2009 and the Hospital and Health Boards Act 2011 which require strict adherence to privacy and confidentiality provisions. Client information is kept confidential unless disclosure is otherwise authorised. In some circumstances staff are legally obliged to disclose information about a client, for example, where records have been subpoenaed for a court case, where there is a risk of harm to a client or others (e.g. children), or specific health conditions identified as reportable based on public health risk.

- To be advised by the attending clinician, in clear, concise terms, the complete and current information relating to a medical condition – including treatment, prognosis, risks, side or after effects and any alternate treatment or procedures.
- To expect adequate information to be provided to allow a client to give informed consent for treatment and procedures.
- Information and consultation regarding treatment costs will be given before treatment.
- To complain and be informed of the process for complaints.

Service provider responsibility

It is the **responsibility of the service provider** to:

- Obtain informed consent from the client before he/she commences OTP.
- Discuss situations under which treatment can be cancelled (e.g. non -attendance; diversion; property damage/theft, threats/violence or 'drug dealing' in vicinity of health services).
- Develop and document a treatment plan in collaboration with the client following initial assessment, with periodic review of the treatment plan thereafter.
- Provide competent care.
- Treat clients with dignity respect and courtesy.
- Provide services that are free of physical and mental abuse, coercion, harassment and discrimination.
- Inform client that ability to drive (or operate heavy machinery) may be impaired if other substances (alcohol, benzodiazepines and other opioids) are used during stabilisation.
- Provide education about overdose risk, particularly the risk of combining other drugs (including alcohol) with methadone/buprenorphine and the strategies to avoid and manage overdose.
- Provide TADs only after careful assessment of need, risk and harms, incorporating risk mitigation strategies.
- Provide support, information and strategies to enhance the client's capacity to successfully withdraw from methadone/buprenorphine, should they wish.
- Support a client's right to make a complaint and have conflicts resolved by:
  - Providing information on and access to procedures for complaint handling and conflict resolution.
  - Being familiar with complaint procedures and best practice complaint handling.

I understand the rights and responsibilities outlined in this agreement and have received:

- Methadone or buprenorphine booklet including information on side effects
- Service Provider information
- Your guide to making a complaint" – Office of the Health Ombudsman leaflet
- Copy of this 'OTP conditions of treatment' form.

Client signature: _____ Clinician signature: _____

Client name: _____ Clinician name: _____

Date: _____ Date: _____

11.12 Letter of introduction to pharmacy (sample)

25.01.2018

Dr John Prescriber
Local GP Practice
123 Prescriber Crescent
BRISBANE Q 4000
Ph: 07 3333 3333
Fax: 07 4444 4444

Local Day & Night Chemist
111 Apothecary Way
BRISBANE Q 4500

Dear Sir/Madam

Re: **CLIENT EXAMPLE - D.O.B. 01.01.1961**

Thank you for accepting this client at your pharmacy for dosing on the Queensland Opioid Treatment Program. The first dose is scheduled for 1st February 2018. The client's details are below:

Name:	Client Example
Address:	111 Client Street BRISBANE Q 4001
Phone:	07 38921111
Date of birth:	01.01.1961
Sex:	Female
Height:	172cm
Weight:	80kg
Comments and distinguishing features:	Dolphin tattoo (R) shoulder. 10cm scar on (L) calf. Star tattoo above (L) ankle.

AFFIX CLIENT PHOTO HERE

Should you have any queries or concerns, please do not hesitate to contact me on the above number. Thank you for your assistance.

Yours faithfully,

Dr John Prescriber
Local GP Practice

11.13 Pharmacist/client agreement form (sample)

Welcome to our pharmacotherapy service. We hope that our association will be a positive experience for all involved and that you will achieve a successful outcome.

You should be aware of the following conditions during treatment:

1. Dosing times

Your methadone/buprenorphine will only be supplied by this pharmacy:

from _____ to _____ Monday to Friday

from _____ to _____ Saturday

from _____ to _____ Sunday

2. Cost

Time is taken to prepare, document and administer your dose, so payment is required for this. The cost of our pharmacotherapy service is $_____ per week in advance or $_____ per day. No credit is allowed.

3. Prescriptions

Before a dose can be administered, we need a current Written Instruction (prescription) from your prescriber. It is your responsibility to attend review appointments with your prescriber as this ensures Written Instructions remains current. If you need to change your dose in any way, it is your responsibility to contact your doctor to request this.

4. Attendance

For treatment to be successful, you must attend regularly for dosing. Pharmacotherapy is based on supervised dosing, so methadone or buprenorphine must be consumed in front of the pharmacist. If you miss doses for three or more consecutive days, your doctor must review you before your dose can be supplied and treatment can continue.

5. Medication safety

Your medication is prescribed to be taken in a specific way, to achieve the most effective and safe treatment for you. Not taking the supervised dose in the prescribed manner (diversion) could result in your removal from the program.

While receiving methadone or buprenorphine you are reminded that taking other drugs (including alcohol) can be extremely dangerous and in some cases fatal. Methadone and buprenorphine are depressants and can interact with other depressants such as alcohol and tranquillisers.

6. Take-away doses

- Take-away doses (including changing the day of collection), can only be authorised by your prescriber.
- Take-away doses should be stored in a safe and secure place (not in the fridge) and away from the reach of children and other household members.
- Taka-away doses will not be replaced for any reason, without authorisation from your prescriber.

7. Behaviour in and around the pharmacy

- No methadone or buprenorphine will be administered if you appear to be affected by alcohol/drugs.

- We expect an appropriate code of conduct from all our customers. Your treatment at this pharmacy will be cancelled if your behaviour is threatening, if you are violent towards pharmacy staff or other customers; or you are rude, abusive or disruptive.
- If there is any suspicion of drug dealing, shop lifting or any other criminal activity on the premises or near the pharmacy, the police will be called and your treatment at this pharmacy will be cancelled.
- You should not contribute to crowding around the pharmacy by bringing friends or associates to the dispensary unnecessarily, and will not remain around the premises for longer than necessary.

8. Our responsibility

We agree to provide the following services to you:

- Professional, fair and non-prejudiced treatment
- Adequate and accurate information on treatment and services available
- Maintain payment records
- Discreet and confidential handling of records/information consistent with privacy legislation
- Support your right to make a complaint and have conflicts resolved by:
  - Provision of information on and access to procedures for complaint handling and conflict resolution
  - Being familiar with complaint procedures and best practice complaint handling.

I have read this agreement and fully understand its contents. I agree to comply with these conditions at all times.

Client's name: _____

Address: _____

Telephone: _____

Signature: _____

Date: _____

Pharmacist's name: _____

Signature: _____

Date: _____

11.14 International travel letter (sample)

25.01.2018

Dr John Prescriber
Local GP Practice
123 Prescriber Crescent
BRISBANE Q 4000
Ph: 07 3333 3333
Fax: 07 4444 4444

Dear Sir/ Madam

Ms XYZ - 01.01.1961
15 Brisbane Street
Brisbane QLD 4000
AUSTRALIA

XYZ is a patient of the Local GP Practice in Brisbane. She is receiving long term treatment for opioid dependence with methadone. Her current dose is seventy mg (70 mg) each day. She is travelling overseas on holiday with her husband, departing Australia on 14 October 2013, and returning on 31 October 2013.

When she leaves the country, she will carry 16 days dose with her, i.e. a total of **1,120** mg of methadone supplied in 10 mg tablets, i.e. **112** tablets of methadone (Physeptone tablets). This will provide her with daily doses of 70 mg or 7 tablets from 15 October to 30 October.

This patient is being treated in accordance with State and Federal legislation.

Please feel free to contact me if further information is needed.

Yours sincerely

J PRESCRIBER
Local GP Practice
01 October 2013

11.15 Contact numbers for Queensland

Medicines, Regulation and Quality MRQ)
Locked Bag 21
Fortitude Valley BC Qld 4006
Enquiries: 13 78 46
Fax: 07 3708 5431
Email: MRQ@health.qld.gov.au
Operating hours: 8am-8pm, 7 days per week

Clinicians available: 9am-5pm, M-F

Alcohol and Drug Information Service (ADIS)
Phone: 07 3837 5989
Free call: 1800 177 833
Available: 24/7 State-wide
Contact for details of AOD Clinics

SHADES Clinic
(Alcohol and Drug Ante-natal care)
SHADES Clinic Co-ordinator
Maternity Outpatients
Royal Brisbane Women's Hospital
Butterfield Street, Herston Qld 4029
Phone: 07 3647 3957
SHADES Clinic available each Monday

If SHADES unavailable, contact:
Nurse Unit Manager, Maternity Outpatients
RBWH
Phone: 07 3647 3962 (Business hours)

CHAMP Clinic
(Alcohol and Drug Ante-natal care)
CHAMP Co-ordinator
Mater Mother's Hospital
Raymond Terrace, South Brisbane, Qld 4101
Phone: 07 3163 2417
Email: champ@mater.org.au

Hospital Alcohol and Drug Service (HADS)
(Hospital inpatient withdrawal management service)
Royal Brisbane and Women's Hospital (RBWH)
Herston Qld 4029
Phone: 07 3646 8704 (available 24/7)
Fax: 07 3646 7772
If HADS unavailable, assistance can be obtained from:
Drug and Alcohol Brief Intervention Team (RBWH)
Phone: 07 3646 4692 (available: 8am-7pm daily)

Hepatitis B Vaccination
Queensland Health Immunisation Program
PO Box 2368, Fortitude Valley BC Qld 4006
Phone: 3328 9888
Fax: 3328 9720
(for provision of vaccines)
Vaccines are funded for specific groups including:
- ATSI people
- People with chronic liver disease and/or Hepatitis C
- Persons who inject drugs

Contact your local Public Health Unit for Information

Queensland Pharmacotherapy Advice and Mediation
Service (QPAMS)
Located at:
Queensland Injectors Health Network (QuIHN)
1 Hamilton Place, Bowen Hills Qld 4006
PO Box 2470 Fortitude Valley BC Qld 4006
Phone: 07 3620 8111
Free call: 1800 175 889
Fax: 07 3854 1070
Web: www.quivaa.org.au
Available for telephone advice/advocacy State-wide

Office of the Health Ombudsman (OHO)
GPO Box 1328, Brisbane Qld 4003
Phone: 133 646
Email: complaints@oho.qld.gov.au
Web: www.oho.qld.gov.au

11.16 Interstate contact list

New South Wales

Pharmaceutical Services

New South Wales Ministry of Health

73 Miller Street, NORTH SYDNEY, NSW 2060

Locked Mail Bag 961, NORTH SYDNEY, NSW 2059

Phone: 02 9424 5921

Fax: 02 9424 5885

Email : pharmserv@doh.health.nsw.gov.au

Victoria

Drugs and Poisons Unit

PO Box 1670N

Melbourne VIC 3001

Phone: 1800 888 236

Fax: 1300 360 830

Australian Capital Territory

Opiate Treatment Service

Alcohol and Other Drugs Program

Building 7

The Canberra Hospital

Palmer Street, GARRAN ACT 2605

Phone: 02 6205 0998

Fax: 02 6205 0997

Tasmania

Department of Community Health Services

GPO Box 125

Hobart, TAS 7000

Phone: 03 6230 7972

Fax: 03 6233 3905

South Australia

Drugs of Dependence Unit

South Australia Department of Health

PO Box 6, Rundle Mall,

Adelaide SA 5000

Phone: 1300 652 584

Fax: 1300 658 447

Email: onlineservices@health.sa.gov.au

Northern Territory

Chief Poisons Officer

Poisons Branch

Territory Health Services

PO Box 40596

Casuarina NT 0811

Phone: 08 8922 7341

Fax: 08 8922 7200

Western Australia

Health Department of Western Australia

PO Box 8172

Perth BC WA 6849

Phone: 08 9222 6812

Fax: 08 9222 2463

11.17 Quick Reference Guide – Prescribers

Day 1

- Take a detailed history, over more than one appointment if required (section 3.1).
- Make a diagnosis of opioid dependence (section 4.1).
- Choose an appropriate evidence-based treatment
  - For withdrawal management: buprenorphine (see Queensland Alcohol and Drug Withdrawal Clinical Practice Guidelines, 2012)
  - For maintenance: methadone or buprenorphine.
- Obtain informed consent, providing information regarding the effects and side effects of methadone (section 2.1.2) and buprenorphine (section 2.2.2).
- Confirm with MRQ (Phone: 137846) that the client is not concurrently registered with another OTP provider.
- Advise the client about the processes for their first dose of methadone (section 5.3.1) or buprenorphine (section 5.4.1). Unless the client is pregnant, breastfeeding or has an allergy to naloxone, it is recommended they commence the buprenorphine/naloxone product.
- Administer first dose, or inform an approved pharmacy of the initial dose.
- Methadone 5 - 20mg / 1 - 4mL (section 5.3.1 - table 4).
- Buprenorphine 4 - 8mg (section 5.4.1 - table 5) **(Note: Clear objective signs of withdrawal should be present before commencing buprenorphine).**
- Review 2 - 4 hours after initial dose (optional). For methadone clients, if objective withdrawal persists, up to 5mg/1mL methadone (to a total ≤ 30mg/6mL) may be ordered. For buprenorphine clients, if objective withdrawal persists without evidence of precipitated withdrawal (Section 5.4.4) then a further 2 - 6mg (to a total of 8mg) may be ordered.
- QOTP Admission Form to be sent to MRQ on the first day of dosing.

Day 2

The approach for methadone stabilisation is: start low and go slow.

The approach for buprenorphine stabilisation is: start low and go quickly.

- Review prior to second dose (section 5.6).
- **For methadone clients:** decrease the dose if there are no signs of withdrawal 24 hours after initial dose. Maintain the dose if the client was initially comfortable and not sedated but develops withdrawal prior to review. Increase the dose by 5mg/1mL if the client shows marked withdrawal and reports no suppression of withdrawal during the previous 24 hours. Maximum dose day 2 ≤ 35mg (section 5.3.2).
- **For buprenorphine clients:** decrease the dose only if there is evidence of significant sedation in the previous 24 hours. Maintain the dose if the client is comfortable at review. Increase the dose by 4 - 8mg if the client shows evident withdrawal. Maximum dose day 2 = 16mg (section 5.4.2).

Days 3 & 4

- Review daily prior to each dose (section 5.6).
- As above, maximum dose ≤ 40mg methadone; ≤ 24mg buprenorphine.
- Daily review is essential due to dose accumulation effects as the long half-lives result in increased effects even without increase in oral dose. (The effect is not unlike that seen in warfarin dosing).

Day 5 and ongoing

- If the above doses do not control withdrawal symptoms by day 5, consult with a medical addiction specialist or AOD service (section 11.15).
- Review weekly for 4 - 6 weeks and then fortnightly for a further 6 - 8 weeks (section 5.6).

Optimal dose

Increases in methadone to achieve the target dose should not exceed 5 - 10mg / 1 - 2mL at a time, with a maximum of 20mg/4mL per week. Physical assessment to exclude sedation should occur both before and after the increase.

- Target doses for effective maintenance are 60 - 120mg / 12 - 24mL methadone and 8 - 24mg buprenorphine.
- Buprenorphine clients should be expected to achieve 8mg or more during initial stabilisation.
- Methadone clients must be commenced on low initial doses, and only increased gradually.

Take-away doses

- Buprenorphine clients should be offered double dosing once stabilised (section 6.4.3).
- TADs should only be provided based on risk assessment rating and implementation of risk mitigation strategies (section 6.6).

11.18 Quick Reference Guide – Pharmacists

The pharmacist has a professional responsibility to ensure all staff (including locum pharmacists) are appropriately trained and informed regarding QOTP requirements.

When should a dose not be given?

- Stop dose
- Missed 3 or more consecutive doses (calculated as 3 daily dose equivalents)
- Safety concerns re sedation/intoxication
- Client requests replacement of lost or stolen dose
- Client requests replacement of vomited dose
- Post pharmacy overdose error and prescriber/clinic has not advised to resume dosing
- OTP medication order does not comply with legal requirements (e.g.; on PBS script)
- Written Instruction expired, incomplete or unclear
- No Written Instruction
- Third party requests dose (and is not an “authorized agent” for client)
- Client not scripted to dose that day
- Unable to verify identity of new client (when no photo sent from prescriber and client has no photo ID)
- Post hospital discharge and unable to confirm date of last dose in hospital
- Request for an additional takeaway dose by the client.

When should the pharmacist contact the prescriber/clinic?

- Missed dose (and restart after missed dose)
- Intoxication
- Vomited dose
- Suspected diversion
- Lost or stolen dose reported
- Inappropriate behaviour
- Suspicion of inappropriate use of other substances including over-the-counter and prescription medicines
- Client prescribed S4 or S8 medication from different prescriber
- Attending for dose on non-dosing day (e.g. was provided TAD for the day)
- Client advises of variation to Written Instruction
- Third party attends to collect dose (and not an “authorized agent” for client)
- Request for additional TADs
- Written Instruction - expired
- Written Instruction - incomplete, unclear or ambiguous order
- Unusual dose on Written Instruction
- Administration of incorrect dose
- Significant and concerning changes in client’s behaviour or general health
- Client discharged from hospital
- Pharmacy closures
- Client presents with a Written Instruction

- Client presents with a prescription for medication that has a significant interaction with OTP medication.

When can the pharmacist initiate resumption of dose?

- Client has missed 1 or 2 doses (daily dose equivalents), and
- Client has no evidence of intoxication when attends to restart dosing.

Management of issues when prescriber unavailable:

- Attempt to call prescriber – leave message identifying self, phone number, client name and issue.
- Follow Written Instruction (in situations where conflict between written order and client report).
- Refer client to GP or ED for any medical issues (e.g. concerns with substance withdrawals).
- QAS to be called for any medical emergencies (e.g. seizure, severe intoxication).
- QPS to be called to conduct a Welfare Check, when incorrect excess dose administered, and client cannot be contacted.
- Refer to pharmacist/client agreement for any client management issues.

11.19 Quick Reference Guide – Hospital staff

Supervised Consumption of Methadone and Buprenorphine

1. Has the latest dose from the community been confirmed?
2. Talk to the patient to establish that they are not currently alcohol or drug affected. (If the patient does not comply with step 1 or 2, contact the prescriber or seek advice.)
3. Check and confirm the dose.

Methadone syrup / liquid

4. Measure the does into a cup.
5. Observe the patient swallow the dose

Buprenorphine sublingual

Subutex® tablets (buprenorphine)

4. To moisten the mouth, instruct the patient to drink some water.
5. Break, not crush, the tablets into 2-3 pieces.
6. Give the pieces to the patient in a cup.
7. Watch the patient tip the pieces under the tongue and monitor at all times.
8. Remind the patient not to chew or swallow.
9. Allow the tablets to dissolve under the tongue.
10. Monitor until fully dissolved (approx. 3-5 minutes).

Suboxone® film (buprenorphine + naloxone)

4. To moisten the mouth, instruct the patient to drink some water.
5. Examine the patient's mouth for foreign objects.
6. Ask them to lift the tongue.
7. Ensure the patient has dry hands or use tongs.
8. Watch them place the film *under* the tongue, close to the base, on one side
9. Additional films go under the tongue or inside the cheek, do NOT OVERLAP
10. Observe until fully dissolved.

11. Ask them to drink some water.
12. Talk to the patient to ensure no drug is retained in the mouth.

11.20 Reference List

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