WITHDRAWAL OF DRUG(S) OF DEPENDENCE

Drug withdrawal can be a presenting feature or occur in a patient admitted for other reasons.

There is now a Drug and Alcohol Liaison Service (DALT) for support in the hospital 8-4pm Mon-Fri
Young people and adult service
Debby Poole 0798 588 2382, Carolyn Musgrave 0781 2260 821, or via switchboard

In the community: SPOC (Single Point Of Contact) - 0300 200 2400

Please inform DALT or community key worker via SPOC of any patient on methadone that is retained in hospital as we will need to inform the patient's pharmacy.

Recognition and Assessment
Withdrawal syndromes are specific to:

- Type of drug involved
- Route of administration
- Frequency of use
- Quantity used
- Individual variation in sensitivity
- Psychological state

Mild symptoms owing to withdrawal of a drug do not require routine medical intervention. Explaining to the patient likely course of withdrawal has been shown to reduce severity of withdrawal symptoms

Pregnancy is an indication for very detailed assessment and close management of withdrawal because of risks to foetus. Refer to

- **Obstetric team on call – Day unit 8am – 4pm and Consultant on call in Triage on Delivery suite out of hours**
- **DALT Nurses [Contact Numbers above]**
- **SPOC [Single Point of Contact]Adult service 0300 200 2400**
- **Please see appendix 2 Special Guidelines for Pregnant Women**

Opiate Withdrawals
Symptoms and signs

- Nausea, vomiting
- Diarrhoea
- Restlessness, anxiety
- Irritability, insomnia
- Muscle and bone pains
- Running eyes and nose
- Sneezing, yawning
- Sweating, flushing
- Dilated pupils
- Pilo-erection 'goosebumps'

Immediate Treatment
The opiate withdrawal syndrome carries minimal risk of long term harm, but is intensely unpleasant and most opioid users will do anything to avoid it. It is important that withdrawal symptoms are managed effectively in order to prevent illicit drug use or self-discharge. It is important to explain to an individual whose supply of Methadone is interrupted that it may be well over 24 hours before significant withdrawal symptoms develop if they have been consistently taking their medication hitherto. Withdrawal symptoms, however unpleasant they may be, are not likely to be fatal.

Where withdrawal symptoms are of sufficient severity to warrant medical treatment, several options are available

1. **Symptomatic treatment**

- Propranolol 40 mg orally 8 hrly – relief of somatic anxiety
- Loperamide 4 mg orally single dose then 2mg after each episode of diarrhoea [16mg per day maximum] – symptomatic treatment of diarrhoea
- Hyoscine butylbromide 10-20 mg orally 6 hrly – relief of stomach cramps
- Promethazine hydrochloride 25 mg orally 12 hrly – anti-emetic,sedative and hypnotic
- Prochlorperazine 5-10mg tds prn, Metoclopramide 10mg tds prn-anti-emetic-consider ''Buccastem'' 3-6mg 12hrly prn if vomiting is severe
- Paracetamol 1g orally 6 hrly – relief of pain
- Ibuprofen 200-400mg tds pc prn-[provided no contra-indications] relief of pain
- Consider Diazepam 5-10mg tds prn if agitation or insomnia is severe
- Ropinirole 250mcg nocte for restless legs-a rare but extremely distressing symptom which also exacerbates insomnia

2. **Opiate substitution (i.e. prescribes Methadone: See guidance below)**

We do not routinely commence patients on methadone as an inpatient who are <u>not</u> currently in treatment with Addiction Services

It is not recommended to prescribe Buprenorphine as an emergency as it may cause severe acute withdrawal from opiates/opioids.

Methadone prescription in hospital is associated with several significant problems that should be considered before prescribing
a) The history related to drug taking or Methadone use is often not accurate: there is therefore the potential to prescribe potentially lethal overdoses of Methadone (adhering to the following guideline should help avoid this).
b) Methadone cannot be prescribed as a TTO and needs fully trained supervision in the community by registered prescribers. Therefore it is important to engage with the DALT team or community services via SPOC immediately and before starting an individual on Methadone, in order to agree an appropriate discharge and follow up plan.

<u>Prescribing Methadone to patients admitted to New Cross who have stated they are opiate/opioid dependent and on opiate substitute medication.</u>

a) Take a urine screen to confirm opiate or methadone use **BEFORE** prescribing methadone:

<u>NO URINE SCREEN: NO METHADONE.</u>

Urine Test: Urine sample – plain white top universal urine bottle

Form: e-request Form sent to New Cross pathology and identify as
"Urgent Opiate and Methadone screen" - **please hand write on the form**.
<u>Procedure: Ring lab (X8266) prior to sending sample</u>
Results within 2 hours

Do not request "Drugs of Abuse" otherwise the sample will not be analysed but sent to City Hospital the following day, which could take up to 7 days to analyse.

b) Pregnancy test if indicated

c) Check patients prescribed medications with their community pharmacy or drug worker at Addiction Services (444030)

d) Assess individual using the COWS score – appendix 1

e) Find out whether they are currently in treatment with drug services.

When an individual presents requesting a prescription for continuation of Methadone it is absolutely essential to confirm that they are using opiates/opioids or already being prescribed Methadone before they are prescribed or dispensed the drug:

- If an individual is already in treatment it is imperative to speak to their community pharmacist to confirm that they have been taking or collecting their Methadone before issuing a prescription for Methadone.
- If the pharmacist cannot be contacted straight away, safe practice demands confirmation that an individual is actually taking Methadone: positive urine test for Methadone helps to establish this, but does **NOT** confirm the dose that is actually being taken but is a mandatory first step before prescribing in hospital.
- The individual's key worker may be contactable via DALT or SPOC but merely confirming that a patient is being prescribed Methadone is not, in itself, sufficient to establish recent consistent taking, for reasons of safety, the pharmacy therefore should be the first contact made to continue prescribing for the individual.
- If it is a Sunday/bank holiday and the pharmacy is closed, and the individual is adamant they are prescribed Methadone and that they have been given their dose on the Saturday, request to see the bottle of Methadone and check the **individual's identifying information, name, address, D.O.B, date, dose before administering Methadone**.
- Once the pharmacist has confirmed that an individual has been taking or collecting Methadone or a urine test is positive for Methadone it is safe to prescribe as follows:
- If pharmacist confirms current dose and usage & urine is positive for Methadone: **prescribe dose confirmed by pharmacy**.
- If pharmacy or key worker cannot confirm the dose, but the urine is positive for Methadone **prescribe symptomatic relief until confirmation can be confirmed.**

NB Caution is required when prescribing Methadone to individuals who have **severe hepatic impairment** or other significant health impairment.

Note: If an individual is confirmed to be taking Methadone but there is no certainty that whether or not they have had that day's Methadone it is safer **NOT** to prescribe until the following day.

For Patients not on Methadone who are opiate/opioid Dependent

a) Having confirmed that an individual is using opiates and is dependent on them, Methadone will usually be prescribed at a starting dose of 10mg in 10ml to 30mg in 30ml once daily. This should only be administer providing the community team will continue the prescription of Methadone on discharge, if this does not happen then symptomatic relief only should be prescribed.
b) The daily dose is increased by 5mg in 5ml or 10mg in 10ml every three days and not usually by more than 30mg in 30ml per week in the first two weeks.
c) Titration will need to be undertaken more slowly if there is **severe hepatic impairment** or other significant health impairment.
d) Methadone may prolong the QTc interval in doses of 100mg in 100ml and a baseline ECG should be performed approaching a dose of 100mg in 100ml and a further ECG performed on reaching or surpassing 100mg in 100ml. **Caution** is necessary with other drugs that prolong the QTc interval and co-prescribing of Methadone and Citalopram/Escitalopram is contraindicated.
e) At the onset of taking Methadone it takes four or five days for the drug to reach a steady state in the blood stream.
f) Methadone has a long half-life and in the treatment of opiate/opiate dependence is consequently invariably taken once daily.
g) The maintenance dose of Methadone will depend on a number of factors in particular an individual's historical opiate use. Maintenance doses accordingly vary quite considerably-from as low as 20mg in 20ml once daily to as much as 120mg in 120ml once daily or more.
h) Also be aware that dispensing Methadone to someone at night can increase the risk of respiratory depression.
i) It may well be advisable to consider alternatives to Methadone where an individual is dependent on opioids alone.

It takes five days at the start of treatment for Methadone to reach a steady state in the bloodstream and most Methadone related deaths occur in the first two weeks of treatment-hence the ''start low-go slow'' approach in the titration period.

The maximum dose in 24 hours should not exceed 40mg without expert advice

OPIATE OVERDOSE-Naloxone

Administer Naloxone [Narcan]

- Maintain the airway and give high flow oxygen if required. If the respiratory rate is less than ten breaths per minute support ventilation by use of self-inflating bag, valve and mask.
- Administer if necessary 0.4mgs Naloxone as a bolus and repeat after 2-3 minutes as required. If repeat doses are ineffective consider using a naloxone infusion especially if the overdose is due to methadone.
- **Infusion**- add 2mg Naloxone to 500mls normal saline or 5% dextrose. Start at 0.4mgs [100ml] per hour. Titrate the dose according to the patient's response.
- **Check blood pressure**
- **Check pupils for lateralising signs**

Naloxone

- Its effects last at least 20 minutes, and up to an hour.
- It has a shorter duration of action than most opiates/opioids.
- Consequently the opiates/opioids reversing effects of naloxone will end before the effects of the opiates/opioids.
- Therefore a person may return to overdose state.
- Close monitoring is required for several hours after overdose.
- Patients may attempt to leave the hospital once they have recovered from the overdose following administration of naloxone and it may be necessary to prevent or restrain the person from doing so.
- If the patient cannot be persuaded to stay they, and anybody accompanying them will need to be warned of the risk of the overdose due to the short duration of action of naloxone.
- Monitoring should be carried out within the medical setting (e.g. hospital).

Cautions

- Mixed agonist/antagonist opioids such as buprenorphine are only partially reversed by naloxone (but they are much less likely to cause respiratory depression in the first place).
- Caution is needed with opiate/opioid dependent individuals because naloxone precipitates withdrawal which the patient will find distressing.

Opioid overdose information

- Opiates/opioids include drugs such as heroin, opium and poppy seeds/ codeine, tramadol, preparations of morphine, buprenorphine and methadone for example.
- Opiate/opioid overdose can occur in anyone using opiates/opioids and may lead to death.
- Opiate/opioid overdose deaths are usually related to respiratory depression (slowed breathing).
- There has been an increase in opiate/opioid overdose deaths in recent years.
- Most opiate/opioid overdoses are witnessed by others.

Risky situations for overdose

- Resuming opiate/opioid use after any planned or unplanned withdrawal from opiates/opioids
- Resuming opiate/opioid use after stopping opiate/opioid for a few days
- Injecting opiates/opioids
- Starting treatment with opioids or the use of opiates
- Opiates/opioids in combination with other drugs, especially drugs which cause respiratory depression, or alcohol
- Using drugs when alone

Naloxone-drug information

- Can prevent a death from an opiate/opioid overdose
- Reverses the effect of an opiate/opioid overdose
- Short acting so will begin to wear off after half an hour.
- Should be monitored in hospital as may need extra injections of naloxone
- Open naloxone and attach needle (depends on formulation used)
- Hold naloxone syringe and needle at 90 degree angle over muscle

(Upper outer buttock, thigh area, or upper arm muscle can be used)
- Insert the needle into the muscle and press plunger to inject naloxone
- Withdraw needle, discard in sharps container and wipe site with alcohol

Naloxone administration demonstration (use dummy naloxone or pictures)
- Open naloxone and attach needle (depends on formulation used)
- Hold naloxone syringe and needle at 90 degree angle over muscle
(Upper outer buttock, thigh area, or upper arm muscle can be used)
- Insert the needle into the muscle and press plunger to inject naloxone
- Withdraw needle, discard in sharps container and wipe site with alcohol

References

British National Formulary (BNF) 49 published March 2005

DISCHARGE POLICY
- Arrange continuation of the prescription for methadone through
- **DALT Nurses [Contact Numbers above],**
- **SPOC (Adult - 0300 200 2400 or Young People 18yrs or below - 0300 123 360) and**
- **Key Worker via SPOC**
- Liaise with the individuals community pharmacy to inform them that the patient is leaving hospital and requires restarting the methadone prescription in the community, and fax the prescription chart to both the pharmacy [Contact to request fax number] and SPOC 01902 427300.
- Please note that on the weekend the pharmacy maybe closed, therefore it is reasonable for the ward to prescribe on Saturday, Sunday or Bank Holiday if the pharmacy is closed.

Do not write methadone prescription as a TTO

SEDATIVE WITHDRAWAL
- Benzodiazepines and other sedative hypnotic drugs
- Alcohol – see **Alcohol withdrawal** guideline RWT intranet

Symptoms and signs
- Confusion
- Nystagmus
- Tremor
- Agitation, irritability
- Insomnia
- Pyrexia
- Hyperreflexia
- Weakness
- Convulsions

IMMEDIATE TREATMENT

In initial stages, treatment of sedative withdrawal is similar to that for alcohol – see **Alcohol withdrawal** guideline. Once symptoms controlled, change to long-acting Benzodiazepine (Chlordiazepoxide, Diazepam) in an equivalent dose (Table 2) to maintain clinical state and discuss a longer term strategy with SPOC, patient's Pharmacy or their own GP

Table 2: Equivalent Dosages

Drug	Dose
Chlordiazepoxide	15mg
Diazepam	5mg
Loprazolam	500 microgram
Lorazepam	500 microgram
Oxazepam	15mg
Temazepam	10mg

Nitrazepam	5mg

STIMULANT WITHDRAWAL

There are no acute symptoms of stimulant withdrawal that need medical treatment as a matter of urgency. Insomnia and anxiety can be treated symptomatically. Advice and support are valuable. Depressive symptoms sometimes occur as a later withdrawal effect and can be treated with an antidepressant

It is unlikely that it would be necessary to prescribe antidepressants during a brief hospital admission but SSRIs should be avoided in Cocaine users because of the risk of Serotonin Syndrome.

- **DALT Nurses [Contact Numbers above]**
- **Refer to SPOC (Adult -0300 200 2400)**
- **SPOC (Young People18yrs or below - 0300 123 360)**

VOLATILE SUBSTANCES

Commonly misused are Butane, Toluene, Glues, and Petrol.

As there are no physical withdrawal syndromes, it is best to discontinue use abruptly. Treatment of intoxication involves general supportive measures

Refer to:

- **DALT Nurses [Contact Number above]**
- **SPOC (Adult - 0300 200 2400)**
- **SPOC (Young People 18yrs or below – 0300 123 360)**

CANNABIS

Treat anxiety and insomnia symptomatically

CLINICAL OPIATE WITHDRAWAL SCALE (COWS)

For each item, write in the number that best describes the patient's signs or symptoms.

Patients Name ……. **Dates:**

Hospital Number……. **Times:**

Resting Pulse Rate: (record beats per minute) *Measured after patient is sitting/lying for one minute.* **0** pulse rate 80 or below **1** pulse rate 81-100 **2** pulse rate 101-120 **4** pulse rate greater than 120			
Sweating: *Over past ½ hour not accounted for by room temperature or patient activity.* **0** no report of chills of flushing **1** one subjective report of chills or flushing **2** flushed or observable moistness on face **3** beads of sweat on brow or face **4** sweat streaming off face			
Restlessness: *Observation during assessment.* **0** able to sit still **1** report difficulty sitting still, but is able to do so **3** frequent shifting or extraneous movements of legs/arms **5** unable to sit still for more than a few seconds			
Pupil Size: **0** pupils pinned or normal size for room light **1** pupils possibly larger than normal for room light **2** pupils moderately dilated **5** pupils so dilated that only rim of the iris is visible			
Bone or Joint aches*: If patient was having pains previously, only the additional component attributed to opiate withdrawal is scored.* **0** not present **1** mild diffuse discomfort **2** patient reports severe diffuse aching of joints/muscles **4** patient is rubbing joints or muscles and is unable to sit still because of discomfort			
Runny nose or tearing: *Not accounted for by cold symptoms or allergies.* **0** not present **1** nasal stuffiness or unusually moist eyes **2** nose running or tearing **4** nose constantly running or tears streaming down cheeks			
GI Upset: *Over last ½ hour* **0** no GI symptoms **1** stomach cramps **2** nausea or loose stools **3** vomiting or diarrhea **5** multiple episodes of diarrhea or vomiting			
Tremor: *Observation of outstretched hands* **0** no tremor **1** tremor can be felt, but not observed **2** slight tremor observable **4** gross tremor or muscle twitching			
Yawning: *Observation during assessment* **0** no yawning **1** yawning once or twice during assessment **2** yawning three or more times during assessment **4** yawning several times/minute			
Anxiety or Irritability **0** none **1** patient reports increasing irritability or anxiousness **2** patient obviously irritable, anxious **4** patient so irritable or anxious that participation in the assessment is difficult			
Gooseflesh skin **0** skin is smooth **3** piloerection of skin can be felt or hairs standing up on arms **5** prominent piloerection			
Total Score			
Observers Initials			
Blood Pressure/Pulse			

SCORE:
5-12 = Mild: 13-24 = Moderate: 25-36 = moderately severe: More than 36 = severe withdrawal.

Special Guidelines for Pregnant Women admitted to New Cross Hospital

We do not usually recommend commencing anyone on opiate substitution medication as an inpatient before they can comprehensively assessed by specialist addiction services medical team as the risks associated with overdose are greater than the risks associated with withdrawal.
However in the case of pregnant women there are also risks to the unborn baby to be taken into account.

Longer term outcomes for women on methadone treatment are better in terms of their pregnancy outcomes for the neonate, therefore services are advised to fast track pregnant women into drug treatment.
Substitute prescribing can occur at any time in pregnancy and carries a lower risk than continuing illicit use.
(Department of Health (England) and the devolved administrations (2007). *Drug Misuse and Dependence: UK Guidelines on Clinical Management*. London: Department of Health (England), the Scottish Government, Welsh Assembly Government and Northern Ireland Executive)

There is a significant body of evidence to suggest that methadone maintenance treatment during pregnancy when combined with psychosocial therapies can reduce the incidence of obstetric and foetal complications as well as neonatal morbidity (Finnegan, 1991; Ward et al 1998)

Use of street heroin presents the foetus with problems created by the cycle of withdrawal and intoxication produced by using the relatively short acting drug. Both intoxication and withdrawal place stress on the foetus and withdrawal in particular has been associated with foetal death (Ward et al 1998)

Therefore we recommend all the previous checks in the main document including

- urine screen “urgent opiate and methadone screen”
- COWS score
- History taking.

Refer to DALT between 8-4pm as soon as possible to provide psychological therapies and fast track into addiction services

Initiate Methadone as follows:

COWS (Clinical Opiate Withdrawal Scale) score	Withdrawal management
Less than 5	Symptomatic treatment
5-12	5-10 mg methadone
13-24	11-20 mg methadone
25-36	21-30mg methadone
37+	31-40mg methadone

1. Administer the first dose of methadone according to the COWS score and review 4 hours later

2. If the withdrawal score is 5 or more, administer a further dose according to the score

   The maximum dose in 24 hours should not exceed 30mg without expert advice a dose of as little as 25mg may be fatal in an opioid naïve person, so it is vital to confirm opioid usage by urine screening before commencing this process

3. On day 2, start with the total dose given on day 1, and review 6 hours after administration. If the COWS score is 5 or more, administer a further 5-20mg methadone

4. On day 3, administer the highest total daily dose given so far in one dose in the morning.

5. Methadone takes 5 days to reach a steady state, and so the true effect of a dose cannot be determined until 5 days later. Caution must be exerted in the initial titration period as cumulative toxicity can lead to overdose

6. Be aware of the risk of accidental overdose and make sure naloxone is on the ward

Adapted from University Hospital Birmingham Bedside Clinical Guidelines