Prescribing Guidelines
Specialist Addiction Services

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Version	**Date**	**Comments / changes**
1.0	15/06/2011	Added section on intoxicated patients and missing prescription section
2.0	05/04/12	Added short opiate withdrawal scale and objective opiate withdrawal scale as appendices. Described their use in assessment.
3.0	25/03/2015	Minor revisions in light of new evidence and current practice
4.0	09/08/16	Title change, minor revisions in light of new evidence, changes due to changes in service coverage.
5.0	02/01/18 – 05/07/19	Minor changes, more information on DVLA referral, updated holiday guidance, inclusion of how the guidelines relate to primary care
6.0	17/01/2022	Added section on Buvidal & Espranor

PRESCRIBING GUIDELINES

Section 1 Introduction

Purpose and use of guidelines

These guidelines have been produced primarily for clinical staff in the ELFT Addiction Services with the aim of promoting a consistent, effective and safe level of prescribing practice across the service. These guidelines are based on best practice available and cover most common specialist prescribing situations. Clinical staff should also refer to national guidance and use clinical judgement in consultation with Consultants in some individual cases.

These guidelines should be read in conjunction with the following documents:

- *NICE Clinical Guideline 52: Drug misuse: opioid detoxification, July 2007 OR the most recent version.*
- *Drug Misuse and Dependence: UK Guidelines on clinical management, DH (2017) or the most recent version.*
- *Maudsley Prescribing Guidelines.*
- *BNF.*
- *Psychotropic drug directory.*
- *Medications in Recovery ("the Strang Report") – NTA (NHS) 2012*

How these guidelines relate to Primary Care and the role of the general practice in care.

- The content of these guidelines is intended for use in secondary care in the drug and alcohol service as a handbook. Patients should be registered with general practices and it is the duty of the prescribers in the drug and alcohol service to inform the patient's GP of any medication the service prescribes, the problems for which treatment is taking place, treatment plan, review plan and any other relevant information.
- SHARING CARE: In relation to opiate substitute prescribing then prescribing of those medications will remain with the drug service unless it is a shared care situation. Monitoring of prescribing will remain with the service, if there is a need for the GP to monitor something the service should write to request that monitoring according to agreed local procedures where appropriate.
- SERVICE ONLY DRUGS: There are drugs mentioned in this policy that cannot be prescribed in primary care so would remain with the drug service, drugs like lofexidine, diamorphine and methadone ampoules. Home Office approved prescribers would be needed in the service.
- There are drugs that can be prescribed in primary care but again if the drug service wants to move prescribing to primary care they must write to the GP to request it. But the drug must be prescribable in primary care in the particular area concerned.
- Local formularies used for NHS general practice normally have a traffic light approach, with medicines suitable for prescription and initiation in general practice, those suitable for shared care usually with agreed guidelines for this with initiation by specialists or GPs with specific training/qualifications, medicines for hospital/specialist prescription only and medicines not on formulary in the area. Unlicensed medications are normally not recommended for GP prescribing in adults. There are local differences in what can be prescribed in primary care and what is not allowed so the service needs to refer to local primary care formularies
- In cases where the service is acting in an advisory role – where the GP has asked then service to assess a specific problem in a patient and then feedback its findings and recommendations to the GP a discussion may be needed about whether prescribing is appropriate, or possible, in the context of local general practice and ELFT formularies and national guidance. Some drugs of dependency for which advice may be sought, are not on the ELFT drug service formulary.

Section 2 Opiate Substitute Prescribing Guidelines

Background and evidence base

- Addiction is complex condition that can take many years to overcome but recovery is possible
- In the UK there are about 2 million people who regularly use drugs, out of a population of about 40 million.
- Of these 2 million users about 250,000 experience problems and come into contact with treatment services.
- About half of these people use heroin.
- There is a wealth of evidence that shows that drug treatment works. Drug users who enter treatment have better outcomes in terms of mortality rates, offending behaviour, overdose risk, levels of drug use, spread of blood borne viruses and levels of contact with general and psychiatric hospital services.
- There are a number of studies and two NICE guidelines that support most of the treatment offered in the UK as being evidence-based and cost effective.
- Treatment involves both psychosocial interventions plus pharmacological interventions. Refer to the treatment model / psychosocial interventions work plan for guidance on interventions offered.
- One of the key features of opiate dependence is the strong compulsion to continue taking the drug despite clear evidence of harm (refer to ICD10 & DSM-IV for a fuller definition of dependence and addiction).
- The compulsion is driven by a desire to experience the pleasurable effects of the drug and eventually the need to prevent withdrawal symptoms caused by a lack of the drug.
- Withdrawals symptoms can be divided into two groups: psychological symptoms and physical symptoms. Examples of psychological symptoms would include craving for the drug and depression once the effects have worn off. Examples of physical symptoms include sweats, dilated pupils, aches and pains and gooseflesh. A list of the withdrawals associated with opiates follows later in the text.
- Drug users lives can become a cycle of activity that revolves around the acquisition and use of the drug of addiction (drug seeking / drug using behaviour)
- In the case of opiate addiction, it is possible to substitute abused heroin with another drug that will keep physical withdrawals at bay and break the drug using / seeking cycle.
- Substitution is not a treatment option in every illicit drug addiction.
- Psycho-social interventions are the treatment option of choice for psychological dependence / withdrawal without significant physiological symptoms.

Basic Principles of Substitute Opioid Prescribing (OST)

Before deciding whether to prescribe, the clinician should be clear as to the desired outcome. This could be to:

- Offer an opportunity to stabilise drug intake and lifestyle while breaking with illicit drug use and associated unhealthy risky behaviours.
- To engage the patient in order to maintain contact and offer an opportunity to work with the patient.
- Reduce or prevent withdrawal symptoms.[1]

A prescription for substitute medication should normally only be considered if:

- Opioids are being taken on a regular basis, usually daily.
- There is convincing evidence of current dependence (ICD-10 / DSM IV including objective signs of withdrawal symptoms wherever possible)
- The clinician is satisfied that the patient has the capacity to comply with the prescribing regimen.
- The patient is not receiving a prescription from another clinician.

- Ideally the patient is motivated to change at least some aspect of their drug misuse.[1]
- Other (non-opiate) treatment options have been discussed.
- the patient has been given information about the risks and benefits (informed consent)

Assessing Opiate Dependence

- It is not appropriate to undertake substitute prescribing of opioids in someone who is not opiate dependent.
- It is necessary therefore to conduct an assessment to determine whether a patient is taking opiates and to establish the presence and severity of opiate dependence.
- This should form part of a comprehensive assessment.

There are three components to such an assessment:

(1) History (including collateral history if possible)
(2) Physical examination
(3) Toxicological analysis

Opioid misuse history should include*:*

- Duration of opiate misuse
- Types and quantities of opiate drugs taken
- Frequency of misuse and routes of administration
- Cost of misuse and how funded
- Experience of overdose
- Periods of abstinence. If yes, duration and triggers for relapse, triggers for abstinence
- Previous treatment
- Symptoms experienced when unable to obtain opiates. Common symptoms of opioid withdrawal include:
    - Dysphoria
    - Anxiety
    - Insomnia
    - Nausea
    - Vomiting
    - Diarrhoea
    - Abdominal cramps
    - Muscle aches and pains
    - Fatigue

Physical examination should include:

Looking for signs of opiate misuse and complications thereof,

- Signs of intoxication
    - Sedation
    - Constricted ('pinpoint') pupils
    - Low blood pressure
    - Bradycardia
- Signs of withdrawal
    - Diaphoresis ('sweating')
    - Yawning
    - Restlessness
    - Irritability
    - Lachrymation ('runny eyes')
    - Dilated pupils
    - Rhinorrhoea ('runny nose')
    - Piloerection ('gooseflesh')

[1] Adapted from 'Drug misuse and dependence: UK guidelines on clinical management', Department of Health, 2007

    - Tachycardia (fast pulse)
    - Tachypnoea (fast breathing)
    - Raised blood pressure
    - Shivering
- Needle track marks
- Skin abscesses
- Cellulitis

There will also be an assessment of the patient's reports of the impact drug use has had on psychosocial functioning, forensic impact, psychiatric and medical impacts on the patients functioning. Any history of drug use, mental health problems or physical health problems in their family should be assessed. Pre-morbid functioning should be investigated and the patient's short-term and long term plans should also be assessed as these will help form the recovery plan.

Toxicology

- Collecting a urine or oral swab for drug screening is essential to confirm recent drug use prior to considering a diagnosis of opiate dependency.
- However, a positive test does not establish a diagnosis of dependency (one off use, false positive) nor does a negative test exclude it (tampering with urine, false negative).
- Urinalysis or saliva testing must be assessed as part of a fuller assessment and only provides an indication that a patient has come into contact with the substance being investigated within the time-frame of the test.
- It does not give an indication of amount or a precise indication of how recently the substance was used, two days or less for saliva testing, seven days or less for most substances in urinalysis).
- In most cases when assessing a new patient, it is highly desirable to conduct two screening tests separated by 3-7 days before considering prescribing an opioid substitute. In some cases, it may not be possible due to the urgency (for example a chaotic pregnant drug user) so prescribing will be based on a thorough assessment and a single screening test followed by a short script with the second screen done at the next appointment.

Diagnosing opiate dependence

- Following assessment, a diagnosis of opiate dependence should be made by reference to the ICD-10 / DSM IV criteria for dependence.
- This means that three or more of the following must have been present together at some time during the previous year:
    - A strong desire or sense of compulsion to take opiates.
    - Difficulties in controlling opiate-taking behaviour in terms of onset, termination, or levels of use.
    - A physiological withdrawal state when opiate has ceased or been reduced, as evidenced by opiate withdrawal signs and symptoms; or use of opiates with the intention of relieving or avoiding withdrawal symptoms.
    - Evidence of tolerance, such that increased doses of opiates are required in order to achieve effects originally produced by lower doses.
    - Progressive neglect of alternative pleasures or interests because of opiate use or increased amount of time necessary to obtain or take opiates.
    - Persisting with opiate use despite clear evidence of overtly harmful consequences.

Use the Short opiate withdrawal scale and the objective opiate withdrawal scale to assess the presence and severity of opiate withdrawal symptoms.

Choice of Opioid Substitute

- In the large majority of cases the choice will be between oral methadone 1mg/ml oral solution and buprenorphine sublingual tablets.
- The decision on any other form of substitute prescribing should only be made by the consultant psychiatrist responsible for the patient.

Methadone

What is it?

- Methadone is a synthetic opioid which acts by binding to μ-opioid receptors.
- It is an effective evidence-based medication used for the treatment of opiate dependence.
- It is prescribed as a substitute medication (OST) with the aim of reducing (and eventually replacing) non-prescribed opiate use and thus reducing the physical, psychological and social harm associated with it.
- Methadone can be prescribed for engagement and stabilisation, as a detoxification agent or for longer-term prescribing (maintenance), the choice of which will depend on the initial assessment and will be reviewed on an ongoing basis as treatment progresses.
- Methadone is an addictive drug and should only be prescribed for patients in whom opiate dependence has been established (as detailed earlier) and informed consent given.

How it behaves in the body

- Methadone has a long half-life generally, due to high fat solubility and slow metabolism, allowing for once daily dosing in opioid substitution regimes.
- Methadone is metabolised by the cytochrome P450 enzymes CYP3A4, CYP2B6 and CYP2D6, predominantly in the liver.
- However, there is significant individual variation which is though to be due to genetic variability in the production of the metabolic enzymes.
- Typical elimination half-life (the time taken for the concentration of a drug in the body fall to half its peak level) ranges from 15 to 60 hours with a mean of 22 hours.
- However, it can vary from as little as 4 hours up to 130 hours or even more.
- This is clinically relevant for individuals who are either “quick” or “slow” metabolisers of methadone.
- Patients who metabolise methadone rapidly may require split-daily dosing. Often this lowers the overall dose of methadone required.
- Patients who metabolise methadone slowly will be at an increased risk of overdose if their dosage is titrated up too rapidly; a dose that ‘holds’ them after week one may produce overdose after week or two due to build up of methadone in the body.
- Clinically this is significant as there are cases where patients are still unstable even though they were on “therapeutic doses” (usually 50 – 120 mgs) of methadone.
- To detect a fast or slow metaboliser of methadone would require careful clinical assessment and therapeutic drug monitoring.
- Methadone blood level measurement (or TDM) would be indicated in the case of a patient who was still unstable despite being on higher dose methadone and was a suspected fast metaboliser.
- The products of methadone metabolism are mainly excreted as non-active metabolites and about 10% as unchanged methadone, principally in the faeces and urine.
- Urinalysis is therefore useful in confirming whether methadone is being taken, but not the quantity/dose.

Drug interactions

- It is important to note that other medications can influence the expression of cytochrome P450 enzymes resulting in an alteration of the methadone half-life and the optimal dose.
- This is particularly important in practice when methadone is co-prescribed with rifampicin, some antiretrovirals (e.g. nevirapine and ritonavir) and antiepileptic drugs (phenytoin and carbamazepine) that induce these enzymes and thus accelerate the metabolism of methadone.
- In such cases the dose of methadone often needs to be increased, sometimes significantly.
- Particular care should be paid to compliance with, and cessation of, the co-prescribed medication as the dose of methadone will then need to be reduced again, often quite rapidly, to avoid overdose.

- The SSRI fluvoxamine (and, to a lesser extent, fluoxetine) reduce the rate of metabolism of methadone and so can lead to increased plasma levels. Over sedation should therefore be watched for if co-prescribing these medications with methadone.
- Appendix 1 of the BNF details other interactions with methadone.

Methadone oral solution

- Methadone is usually prescribed in the form of methadone hydrochloride 1mg/ml oral solution or mixture[2] which is intended to be taken orally.
- A decision to prescribe methadone in any other form should only be taken by the multidisciplinary team with the responsible consultant present.
- Methadone oral solution is available at higher concentrations including 5mg/ml (oral solution), 10mg/ml. (oral concentrate) and 20mg/ml (also oral concentrate).
- Use of these higher concentrations should generally be avoided due to the risk of prescribing and dispensing errors leading to a greater quantity of methadone being dispensed than intended and the accompanying risk of overdose.
- They are also less viscous than the 1mg/ml oral solution and therefore there is an increased risk of intravenous use.
- There is also a preparation of methadone called methadone linctus, licensed in the UK for the treatment of cough in terminal disease. It has a strength of 2mg/5ml and is rarely used in the treatment of opioid dependence.
- Methadone 1mg/ml oral solution is manufactured as a viscous green liquid.
- This form of methadone is sometimes called methadone DTF.
- It is difficult and inefficient to inject because of its volume and viscosity.
- Additionally, it contains an irritant in the form of chloroform which is painful if injected and causes venous damage.
- It is usually given a green colour to make it easily identifiable and difficult to mistake thus reducing the risk of accidental overdose.
- It is produced by a number of different manufacturers and the resulting medication can vary in colour, flavour and/or consistency.
- It is important to bear this in mind when patients report concerns about their dispensed methadone after changing pharmacy or when their pharmacist changes supplier.
- It was also common practice for community pharmacists to extemporaneously prepare their own methadone oral solution locally. This takes up less space in the pharmacy if they have large numbers of patients and saves on their costs. This is less common now

Why choose methadone?

- It is orally active – which means the patient does not have to inject it.
- It has a long half life, which enables once daily dosing.
- It is a full agonist - meaning when it hits the target receptors in the body it will mimic the effects of heroin and have a similar potency at the target receptor.
- It can provide relief for all the physical and psychological withdrawal symptoms associated with heroin.
- It has the best evidence base of all the current treatments for opiate dependence.
- Initiation, titration and stabilisation are all relatively straightforward, no need for a "washout" period.
- Licensed for use in pregnancy and due to its long history there is experience of its use in a wide range of other conditions, like epilepsy, psychosis, and asthma.
- It does not cause drowsiness if taken at the prescribed dosage as directed without any other sedative drugs.

However, there are some negative points associated with the use of methadone.

[2] Please note that oral solution is now preferred over mixture as a description as it is more specific. An oral solution contains active ingredient(s) dissolved in a suitable vehicle, while a mixture contains active ingredient(s) dissolved, suspended or dispersed in a suitable vehicle. While all oral solutions can be described as mixtures, not all types of mixtures are oral solutions.

- Like heroin it is lethal in overdose. As little as 20mg is enough to kill an opiate naïve adult, 5mg could kill a child.
- Unlike heroin, its long half life makes treatment of overdose with naloxone more challenging. Emergency departments need to give naloxone in a continuous IV infusion or repeatedly, instead of a single IV bolus. Naloxone has a half life of around 4 hours. If it is given in the overdose situation its effects will wear off before the effects of methadone. In practice this would mean that an overdose victim would be brought around with naloxone and then slip back into unconsciousness as the naloxone's effect wore off.
- Titration should be slow as the effects of methadone are cumulative ("it builds up in the body"). Patients may not understand the need for slow titration or starting at a low dose.
- It partitions into the body's fat tissue and this affects the titration process and the detoxification. Patients report that detoxing from methadone is a difficult process that they find harder than detoxing straight from heroin.
- It is a full agonist so if patient uses other respiratory depressants (like heroin, alcohol or benzodiazepines) on top of methadone there is a risk of additive respiratory depression that could result in overdose.
- Some patients experience side effects like constipation, sweats and sexual difficulties.
- Some patients report feeling "cloudy headed" on methadone.

These points need to be highlighted to new patients on methadone in the following manner.

Information for Patients starting on methadone

- Methadone is an opiate like heroin and will cause addiction; you will not be able to stop it suddenly without experiencing some withdrawal effects.
- When starting on methadone the first dose is low and it will increase gradually over the coming weeks until you are on a dose that stops you from withdrawing ("clucking") for at least 24 hours. Ideally it will last about 27-28 hours.
- When you want to stop it; it will give you a withdrawal syndrome (i.e.… you will "cluck") so it has to be done gradually.
- The withdrawal on methadone will feel more dragged out. This is because methadone will have stored in your body's fat and it will take about a week for those stores to empty. It does not effect your bones in any way.
- You must not give your methadone to anyone else. It can kill a person who is not a heroin user.
- Make sure your methadone is kept away from children. A 5ml spoonful of methadone (like the medicine spoons you get from the pharmacy) could kill a child.
- Side effects of methadone
- If 10 people took methadone 1 of them would feel sick or actually be sick (it's a very common side effect)
- If 10 people took methadone 1 of them might get one or more of the following symptoms (they are common). They are: Constipation, feeling dizzy, faint or sleepy and dry mouth.
- Other common effects include: fluid retention causing swollen feet or ankles, mood changes, vertigo (a spinning sensation), increased weight, eyesight problems blurred vision, small pupils), sweating, and skin rash.
- Other side effects that would affect 1 out of 100 people taking methadone are: decreased sexual desire, painful periods or no period, dizziness when standing up, itchiness or rashes and difficulty passing urine, lower back pain and abdominal pain due to muscle spasms.
- Your general aim should be to stop using heroin and other drugs like it and just use methadone. Once you have achieved that and your life is going how you want it to you and your recovery worker should discuss the possibility detoxifying from methadone if you feel ready for that.

Initial dosage and titration

- These guidelines apply to the prescription of methadone in an outpatient clinic where the client collects the methadone from a community pharmacy and monitoring at the clinic is conducted by appointments a few days apart.

- Induction of methadone in settings where closer monitoring available (e.g. a specialist inpatient unit or a clinic with on site dispensing and observation suites) can be in general be conducted more aggressively, with slightly higher starting doses and swifter titration. However, this is not covered here.

- The broad principles of induction into methadone treatment are:
  1. Start by prescribing an appropriate initial dose that minimises the risk of overdose whilst at the same time promoting the retention of the client in treatment.
  2. Titrate the dose up from this initial dose at a safe rate with the aim of reaching a dose that stops or minimises the use of non-prescribed opioids on top.
  3. These points can be summarised in the statement "start low and go slow"
- There is considerable research evidence that the first two weeks of methadone treatment is a time of increased risk of death due to methadone toxicity.
- This risk is greater in a client using other respiratory depressants such as alcohol and benzodiazepines.
- The prescriber therefore needs to balance the need to prescribe an appropriate and effective dose, thus promoting the retention of the patient in treatment, against the risk of overdose.

Risks during induction can be minimised by:
- careful initial assessment,
- identification of high-risk patients that require the closest monitoring,
- avoiding too high a starting dose,
- avoiding too rapid dose increases,
- frequent monitoring during induction,
- supervised consumption,
- Alerting patients and carers to the early signs of overdose.[3]

The initial dose
- Use of direct conversion tables for opioids and methadone should be avoided, particularly with street heroin use where the purity can vary between 20-60%[4].
- Even with opioids of known dose and purity there are a number of other factors that can affect the accuracy of any conversion.
- It is safer to start with a lower dose and titrate up appropriately.
- If the initial dose is too high this can result in overdose in the first few days, as cumulative toxicity develops.
- The critical factor in determining the initial dose of methadone is the degree of tolerance to opioids.
- A starting dose that would be safe in the majority of patients can become a toxic dose in individuals with low tolerance.
- There is no uniquely fatal dose of methadone and deaths have occurred following doses as low as 20mg[5].
- In the vast majority of cases an appropriate initial dose of methadone will be in the range 10-40mg, **although doses above 30mg should only be prescribed by an experienced clinician.**
- If tolerance is low or uncertain then the starting dose should be in the range of 10-20mg.
- For moderate tolerance an appropriate range for the starting dose is 20-30mg.
- Only in heavily dependent users with a high tolerance should an initial starting dose above 30mg be considered.

[3] Taken and adapted from 'Drug misuse and dependence: UK guidelines on clinical management', Department of Health, 2017

[4] 'Guidance for the use of methadone for the treatment of opioid dependence in primary care', Royal College of General Practitioners, 2005

[5] 'Drug misuse and dependence: UK guidelines on clinical management', Department of Health, 2017

- **It is important to remember that opioid withdrawal is not a life threatening condition whereas opioid toxicity is. If in doubt 'start low and go slow'.**

Titration

- At the start of treatment clients should attend frequently to allow appropriate titration of dose to occur.
- The aim of titration is to achieve 'stabilisation' on an optimal methadone dose.
- This is prior to either a subsequent detoxification or longer period of treatment.
- Stabilisation involves finding a suitable dose that keeps the patient engaged in treatment whilst minimising the on-top use of non-prescribed opioids.
- After stabilisation, the patient should feel comfortable for at least 24 hours with no subjective or objective withdrawal before doses and no sedation or euphoria after doses. Craving for illicit opiates should be reduced and the patient should be able to engage in non-drug related activities (rehabilitation)
- The patient would not be stable if they had to rush to the pharmacy to get their next dose before 24 hours.
- The aim is to enable the patient to put their dependence into the background and get on with tackling identified health, social or other goals.
- The large part of titration can be undertaken in two weeks. Final dose stabilisation may, however, take several weeks.
- Titration should initially be against opioid withdrawal symptoms and then subsequently against continuing on-top use of non-prescribed opioids.
- It is important to note that the dose of methadone that prevents objective and subjective signs and symptoms of withdrawal may be significantly lower that that which minimises on top use and promotes effective rehabilitation.
- Attempts to keep the dose minimal, leaving the patient with daily morning craving or disturbed sleep due to falling serum levels, are counter-productive.
- The effective dose range, that shows the greatest benefits for most patients, is between 60 and 120 mg daily. Doses between 30mg and 60mg will improve the patient's withdrawal symptoms but they may not prevent craving. Doses between 60mg and 120mg are more effective in stopping craving and above 100mg there should be close to 100% mu receptor occupancy which theoretically blocks any on top use
- Doses less than 60mg are generally considered to be sub-therapeutic; however some patients will insist that they stay on doses below 60mg and some do well on lower doses (refer to earlier discussion of individual differences).
- Doses greater than 120mg are sometimes necessary but should only be prescribed with the agreement of the responsible consultant.
- Because of the long half-life of methadone (as discussed above), titration should be cautious.
- With methadone, toxicity occurs several hours after exposure, and often after several days of treatment.
- It takes five half-lives, or 3–10 days, for patients on a stable dose of methadone to reach steady-state blood levels.
- The slower methadone is cleared, the longer it takes to reach steady state and the higher the steady state blood levels.
- During those 3–10 days, blood levels progressively rise even if patients remain on the same daily dose.
- A dose tolerated on day one may become a toxic dose on day three.
- Patients must therefore be carefully monitored and, if necessary, the dosage adjusted during the accumulation period.
- There are many factors affecting methadone metabolism and action, and most are not currently predictable on history and examination.
- This means that patients can have markedly different responses to the same dose of methadone and their responses can vary over time.
- Given the above caveats, titration should normally proceed in dose increments of 5-10mg with a few days between each increase.
- Generally, the overall weekly increment should not exceed 30mg.

Monitoring requirements

- Methadone may increase the QT interval and cause torsade de pointes which may result in sudden death from cardiac complications.
- Case reports indicate this risk is increased in patients on high dose methadone.
- Cocaine and other psychotropic drugs have also been found to increase the QT interval.
- The MHRA recommends that patients with the following risk factors are monitored for QT interval elongation by ECG monitoring.
    - Heart or liver disease
    - Electrolyte abnormalities
    - Concomitant treatment with drugs that inhibit cytochrome CYP 3A4 (drugs that increase methadone concentration in the body)
    - Concomitant treatment with drugs that also cause QT interval elongation
    - Any patient on more than 100mg methadone

Methadone tablets

- Prescription of methadone tablets (normally Physeptone[6] 5mg tablets) should generally be avoided although they may be useful and appropriate in a small number of cases.
- Client preference or the dislike of methadone solution is not appropriate indications.
- The reasons prescription of tablets is normally avoided include:
    - They are not licensed for the treatment of opioid dependence in the UK,
    - They can be crushed and injected,
    - They have a higher black market value as they can not be tampered with in the same way as methadone mixture.

- Any decision to prescribe methadone in tablet form should be taken by the multi-disciplinary team with the agreement of the responsible consultant and the reasons should be clearly documented in the notes.
- Situations in which the prescription of methadone tablets may be appropriate include:
    1. Clients who have been in receipt of long-term prescriptions for methadone tablets without evidence of diversion or injection.
    2. Clients being taken over from other prescribers, including private prescribers, and in receipt of prescriptions for methadone tablets. It may be appropriate to continue these following full assessment and discussion.
    3. For stable clients going on holiday where the quantity of methadone mixture necessary would be impractical or where there is a significant risk of leakage. Such clients should be low risk for injection or diversion. Airlines will not allow greater than 100mls of liquid to be carried onto aircraft as hand luggage so large volumes of methadone would have to be left in the cargo hold with all the inherent risks this involves.
    4. Clients who chronically experience nausea or vomiting after ingesting oral methadone solution, particularly if co-prescribed medication that makes this more likely, e.g. certain antiretrovirals. In this case consideration should be given to other strategies first such as,
        a. antiemetic medication to be taken prior to methadone solution
        b. alternative substitution treatment such as buprenorphine
        c. the use of more concentrated methadone solution (with care given to avoid the increased risk of prescribing and dispensing errors)

Injectable methadone

- Oral methadone or buprenorphine substitution treatment is the first line treatment for opioid dependency in the UK and is the appropriate option for the majority of patients requiring maintenance treatment.

[6] 'Physeptone' is sometimes used incorrectly as a synonym for methadone but correctly is a trade name of Martindale Pharmaceuticals that covers methadone prepared in mixture, tablet and injectable forms.

- However, there is a minority of patients who fail to make adequate progress and persist in regular illicit drug injecting behaviour, with all the concomitant risks, despite being on a fully optimised dose of opioid substitute treatment and having received a full range of non-pharmacological treatment inputs.
- In such patients a trial of injectable opioid maintenance treatment may be considered as a second-line treatment.
- The decision to initiate such treatment may only be taken by the responsible consultant psychiatrist with the backing of the multi-disciplinary team and it should be reviewed regularly by the consultant.
- Assessment of injecting sites, vascular viability and injecting technique are vital parts of an evaluation for suitability.
- Injectable methadone is only licensed for subcutaneous or intramuscular use; however, it is often prescribed off-license for intravenous users.
- If it is prescribed the consultant must get the patient's informed consent and record this in the notes and also complete the off-label / license use form in the back of the off label use policy.
- In 2003 the NTA published guidelines for the prescription of injectable diamorphine and methadone[7] and the Department of Health updated its guidelines for the treatment of drug misuse and dependence to reflect the NTA guidance in 2007[8] and in 2017.
- The NTA guidance document is extensive and should be consulted separately.
- Current guidance from the Department of Health guidance is that all prescriptions now initiated for injectable opioids should be supervised.
- This is clearly impractical outside of highly specialist clinics at the current time, however, patients should be informed that they may be called in to administer a dose in front of their key worker and ensure safe injecting technique and disposal of injecting equipment.
- The first dose should be supervised and taken on site observed by the prescriber.
- This is in order to ensure the patient has a good injection technique and is injecting in a safe site.

Eligibility criteria for consideration of injectable prescribing:

- The Client should have a protracted history (>3 years) of heroin dependence with regular daily injecting.
- Poor treatment outcomes despite at least six months of optimised oral maintenance treatment. Optimised oral treatment would be continuous treatment at a recognised effective dose with appropriate psycho-social inputs.
- The client should be age 18 or over.
- The client should be able to provide informed consent. This includes no active medical or psychiatric condition impairing the clients' capacity to provide informed consent.
- The client should be willing to comply with the conditions of injectable opiate treatment, including:
    - A treatment plan/contract (stipulating how long for, indications for switching back to oral, milestones that will indicate this strategy is working, review periods and due dates)
    - Close supervision and monitoring, including return of used ampoules to the pharmacy or clinic for counting
    - Avoidance of persistent injecting in high-risk areas (e.g. neck or groin veins)
    - Continuation of injectable treatment being conditional upon an objective response to treatment
    - Diversion of the prescribed drugs and double scripting being grounds for discontinuation of injectable treatment
- Continuing risks (i.e. transmission of HIV, HBV or HCV).
- Caution should be exercised in prescribing injectables to clients suffering from acute medical conditions and in clients with injection-related systemic infections.

[7] 'Injectable heroin (and injectable methadone), Potential roles in drug treatment. Full guidance report'. National Treatment Agency May 2003.

[8] 'Drug misuse and dependence: UK guidelines on clinical management'. Department of Health 2007.

- Caution should be exercised in clients abusing benzodiazepines and/or alcohol, and in multi-drug users.
- Caution should be exercised in pregnant drug users.[9]

Practical Considerations

1. Dose, concentration and volume

- Care must be taken when prescribing injectable methadone as ampoules are available in three different concentrations: 10mg/ml, 25mg/ml and 50mg/ml.
- These are also available in a range of volumes. The 10mg/ml concentration is commonly available as 1ml (10mg), 2ml (20mg), 3.5ml (35mg) and 5ml (50mg) ampoules. The 25mg/ml concentration generally comes in a 2ml (50mg) ampoule and the 50mg/ml concentration generally comes in a 1ml (50mg) ampoule.
- This means that dosing is not as flexible as with oral methadone solution.
- Additionally, achieving non-standard doses using a combination of ampoules increases the cost considerably, increases the risk of prescribing/dispensing errors and increases the difficulty of taking the medication.
- In practice a mixture of injectable methadone ampoules and oral methadone solution is often prescribed.
- This increases dosing flexibility, keeps costs down and allows for the possibility of supervising at least part of the total methadone dose.
- Thought should be given to the volume of the injection that the patient will be administering to themselves.
- There is widespread anecdotal evidence that the higher concentrations are more painful to inject and irritant / damaging to veins.[10]
- If a client is injecting subcutaneously or intramuscularly, dose and volume need to be considered. The volume of liquid being injected ideally should be minimised. Generally an IM or SC injection volume must not exceed 4mls.

2. Injecting Equipment

- The prescriber of injectable methadone must ensure that it is being administered in as safe a way as possible.
- A major component of this is ensuring that the client has access to appropriate and sufficient sterile (“clean”) injecting equipment.
- This may be supplied by a needle exchange, a community pharmacist or possibly by the prescribing service.
- The client should have access to sufficient sharps bins to dispose of the used ampoules and injecting equipment safely.
- They should be returning full bins for disposal. Additionally, for each injection, the client should have:
  1. A syringe of a larger volume than the volume of injectable being administered.
  2. A needle to draw up the injectable from the ampoule.
  3. A separate needle for the injection. (This is to avoid the risk of injecting with a needle that has been blunted in the process of drawing up from the ampoule). The type of needle used here will depend on the individual and the type (IM, IV or S/C) and site of injection. It is beyond the scope of this document to go into more detail but advice can be sought from senior BBV nurses and harm minimisation specialists at sites with a needle exchange.
  4. Alcohol wipes to clean the site prior to injection.

3. Community Pharmacist

- Not all pharmacists will be prepared to dispense injectables.
- Once a suitable community pharmacy is identified, good liaison with the pharmacist is essential prior to and during the prescription of injectable methadone.

[9] Taken and adapted from the Camden & Islington prescribing guidelines.
[10] Taken from ‘The Methadone Briefing’

- This is particularly true if the pharmacist is being asked to count returned, used ampoules.
- Due to the small number of patients on injectable methadone, the pharmacist will need to be given plenty of notice of any new prescription or change in a current prescription in order to source the medication.
- Occasionally, due to the vagaries of manufacturing and supply, a certain preparation may become unavailable for a period and it will be necessary to move to a different type of ampoule(s) or even to oral solution during this period.

Buprenorphine

Introduction

- Buprenorphine is a synthetic opioid which is a partial agonist at Mu opiate receptors in the brain.
- It has a very high affinity for the target receptors and sticks to the target receptors for a long time.
- Its affinity for the target receptors is higher than any other opiate / opioid. This means that if buprenorphine comes to a receptor and finds another opiate already there it will displace the other opiate drug and take its place.
- The high affinity also means that if buprenorphine is attached to a Mu receptor and another opiate based drug tries to take its place it will not be able to move the buprenorphine from the target receptor.
- Buprenorphine is a partial agonist and this means that when it hits the target Mu receptor it will not fully activate the receptor unlike the full agonists heroin and methadone which will. In other words, buprenorphine has a low intrinsic activity at the Mu receptor.
- Buprenorphine also dissociates from the target receptor very slowly and is very lipophilic (fat soluble). These features give rise to buprenorphine's long duration of action in the body.
- Buprenorphine has poor oral bioavailability

How it behaves in the body

- Buprenorphine has a long half life in the body for the reasons above so it can be taken once daily.
- It has poor oral bioavailability so if patients swallow the tablet it will be inactivated and have no effect. It is taken sub-lingually and the patient allows the tablet to dissolve under the tongue.
- It is a partial agonist so the subjective experience on the drug is different compared to the full agonist opiates like methadone and heroin. Patients describe feeling clear headed or "normal"
- If taken alone the drug is very safe, even in overdose. Unlike the full agonist opiates; it does not cause respiratory depression in overdose when taken alone as the plateau at which its maximal effect is reached is below the level at which toxic effects are seen.
- If it is injected or taken with other respiratory depressants, then the safety profile worsens.
- It is metabolised by the cytochrome p450 system in the liver.

Drug interactions

- Buprenorphine is metabolised by cytochrome P450 3A4 so any medication that induces or inhibits this enzyme could theoretically affect buprenorphine levels in the body.
- Some of the HIV anti-retrotroviral drugs induce this particular enzyme and other anti-HIV drugs inhibit it. Caution should be exercised if these drugs are added to an existing buprenorphine regime as they may destabilise a previously stable patient.
- There is an increased risk of overdose if buprenorphine is taken with other CNS depressants (like alcohol or benzodiazepines).
- If patients are on opiate drugs already adding buprenorphine could cause precipitated withdrawal. Patients requiring opiates for pain relief who are already on buprenorphine will need their treatment reviewed. See pain management section below.

Preparations available

- Buprenorphine is available as sub-lingual tablets in strengths of 8mg, 2mg and 0.4mg.
- There is also a combination sub-lingual tablet (Suboxone®) which has naloxone and buprenorphine.
- The naloxone is inactive orally and if it is taken as directed has no effect. But if the tablet is injected then the naloxone becomes active and blocks the activity of buprenorphine.
- Suboxone is available in the following combinations Buprenorphine 2mg / Naloxone 500mcg or Buprenorphine 8mg / Naloxone 2mg.
- Buprenorphine Oral Lyophillisate (Espranor) available in 2mg and 8mg. Has a different efficacy to the other oral versions and the dosages are NOT transferable or inter
- Long acting buprenorphine injection – Buvidal – see later.

Why choose buprenorphine?

- It is orally active (when taken sub-lingually)
- It is long acting enabling once daily dosing.
- It has a good safety profile compared to the full agonists when taken correctly and alone.
- Patients report feeling “clear headed” as if they were drug free.
- It is useful in younger patients, patients with short drug using histories or those planning abstinence in the near future.
- Patients report milder withdrawals when using buprenorphine for detoxification.
- Suboxone may be useful in patients where there is an injecting risk or in those patients who are new to treatment and supervision is not possible for the first three months. Suboxone may be of use if there is a diversion risk as anecdotally it has a lower black market value.
- Buprenorphine treatment should be offered to all patients at assessment as part of a menu of treatment options.

However, there are some negative points about buprenorphine

- Patients must be in subjective and objective withdrawal before starting treatment. Many patients struggle with this requirement.
- They need to wait until they have at least moderate withdrawals before starting otherwise they run the risk of precipitated withdrawal.
- Anecdotally buprenorphine induced opiate withdrawal can last several days and is often severe.
- Not all patients like the clarity they feel on buprenorphine.
- Pain management in buprenorphine maintained patients can be difficult.
- Buprenorphine is associated with liver toxicity. Hepatitis or hepatic events are more likely to occur in cases where the patient had pre-existing liver problems (hepatitis B or C infection deranged liver enzymes, treatment with other hepatotoxic agents or ongoing intravenous drug use. Issues range from mild asymptomatic elevations in liver enzymes to case reports of hepatic failure. To counter this all patients should have regular liver function tests, however it is not necessary to delay treatment until a test is done unless there is an indication of pre-existing liver problems (e.g. jaundice, known hepatitis infection past deranged liver enzyme results)
- In light of these points it is vital the patient is informed before they start buprenorphine. Below is a list of the key information the patient must have to be “informed.”

Information for buprenorphine patients

- Buprenorphine is an opiate like heroin – albeit a weaker one. It is addictive so you will not be able to just stop it. You will have to gradually reduce your dose of buprenorphine to zero.
- On the day you start on buprenorphine you will have to be in withdrawal (clucking). If you are switching to buprenorphine from heroin this will mean that you should not use heroin for at least 24 hours before you take the first tablet. If you are switching from methadone you need to have at least 48 hours (possibly more) between your last dose of methadone and the first dose of buprenorphine.

- In any case, when you take that first buprenorphine tablet you should feel sick. Sick enough that someone else saw you they would ask you if you are okay. If you are not, it will make you sick and the withdrawal (cluck) will last for a few days and there is no way to reverse it.
- Buprenorphine will feel different to heroin and methadone. Many people who take buprenorphine say they feel clear headed and “normal” on it.
- Common side effects seen with buprenorphine are: constipation, headache, weakness / loss of energy, drowsiness, nausea / vomiting, fainting and dizziness, sweating and orthostatic hypotension (postural hypotension – feeling lightheaded when you stand up)
- Other side effects seen with buprenorphine are: Respiratory depression (more common when taken with other depressant drugs like benzodiazepines and alcohol), hepatitis / hepatic events.

Initiation

- Buprenorphine poses less of an overdose risk so it is possible to increase the dose more aggressively than in the case of methadone
- The most important point is that the patient presents for their first dose with no other opiates in their body. They should be in observable withdrawal of at least moderate severity.
- Due to the risk of precipitated withdrawal it is wise to avoid starting buprenorphine on a Friday as if the patient has difficulties over the weekend the patient will not be able to get help from the service.
- Patients should be seen daily during the initiation for dose reviews and to ensure they are not experiencing problems.
- Patients transferring from heroin should have at least 12 hours between their last dose of heroin and their first dose of buprenorphine, in practice 18 to 24 hours should be enough.
- For example, tell the patient to have their last dose of heroin on a Sunday evening and present at the service on Monday morning – bear in mind they will be in withdrawal so this session should be focused and short. The aim is to ensure they are in withdrawal.
- Warn the patient that they may need to stay on site for an hour so they can be observed to ensure there are no problems.
- Patients transferring from methadone should have at least 24 hours between their last dose of methadone and their first dose of buprenorphine. If they can push it to well over 24 hours that would be better.
- An example would be to tell the patient to take their last dose of methadone on a Sunday morning and have no further opiates on that Sunday. They should then come to the service on Monday morning – bear in mind they may be in withdrawal so this session should be focused and short. Some clients need to wait longer than 24 hours to be clearly in withdrawal. Starting any earlier than 24 hours may risk precipitated withdrawal.
- Patients transferring from methadone should be down to 30mg daily before transferring. Higher doses will take longer to reach withdrawals and are more likely to end in precipitated withdrawal
- Patients transferring from heroin have more flexibility as it is short acting, but if they are using high amounts of heroin (2g or higher per day) and are injecting they may not be ready for buprenorphine as they may not appreciate the drop in potency They may need to reduce their use on their own before switching to buprenorphine, if that is possible.
- Take a urine sample from the patient and test it for methadone and opiates. If it is still positive for either of these drugs the patient may get precipitated withdrawals.
- The summary of product characteristics suggests taking a blood sample for liver function testing and hepatitis monitoring. Patients with deranged liver functioning or hepatitis may be at risk of accelerated liver toxicity as buprenorphine is hepatotoxic.
- Once the patient is in withdrawal start them on 4mg buprenorphine and prescribe another 4 mg to take away.
- Ideally observe the first dose for an hour, however if this is not possible tell the patient to return should they have any problems, if they have problems out of hours they should go to A&E or come to the service at the earliest opportunity.

Titration

- The patient should return to the service on day 2 for a dose review. As with methadone the aim is to prescribe enough buprenorphine to keep withdrawals at bay. If the patient is settled with no withdrawal features after day 1 they can continue on the dose prescribed in the first 24hrs. If they are not settled on day 2 the dose could be increased as high as 16mg, however most patients will go on 12mg on day 2.
- The patient should return on day 3 and have another dose review.
- The maximum dose is 32mg daily, but most patients settle on between 8mg and 24mg daily.
- The maximum daily dose for Suboxone is 24mg and there is no 0.4mg version.
- Obtain objective evidence of instability before prescribing above 24mg. Examples of evidence would be observed withdrawal symptoms, withdrawal scales and opiate positive urine screens.
- Patients will usually stabilise on a buprenorphine dose and then maintain for as long as they wish.
- When reducing the patient's buprenorphine, it is ok to make larger drops at the beginning (like 2mg at a time). Once the dose is down to 4mg daily slow down the detox and make smaller reductions (0.8mg-0.4mg at a time)

Prescribing and dispensing

- When prescribing buprenorphine ensure that the total number of tablets is written in words and figures and is in number of tablets (not milligrams). For example, it should read 7(seven) X 8mg tablets and not 56mg (fifty-six milligrams)
- When prescribing specify what strength tablets the patient should take to make up the dose. For example, if they are on 12mg daily then write "take one 8mg tablet and two 2mg tablets each day." This makes the instructions to the community pharmacist clear and avoids patients being sent back to the prescriber.
- The prescriber should make sure this is on the prescription. If not add it by hand and sign the addition.
- Most new patients will be supervised for the first three months of treatment. Check with the community pharmacist that they are happy to supervise buprenorphine.
- In general, only prescribe generic buprenorphine as there are reports that the branded version (Subutex) has a higher black market value. There are reasons why the branded version may be needed for example patient allergy to a generic brand or inability to source a particular generic brand.
- Suboxone is licensed for alternate day dosing. Buprenorphine is not but it is possible to double the daily dose and give it every other day instead of daily.

Buprenorphine Oral Lyophillisate (Espranor)

This version of buprenorphine is oral but dissolves on the tongue. the formulation dissolves faster than the normal tablet. Its bioavailability is different so the initiation and titration are also different. it is licenced in adults and adolescents from 15 and over.

It is useful in cases where there are reports of patients not taking it correctly, or where patients want a faster acting medication.

Initiation

- It has the same pre-requisites as other formulations in terms of need to be in withdrawal and not used any opiate agonists within at least 24 hours or more depending on the agonist.
- Starting dose is 2mg Espranor with the option to give as much as 6mg on day one.
- dose can be titrated up to a maximum of 18mg daily.
- there is an option to administer it less than daily so it can be given three times a week as long as the individual dosage on any given day does not exceed 18mg. So only viable for people on 6mg daily or less.
- detox is similar except there is no option for reduction less than 2mg, for smaller reductions the 0.4mg standard sublingual tablet will have to be used.

Long Acting Buprenorphine Depot Injection (Buvidal)

Buvidal is a prolonged-release injection of Buprenorphine. It is licensed for adults and young people 16 years +. It is administered in weekly or monthly subcutaneous injections at P2R when the service user attends for planned keyworking sessions

Differences between Buvidal and current OST options

Methadone, Sublingual Buprenorphine	**Buvidal**
Visits to local pharmacy for dispensing	No pharmacy visits, promoting independence
Risk of meeting other users at pharmacy	No regular meeting other users at pharmacy
Daily medication regime	No daily medication regime
Medication levels peak and trough	Medication levels stable
Risk of diversion	No risk of diversion
Risk of accidental ingestion	No risk of accidental ingestion

- Other potential advantages

- may save time: No short term changes to prescriptions (missed dose, changes to dispensing regime etc.)
- may enable easier holiday prescription management – no need to carry medication
- eliminates risk of lost prescription/ medication
- cost, may be neutral if previous regime was daily supervised

Inclusion / Exclusion Criteria

- Excluded for severe hepatic impairment, acute alcohol dependence
- Inclusion

- people with work or study commitments
- OST non-compliant
- infrequently attendance at the pharmacy
- requiring frequent re-titration
- continuing to use additional opioids on top of current treatment
- experiencing withdrawals before their next daily dose
- vulnerabilities

Initial decision

1	Clinical review by a Prescriber or New Start appointment
2	Buvidal indicated
3	Discussion between Prescriber and service user • Why a depot may be indicated (non-compliance, chaotic lifestyle etc.) • How a depot works differently (slow release, weekly/monthly) • Administration (subcutaneous injection, rotation of sites, healthcare professional only). Are they okay with injections. • side-effects (same as sublingual Buprenorphine +injecting site reactions) • Use of Alert card (e.g. if admitted to hospital, in emergency etc.) • how to present to receive initial injection (in withdrawal to avoid precipitated withdrawal, if buprenorphine naïve e.g. heroin at least 6 hours, methadone 24hours, Buprenorphine a day after last dose, and not necessary to be in withdrawal if on buprenorphine already)

Checklist prior to initiation

1 Information Booklet given
2 Patient Alert Care given
3 Precipitated withdrawal explained
4 Signed consent from patient
5 Ensure/order Buvidal stock

Initiation of treatment

People not previously exposed to Buprenorphine

- Start on oral buprenorphine as described in the prescribing policy. Titrate dose to a stabilising oral dose, maintain for 5 to 7 days and then switch to the equivalent Buvidal dose.
- In cases where there is a need to get Buvidal started quickly then prescribe and administer sublingual Buprenorphine 4 mg test dose and observed for one hour before first administration of weekly Buvidal to confirm tolerability to Buprenorphine.
- Recommended starting dose of Buvidal is 16 mg. With one or two additional 8 mg doses at least 1 day apart. To target dose of 24 mg or 32 mg during the first treatment week
- Recommended dose for the 2nd week is the total dose administered during 1st week.
- Monthly treatment can start once stabilised on weekly treatment (usually 4 weeks or more)

People switching from sublingual Buprenorphine to Buvidal

- May be switched directly to weekly or monthly Buvidal, starting on the day after the last daily Buprenorphine sublingual treatment dose.
- Closer monitoring of service user is recommended during dosing period after the switch
- Sublingual Buprenorphine daily treatment doses/recommended corresponding Buvidal weekly, monthly dose

Conversion chart from sub-lingual buprenorphine or buprenorphine oral lyophillisate (Espranor) to Buvidal weekly or monthly

Dose of daily sublingual Buprenorphine	Dose of weekly Buvidal	Dose of monthly Buvidal	Dose of Buprenorphine Lyophillisate	Weekly Buvidal Dose	Monthly Buvidal dose
2-6 mg	8mg	N/A	2-4mg	8mg	N/A
8-10 mg	16mg	64mg	6-8mg	16mg	64mg
12-16 mg	24mg	96mg	10-12mg	24mg	96mg
18-24 mg	32mg	128mg	14-18mg	32mg	128mg

*Note - dose of buprenorphine in mg can differ between sublingual products

Maintenance treatment and dose adjustment

- Buvidal can be administered weekly or monthly.
- Doses may be increased or decreased
- Service users can be switched between weekly and monthly products according to individual need and clinical judgement
- Following switching, ensure closer monitoring

Recommended dose conversion when switching from weekly to monthly dosing or from monthly to weekly dosing

Weekly dose of Buvidal	Monthly dose of Buvidal
16mg	64mg
24mg	96mg

32mg	128mg

Supplemental dosing
A maximum of one supplemental Buvidal 8 mg dose may be administered at an unscheduled visit between regular weekly and monthly doses, based on individual temporary needs.
The maximum dose per week for service users who are on weekly Buvidal treatment is 32 mg with an additional 8 mg dose.
The maximum dose per month for service users who are on monthly Buvidal treatment is 128 mg with an additional 8 mg dose.

Missed doses
To avoid missed doses, weekly dose may be administered up to 2 days before or after the weekly time point.
Monthly dose may be administered up to 1 week before or after the monthly time point.
If a dose is missed, the next dose should be administered as soon as practically possible.

Ending treatment
If Buvidal discontinued, prolonged-release characteristics/withdrawal symptoms must be considered
If switched to sublingual buprenorphine, this should be done 1 week after the last weekly dose or 1 month after the last monthly dose of Buvidal

Overdose
Symptoms: Respiratory depression, respiratory arrest and death. Preliminary symptoms: excessive sweating, somnolence, amblyopia, meiosis, hypotension, nausea, vomiting, speech disorders
Treatment: Emergency services, where Naloxone is recommended.

Administration
By qualified clinician
Signed off as competent by clinician due to administer and their supervisor
Method – refer to How to Inject Buvidal, User Guide

Diamorphine
Introduction

- Diamorphine is the pharmacological name for heroin. It is a pro-drug of morphine and is more fat soluble than morphine. It crosses the blood brain barrier after which it is converted to morphine. It is not orally active and must be injected in most of its clinical uses.
- It is available in the following forms: Injectable amps and powder for use in “reefers” (to be smoked).
- Its role in the treatment of addiction is controversial. It has been used for maintenance in a small minority of patients who have been unsuccessful in treatment with the other opioid substitute drugs. It is probably last line, i.e. may be useful if all else has failed.
- Failure being defined as effective doses of the other drugs having been tried for a reasonable period of time and there being no improvement in the patient’s condition. However, the drive from the NTA is to address the causes of failure of the oral/sub-lingual treatments (“optimised” methadone or buprenorphine)
- There are many implications of initiating an injectable diamorphine prescription for a patient. Bear in mind the evidence base is not that broad and the conclusions that can be drawn from the evidence are limited.
- The main implications are; it will require multiple doses per day (supervision will be difficult), it is the most expensive addiction treatment modality, patients will have to inject and must have viable safe venous access (this may not be realistic in long term heroin injectors) and the clinician must accept that injecting will continue for as long as the patient is on injectable diamorphine.

When to prescribe

- The NTA brought out guidance on injectable diamorphine and methadone called "Injectable heroin and methadone. Potential roles in treatment" in May 2003 and this provides good guidance on points to consider when contemplating prescribing injectable opiates.

Patients who go on an injectable prescription should meet the following criteria to be eligible:

- History of heroin dependence (>3 years) with regular daily injecting
- Aged 18 or over.
- Able to provide informed consent. They should not have any active medical or psychiatric illness that prevents this
- The patient is willing to comply with all the conditions of their treatment plan including:
    - Regular supervision and monitoring
    - not injecting in high risk areas
    - continuation of their treatment being conditional of an objective positive healthy response to treatment (including other treatment elements)
    - Acceptance that any diversion or double scripting with result in immediate discontinuation of injectable treatment.
- The client has received at least 6 months of optimised oral treatment and an associated package of care.
- There should be a persistence of poor treatment outcomes despite current optimised oral maintenance treatment. indicators of poor outcomes include:
    - Continued daily injecting of illicit heroin or other opioids.
    - Patients at continuing high risk of acquiring or transmitting HIV, HBV or HCV.
    - Continuing injecting related health problems (abscesses, cellulitis, systemic infections, DVTs), poor general health (attributable to continued chaotic drug use), poor psychosocial functioning and drug related criminality.
- There are a number of instances where caution must be exercised before initiating an injectable script. These include:
    - Patients with acute medical conditions, recent head injuries and the elderly.
    - Patients with injection related systemic infections.
    - Poly-drug users
    - Drug users who are dependent on alcohol and / or benzodiazepines
    - Pregnant drug users or those who become pregnant during treatment.
    - Patients with poor venous access in recognised "safe" sites.
- If the patient meets the above criteria then the individual may be considered for injectable diamorphine treatment.
- The decision then rests on whether or not the service has facilities and expertise in delivering and supervising this treatment and a cost-benefit evaluation in concert with the local commissioning/funding bodies
- Diamorphine can only be prescribed by a consultant physician with the appropriate license from the Department of Health.
- **At present ELFT Addiction Services do not have the facilities or budget for supervised diamorphine treatment and decisions to consider this treatment for any individual would have to be discussed with the clinical director and service manager.**
- See appendix 1 for details on how to prescribe.

Managing Opiate Withdrawal (non- opiate treatment options)

Lofexidine (Britlofex)
Introduction

- Lofexidine is a central alpha 2 adrenergic receptor agonist similar to clonidine but better tolerated (less hypotension and less sedation).
- It is a non-opioid and so it will **not** act as an opioid / opiate substitute.

- When an opiate user stops using opiates they experience physical withdrawals and psychological symptoms. The physical symptoms are short lived and potentially very uncomfortable but do not pose a risk to the individual affected.
- Lofexidine acts on these receptors and the doses are gradually tapered down to enable the supersensitive adrenergic receptors to return to their normal state.
- There is a strong evidence base for the alpha 2 adrenergic agonists in the treatment of opioid withdrawal.
- Lofexidine is an option if opiate detox of short treatment duration is desired.
- Some centres advocate its use at the end of a longer methadone or buprenorphine detoxification to cover physical withdrawal symptoms at the end of these programmes.
- Lofexidine does not have any impact on craving or psychological withdrawal symptoms.
- Because of this limitation, and since the introduction of buprenorphine, it is now used less frequently.
- However, many patients use it at the end of detoxification programmes. It can make the patient drowsy which some patients find helps them sleep whilst other patients dislike the "groggy" feeling it gives them

When to prescribe

- Lofexidine is prescribed when opioid use is reduced significantly or stopped to supress the opiate withdrawal syndrome
- It should not be used in pregnancy as there is no safety data.
- It can cause QT elongation so care is required in patients with cardiac disease or electrolyte imbalances. ECG monitoring should be considered based on the cardiac risk factors.
- Care is required if there is any history of cardiovascular disease, cerebrovascular disease or renal insufficiency.
- It can cause depression so care is required in patients suffering with depression already.
- Patients must be motivated and understand the differences between lofexidine and the opiate substitute drugs. They will experience some psychological withdrawal phenomena which lofexidine does not provide relief against.
- Lofexidine would suit low level heroin users, non poly-drug users and those with shorter drug and treatment histories requesting medically supported detox.
- Other medications may be required to alleviate opiate withdrawal symptoms that lofexidine does not cover (e.g. sleep disturbance, aches and pains)

How to prescribe

- Before starting lofexidine take the patient's baseline blood pressure.
- Patients on methadone should be on 20mg or less before starting lofexidine.
- Once treatment starts blood pressure should be monitored over the first few days.
- If there is a significant drop in BP (systolic is below 90mmHg or it has dropped 30mmHg below the baseline measurement) or the patient's pulse is below 55bpm lofexidine should be withheld.
- Treatment should be reviewed, the options being either to discontinue or to continue at a reduced dose
- The starting dose is 0.4 to 0.6mg daily in divided doses increased as required to control withdrawal symptoms in steps of 0.2 to 0.4mg daily up to a maximum of 2.4mg.
- The total daily dose is divided in two to four doses per day with a dose at bedtime to help offset insomnia.
- Treatment usually lasts 7 to 10 days followed by withdrawal of Lofexidine over the next 2 to 4 days.
- Treatment may take longer in some cases.
- Additional medication may be necessary for diarrhoea, nausea, stomach cramps and insomnia.
- If the patient relapses back into drug use they need to be reassessed and their treatment options reviewed.

- Counselling and advice associated with lofexidine – lofexidine may enhance the effects of CNS depressants and alcohol. Tricyclic antidepressants can reduce the efficacy of lofexidine.
- Warnings and side effects – Drowsiness, dry mouth, throat and nose, hypotension, bradycardia and rebound hypertension on withdrawal (hence the need for gradual withdrawal)

Other Medications used in detoxification / initiation

- Patients may have other symptoms whilst they are titrating up their dose or during the end stages of detoxification. There are a range of ancillary medications that can be used to help relieve these symptoms.
- Constipation can be treated with lactulose, senna, bisacodyl, ispaghula husk sachets or glycerine suppositories.
- Pain and fluctuating temperature can be treated with paracetamol and or ibuprofen (if there are no contraindications to NSAIDs)
- Stomach cramps can be treated with hyoscine butylbromide tablets.
- Nausea and vomiting can be treated with prochlorperazine tablets or the sublingual tablets
- Sleep difficulties can be alleviated with Valerian, promethazine or zopiclone or zolpidem. Avoid using benzodiazepine hypnotics as they are addictive. Z drugs are a last resort and should be used for short courses.

Moving from a supervised script to other modes of treatment

- Generally, patients will be on supervised consumption for the first three months of treatment.
- There are instances where patients may be able to come off supervised consumption sooner.
- In any situation the patient must be presented at the clinical meeting or discussed in supervision before they can come off supervision.
- Clients who have achieved or met the following standards will be eligible to move onto unsupervised treatment.
- Key workers must provide answers to the following points when they present a patient to the team or their supervisor or prescriber with the view of moving to unsupervised treatment.
    - The dose of methadone or buprenorphine is optimised and stable. (Indicators of unstable dose include regular on top heroin use, periods of withdrawal symptoms during the day and night especially if the patient is on 40mgs or less).
    - Changes in levels and patterns of illicit drug use and alcohol since start of treatment.
    - Recent drug screening results.
    - Compliance with other elements of the care plan e.g. attendance at appointments.
    - Compliance with supervised consumption (attendance, attempts to divert medicine or evade supervision).
    - Do patients understand the implications for coming off supervision and the impact it may have for him/her and others?
    - Do patients live with a partner or other people who use drugs and/or alcohol or are on methadone?
    - Is there any assurance that take home medicine will be stored safely?
    - Are there any children in the home environment and what steps have been taken to ensure they do not get the prescribed medication?
    - What risks do patients present with and do the risks management plans mitigate those risks?

- Key workers will normally present patients in the clinical meeting for the multi-disciplinary team or discuss the case in supervision with their line manager to decide whether or not patients remain on daily supervised consumption.
- The case will be to argue why the patient should remain on supervised consumption as opposed to arguing the case to take them off.

- If there are children present or a drug using partner who is not in treatment present in the home or the patient is street homeless / vulnerable the keyworker will need to present a plan to mitigate the risk otherwise the patient will have to remain in a supervised modality.
- The team's decision and its reasons will be documented in healthcare records.
- Key workers will explain the decision to patients.
- When the decision is to take off daily supervised consumption (or daily pick up), explain the following to patients:
    - Daily supervised consumption may be reinstated at any time based on clinical needs.
    - Safe storage of methadone and buprenorphine.
    - Patients must attend on the pick up days. If they miss pick up days, they will not get their medicine dispensed.
    - Use of measuring device provided by community pharmacist. Patients need to be aware these are not always accurate, especially after several washes
    - Safe storage of measuring device.
    - Risks of overdose
    - Consequences of diverting prescribed medicines.
    - Safeguarding children.
    - Patient responsibility for the safety of prescription and dispensed medicines.

Section 3. Special Situations

Patients attending intoxicated

- If a patient attends the unit intoxicated the action taken will depend on the time they are attending, what they have ingested and when they ingested it.
- In general, intoxicated patients should be seen in the front room or reception of the treatment centre as their behaviour can be unpredictable and could put other patients or members of staff at risk.
- However, in some cases the patient's intoxication is not apparent until they have been taken into a counselling room.
- In some cases, it may be necessary to see an intoxicated patient in which case the team should assess the risks before seeing the patient. It may be best to see the person with a colleague.
- Where available, alarms must be carried at all times.
- Always consider physical health issues that may present like intoxication e.g. hyperglycaemia / hypoglycaemia or head injury or recent seizure (post ictal).
- Getting a urine sample from the patient can help to differentiate between drug induced intoxication and other causes of intoxication. However, bear in mind that drugs remain in the urine for a number of days after they were last ingested.

Alcohol

If the patient appears intoxicated with alcohol (signs would include flushed skin, slurred speech, smell of alcohol and variable levels of consciousness) the points to note are:

- **When did they last have a drink?** If the patient drank a couple of hours ago they may actually be sobering up whereas if they drank 30 minutes ago they may get more intoxicated as time progresses.
- **Have they had any other central nervous system depressant drugs?** (Like heroin or methadone). If they have had something else, there is a risk of overdose. It would be unwise to add anything else and it may be necessary to call an ambulance. If they are due to have prescribed medication that day and they have not had it yet contact the pharmacist and either cancel it or ask them not to dispense before a given time.
- **What is their breath alcohol level?** The drink drive limit is 0.35mg/L breath alcohol (Breath Alcohol Concentration, BrAC) or 80mg/ml blood alcohol concentration (BAC) and is understood to be the level at which complicated tasks and reaction times are significantly affected by alcohol. In terms of clinical impact alcohol dependent patients can present quite lucid with a BrAC of 0.70mg/l. BrAC readings must be interpreted in conjunction with the patient's clinical presentation and a rough idea of when they had their last drink. Please also familiarise yourself with the units used e.g. mg/L, mcg/100mL on your breathalyser. Your breathalyser will either measure BrAC or BAC. Ensure you are aware of which one is measured.
- **Is this presentation out of the ordinary for that patient?** Some patients consistently present in an intoxicated state as their levels of dependence make it unsafe for them to not have any alcohol. In some cases, the patient always presents with a degree of intoxication. The clinician must decide if this is out of the ordinary for that particular patient. Patients known to have alcohol dependence should be routinely breathalysed to give the team an idea of a baseline breath alcohol level.

Courses of action

- If there is time and this is realistic the patient can be asked to come back later in a soberer state
- If there is no time the patient could be asked to attend the next day.
- The patient could be given a shorter prescription that starts the following day and asked to return for a review at a later date. This is the last resort if the first two options are not practical for a good reason

Opiates

If the patient is intoxicated with opiates signs would include sleepiness or drowsiness from which the patient is relatively easily roused, "pinned" (small) pupils, and there may be signs of recent drug use like fresh blood stains if they are an injector. Points to note:

- **When did they last use an opiate?** Peak effects would happen within the first hour post dose depending on the route of administration and the particular drug. The effects would start to wear off after about 90 minutes.
- **Is the opiate long acting?** If they have use a long acting opiate like methadone, then peak effects may take hours to appear.
- **Have they had prescribed medication yet?** If they have had illicit drugs plus their prescribed medication, then there is a risk of overdose. The effect may be delayed. Withholding the dose will not be an option. Check with the pharmacy that they have been collecting their medication. There may be some other reason for the intoxicated presentation.
- **Why did they feel the need to use before an appointment?** Are they finding they need to use something first thing in the morning in order to get through till they go to the pharmacy? Is the patient usually irritable and in withdrawal during your appointments? They may require a dose review or the facility to collect their medication before they attend (but bear in mind they may forget to attend if they have their prescription before their appointment).
- **Is this out of the ordinary for that patient?** Is there any plausible reason for a sudden change in presentation? Has something happened to destabilise a once stable patient, or is this a common occurrence?

Courses of action

If the patient is clearly intoxicated and due to have a prescribed medication that day that would make them more intoxicated, then the options are:

- They go away and come back in a more fit state, if there is no time that may mean returning the following day
- They omit the day's dose and get a prescription starting the next day – this is a last resort for cases when the first option is not possible.

In any case they will need a medical review as it may be that they are not held on the current dose

If the patient has already had prescribed medication and is also intoxicated the courses of action are:

- Assess for the risk of overdose. Look at what they've taken and when. Consider if their presentation is likely to worsen as time progresses. When is the maximal effect of the drugs taken likely to occur (this will be a rough estimate at best). Where are they planning to go and who will be with them for the rest of the day and overnight? It may be necessary to call for assistance if the assessment shows the risks to be high.
- Advise the patient against taking any other depressant drugs (opiates or alcohol) for the rest of the day and document this in their notes.
- Document the incident in their notes.
- If an ambulance is called make an entry on DATIX.

Other drugs

The action taken will depend on the drug and the effect that drug has. In general:

- If they have used a depressant drug like benzodiazepines, then do not add to this by giving them further CNS depressants. If possible, ask them to return when the effects have worn off. This may mean returning the next day. As a last resort they can omit the day's dose and get a script starting the next day, but it would be better practice to see them first.
- If they have used a stimulant they may not be in a fit state to have a meaningful discussion in which case, they should be asked to return when sober.

Procedure if a patient loses a prescription.

- Inform the patient of the seriousness of this matter, discuss double scripting concern. Document this in the patient's notes and on the prescription record card.
- Contact the patient's usual pharmacy and tell them you will be issuing a replacement prescription with the words "duplicate to replace a lost prescription" on it
- The patient must go to that pharmacy
- Ask the patient to bring the old prescription back if they find it.
- Inform the patient that prescriptions can be traced.
- The police will not issue a crime number for a missing prescription so there is no benefit in sending patients to the police. Some police forces have actually written to our drug services asking us not to refer people to them over missing medication or prescriptions as it is not a criminal matter
- If it is as regular occurrence the patients script may have to be sent to the pharmacy directly which will mean adjusting the patient's appointments to cater for this.

Holiday Prescriptions

- Patients should be told at the beginning of treatment that if they plan to go away they should not book anything until they have spoken to the service as it is not guaranteed that they will get a prescription. If they do book flights etc they may be forced to cancel or travel without medication if the service does not agree to give a prescription.
- Certain countries strictly prohibit all controlled drugs, prescribed or not. In those cases, due to the potentially serious consequences of bringing controlled drugs into those countries services will not prescribe medication to take into those countries. Patients who still want to travel to those countries will have to either detox or consider drug treatment in the country they are visiting
- Service users must give the prescribing service at least two weeks notice before a holiday prescription is considered.
- The patient should have a level of stability.
- Service users should not organise travel before they have checked with the service that they are likely to get a script.
- Ideally they will have moved off supervised consumption.
- They should have been in treatment for at least 3 months

Travel within the United Kingdom

- If the service user is travelling within the UK, the default position is that they would find a pharmacy local to where they are planning to visit and get a daily pick up from that pharmacy.
- Arranging a supervised prescription will be difficult as there are issues around payment for supervision.
- The service user must produce some evidence of travel (train or coach tickets, accommodation bookings).
- If they cannot produce evidence, then they should bring the address of the nearest pharmacy to where they are staying. If the service user does not know any local pharmacy details, then get the address they are staying at from them and search for a pharmacy near that address through the internet.
- Make contact with the pharmacy. Check that they are happy to dispense for the service user and if they are, inform them of the dates that the service user will be attending.

Travel Abroad

- If travelling abroad the ideal situation is for the client to be linked in with services in the country, they plan to visit and to continue treatment there. This can take time to arrange and is not applicable to every country in the world.
- The service user must attend with proof of travel. This will include flight tickets, accommodation bookings, e-tickets, confirmation of booking emails addressed to the patient or containing their name as the person travelling or visas.

- The case must be discussed in the multidisciplinary team meeting; individual keyworkers must not take the decisions around travel abroad alone.
- There are lists that detail which countries allow methadone to be brought in and those that do not. One website to check is www.indro-online.de/travreg.htm to see which countries will / will not allow medication to be brought in.
- If the country in question is not on this list the service user should contact the embassy of the country and the embassy staff will clarify what the position is.

There are two aspects. The first is getting methadone out of this country and the second is getting it into the country being visited.

- Current legislation states that if the service user is travelling with greater than three months supply of a schedule 1, 2, 3 or 4 controlled drug or they are travelling for longer than three months then they must have an export license to be able to leave the UK with that medication.
- They need to apply for this license from the Home Office at least ten days before they travel. The web address to get the application form from is:

  http://drugs.homeoffice.gov.uk/drugs-laws/licensing/personal

- If the country being visited has established opiate substitution programmes then make contact with the service nearest to where the service user is staying.
- Arrange for the service to provide the service user with either a prescription or their medication for the duration of their stay.
- Be aware that there may be language barriers as the service contacted may not speak English, the service may require some sort of identification of the service here (such as a letter on headed paper) as well as of the service user (such as a copy of their passport).
- All this will take some time to organise so service users must give at least two weeks notice.
- If it is not possible to arrange treatment abroad then the client may need to take medication from here with them.
- If the country does not allow opiates to be imported and does not provide treatment, then the service user should either detox or reconsider their holiday plans. Some of these countries have very severe penalties for importing medications that may be legal in the UK but are not in the particular country the service user is visiting.
- The keyworker and doctor must assess the risks involved in this option.
- Risks to be aware of include: the presence of children (less than 18 years of age) either as a travel companion or at the destination they are visiting (such as younger relatives etc), suicide risk, history of injecting tablets, history of diversion, travel with another drug user who is not in treatment, no proof of travel.
- If the service user is travelling with a non-drug user, then get permission to liaise with that person and engage them in the process.

Methadone mixture patients:

- They will either get the same version they get when resident or they may be switched to methadone tablets.
- Many airlines will not allow patients to travel with more than 100mls of liquid in their hand luggage. The patient will have to put large volumes of methadone in their main luggage in the cargo hold. The risk of damage to their bottles of methadone is greater so it may be necessary to give tablets to patient who will travel by plane.
- It will be easier in terms of travel and the risk of bottles being smashed to give tablets but if risks are identified then prescribe the mixture.
- Also consider the risk of medication falling into the wrong hands – a child could drink methadone mixture as it is sweet and has an interesting colour, they are less likely to take a whole tablet as it is not sweet or attractive
- The patient will still require an export license if they are travelling for a long time.
- The patient will need a covering letter in case they are stopped when entering the country, they are visiting.

Buprenorphine patients:

- Most clients will just take the same dose as they have been as a resident.
- Ideally the patient will be able to link in with a service in the country they are visiting.
- If it is possible to check, then contact the service in the country abroad and see if they have buprenorphine available there.
- It may be necessary to supply buprenorphine from the UK if buprenorphine is not available in the country the patient is travelling to.
- The patient will need a covering letter for the country they are visiting.
- They will also need an export license if they are travelling with a large quantity.
- It is the patient's duty to look after the medication once they have collected it from the pharmacy
- Consider switching to Suboxone, but remember the maximum dose is different with Suboxone.

Housebound patients / Unable to get to a Community Pharmacy

- In cases of housebound patients who cannot attend the clinic, regular keyworker reviews must still continue. It may be necessary to visit the patient at home if clinic visits are not possible.
- If home visits are necessary, then the trust's policy on home visits must be followed. In particular, two members of staff or if that's is not possible phoning the service before entering the patients premises and advising the clinic that you will phone them within a certain time frame (e.g. 30minutes), if not the worker has not called by a certain time then the clinic will phone them after a set amount of time (45 minutes for example)
- Prescriptions have to be prepared in advance of the visit. If it is necessary to change the dose, then once back at the clinic a new prescription should be generated and delivered to the pharmacy.
- In the case where the patient is unable to get to the pharmacy because of a confirmed and verified mobility issue such as being wheel chair bound then there is a range of options open to the service.
- The first step is to check the degree of incapacity. Has the patient been in touch with their GP, has a doctor from the addiction services verified the problem, are special measures in place to help them get to key working appointments at the service?
- Check with the pharmacy if it is possible to have controlled drugs delivered to the patient on a daily or less frequent basis. Most pharmacists do not offer this as an on going service and they may rely on mini cabs to deliver medications.
- Find out if they have any kind of home help or carers who are willing and able to be involved.
- It may be necessary to do a home visit or get feedback from an agency that has done a home visit to see what the patient's home situation is like.
- The risk assessment should take into account a number of issues including the presence of children in the home, the presence of other drug users in the home, vulnerability of the patient, past history of diversion and possession of a locked container in which to store medication.
- The service can give the patient daily pick up if they have somebody who can get them to the pharmacy or who can go to the pharmacy and collect the medication on the patient's behalf
- The service could give two or three-day pickup or a weekly pick up once the risks have been assessed.

Missed doses

If a patient misses doses at the pharmacy or does not attend an appointment at the service and is without a prescription for a number of days their treatment will need to be reviewed. The course of action depends on how long they have been without a prescription and what the patient did in that time to cope.

Patient misses one or two days

- If the patient has missed one or two days find out what happened over those missed days, why they missed, what drugs they used during that period and when they last used an illicit drug.
- If they have not had anything within the past 3 hours they can continue on the dose of medication they were on before.
- If they have recently used a drug which will interact with their prescribed medication the patient should be advised return to the unit once the illicit drugs have worn off.

Patient misses three or more days

- If the patient misses three or more days they will require a medical review. Either the keyworker interviews the patient and discusses the findings with a prescriber or the prescriber interviews the patient themselves.
- Whoever does the interview they must find out why the patient missed their medication, what they did to cope while they were without a prescription; did they use any illicit drugs during the break? If they did, then how much did they use and how? When did they last use? Does the patient appear intoxicated? Have they used alcohol or any prescription drugs during this period?
- If they did not use anything find out why and how. Was this a conscious decision to become drug free? Did the patient succeed and are they coping now?
- Ask the patient to give a urine sample and test it for opiates, methadone, and buprenorphine in particular, as well as any other drugs the patient usually uses. The result of this test will influence how treatment proceeds.
- If the patient has missed a number of days, reports that they have not used anything, they give an opiate and methadone negative urine then if the patient wants to re-start treatment then re-titrate the patient from a low dose. Increase the dose every 2-3 days until it is back to normal for that patient. (Buprenorphine can be titrated quicker.)
- Otherwise if the patient is well and symptom free and feels able to maintain abstinence then give the patient the option of not restarting treatment and treat any withdrawal symptoms the patient may experience.
- Refer the patient to any aftercare available and offer them continuing support in the form of relapse prevention appointments.
- Bear in mind that if patients have made a conscious decision to detox and remain abstinent their tolerance to illicit opiates will reduce over time. They must be warned that should they relapse the amount of opiates they were using prior to detox may cause them to overdose. They must not return to the same level of drug use they were using before they detoxed. Injecting drugs increases the risk so they should smoke in the beginning.
- **The majority of drug related deaths take place in people who have just left controlled environments where they were not using drugs (for example detox / rehab or prison)**
- **Add these patients' names to the teams High Risk Register** in order to keep track of their progress.
- Advise them that if they slip up or relapse to opiate use they should start with low doses and should smoke rather than inject.
- If the patient has missed a number of days and reports that they have been using illicit opiates, and other drugs, urine sample is opiate positive and their pupils are constricted then treatment can continue.
- It may be clinically necessary to reduce the patient's dose – for example if they were on a very high dose, or they were not in any withdrawals or one or more of the signs of recent drug use was not present.
- Dose reduction should only take place where there is a sound clinical reason. Dose reduction should never be used to punish patients for missing appointments or doses.

Over 65s

In general, elderly patients are less likely to get involved in illicit drug use and are more likely to become addicted to prescription drugs and /or alcohol. However, there is a growing population of drug users who live beyond the age of 65. Issues that would arise for the older

drug user include complications due to long term drug use, complications that arise from poly-pharmacy to treat other conditions and problems that arise from the normal aging process.

Complications of long term drug / alcohol use

Examples include

- Hepatic damage due to hepatitis B or C plus excessive alcohol use
- HIV infection with or without chemotherapy
- Chronic obstructive airways disease secondary to smoking (drugs, cigarettes or joints)
- Past cardiac valve destruction

Poly-pharmacy

- Risk of drug interaction with prescribed opiate substitution medications and medicines prescribed for other conditions.

Normal aging process

- Patients on opiate substitution programmes can develop diseases associated with old age. Points to note include:
- Impaired liver functions tests, impaired kidney function, diabetes, hypertension, impaired cognitive function and drug related neurological damage.
- It may be necessary to adjust the dose of the opiate substitute if the patient develops severe liver impairment.
- Buprenorphine is contra-indicated in severe hepatic impairment.
- Opiates have a prolonged effect and there is also increased cerebral sensitivity in moderate to severe renal impairment. So in cases of moderate to severe renal impairment it may be necessary to reduce any substitute medication.

Older people addicted to prescription drugs

- Older people may be referred to the service with an addiction to over the counter medications or prescription drugs such as pain killers.
- Treatment options will vary depending on the patient's motivation, goals and the drug in question.
- People in this group can present challenges in treatment as they often do not perceive their problem in the way their referrer or service does.
- In some cases, the risks of change may outweigh the benefits.

In cases of analgesic addiction, the prescribing options are:

- The patient reduces using the analgesic in question. If they are using a compound analgesic, like co-codamol (paracetamol & codeine), then it would be better to switch to an opiate alone.
- Switch to a simple opiate alone but note this is an unlicensed indication.
- Switch to an opiate substitute medication (methadone or buprenorphine). Many patients will reject the idea of methadone.

In any case any pain control needs will need to be addressed adequately, referral to a pain clinic may be indicated.

Older people addicted to anxiolytic / hypnotic drugs

Treatment options are:

- Detox the patient using the drug they are taking
- Switch to diazepam or oxazepam if there is hepatic impairment and reduce the dose gradually to zero.
- 5mg of diazepam is equivalent to 15mg oxazepam; dose regimes for oxazepam are usually four times a day. Oxazepam tablets come in 10mg and 15mg strengths. Usual doses in the older people would be around 20mg qds and reduce the size of each dose then the frequency.
- The risks of continued use must be weighed against the benefits of abstinence – including the patient's quality of life and functioning post detox.

End of life care

The aim of treatment in the end of life situation is to keep the patient as comfortable and symptom free as humanely possible. Key features will be on going pain relief and the use of other medications that will be prescribed to stop symptoms such as nausea, vomiting, excessive respiratory secretions and intractable cough. This section will deal with pain relief but clinicians should be aware that terminally ill patients may receive medications for these symptoms and others as their condition worsens.

Pain relief

- Patients already on an opiate may require extra pain relief.
- Patients suffering from pain due to a terminal illness must be referred to the Palliative Care team.
- There must be close working between addiction services and the palliative care services to ensure the patient's needs are met. Palliative care services may not be fully aware of the added dimensions substance abuse brings to the patients presentation.
- Advice on best practice for treating pain is available in a consensus statement from the Royal College of Psychiatrists, The British Pain Society, the Royal College of General Practitioners and the Advisory Council on the Misuse of Drugs entitled "Pain and substance misuse: improving the patient experience"
- First line analgesia will be non opioid analgesia if the pain is mild to moderate.
- If the patient requires stronger pain relief then treatment will depend on what the patient is on already.

Opioid Agonist

- If the patient is taking a full opioid agonist for the addiction treatment (such as methadone) then opioid pain relief is in addition to that prescribed for addiction. Ensure the patient's respiratory function is regularly monitored.
- Treatment is adding an opioid analgesic and titrating the dose of that until pain relief is achieved. Increasing the dose of the addiction treatment to compensate for pain requirements is another option but less favoured now.

Partial Opioid Agonist

- If the patient is taking a partial agonist (buprenorphine) then bear in mind that any opioid analgesia will have to overcome the blockade. This translates into high doses of the opiate analgesic.
- They may find that buprenorphine blocks any pain relief gained from the opioid analgesic. In which case it may be necessary to stop buprenorphine and transfer to a full agonist like methadone.

Opioid Antagonist

- If the patient is taking an opioid antagonist like naltrexone then the effects of any opioid analgesia will be blocked by naltrexone. Also with continued antagonist use there is up regulation of the body's opioid receptors (meaning they are more sensitive to opioids)
- Extra care will be needed when these patients start on opioid analgesia. They will either need to stop the naltrexone and gradually start the analgesic with a very low dose or if there is an urgent need then they will be given the opioid as a continuous infusion in an attempt to displace the naltrexone from the receptors (or to overcome the blockade).
- In both cases the patient will need continued observation to ensure the opioid does not cause toxicity.

Pain Relief

Drug users bring added dimensions to pain management. Opioid users may have a lower tolerance of pain coupled with a higher tolerance of opioid analgesic effects. Drug users are at a greater risk of encountering pain through their lifestyle. Alcohol use, depression and sleeping problems can all make pain and its treatment more problematic.

Acute Pain

- In mild to moderate pain non opioid analgesia is the first line treatment.
- For more severe pain opioid analgesia is indicated.
- The issues are the same as in the End of Life Section above regarding agonists, partial agonists and antagonists. If the patient is on a partial agonist or antagonist, they may have to change to a full agonist to treat their addiction to enable the use of an agonist drug in the treatment of their acute pain.
- If pain is severe another opioid is added to the existing opioid substitution therapy and the dose carefully titrated against the pain experienced by the patient.

Chronic Pain

- Clinicians should assess and rule out mood disorders or physical co-morbidity both of which could explain chronic pain.
- Patients with chronic pain will need referral to the pain team. If the patient is also seen by the pain team, there must be close partnership working between the pain team and addiction services.
- Non pharmacological interventions are another option; however, drug users have a low tolerance of these to achieve pain control.

Under 18s

Under 18-year-old substance users should be referred to the adolescent drug service. patient aged between 18 and 25 should be seen in accordance with the pathway in the operational policy.

Pregnancy and Breastfeeding

A proportion of drug using women will become pregnant during their drug treatment. These women will need referral to obstetric services for support around their pregnancy. The social impact of the pregnancy and the related issues the pregnancy causes are beyond the scope of this document. This focuses solely on the issues around prescribing medication for these women.

Continued drug use in pregnancy

Women who decide to continue to use illicit drugs need to be made aware that this carries some risk to their unborn child. The risks are broadly similar and not necessarily drug specific.

- Intrauterine growth retardation and increased rates of pre-term births contribute to increased rates of low birth weight and increased perinatal mortality.
- These outcomes are not due only to drug use, factors associated with socio-economic deprivation can also cause these outcomes.
- Higher rates of early pregnancy loss and third trimester placental abruptions appear to be major complications of maternal cocaine use. Increased rates of still birth, neonatal death and sudden infant death syndrome are found in cocaine abusers.
- Heroin users have higher rates of small for date babies and pre-term delivery.
- There appears to be no correlation between dose of maternal methadone and the severity of neonatal withdrawal syndrome.

General principles for prescribing in pregnancy

These principles apply to the treatment of addiction and psychiatric illness.

- Discuss contraception (or refer the patient to the BBV team) and the possibility of pregnancy with any woman of child bearing age – a lot of pregnancies are unplanned and many women who use drugs do not have regular menstrual cycles.
- Avoid using drugs that are contraindicated in pregnancy in women of childbearing age
- Always discuss the risk benefit of a treatment before starting.
- Always take into account the risk of relapse when discontinuing a drug. The risk associated with relapse to the mother and unborn child may be greater than the risk to the pregnancy associated with continued prescribed medication.

- If possible try to avoid all drugs in the first trimester, unless the woman is already established on a medication and stable. However, in the case of opiate dependence the risks associated with the mother continuing illicit drug use is far greater than the risks associated with taking prescribed opiate substitution treatment
- Use an established drug at the lowest effective dose.
- Avoid polypharmacy whenever possible.
- Be prepared to adjust doses as the pregnancy progresses as drug handling will change.
- Ensure adequate foetal screening during the pregnancy.
- Be aware of potential problem drugs around the time of delivery.
- Inform the obstetric team of drug use, including any psychotropic medications and any potential complications.
- Ensure the paediatricians are aware of potential neonatal withdrawal syndrome after birth.
- Ensure all decisions are documented.
- The names of all pregnant drug users in treatment must be added to the teams High Risk or Children's register. The keyworker must give an update (at least state no changes) at each team meeting so that the consultant and MDT are aware of the case and its progress.
- Pregnant status must be highlighted on the patient's drug chart / prescription record card so that the prescriber is aware of what they are signing when they sign the patient's prescription.

Prescribing for pregnant drug users

Substitute prescribing carries less risk than continued illicit drug use.

Opioids

- The preferred option is maintenance at the lowest dose that stops or at least minimises continued illicit dug use.
- During pregnancy some patients may find doses that held them before they became pregnant no longer hold them once they become pregnant. This is due to metabolic changes, hormonal changes, changes in the woman's volume of distribution and the presence of the foetus and placenta.
- Be alert to sudden destabilisation and/or unexplained methadone negative urine tests in female patients – pregnancy may be a cause.
- Patients may require a dose increase if the pregnancy results in increased methadone needs.
- Many women will request detoxification once they realise they are expecting.
- It is generally accepted that the risk of the woman becoming destabilised outweighs the benefits of detoxification.
- There is an increased risk of spontaneous abortion if the woman experiences withdrawals during the first trimester. **Avoid detoxing in the first trimester**
- Detoxification can be attempted during the second trimester. Small frequent reductions are preferable but stop if the woman becomes unstable. Detoxification should only be agreed in stable patients who are not using on top and are engaging well in treatment.
- **Avoid further reductions in the third trimester**. Even mild withdrawals in the expectant mother is associated with foetal stress, foetal distress and in extreme cases still birth.
- Methadone metabolism may increase during the third trimester so doses may need to increase or offer twice daily administration if that is a safe option.
- Reassure the expecting patient that neonatal withdrawal syndrome is difficult to predict, in terms of risk the risk of the patient becoming unstable is greater.
- Buprenorphine is not licensed for use in pregnancy but there are a number of cases where women stable on buprenorphine have given birth in the UK. There is also a lot of experience of buprenorphine in pregnancy abroad in countries where buprenorphine is the first line treatment like France and Finland.
- Research evidence shows no adverse effects on the pregnancy or the newborn child, the incidence of the neonatal withdrawal syndrome is similar to that associated with methadone.
- A pregnant woman who is stable on buprenorphine can remain on buprenorphine as long as she is informed of the risks and is in a position to make an informed choice.

- Information to give a woman who is on buprenorphine and becomes pregnant during her treatment is: buprenorphine is not licensed for use in pregnancy but has been used in pregnancy before. Research evidence suggests it is similar to methadone in terms of the harms it causes. Current advice is that women who are doing well on buprenorphine can stay on it during their pregnancy. However, there is still a possibility that the baby will experience some withdrawals once they are born. This risk is also present if the woman were to switch to methadone.

Cocaine

- There is no safe substitute prescribing option.
- Women who use cocaine must be advised to stop cocaine / crack cocaine use and supported in achieving abstinence.
- Cocaine, and especially crack are able to cross the placenta with ease and essentially accumulate in the foetus.
- Cocaine transfer appears to be greatest in the first and third trimester.
- Cocaine is a potent vasoconstrictor and causes constriction of uterine, placental and umbilical vessels. This can result in foetal deprivation of essential gaseous and nutrient exchange leading to foetal hypoxia.
- The overall result is possible intrauterine growth retardation.
- The relationship between cocaine use and congenital malformations is not established.
- There is a higher rate of early pregnancy loss associated with maternal cocaine use.
- Women who use cocaine should be offered psychological therapies to help them achieve abstinence.

Benzodiazepines

- Women who are dependent on benzodiazepines must be assessed to ensure they are truly dependent on benzodiazepines.
- Once that is confirmed they should be switched to diazepam and stabilised.
- The dose should then gradually reduce as long as this can be tolerated.
- Reduce at a rate of 2mg every two weeks, if there are any complications stop reducing and maintain the dose at the pre-complications dose.
- If she is also on methadone her dose of methadone should remain constant while she is detoxified from diazepam.
- The evidence of benzodiazepine induced major malformations and cleft palate is inconclusive. The first trimester may be a particular risk however the link between benzodiazepine use and the risk of cleft palate is unclear.
- Other potential problems reported in the literature include low birth weight, neonatal withdrawal, “floppy muscles” and breathing difficulties.
- These potential risks must be weighed against the risk of maternal seizures if the mother suddenly stops using benzodiazepines.

Alcohol

- Current NICE guidance is that pregnant women should avoid alcohol for the first three months of their pregnancy; if they choose to drink they should not drink more than 1-2 units of alcohol up to two times a week. They should not get drunk.
- Pregnant women who drink at hazardous and harmful levels put their unborn child at risk of foetal alcohol spectrum disorder.
- Foetal alcohol spectrum disorder is a life long condition and its symptoms include growth retardation, characteristic facial structure changes and central nervous system dysfunction.
- Pregnant women using alcohol should be offered brief or extended interventions to reduce their alcohol consumption completely or to low levels.
- If pharmacological interventions are required, the woman should be detoxed in an inpatient facility that has access to an obstetrician / obstetric services.
- Pregnant women who are alcohol dependent should never be advised to suddenly stop alcohol use because of the risk of severe withdrawal symptoms such as seizures and delirium.

Breastfeeding

General principles when prescribing to a breast feeding mother

- In each case the benefits of breast feeding to the mother and child must be weighed up against the risk of drug exposure to the child
- Premature infants and infants with hepatic, cardiac or renal impairment are at greater risk from exposure to drugs.
- The infant should be monitored for any specific adverse effects of the drugs as well as feeding patterns, growth and development.
- It is usually inappropriate to withhold therapy to allow breast feeding. Treatment of the maternal illness is the highest priority.
- Use the lowest effective dose wherever possible.
- Avoid polypharmacy.
- Time feeds to avoid peak drug levels in the milk or express milk at times when drug levels in the body are not at their peak – drug levels are usually at their lowest just before the next dose.

Below is general information on the impact of various addictive substances on the breastfed baby. The mother who intends to breastfeed needs to be aware of the implications of breastfeeding whilst using any of these drugs. In some cases, continued use of a particular drug is contraindicated in breastfeeding. If the mother is unable to stop using these drugs, then breast feeding may not be an option for her.

- **Alcohol**: Alcohol passes freely into breast milk. Moderate to heavy drinking can be harmful to the breastfeeding baby by interfering with the let-down and milk flow; it may inhibit the baby from drinking the milk because it affects the taste. It can make the baby drowsy, sleep deeply, and cause muscle weakness, this may lead to slow weight gain.
- **Caffeine:** Excessive caffeine consumption (over five mugs of coffee per day) may over stimulate the baby and cause it to be wakeful and fussy.
- **Nicotine:** If a mother smokes less than 20 cigarettes a day the risk to her baby from nicotine in the breast milk are small. Heavier smoking can reduce the mother's milk supply by affecting the let-down and milk flow. On rare occasions it can cause the baby to have sickness & diarrhoea.
- **Cannabis (Marijuana)**: The active ingredient in Marijuana is Tetrahydrocannabinol (THC); this is concentrated in human breast milk. Information is limited; one study has found that over exposure to cannabis through breast milk maybe associated with decreased movement development at age one year.
- **Amphetamine:** In small prescribed doses amphetamines are compatible with breastfeeding but when abused amphetamines accumulate in the breast milk.
- Symptoms in the baby include jitteriness, irritability and sleeplessness.
- **WOMEN ARE ADVISED NOT TO BREASTFEED THEIR BABY IF THEY ARE CHAOTICALLY USING AMPHETAMINES**
- **Heroin**: Heroin passes freely into breast milk. If taken in significant amounts it can cause addiction in the breastfeeding baby. When breastfeeding discontinues there is a possibility of the baby showing some minor withdrawal symptoms such as: irritability, tremors, high pitched scream and poor sleeping patterns. However, breastfeeding may help to reduce the degree of withdrawal suffered by the baby who has already been exposed to heroin in the womb.
- **Cocaine:** Cocaine passes into the breast milk in significant amounts and can cause intoxication in the breastfeeding baby. Symptoms can include irritability, vomiting, dilated pupils, tremors and increased breathing and heart rates.
- **WOMEN ARE ADVISED NOT TO BREASTFEED THEIR BABY IF THEY ARE USING COCAINE OR CRACK COCAINE.**
- **Opiate Substitutes:**
- **Methadone** is present in breast milk and is considered compatible with breastfeeding when the mother's dosage and drug use is stable. The dose should be kept as low as

possible. However, if the methadone dose needs to be high in order to maintain stability then the baby should be weaned off breast milk.

- **Buprenorphine** is present in breast milk and thought to be compatible with breast feeding.
- **Dihydrocodeine:** limited data available, changing to another opiate substitute may be appropriate. Dihydrocodeine is not licensed for the treatment of addiction.
- **Diamorphine** is compatible with breastfeeding when prescribed in safe doses.
- **Benzodiazepines:** Diazepam is secreted into the breast milk but is considered to be compatible if prescribed in small doses. High doses can cause drowsiness and loss of weight in the baby.

Co-morbid psychiatric illness

- **The drug service does not prescribe or initiate any medication for psychiatric illness.** It may be that the service detects a mental illness and in that case it should refer the patient to their GP who will then access mental health services if necessary. The service can detail any findings to help the process or make the referral to mental health services itself if necessary, but the GP must be informed.
- All the major psychiatric illnesses are associated with an increased risk for abuse or dependence on all the major drugs of abuse, the reverse also holds true.
- General guidance recommends close working between addiction services and psychiatric services to ensure this group of patients gets the support they need.
- Patients with co-morbidity have poorer prognosis and are associated with negative and complex factors such as higher rates of relapse, increased hospitalisation, higher rates of completed suicide, incarceration and housing instability.
- Research suggests the most common mental health issues are affective and anxiety disorders, followed by personality disorders.
- In terms of treatment of the co-morbid patient it depends on what the mental illness is in regards to whether or not to treat both the mental illness and the substance misuse concurrently. The degree of suffering the patient experiences and the impact it is having on their functioning are also important factors to bear in mind.
- There are cases where psychiatric symptoms abate with adequate addiction treatment and vice versa.
- If a patient reports any persistent psychiatric symptom or if the member of staff is concerned they should refer the patient to a psychiatrist for an assessment.
- Medications chosen to treat co-morbid patients must take into account the added risks associated with these patients.
- Avoid drugs known to be lethal in overdose (e.g. amitriptyline, dosulepin)
- Avoid drugs known to be cardiotoxic (like thioridazine) – if these patients are on methadone there is an added risk of cumulative toxicity. Many of the older antipsychotics can cause ECG changes that could lead to a cardiac arrhythmia. Methadone can cause these changes too. Refer to the Psychotropic Directory by Steven Bazire for information on which drugs are associated with which side effect, or the BNF.
- Avoid drugs with complex monitoring regimes unless there is no other option (drugs like clozapine and lithium). It is unlikely this group of patients will be able to comply with the strict monitoring requirements of these drugs increasing the risks associated with these drugs. The BNF gives information on the required monitoring for those drugs that need it
- Avoid prescribing medications with an addictive potential unless there is no other option (e.g. procyclidine)
- Be aware of the common side effects associated with psychotropic medications; avoid choosing drugs with poor side effect profiles (e.g. trifluoperazine, haloperidol, doselupin). Patients will sooner stop taking a medication than report they have a problem.
- Some psychotropics are contraindicated in certain populations (e.g. valproate and women of child bearing age). If it is necessary to prescribe a drug in a given population then ensure you give the appropriate advice and inform the patient of any precautions, they should take (for example a woman of child bearing age whose symptoms are only controlled by sodium valproate should be advised about adequate contraception and the risks associated with valproate and pregnancy.)

- Only prescribe drugs that are in the Trust formulary. If you choose drugs that are not on the formulary complete the form in the non formulary policy even if it is to be prescribed on a green FP10.
- Drugs of choice are: Risperidone and olanzapine for psychosis, mirtazapine and sertraline for depression (mirtazapine in cases where there is also insomnia, sertraline otherwise). NB. The NPSA cautions against the use of citalopram for patients on methadone because of the risk of QT interval prolongation. If the use of citalopram is unavoidable then discuss with a senior clinician first. Baseline and regular ECG monitoring will be required regardless of methadone dose and the client will need to be educated about risks of other QT prolonging medications or cardiac warning signs.
- Medications started by the addiction services for the treatment of a psychiatric disorder should be handed over to the patients GP for long term treatment with regular review from the addiction service.

Clinical Complexities
Patients diagnosed with Hepatitis B or C
Hepatitis B Virus (HBV)

- Patients with HBV have varied outcomes. Some develop clinical symptoms of acute hepatitis, some will develop jaundice and a minority are hospitalised.
- Incubation period (i.e. the time taken for clinical symptoms to appear) can range from 1 to 6 months.
- Treatments will not clear the virus but will convert some patients from the replicative phase (where the virus is multiplying and cause hepatocellular damage) to the non replicative phase.
- Treatment with peginterferon alfa-2a is an option as is treatment with some of the antiretroviral drugs.
- Chronic HBV infection can lead to cirrhosis of the liver and the development of hepatocellular cancer.
- All new patients starting treatment should be offered the HBV vaccine whether they inject or not.
- All HBV positive patients must be referred to the BBV team.

Hepatitis C Virus (HCV)

- Injecting drug use is a major route of transmission, but it can spread via sharing other drug using paraphernalia or sexually.
- Acute hepatitis C can present asymptotically but in some cases there is an acute self limiting illness with jaundice.
- There is no vaccine available for HCV, unlike HBV, however treatment is available.
- The minority of patients can clear the virus themselves; the majority will become chronically infected without treatment.
- Carriers of HCV are generally asymptomatic but in the long term HCV can lead to liver cirrhosis and hepatocellular cancer.
- All patients with HCV must be referred to the BBV team for assessment.
- Treatment is with pegylated interferon and ribavirin or newer anti-viral agents
- Methadone treatment is not a contraindication; however patients entering HCV treatment should be stable.
- Treatment with interferon has significant side effects which the patient must be made aware of before starting treatment. Psychiatric disorders, particularly depression can be problematic. Patients with depression prior to treatment may find their symptoms worsen.
- All interferon patients should be screened for depression during treatment. Antidepressants may be indicated.

Tuberculosis (TB)

- TB is becoming more prevalent, particularly amongst the hostel dwelling population, certain ethnic minorities and the homeless.

- Treatment is difficult due to the nature of the infection and can require six months or more to treat.
- Some of the medications used to treat TB can reduce the effectiveness of opiate substitution therapies meaning that doses may need to be titrated upwards while the patient is on anti TB medication.
- The main anti-TB drug of concern is rifampicin or any medication containing rifampicin.
- As a rule of thumb these interactions can take up to a week before clinical manifestations are observed. Once the drug is stopped the effect can remain for a matter of weeks.
- In the event of an interaction the dose of methadone should be increased until stability is achieved or withdrawal symptoms cease.
- The interaction between enzyme inducers and buprenorphine has not been studied, but the manufacturer advises caution when using rifampicin in buprenorphine patients.
- If patients on buprenorphine become unstable once they are started on rifampicin their dose should be gradually titrated upwards until stability is achieved again.
- It is very important patients on anti-TB drugs comply with treatment and complete the course. Otherwise they run the risk of developing resistance.

Human Immunodeficiency Virus (HIV)

- HIV infection is diagnosed with a blood test. There is no cure for the infection. Treatment is aimed at prolonging the patient's life expectancy.
- It takes three months from infection for the virus to become established and thus detectable.
- Acquired Immune Deficiency Syndrome (AIDS) is diagnosed on basis of an AIDS defining illness combined with a positive HIV result.
- The most common routes of transmission are sex and intravenous drug use. It can be transmitted from mother to baby during pregnancy, labour, birth and through breast feeding.
- Added risk factors that affect the drug using poly drug user are
    - Injecting heroin and crack cocaine together
    - Injecting into the groin
    - Homelessness.
- Treatment is initiated on the basis of the patients CD4 count, their plasma viral load and clinical presentation.
- Many of the drugs are toxic and interact with opiate substitution therapies.
- Doses of methadone and buprenorphine may need adjustment in the presence of some antiretroviral drugs.
- Any HIV positive patients should be referred to the BBV team. If they are not already engaging with one then the BBV team will link the patient in with one of the local HIV services. If extra support or advice is sought refer to the BBV team.

Asthma and COPD

- All patients should be asked whether they have asthma or any other variant of obstructive airways disease
- If they suffer from any condition associated with reversible airways obstruction enquire if they use medication to control the illness.
- Do they have medication with them? If they do record what this medication is in the patient's healthcare record.
- Theoretically opiates worsen asthma and the other related reversible airways diseases by causing the release of histamine. Histamine plays an important role in inflammation.
- This theoretical risk must be balanced against the benefits of treatment.
- Asthmatic patients in treatment will:
    - Be in touch with services
    - Have more stabilised drug use patterns
    - Be more able to stop smoking opiates.
- Smoking any drug will have a detrimental effect on reversible airways obstruction conditions.

Epilepsy

- Opiates do not have any anti-convulsant action.
- Opiates may cause seizures in overdose
- There are potential drug interactions between some anti-convulsant medications (carbamazepine, phenytoin and phenobarbitone). Refer to the interactions appendix in the BNF
- Stimulant drugs and cocaine can all lower seizure threshold. Also lack of sleep from taking these drugs, lack of food can also trigger seizures in people with epilepsy.
- Engaging with drug treatment should help epileptic drug users patients to:
    - stabilise any on top use
    - engage with general medical services
    - have regular review of their epilepsy treatment
    - Maintain supply of their anti-convulsant medication.
- Be aware the most common cause of seizures in non epileptic patients is alcohol withdrawal.

Homelessness

- Homelessness can range from people in unstable housing, to those who are staying with friends to those who are actually living on the streets.
- People in unstable housing face a number of challenges and are vulnerable. Homelessness is associated with poorer outcomes in terms of drug treatment.
- All patients in unstable housing should be referred to local housing services
- Many patients living in unstable conditions do not have a GP as they are unable to prove their address.
- Patients who cannot prove their address should be referred to the local transitional GP practice (one that specialises in providing GP care to the homeless).
- Homelessness patients can be prescribed in the same way as those who have an address.
- There may be scope for using supervised consumption longer and accessing pharmacies that open 7 days. These patients may not have somewhere safe to keep prescribed medication.
- This population is more susceptible to increased alcohol abuse, psychiatric illness, and physical illnesses, self-neglect and abuse so keep these risks under review.

Drugs and Driving

- Driving under the influence of illicit drugs carries the same penalties as driving under the influence of alcohol.
- Driving under the influence of prescribed drugs will invalidate the driver's insurance unless the driver has informed the DVLA in advance of the prescribed medication and the DVLA has received medical confirmation that the driver is fit to drive.
- Patients prescribed psychotropics who drive or possess a valid driving license must be informed that it is their duty to inform the DVLA.
- They must be informed that if they do not inform the DVLA then we are legally obliged to.
- The DVLA may suspend their license if they are told the patient is not medically fit to drive. In this case the patient would have to re-apply for their license again and possibly go through a driving test.
- Alternatively, patients can voluntarily surrender their license without stating why and re-instate it once they are no longer on a prescribed medication.
- In cases where patients drive heavy goods vehicles or members of the public it is the duty of the prescriber to inform the DVLA regardless whether the patient does so themselves.
- There is an email address on the medical section of the DVLA website where referrals by medical professionals can be made. The DVLA will usually respond within a month of contact. The DVLA will also accept telephone referrals

Section 4. Benzodiazepine prescribing guidelines

Introduction

- Benzodiazepines are a group of medications that act on the GABA receptor system in the brain (alcohol and the barbiturates act on the same receptor system). They are classed as central nervous system depressants. They have a wide range of physiological effects and uses.
- Their overall psychological effects are reducing anxiety and enabling sleep and are used clinically in a variety of disorders where there is either increased anxiety or insomnia.
- They increase the seizure threshold and so are also used in the treatment of epilepsy and in alcohol detoxification (to calm the nervous system and prevent seizures).
- Like alcohol and the barbiturates, they have an abuse potential but unlike these two drugs the benzodiazepines are not lethal in overdose when taken alone.
- They are useful in conditions were short term anxiety or insomnia is affecting the patient's quality of life and performance but the benefits are short lived and outweighed by the risks.

Indications for use:

- The benzodiazepines have a variety of clinical uses. These include:
    - Anxiety
    - Insomnia
    - Epilepsy (including status epilepticus and myoclonus)
    - Alcohol withdrawal
    - Pre-operative sedation and use in intensive care.
- In the majority of situations where benzodiazepines are prescribed they are prescribed for short periods (4 weeks or less) to over come a difficult short term situation or for short periods until less addictive medication is introduced.
- The rationale for only short courses of treatment is the addictive potential of the benzodiazepines and the risks associated with sudden withdrawal if the patient has been on them long term.
- In the drug using population the benzodiazepines are often abused. In some cases, the abuse will have a long history to the extent that it is no longer safe for the patient to stop suddenly.
- Most patients presenting to Specialist Addiction Services will either be on a prescribed benzodiazepine from their GP or buying them illegally. More recently benzodiazepines have been available without a prescription over the internet.
- In the drug using patient group benzodiazepine use is often associated with attempts to increase the effects of heroin, or to alleviate the withdrawal systems from other drugs and alcohol or to block out emotionally painful thoughts. Most drug users will have underlying anxiety problems as a result of drug abuse.
- These drugs are highly addictive and may add to the patient's addiction problems.
- They can be difficult to stop even with appropriate withdrawal programmes. Therefore, their use must be limited**.**
- Long-term use results in increased tolerance.
- Detoxification after prolonged use can result in the return of the original psychological symptoms or problems and insomnia often occurs.
- Benzodiazepines also significantly contribute to drug-related deaths, because of the additional sedative effects in conjunction with other sedative drugs (e.g. heroin, methadone or alcohol.)
- Behavioural effects of benzodiazepines include – possible dis-inhibition, amnesia and paradoxical reactions. If the patient uses other depressant drugs or alcohol they are at greater risk of overdose.

When to prescribe

- Patients referred to the service by a GP or another prescriber who has been prescribing a benzodiazepine drug and has confirmed by letter/communication and drug testing (urine or saliva).

- The patient is prescribed a benzodiazepine for a legitimate medical condition (this treatment and prescribing should be transferred to Primary Care as soon as possible)
- The patient has been prescribed a benzodiazepine for a documented pre-existing anxiety disorder where this is still considered to be the best effective treatment and other psychotropic options have been excluded
- If the patient is benzodiazepine dependent (ICD-10, DSM IV) and has confirmed significant withdrawal symptoms.
- Benzodiazepine dependent patients who have a clear history of being unable to cease benzodiazepine use without a pharmacological intervention.
- The multidisciplinary team will reach the decision to prescribe based on:
    - repeated positive urinalysis results or saliva test results
    - evidence of dependence (history and or rating scales)
    - MDT discussion,
    - patient's inability to reduce dose safely on their own,
    - evidence of current regular use,
    - reasonable evidence of severe withdrawal symptoms,
    - concurrent medical conditions,
    - Taking over an existing prescription from another prescriber.
- Refer to Orange guidelines for further information

How to Prescribe

- Once a thorough assessment has been completed switch to diazepam, unless the patient is already on diazepam.

Commonly used benzodiazepines and their diazepam equivalent doses

Generic name	Approximate half-life in hours (metabolites also likely to be active)	Dose equivalent to 5mg Diazepam (approximate)
Diazepam	43	5mg
Chlordiazepoxide	10	15mg
Lorazepam	14	500 mcg
Nitrazepam	26	5mg
Alprazolam	12	250 mcg
Oxazepam	8	15mg
Flurazepam	74	15mg
Temazepam	11	10mg
Clobazam		10mg
Clonazepam	23	250 mcg

- Diazepam is the drug of choice for detoxifications because it is long acting, which makes for a more stable blood level and also allows once daily administration and it comes in tablet strengths that make reductions easier to manage (2mg, 5mg and 10mg)
- The maximum start dose is 40mg for patients that are starting treatment at the addiction services but many will start on less.
- Patients reporting higher levels of use need to work their way down to this if they are using illicit benzodiazepines.
- If the prescription is taken over from another prescriber continue on the dose that the previous prescriber had them on if there is good evidence they have been compliant with his dose.
- All patients prescribed benzodiazepines must start on the understanding that they will detoxify from and stop benzodiazepine use. This means their dose will continually reduce until they reach zero.
- Set out, and preferably agree, a reduction rate (i.e. how large individual drops will be and how often). Initially take bigger drops weekly (or more frequently) and as the dose gets lower reduce size of drops and frequency. Review and preferably agree the rate of reduction regularly.
- If there are complications plateau at that dose or increase the dose to the pre-complication level and then increase the length of time between reductions.

- Use a recognised benzodiazepine withdrawal scale (below) to guide the detoxification.

Summary and points to bear in mind

- See the algorithm at the end of this section for a summary of the process.
- Complications that can arise include seizures, psychotic symptoms, increased anxiety and insomnia.
- Benzodiazepine induced seizures appear to be relatively rare. Alcohol related seizures are more common.
- If patients report benzodiazepine induced seizures, ensure the possibility of alcohol use is excluded.
- Be aware of alcohol users who suddenly manage to cease alcohol use almost over night. These patients often use benzodiazepines to get through alcohol withdrawal states.
- Similarly beware if patients originally resistant to change suddenly accept change, they may be buying illicit benzodiazepines.
- When prescribing benzodiazepines specify the tablet strengths required on the prescription. **The 10mg strength has the highest black market value so do not prescribe this strength tablet.**
- Diazepam can be prescribed on a blue FP10, thereby allowing daily pick up of medication. Daily collection should be the starting point. If there are serious concerns supervision or twice daily administration may be considered if feasible with the pharmacist. This will have a cost implications which the prescriber must take into account
- The patient should make sure the time between their methadone / buprenorphine and diazepam is maximal to avoid over-sedation. If they have their opiate in the morning then it is best to take diazepam at night.
- Benzodiazepines are potentially lethal if taken with other central nervous system depressants (like opiates and alcohol).
- Take regular urine tests and /or saliva tests to ensure the patient is taking a benzodiazepine. If there is a suspicion that the patient is not complying review treatment.
- If more in depth information is required refer to Psychotropic Drug Directory (Bazire), Maudsley Prescribing Guidelines, BNF, DoH Orange guidelines, Essential Psychopharmacology or any psychopharmacology text.

Benzodiazepine Withdrawal Scale

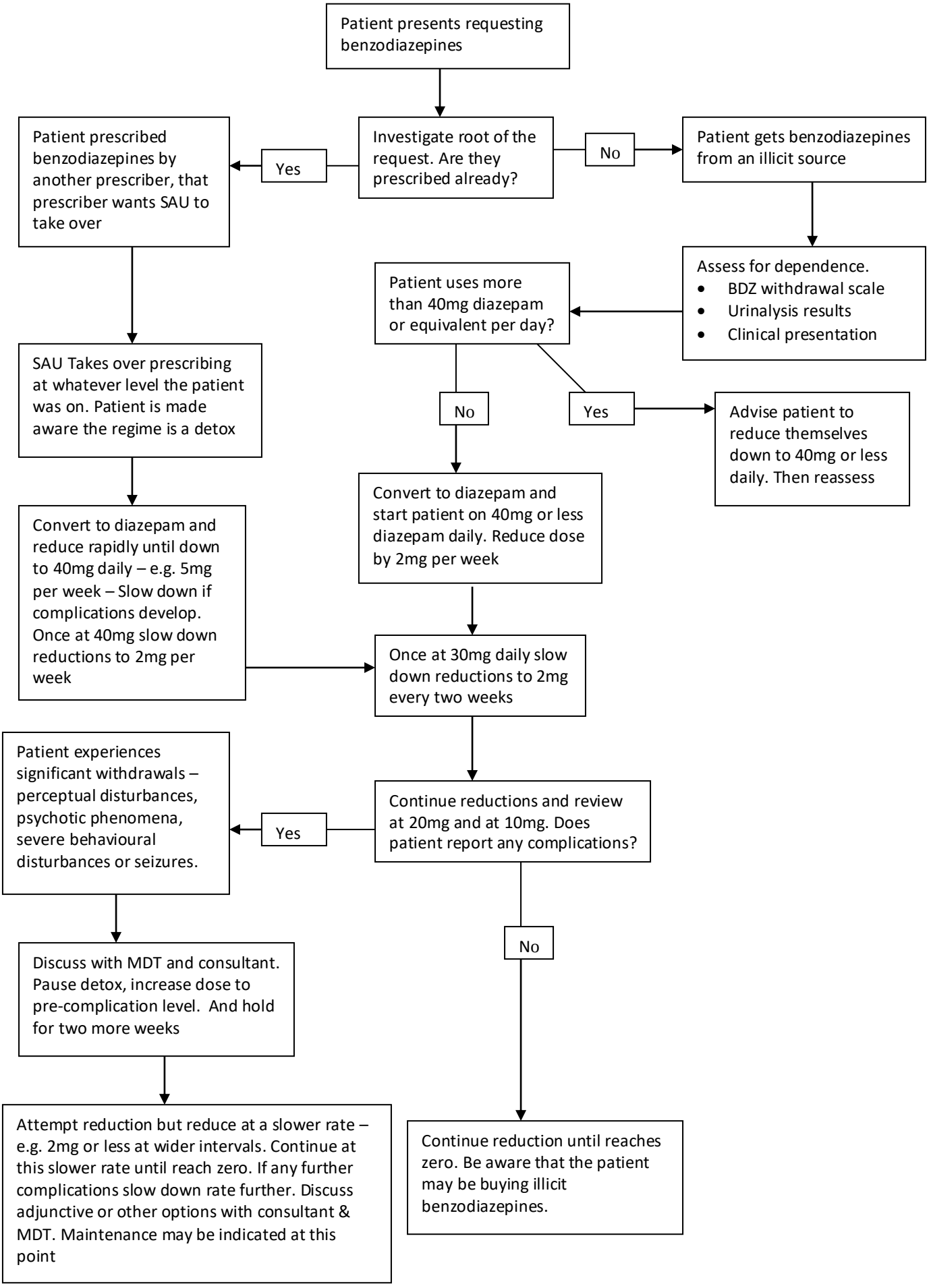
1 – Represents discomfort or experience of particular symptom.
10 – Represents unbearable experience of the symptom noted.

Symptoms	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Anxiety Symptoms										
Anxiety										
**Sweating										
** Nausea										
Headache										
Insomnia										
**Blood pressure high										
**Pulse high										
**Resps high										
Disordered Perceptions										
Feelings of unreality										
Abnormal body sensations										
Abnormal sensation of movement										
Hypersensitivity of stimuli										
Major Complications										
Psychosis										
Epileptic Seizure										

Interpreting scores and relevant actions
Anxiety symptoms
Review speed of dose reduction and/or add adjunctive psychological or behavioural techniques

Disordered perceptions
Psychiatric assessment needed

Major complications
Psychiatric assessment / treat symptoms


Patient presents requesting benzodiazepines
Investigate root of the request. Are they prescribed already?
Yes
Patient prescribed benzodiazepines by another prescriber, that prescriber wants SAU to take over
SAU Takes over prescribing at whatever level the patient was on. Patient is made aware the regime is a detox
Convert to diazepam and reduce rapidly until down to 40mg daily – e.g. 5mg per week – Slow down if complications develop. Once at 40mg slow down reductions to 2mg per week
No
Patient gets benzodiazepines from an illicit source
Assess for dependence.
BDZ withdrawal scale
Urinalysis results
Clinical presentation
Patient uses more than 40mg diazepam or equivalent per day?
Yes
Advise patient to reduce themselves down to 40mg or less daily. Then reassess
No
Convert to diazepam and start patient on 40mg or less diazepam daily. Reduce dose by 2mg per week
Once at 30mg daily slow down reductions to 2mg every two weeks
Continue reductions and review at 20mg and at 10mg. Does patient report any complications?
Yes
Patient experiences significant withdrawals – perceptual disturbances, psychotic phenomena, severe behavioural disturbances or seizures.
Discuss with MDT and consultant. Pause detox, increase dose to pre-complication level. And hold for two more weeks
Attempt reduction but reduce at a slower rate – e.g. 2mg or less at wider intervals. Continue at this slower rate until reach zero. If any further complications slow down rate further. Discuss adjunctive or other options with consultant & MDT. Maintenance may be indicated at this point
No
Continue reduction until reaches zero. Be aware that the patient may be buying illicit benzodiazepines.

Section 5. Alcohol detoxification guidelines
Refer to community alcohol detox policy and also in patient alcohol detox policy

Section 6. Other Medications

Naloxone (and Nyxoid)
Naloxone blocks or reverses the effects of opioid medication, including extreme drowsiness, slowed breathing, or loss of consciousness. An opioid is sometimes called a narcotic. Naloxone injection is used to treat a narcotic overdose in an emergency situation. This medicine should not be used in place of emergency medical care for an overdose. Naloxone is also used to help diagnose whether a person has used an overdose of an opioid

Naloxone kits are handed to service users who are at high risk of an opiate overdose, including anyone currently using opiate-based drugs and anyone who has a history of injecting opiates. Naloxone is also handed to family members and carers of high risk service users.

Service users receive training in how to recognise overdose and how to use a Naloxone kit, which they will be given to keep with them in the community that they can use in an emergency situation, and be advised that as the effects of naloxone wear off, that person must still attend hospital after receiving it.

Staff supplying Naloxone are trained how to instruct service users to use the medication (minimum requirement SMMGP online learning package and/or Overdose Awareness and use of Naloxone training package). Storage of Naloxone on premises is done in line with ELFT policy

- Available for all opiate users

Priority to IVDU
Only trained staff may hand out kits: SMMGP online & Naloxone training package
Service Manager to keep register of trained staff
Storage of Naloxone is in Medicines Room

	Medication	Route	Who for	Note for Staff
1	Naloxone	IV	Highest risk. Chaotic people. Probably not in treatment or in and out of treatment, not on OST	
2	Naloxone	IV	Medium to low risk. Reasonably stable, currently or history of IVDU (comfortable with injecting a friend). Majority of people	
3	Naloxone (Nyxoid)	Nasal	Family member	Unfamiliar with IVDU – probably unable to inject someone

Section 7. Relapse prevention
Acamprosate
Refer to the community alcohol detoxification policy for a discussion on acamprosate.

Naltrexone
Refer to community alcohol detox policy for use in alcohol dependence.
Introduction
- Naltrexone is used in the treatment of opiate dependence in patients who are opiate free and want to maintain their abstinence.
- Naltrexone is an opiate antagonist. This means when it is taken at therapeutic doses it will occupy opiate receptors and essentially block any opiate agonist from binding with the receptor.

- The rationale of naltrexone therapy is that once the patient is on a therapeutic dose if they were to attempt to use heroin or any other illicit opiate the naltrexone would block the pleasurable effects meaning the patient would not get any reward. In theory the patient would come to view attempts to take illicit heroin as pointless.
- That said the evidence base for its effectiveness is not strong. The available evidence to date is not strong enough to give definitive evaluation of this therapy.
- There are considerable risks associated with its use. Particularly if the patient relapses and goes back to pre-detox levels of heroin use or tries to over come the blockade with illicit heroin.

When to prescribe

- Naltrexone therapy is probably best reserved for highly motivated patients, or those who have a lot to lose should they fall back into drug use (e.g. healthcare professionals) or patients with effective support mechanisms, with the emphasis on effective.
- Patients need to be opiate free before commencing treatment with naltrexone.
- If they are not and they take naltrexone they will go into precipitated withdrawal which will last days.
- The length of time between the opiate and naltrexone therapy depends on the opiate used, the length of time it was used, the amounts in which it was used and patient variable factors.
- Patients on methadone need at least 10 days break, heroin patients may need up to 7 days drug free before starting, and buprenorphine patients will need 7 days as long if their final dose was over 2mg daily and they had used buprenorphine for more than two weeks. If the patient has been on low dose buprenorphine for less than two weeks the wash out period could be less.
- Patients will need liver function tests before and during therapy as naltrexone is hepatotoxic.
- Patients could be given a test dose with the shorter acting opiate antagonist naloxone. Naloxone is not orally active and must be given as an injection.
- Should the patient require pain relief in the future with opiate based analgesics they may need higher than normal doses.
- Patients should carry a card that informs others that they are naltrexone, for example if they needed help from a paramedic crew.
- Treatment needs constant review. Therapy should be supervised where possible.

How to prescribe

- An initial dose of 25mg is given after a suitable opiate free interval or after a trouble-free naloxone challenge where this is possible.
- The patient should be monitored for symptoms of opiate withdrawal for 4 hours after the first dose.
- Symptomatic medication like lofexidine can be added in if necessary on day one.
- If the patient tolerates the low dose increase to 50mg daily as a maintenance dose.
- The total weekly dose of 350mg dose can be divided up into three and given three times a week if that aids compliance and supervision (for example 100mg on Mondays and Wednesdays and 150mg on a Friday.)
- Treatment should be reviewed at regular intervals. Patients should be tested regularly to ensure compliance.
- Counselling and advice to give patient – all patients must be warned about the overdose risk if they try to overcome the effects of naltrexone with illicit opiates as well as the increased risk of overdose should they relapse after a period of abstinence.
- Patients and their carers should be given advice on overdose treatment. Patients must be warned about relapsing and advised that should they relapse they should not go back to pre-detox levels of drug use; injecting drugs would carry a greater risk of overdose.

Section 8. Prescription Management

Good Practice in Relation to Secure Usage of Prescriptions (FP10, FP10MDA)

- This is guidance regarding how prescriptions should be treated in services to ensure that all prescriptions are accounted for and used in a way that is safe and responsible.
- It is generally assumed that any prescriber would have an adequate audit trail whereby any prescription could be tracked using the 11-digit number found at the bottom of all prescriptions. If the situation arose where prescriptions went missing, the police would investigate and part of their investigation would refer to existing audit trails for prescriptions.
- To not have an audit trail or some mechanism for tracking prescription would leave any member of staff who had access to prescriptions open to suspicion.
- What follows are the features of a system that would provide an audit trail of all prescriptions that entered a service.
- It results in a system whereby all prescriptions are accounted for and the whereabouts of any one prescription is known.
- Remember prescriptions are controlled stationary and have a high black market value (potentially higher that the actual drugs themselves) especially if they do not have anything written on them.

1. On arrival all prescriptions should be recorded in a central record stating where they came from (for example the pharmacy department of the Homerton Hospital), how many prescriptions, who received them into the department stock and the date they were received. Ideally one person in the team would manage this. The person who orders prescriptions is best placed for this role. An example follows

"Received 1000 prescriptions from Mile End Hospital Pharmacy department. Prescription numbers 12345678001(0) to 12345678100(0). Received R. Boakye"

2. Prescriptions must be kept in a locked cabinet / safe. When removed the person removing them should state how many prescriptions have been taken out and enter the numbers in the central record.
3. There is an 11 digit number at the bottom of each prescription, bear in mind that the eleventh number is a security number the penultimate numbers are in numerical order and the last numbers are in reverse numerical order i.e. if the last three numbers on a prescription are 124, then the next prescription will be 133 followed by 142.
4. When issuing a prescription, record the prescription number in the central record. Also note the name of the patient, the date the prescription was taken. Whoever removed the prescription should sign and date the central record. An example follows, in the example the items in bold are pre-printed on the sheet by the admin team and the items in italics are written in by the person taking a prescription from the pack.

Prescription number	Date received	Date Taken	Destroyed (y/n)	Patients name	Taken by
1234567890*(9)*	**15/03/10**	*22/03/10*	*n*	*Joe Bloggs*	*A Nurse*
1234567891*(8)*	**15/03/10**	*23/03/10*	*y*	*Jane Doe*	*A Doctor*
1234567892*(7)*	**15/03/10**	*23/03/10*	*n*	*Jane Doe*	*A Doctor*

5. These details should also appear on the script record sheet. The script record should also contain the dose, script type (supervised or not), number of days the script is for and start and finish dates for the script The prescriber that signs the prescription should also sign the prescription record sheet.
6. The service user should also sign the script record sheet to acknowledge receipt of the prescription. The keyworker should go through the prescription with the client (and use this as an opportunity to read through it and check it is correct). It is still the duty of the keyworker and prescribing doctor to check that the prescription is correct, safe and legal.

7. It is also essential to include the pharmacy that the service user attends and supervised / unsupervised status on the prescription record sheet.
8. If a mistake is made on a prescription; record the details of the prescription to be voided in a void register. The following details should be recorded: date of entry on the void register, the prescription number, the name of the service user (or the first line of whatever was printed on the prescription, the name and signature of the member of staff entering the details, the name and signature of the person witnessing the destruction of the prescription.
9. It is good practice to put a line through the prescription and write “void” or “cancelled” and the date on the actual prescription if it is not going to be destroyed immediately.
10. It is good practice to have the destruction of a void prescription witnessed.

Summary

By following the concepts described above a service will have the ability to identify prescriptions from two angles. The prescription record sheet follows the service user’s notes and will give a record of every prescription given to a service user and if used correctly every drug prescribed to that service user along with the amounts and dates.

The central record will give a record of what happened to every prescription that entered the service; such as was it issued to a service user or voided and when was it issued.

There are different variations on the theme regarding how the system is implemented; the main point is that a system that works must be in place.

There is an audit tool available and this audit should be carried out annually to ensure compliance with the above points.

Appendix 1
How to prescribe injectable diamorphine

- None of the injectable opioids is licensed for use in the treatment of addiction.
- The patient must be aware of the fact that this is an unlicensed use and give informed consent.
- The consultant must document in the patients notes and must complete the form at the back of the Trust's unlicensed medicines policy.
- Only a consultant with an appropriate Home Office licence can prescribe and sign prescriptions for diamorphine.
- In deciding to start someone on injectable diamorphine consider the following points:
    - Injection site assessment, do they have viable safe sites to inject into
    - Patient's social situation – do they live with other drug users, do they have stable accommodation, have they got a history of diversion etc.
- Start dose – there is no clear guidance as this is not a licensed use. A bag of street heroin is supposed to contain 200mg heroin however the purity is never 100% and a £10 bag may only contain 20mg of heroin.
- Patients will need to be initiated under supervision. Pain reliving doses are of the magnitude of 5mg-10mg every four hours. In addiction the start dose will be higher. Maintenance doses in the study literature range from 300mg to 700mg per day.
- The prescriber will have to tailor the start dose to the needs of the patient bearing in mind the local quality of heroin and the potential risks.
- The patient should be supervised when they administer the first dose and observed post dose for at least 2 hours.
- Ideally the majority of doses would be supervised during treatment but the logistics may prove too difficult to implement. However the prescriber has the right to call the patient in to do a supervised dose at any time during treatment.
- Review – there needs to be regular review of the patient's progress. Desirable outcomes:
    - Retention in treatment
    - Reduction in illicit use – based on self report, urinalysis and oral fluid analysis
    - Reduction in hazardous injecting – based on review of the patients injecting sites
    - Improvements in physical and mental health – liaison with BBV team, GP, psychiatric services (if they are involved), reduction in hospital admissions and presentations at casualty.
    - Improved social stability – measured by housing status, interaction with other services, improved education or employment status.
    - Reduced criminal activity – measured by involvement with criminal justice system, reduced arrests,
- How long will script last? A diamorphine prescription is not for life and patients must be made aware of that and reminded of that should they start. They will be able to have the script as long as they have viable safe venous access. If they do not then treatment must be reviewed.
- Patient counselling and advice – patients need to be told about the nature of an injectable diamorphine script. It is unlicensed, they must take care of their prescription as replacing it if lost is difficult, they will be supervised for part of the treatment. it must be made clear that it will be constantly under review and if it is no longer safer for the patient to inject then the script will stop.
- Warnings and side effects – the main warning is in relation to overdose. Pharmaceutical grade diamorphine is pure so it may be stronger than what they get from the street. They need to be careful about on top use and using other CNS depressant drugs like alcohol and benzodiazepines

Appendix 2
Background information on Psychosis and its treatment
Refer to: ELFT Dual Diagnosis Policy

- The term psychosis has a number of meanings.
- Psychosis specifically refer to illnesses or states characterised by hallucinations and / or delusions
- These symptoms without conspicuous mood symptoms would be considered as the essence of schizophrenia
- Schizophrenia is one of what was once termed the “functional psychoses.” This term was used to differentiate from those brain disorders where there was a demonstrated structural abnormality (these would be known as structural psychoses).
- Other functional psychoses include psychotic depression (severe depression with delusions and / or hallucinations), schizoaffective disorder, bipolar disorder and delusional disorder.
- All these conditions have amongst their symptoms the psychotic symptoms of hallucinations and/or delusions.
- The major symptoms of schizophrenia are often divided into positive symptoms and negative symptoms.
- Positive symptoms can be thought of as new symptoms or signs and include delusions (often persecutory, thought interference or passitivity) and hallucinations (usually auditory referring to the patient in third person)
- Negative symptoms can be thought of as a loss of a previous function. Patients have loss of motivation, flattening of affect or loss of awareness of socially appropriate behaviour and difficulty with abstract thinking for example.
- Other symptoms include formal thought disorder, agitation and poor concentration among other symptoms.
- If untreated the psychotic illnesses are debilitating. There is a significantly increased risk of suicide in these patients.
- Please refer to DSMIV / ICD10 or the Oxford textbook of Psychiatry for a more detailed explanation of what schizophrenia and psychotic illnesses are.
- Antipsychotics alter a range of neurotransmitters in the brain. The clinical effects are calming and dampening down the obtrusive positive symptoms. The newer atypical antipsychotics were thought to have an impact on negative symptoms but this is not the case for the majority of drugs.
- Antipsychotics will eventually have a calming effect (after about 1-2 weeks at the treatment dose) and they will relieve some of the patient’s acute distress and alleviate the intensity of any psychotic experiences.
- They do not cure psychotic symptoms but rather help the patient to ignore them.
- The older typical antipsychotics are associated with a range of side effects, the most troublesome being the extrapyramidal side effects which generally affect movement.
- The principal example of the older drug is chlorpromazine; other typical antipsychotic examples are haloperidol, trifluoperazine and sulpiride.
- The newer atypical drugs are generally better tolerated as they have less extrapyramidal side effects (in general) however they are associated with other side effects which limit tolerability like weight gain and diabetes in some cases.
- Examples include clozapine, olanzapine, and risperidone. Clozapine is associated with agranulocytosis and this restricts its use to those patients with chronic illness who agree to close supervision of their full blood count.
- Please refer to the psychotropic drug directory, Maudsley guidelines and the BNF for more detail on the clinical use of these drugs.
- There are risks associated with the use of antipsychotic drugs particularly if they are used in doses above the BNF maximum (or above the maximum chlorpromazine equivalent). The main risk is sudden death due to cardiac problems like increased QT interval.
- Any one on an antipsychotic and methadone needs to have regular ECG monitoring to ensure there are no abnormal changes in the ECG pattern.

- The range of antipsychotics prescribed at the SAU includes risperidone, olanzapine, amisulpiride and chlorpromazine.

Background information on depression and its treatment

- Depression is a common illness but is generally under diagnosed and under treated especially in men and people under 30.
- Depression presents with a mixture of biological symptoms and psychiatric symptoms.
- Symptoms can also be classified as core symptoms, somatic symptoms (aka biological or melancholic or vital symptoms) and psychotic symptoms

Core Symptoms	• Depressed mood present most of the day, nearly every day with little variation. There may be diurnal mood variation where the mood is worse in the morning and improves slightly as the day progresses. • Anhedonia – significantly diminished interest or pleasure in all or almost all activities every day or nearly every day • Weight change – Loss of weight without dieting or weight gain associated with a decreased or increased appetite. • Disturbed sleep – insomnia (with early morning wakening 2-3 hours earlier than usual) or hypersomnia • Psychomotor agitation or retardation – observable by others, not just subjective feelings of restlessness or slowing down • Fatigue or loss of energy • Reduced libido • Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) • Diminished ability to think or concentrate or indecisiveness • Recurrent thoughts of death or suicide which may or may not have been acted upon (not fear of dying)
Somatic Symptoms	• Loss of emotional reactivity • Diurnal mood variation • Anhedonia • Early morning wakening • Psychomotor retardation or agitation • Loss of appetite and weight • Loss of libido
Psychotic Symptoms	• Delusions e.g. poverty, personal inadequacy, guilt over personal misdeeds, responsibility for world events • Hallucinations e.g. auditory, olfactory and visual These are mood congruent, other mood incongruent psychotic symptoms are possible • Catatonic symptoms or marked psychomotor retardation

- Depression does not include the normal reaction to the loss of a loved one.
- Possible causes of depression include drugs and alcohol or drug abuse, physical illness and stress (such as bereavement, child birth, job loss, relationship breakdown and poor social background. Time of year is another recognised cause.)
- To make the diagnosis symptoms would have to have been present for a given time in the absence of any treatable cause. Symptoms may have caused an adverse effect on functioning and reflect a change from normal for the patient. Certain symptoms shown above have to be present. Refer to DSM-IV or ICD10
- Drug treatment with antidepressants will speed up the recovery and reduce suffering.
- Inadequate doses or the use of potentially toxic drugs is hard to justify.

Treatment of depression – General Points

1. Diagnosis – refer to DSM-Iv or ICD10. Consider which symptoms are present, duration of illness, impact on functioning, severity (is depression mild moderate or severe), differential diagnoses and the presence of confounding factors.

2. In general mild depression is treated with psychological interventions and moderate and severe depression treated using pharmacological and / or physical interventions. However, the impact of the patient's illness on their functioning is a useful way of judging what treatment is indicated.
3. Drug and Dose – SSRIs are the usual first-line treatment of choice. They are safe in overdose and relatively straight forward to initiate. Patients need to be monitored for the first few weeks for anxiety, suicidal ideation and agitation. If the depression has not improved at all after four weeks of treatment at a therapeutic dose change the drug. If there is a slight improvement after 4 weeks then continue for another 2 weeks. Change drug if there is no further response. The drug has not worked if there is no response after 8 weeks of therapy.
4. Duration of treatment - after a first presentation of depression the patient needs to maintain treatment with anti depressants even after the depression has cleared. The longer the patient is on the antidepressant the less likely a relapse will occur. The more relapses a person has the harder their depression is to treat in the future and the longer the patient will have to continue treatment post recovery.

General treatment duration recommendations	
First episode	6 months post recovery
Second episode	2-3 years
Third episode	5 years or longer

5. Mirtazapine is a good choice if there are problems with sleep. There is data that Mirtazapine and Venlafaxine may act quicker than some SSRIs. In most cases sertraline, citalopram or fluoxetine should be routine choices.

Appendix 3
SHORT / SUBJECTIVE OPIATE WITHDRAWAL SCALE (SOWS)

CLIENT: DATE OF COMMENCEMENT:

Date						
Feeling sick						
Stomach cramps						
Muscle spasms or twitching						
Feelings of coldness						
Heart pounding						
Aches and Pains						
Yawning						
Runny eyes						
Difficulty sleeping						
Muscle tension						
Weakness						
Headache						
Diarrhoea						
Irritability/Agitation						
Runny nose or sneezing						
Any opiate drugs (y/n)						
Any other drug (y/n)						
Name & amount of drug used						
Blood Pressure						
Pulse (per min)						

Please rate your withdrawal symptoms each day:0 = None 1 = Mild 2 = Moderate
3 = Severe

Adapted from Gossop M., Darke S., Griffiths P. et al Addiction 1995; 90: 607-614

Objective Opioid Withdrawal Scale (OOWS)

Patient name: Date …… Time ……

OBSERVE THE PATIENT DURING A 5 MINUTE OBSERVATION PERIOD THEN INDICATE A SCORE FOR EACH OF THE OPIOID WITHDRAWAL SIGNS LISTED BELOW (ITEMS 1-13). ADD THE SCORES FOR EACH ITEM TO OBTAIN THE TOTAL SCORE

	SIGN	**MEASURES**		**SCORE**
1	Yawning	0 = no yawns	1 = ≥ 1 yawn	
2	Rhinorrhoea	0 = < 3 sniffs	1 = ≥3 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 (dilated pupils)	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 – severe	
	TOTAL SCORE	Range 0-13		

Notes / observations

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