Medical management of patients at risk of opioid withdrawal

Clinical Guideline

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Medical management of patients at risk of opioid withdrawal Clinical Guideline

1. Introduction

This guideline provides information on the management of opioid-tolerant adult patients admitted to acute care hospitals and aim to guide clinical practice only. Clinical judgment should be used to determine the optimal medical management for each patient. When there is doubt about management, confer with senior colleagues, the Drug and Alcohol Consultation Liaison Service (DACLCS) where available, or the Drug and Alcohol Clinical Advisory Service (DACAS) Ph 7087 1742. This guideline should be used in conjunction with the appropriate opioid withdrawal assessment and observation charts.

2. Background

A significant number of South Australians consume opioids (either prescribed or illicit) on a regular basis and are at risk of withdrawal.

This Clinical Guideline was developed to optimise management of these people when they present in acute hospitals, to avoid severe withdrawal and enable adequate pain management where they are experiencing pain.

It applies to all SA Health employees, including consultants and contractors, working in acute care hospitals.

This Guideline was developed by Drug and Alcohol Services South Australia (DASSA), in consultation with clinicians in all Local Health Networks, with oversight by Dr Chris Holmwood, Director, Clinical Consultation Liaison, Drug and Alcohol Services South Australia.

3. Definitions

In the context of this document:
- drug withdrawal means the group of symptoms that occur upon the abrupt discontinuation or decrease in intake of medications or drugs. In order to experience the symptoms of withdrawal, the person must have first developed a physical dependence on the drug.
- opioids mean substances that act on opioid receptors to produce morphine-like effects. Opioids include opiates, an older term that refers to such drugs derived from opium, including morphine and codeine. Other opioids are semi-synthetic and synthetic drugs such as oxycodone and fentanyl.

4. Principles of the standards

The principle of this guideline is to ensure a consistent approach to the medical management of opioid-tolerant adult patients admitted SA Health acute hospitals.

5. General

Roles & Responsibilities
• Chief Executive, SA Health is responsible for ensuring there is a consistent approach to managing patients at risk of opioid withdrawal in acute hospitals.
• Chief Executive Officers of the Local Health Networks (LHNs) are responsible for ensuring effective implementation of this guideline.
• Clinical Directors and Managers are responsible for ensuring all clinical staff (including contractors and consultants) are aware of the content of this guideline and have access to it.

6. Determining risk factors

People who consume opioids on a regular basis will develop tolerance and will experience withdrawal if the opioids are discontinued. Therefore anyone prescribed regular opioids (for management of pain, or for the management of opioid dependence) are at risk of withdrawal.

People who have recently been injecting drugs in South Australia have either been injecting methamphetamine or opioids. Be vigilant for emerging withdrawal in these patients.

7. Models of care

Generally people solely experiencing opioid withdrawal can be managed in the community, and do not need admission to an acute hospital.

If there are other indications for acute hospital admission (trauma, sepsis, other medical acute medical problems) then they should be admitted and their problems managed. This Clinical Guideline describes the care they need with their opioids.

If acute pain is a significant issue they should always be treated accordingly. Liaison with the Acute Pain Service may be required.

8. Workforce implications

Nil

9. Safety, quality and risk management

National Safety and Quality Health Service Standards

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Clinical Governance</td>
<td>Partnering with Consumers</td>
<td>Preventing &amp; Controlling Healthcare-Associated Infection</td>
<td>Medication Safety</td>
<td>Comprehensiv e Care</td>
<td>Communicating for Safety</td>
<td>Blood Management</td>
<td>Recognising &amp; Responding to Acute Deterioration</td>
</tr>
</tbody>
</table>

☐ ☐ ☐ ☒ ☐ ☐ ☐ ☐
10. Pathway / Protocol

Patients who have been taking opioids long-term may develop tolerance. This means that they may need progressively larger doses to maintain the same effect. Patients tolerant to one opioid will usually be tolerant to all other opioids. The degree of cross-tolerance that occurs is unpredictable and appears to be incomplete.

These patients may also develop a physical dependence on the opioid, meaning that if the opioid is antagonised (by opioid antagonists), suddenly stopped, or abruptly reduced in dose, they may develop a withdrawal (or abstinence) syndrome.

Tolerance and physical dependence are natural biological consequences of repeated opioid use and do not imply misuse, abuse or addiction. Addiction (a psychological dependence) refers more to a pattern of drug-taking behaviours and compulsive drug use despite the risk of physical, psychological, or social harm. Unlike tolerance and physical dependence, addiction is not a predictable effect of a drug.

Opioid tolerant or physically dependent patients are frequently seen in hospitals. In general, these patients fall into any one of three groups:

1. Patients taking prescription opioids as prescribed for them long-term for pain
2. Patients in a MATOD (‘medication assisted treatment for opioid dependence’) program and prescribed methadone or buprenorphine/naloxone (Suboxone®)
3. Patients taking illicit opioids (prescription opioids or heroin) for non-medical purposes

For patients in groups 1 and 2, who have been admitted for reasons other than their opioid use (e.g. after trauma or surgery), the aim will generally be to prevent opioid withdrawal while the patient is in hospital.

In patients with an immediate past history of illicit opioid use, withdrawal may need to be managed in the hospital setting. This is usually best accomplished over 5 to 7 days using the procedure outlined later in this document.

Opioid withdrawal is assessed and recorded using the Clinical Opioid Withdrawal Scale (COWS) – see Appendix A

Opioid-tolerant or dependent patients in acute pain

Regardless of the group to which the opioid-tolerant patient belongs, analgesia for acute pain should not be withheld. Non-opioid analgesia should be maximised; however if opioids are required, these patients may require higher-than-usual doses to adequately manage their pain. Specialist advice about acute pain management can be sought from the hospital’s acute pain service (APS), or, if no APS, the responsible anaesthetist. Patients requiring high opioid doses should only be managed in wards where the nursing and staff have received the appropriate education about acute pain management using opioids and the monitoring required, and where appropriate medical staff are available to advise.

Some patients with acute pain who appear to be exhibiting drug-seeking behaviours may simply be seeking better pain relief. This has been called pseudoaddiction.
10.1 Description of opioid withdrawal syndrome

Onset

In patients with a physiological opioid dependence, withdrawal may occur as soon as 4–6 hours after the last dose of a short-acting opioid, but can occur later if methadone or slow-release opioid preparations or patches are ceased.

Clinical Features

Opioid withdrawal syndrome is characterised by some or all of the following signs and symptoms:

- increased pulse rate
- dilated pupils
- gastrointestinal upsets
- anxiety or irritability
- restlessness
- perspiration
- bone or joint aches
- tremor of outstretched hands
- piloerection ('gooseflesh')
- runny nose
- yawning
The presence and degree of each of these signs and symptoms will vary with the severity of withdrawal.

Opioid withdrawal is assessed and recorded using the COWS – see Appendix A.

10.2 Confirmation and prescription of a patient’s ‘usual’ opioid

When a patient’s ‘usual’ long-term prescribed opioids are to be continued, whether the patient is taking the drug for treatment of their chronic cancer or non-cancer pain, or as part of a MATOD program, the dose must be confirmed and that confirmation documented. The time the last dose was taken should also be checked.

Confirmation of the drug and its dose can be obtained from:
- The dispensing label on the box of opioids (the label should be a recent one)
- The prescriber (the patient’s GP or specialist including DASSA – see “Contacts” section below for clinics)
- The dispensing pharmacy, in particular for patients on MATOD
- The Drugs of Dependence Unit (ph 1300 652 584) which issues Authorities for patients on long-term prescription opioids for pain, or MATOD.

NOTE: It is desirable for the usual opioid dose to be checked with two sources, including the patient or their carer. If there is any discrepancy between information sources, advice should be sought on how to proceed from the Drug and Alcohol Clinical Liaison Service (where available) or DACAS (ph 7087 1742). A clinical pharmacist (if available) can also assist in the confirmation of the patient’s usual opioid.

What if the patient’s dose cannot be confirmed?

There may be times when the dose that a patient is taking cannot be confirmed straight away – for example, if the patient presents to the hospital after-hours. Suggestions for management will depend on whether the patient is an inpatient or is being managed in the Emergency Department. Doses should be confirmed at the earliest opportunity.

a) Inpatients
- If the patient has acute pain then titration with immediate-release opioids for pain relief will also help to avoid/treat withdrawal.
- If the patient does not have acute pain and therefore does not need opioid analgesia,
  - commence monitoring with COWS and repeat every 4 hours, and
  - if COWS ≥13 then prescribe the opioid that the patient says they are taking BUT at one-quarter of the dose stated by the patient.
- In MATOD patients the doses (i.e. the one-quarter of the dose stated by the patient)
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should be limited to a maximum of 20 mg methadone or 4 mg/1 mg buprenorphine/naloxone (Suboxone®). The intention is to moderate or avoid development of withdrawal, while at the same time avoid toxicity from an inadvertent excessive dose.

> This dose of opioid (including methadone or buprenorphine/naloxone [Suboxone®] but noting the above dose limits for these two drugs) can be repeated after 4 hours if COWS ≥ 13.

> The patient’s ‘usual’ opioid dose should be confirmed as soon as possible.

NOTE: MATOD patients taking methadone syrup may express their dose in mL. However, the dose must be confirmed in milligrams as the concentration of methadone in the syrup may vary.

b) Patients in the Emergency Department

> If the patient is not withdrawing then no opioid is needed. Address the patients presenting problem. If suitable for discharge then the patient can be advised to return later if needed if withdrawal symptoms develop.

> If the patient has acute pain then titration with immediate-release opioids for pain relief will also help to avoid/treat withdrawal.

> If the patient is withdrawing (COWS ≥ 13):

• give 2-4 mg/0.5-1 mg buprenorphine/naloxone (Suboxone®)
• monitor for 2 hours using COWS and sedation scores
• address the patient’s presenting problem

They can then be discharged if symptoms have resolved.

NOTE 1 As buprenorphine/naloxone (Suboxone®) cannot legally be prescribed outside hospital without authorisation, these patients will need to be admitted.

NOTE 2 Inform authorised prescriber of ED presentation and temporary treatment with buprenorphine/naloxone (Suboxone®).
10.3 Authority to prescribe drugs of dependence (e.g. opioids for pain or dependence/addiction)

PAIN: In South Australia, under Section 18A of the Controlled Substances Act 1984, a prescriber must have an authority to prescribe or supply an opioid for a patient for regular treatment that exceeds two months. Treatment provided by other prescribers must be taken into account when calculating the 2 month period.

Exemptions – see Regulation 22 (2) of the South Australia Controlled Substances (Poisons) Regulations 2011:

> Patients aged 70 years or more (unless the drug is pethidine or dextromoramide).

> A Patient whose life expectancy is reasonably believed to be 12 months or less and the Drugs of Dependence Unit have been notified of that fact (unless the drug is pethidine or dextromoramide).

> Where a patient is already being prescribed an opioid for pain management is admitted and another prescriber is already authorised and the hospital prescriber notifies the authorised prescriber of the treatment; and the drug is only administered while the patient is in hospital.

[Where this person is being discharged from the hospital, the prescriber notifies the authorised prescriber that they have prescribed/supplied the drug on discharge (or their intention to do this)]

> Where a patient is already being prescribed an opioid for pain management is admitted and an authority does not exist provided the duration of treatment does not exceed 14 days. In the case of the patient being discharged from hospital, the duration with the discharge drug does not exceed 14 days.

NOTE: If the duration in hospital exceeds 2 weeks and the total duration of the opioid for managing pain exceeds 2 months, then an authority needs to be obtained.

DEPENDENCE OR ADDICTION: It is an offense under Section 18A of the Controlled Substances Act 1984 to prescribe a drug of dependence (Schedule 8 drug) to ‘a person who the practitioner or dentist knows or has reasonable cause to believe is dependent on drugs’ unless prescribing in accordance with an authority.

Prescribers of methadone or buprenorphine/naloxone (Suboxone®) to patients in a MATOD program for treatment of an opioid addiction must have an authority to prescribe in order to comply with Section 18A above, from the time of commencement of treatment.

Exemptions to this include:

> An inpatient of a hospital where another prescriber is authorised and the hospital prescriber notifies the authorised prescriber of the treatment; and the drug is only administered while the patient is in hospital; and if the drug is solely to treat drug
dependence, the dose does not exceed the original dose.

Where this person is being discharged from the hospital, the prescriber notifies the authorised prescriber that they have prescribed/supplied the drug on discharge (or their intention to do this); and if the drug is solely for treatment of drug dependence, the dose does not exceed the original dose.

> An inpatient of a hospital where an authority does not exist provided the duration of treatment does not exceed 14 days.
An authority must be obtained in order to continue this treatment in the community after discharge.

10.4 Management of patients taking prescription opioids (as prescribed) long-term for pain

Patients are taking prescription opioids for long-term (i.e. > 1 month) treatment of their chronic cancer or non-cancer pain may be at risk of withdrawal if the opioid is suddenly ceased or reduced in dose. Their opioids should therefore be continued at their usual dose, after that dose has been confirmed. This prescription will prevent opioid withdrawal while the patient is in hospital.

If the ‘usual’ opioids cannot be taken (e.g. a patient who is prescribed an oral opioid is not able to take any oral medications) then the appropriately adjusted dose of that opioid, or another opioid, should be given by another route.

If required, advice about opioid conversions and equivalent doses can be sought from the hospital’s acute pain service, [or in country areas local anaesthetist, or GP anaesthetist] (APS), or, if no APS, the responsible anaesthetist.
### EQUIANALGESIC/ EQUIPOTENT DOES OF SOME COMMONLY USED OPIOIDS

<table>
<thead>
<tr>
<th>Opioid</th>
<th>IV/IM/subcut</th>
<th>Oral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine</td>
<td>10 mg</td>
<td>30 mg</td>
</tr>
<tr>
<td>Buprenorphine</td>
<td>0.4 mg (patch)</td>
<td>0.8 mg (sublingual)</td>
</tr>
<tr>
<td>Codeine</td>
<td>130 mg</td>
<td>200–240 mg</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>0.15–0.2 mg</td>
<td>-</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>1.5–2 mg</td>
<td>6–7.5 mg</td>
</tr>
<tr>
<td>Methadone</td>
<td>Complex; discuss with a pain medicine or addiction medicine specialist</td>
<td></td>
</tr>
<tr>
<td>Oxycodone</td>
<td>10 mg</td>
<td>20 mg</td>
</tr>
</tbody>
</table>

**Notes**
- The table has been compiled from values obtained from multiple references including Therapeutic Guidelines Analgesia (2012) and Australian Medicines Handbook (2015). Clinical pharmacists are also able to be contacted for advice about opioid conversions and equivalent doses.
- Published reports vary in the suggested doses considered to be equianalgesic to morphine. Therefore, titration to clinical response in each patient is necessary.
- Suggested doses are often based on single dose studies only. Therefore, use of the data to calculate total daily dose requirements may not be appropriate.
- These are doses that are thought to be equianalgesic. They are not recommended initial doses and pharmacokinetics will vary with the different injecting routes (IV/IM/subcut). Therefore, titration to clinical response in each patient is necessary.
- There may be incomplete cross-tolerance between these drugs. In patients who have been receiving one opioid for a prolonged period, it is usually necessary to use a dose lower than the expected equianalgesic dose when changing to another opioid, and to titrate to effect.

10.5 Management of patients in a MATOD program

Patients in a MATOD (medication assisted treatment for opioid dependence) program and prescribed methadone or buprenorphine/naloxone (Suboxone®) should have these medications continued once the doses have been confirmed (see above) in order to avoid withdrawal while in hospital.

In general, a patient taking methadone or buprenorphine/naloxone (Suboxone®) as part of a MATOD program will not experience severe withdrawal if one dose is missed.

Always ask the patient:

> The name of their medication

> The time of their last dose and the dose taken

> The name of their prescriber

> Which pharmacy dispenses their medication

**Always** contact:

> The patient’s prescribing GP or staff at their prescribing DASSA clinic (see
AND

> The patient’s dispensing pharmacy

OR

> The Drugs of Dependence Unit

If these contacts are unavailable, phone DACAS (ph 7087 1742).

This contact may enable the dose to be confirmed so that the correct dose is given in hospital, and also ensures that patient is not inadvertently removed from the MATOD program for failure to attend for their supervised in-pharmacy dose.

While there are few if any situations in hospital when a patient cannot continue their usual sublingual buprenorphine/naloxone (Suboxone®) film, there may be time when oral methadone cannot be continued. In this case, parenteral methadone may be given (in a smaller dose) or another opioid can be given by another route. It is suggested that advice about the opioid conversions and equivalent doses for patients who cannot take their oral methadone be sought from the hospital’s acute pain service, pain management unit, Drug and Alcohol Consultation Liaison Service where available, or DACAS.

10.6 Management of patients taking illicit opioids (prescription opioids or heroin) not in opioid withdrawal presenting for other reasons

Patients who are regular users of prescription opioids (e.g. as whole tablets/capsules/patches, or chewing, snorting or injecting them) or heroin, may be admitted to hospital for a variety of reasons and are therefore at risk of opioid withdrawal. They should be monitored according to COWS (Appendix A) and any withdrawal treated according to the guidelines outlined in the next section.

If the patient has moderate to severe acute pain requiring treatment, then the standard aged-based opioid doses should be prescribed in the first instance and adjusted as needed thereafter. Advice about acute pain management can be sought from the hospital’s acute pain service, pain management unit, Drug and Alcohol Consultation Liaison Service, or DACAS. The opioid doses used for management of acute pain may be enough to prevent withdrawal and further measures may not be required.
10.7 Management of patients using illicit opioids and presenting in opioid withdrawal

Patients who are regular users of prescriptions opioids (e.g. as whole tablets/capsules/patches, or chewing, snorting or injecting them) or heroin may present to the hospital in withdrawal. Withdrawal is best managed using buprenorphine/naloxone (Suboxone®) film.

This is usually at least a 5 day regimen, so if the patient is likely to be discharged within this timeframe. Discuss with Drug and Alcohol Consultation Liaison Service where available, or ring DACAS [ph 7087 1742] regarding discharge planning.

Patients presenting with opioid withdrawal may be using a variety of different opioids with varying half-lives and routes of administration that may require different approaches.

Some patients may abscond if only offered opioid withdrawal as an option. This may jeopardise treatment for their primary health problem. Discuss this situation if it arises with Drug and Alcohol Consultation Liaison Service where available or DACAS [ph 7087 1742] to explore options regarding management.

Five-day protocol for management of withdrawal with sublingual buprenorphine/naloxone (Suboxone®)

All patients should be monitored using COWS shown in Appendix A. Each Local Health Network will have a specific chart outlining the monitoring and management requirements for these patients.

The 5-day buprenorphine/naloxone (Suboxone®) regimen outlined in the table below should be commenced when:

> the COWS score is ≥ 13

AND

> there is objective evidence of withdrawal including piloerection/goose bumps or dilated pupils >3mm (See Appendix B for Pupil Size Chart).

<table>
<thead>
<tr>
<th>DAY</th>
<th>Dose/ frequency</th>
<th>Maximum dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1</td>
<td>4 mg 4 hourly prn, if COWS still ≥ 13</td>
<td>12 mg</td>
</tr>
<tr>
<td>Day 2</td>
<td>4 mg 4 hourly prn, if COWS still ≥ 13</td>
<td>8 mg</td>
</tr>
<tr>
<td>Day 3</td>
<td>2 mg 4 hourly prn, if COWS still ≥ 13</td>
<td>6 mg</td>
</tr>
<tr>
<td>Day 4</td>
<td>2 mg 4 hourly prn, if COWS still ≥ 13</td>
<td>4 mg</td>
</tr>
<tr>
<td>Day 5</td>
<td>2 mg once only prn, if COWS still ≥ 13</td>
<td>2 mg</td>
</tr>
</tbody>
</table>
Buprenorphine/naloxone (Suboxone®) is administered sublingually as an observed dose. Patients may elect to take lesser amounts at any stage.

If the patient is discharged before the treatment is finished, ring the Drug and Alcohol Consultation Liaison Service where available or DACAS (ph 7087 1742) to assist with planning.

NOTE: Arrangements will need to be made for the prescription and dispensing of buprenorphine/naloxone (Suboxone®) in the community. Hospital pharmacies do not generally dispense buprenorphine/naloxone (Suboxone®) to outpatients. Therefore a community based pharmacy will need to be engaged as will a prescriber.

An authority from the Drugs of Dependence Unit will need to be obtained (DDU Duty Officer, ph 1300 652 584) if the patient is to be discharged on this medication.

**Symptomatic treatment**

Symptomatic medications may be useful in patients with mild/moderate withdrawal.

(COWS 5-12) instead of the 5 day buprenorphine/naloxone (Suboxone®) regimen. These may include:

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nausea &amp; vomiting</td>
<td>Antiemetics</td>
</tr>
<tr>
<td>Gut cramps</td>
<td>Hyoscine butylbromide</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>Loperamide</td>
</tr>
<tr>
<td>Headache, muscle aches and pains</td>
<td>Paracetamol and/or NSAIDs</td>
</tr>
<tr>
<td>Insomnia, anxiety/agitation</td>
<td>Benzodiazepines (caution when also prescribing an opioid)</td>
</tr>
</tbody>
</table>

**10.8 Specific situations**

**Pregnant patients**

If the patient is pregnant seek specialist advice from:

> Obstetric and Gynaecology registrar where available (regarding obstetric management)

Drug and Alcohol Clinical Advisory Service (DACAS) ph. 7087 1742 regarding alcohol or drug management.

Opioid withdrawal should not be undertaken in pregnancy unless all other options are considered to be unsuitable (see below). Perinatal outcomes are better when opioid-dependant mothers are receiving MATOD.

Buprenorphine/naloxone (Suboxone®) can be used in pregnant patients.
Patients identified as Aboriginal or Torres Strait Islanders and other patients from culturally and linguistically diverse backgrounds

Ensure that:

> They understand any questions asked
> They are supported by an Aboriginal Liaison Officer or family as appropriate wherever possible
> An interpreter is used where appropriate.

Patients not able to take anything by mouth – ‘nil oral intake’

If the patient’s ‘usual’ opioid cannot be administered (e.g. a patient who is prescribed an oral opioid is not able to take any oral medications) then the equivalent dose of that opioid, or another opioid, should be given by an alternative route. If required, advice about opioid conversions and equivalent doses can be sought from the hospital's acute pain service, or pain management unit; Drug and Alcohol Consultation Liaison Service where available; or from the responsible anaesthetist. Advice can also be obtained from the Drug and Alcohol Clinical Advisory Service (ph 7087 1742).

NOTE: ‘Nil oral intake’ is NOT the same as ‘fasting’. A fasting patient may be given their oral medications as normal unless there are specific reasons not to take them (e.g. a diabetic patient fasting for theatre who usually takes oral hypoglycaemic agents).

10.9 Advice on regulatory aspects of opioid prescribing or on patients suspected of trying to obtain opioids

Advice can be obtained only in office hours from The Duty Officer, Drugs of Dependence Unit, Medicines and Technology Policy and Programs, Department for Health and Wellbeing (ph 1300 652 584). This is an office hours service only 9AM to 5PM Monday to Friday.

10.10 Drugs used for opioid substitution therapy in MATOD programs

Buprenorphine/naloxone (Suboxone®)

Buprenorphine is classified as a partial mu-opioid agonist. However, it appears to behave as a full mu-opioid agonist for analgesia in humans where no evidence of a ‘ceiling effect’ for pain relief has been found. In contrast there appears to be a ceiling to its respiratory and cardiovascular suppressant effects, when used on its own.

It also has a very high receptor affinity which was thought might interfere with the analgesic effects of pure agonist opioids such as morphine and oxycodone. However; this has been shown not to be the case. Good pain relief with additional pure agonist opioids can be achieved in patients currently taking buprenorphine. It has low oral bioavailability, so is administered sublingually or buccally, and has a half-life (t½) of more than 24 hours. It is used in substitution programs for the treatment for opioid addiction [MATOD].
Buprenorphine is an effective analgesic agent.

Buprenorphine is usually prescribed as a 4:1 mix with naloxone as Suboxone® in an attempt to reduce its intravenous abuse potential. Due to its high receptor affinity and partial mu-agonism it can precipitate an opioid withdrawal syndrome in patients who are opioid dependent, and who still have a substantial proportion of their receptors occupied by pure opioid agonists. The usual recommendation is that buprenorphine should only be commenced when the patient is in opioid withdrawal. However, this may not be possible when patients are requiring additional opioids for analgesia. In these cases specialist advice should be sought as the titration of buprenorphine, starting with small doses only and slowly increasing the doses, may allow the patient to be started on buprenorphine without any signs and symptoms suggestive of withdrawal.

**Methadone**

Methadone is an orally bioavailable synthetic full mu-opioid agonist with a long t½ also used in MATOD substitution programs. Its metabolism is varied with an average t½ of 24 hours (it can vary from 6 hours to over 150 hours). Drugs that are also metabolised by the CYP450 enzymes may also interfere with its metabolism. Due to its longer t½ it can accumulate over several days. Use with caution in severe liver disease.

### 10.11 Contacts

- Hospital Drug and Alcohol Consultation Liaison Services where available
- **Alcohol and Drug Information Service (ADIS): Ph 1300 13 13 40**
- **Drug and Alcohol Clinical Advisory Service (DACAS): Ph 7087 1742**
- **DASSA Central Services (Stepney): Ph 7425 5168**
- **DASSA Northern Services (Elizabeth): Ph 7485 4600**
- **DASSA Southern Services (Morphett Vale): Ph 8325 8111**
- **DASSA: www.sahealth.sa.gov.au/dassa**
- **The Duty Officer, Drugs of Dependence Unit: Ph: 1300 652 584. Fax: 1300 658 447**

### 11. General considerations

As above. Nil additional
12. Eligibility criteria

Inclusion

People attending Emergency Departments or admitted inpatients at risk of opioid withdrawal. These people will have been consuming opioids regularly prior to admission.

Exclusion

People only consuming opioids on an intermittent basis and therefore not tolerant, are unlikely to experience withdrawal.

13. Administration

As above. Nil additional

14. Observations

COWS (Clinical Opioid Withdrawal Scale)
Sedation Score

15. Appendices
Appendix A - Clinical Opioid Withdrawal Scale (COWS)

<table>
<thead>
<tr>
<th>Resting pulse rate: Record beats per minute</th>
<th>Sweating: over past 1/2 hour not accounted for by room temp or patient activity</th>
<th>Restlessness observation during assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0: pulse rate 80 or below</td>
<td>0: No report of chills or flushing</td>
<td>0: Able to sit still</td>
</tr>
<tr>
<td>1: pulse rate 81 - 100</td>
<td>1: Subjective report of chills or flushing</td>
<td>1: Reports difficulty sitting still, but able to do so</td>
</tr>
<tr>
<td>2: pulse rate 101 - 120</td>
<td>2: Flushed or observable moistness on face</td>
<td>3: Frequent shifting or extraneous movements of legs/arms</td>
</tr>
<tr>
<td>4: pulse rate greater than 120</td>
<td>3: Beads of sweat on brow or face</td>
<td>5: Unable to sit still for more than a few seconds</td>
</tr>
<tr>
<td></td>
<td>4: Sweat streaming off face</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pupil size</td>
<td>Bone or joint aches if patient was having pain previously, only the additional component attributed to opioid withdrawal is scored</td>
<td>Runny nose or tearing not accounted for by cold symptoms or allergies</td>
</tr>
<tr>
<td>0: Pupils pinned or normal size for room light</td>
<td>0: Not present</td>
<td>0: Not present</td>
</tr>
<tr>
<td>1: Pupils possibly larger than normal for room light</td>
<td>1: Mild diffuse discomfort</td>
<td>1: Nasal stuffiness or unusually moist eyes</td>
</tr>
<tr>
<td>2: Pupils moderately dilated</td>
<td>2: Patient reports severe diffuse aching joints/muscles</td>
<td>2: Nose running or tearing</td>
</tr>
<tr>
<td>5: Pupils so dilated that only the rim of the iris is visible</td>
<td>4: Patient is rubbing joints/muscles and is unable to sit still because of discomfort</td>
<td>4: Nose constantly running/tears streaming down cheeks</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GI upset: over last 1/2 hour</td>
<td>Tremor observation of outstretched hands</td>
<td>Yawning observation during assessment</td>
</tr>
<tr>
<td>0: No GI symptoms</td>
<td>0: No tremor</td>
<td>0: No yawning</td>
</tr>
<tr>
<td>1: Stomach cramps</td>
<td>1: Tremor can be felt, but not observed</td>
<td>1: Yawning once or twice during assessment</td>
</tr>
<tr>
<td>2: Nausea or loose stool</td>
<td>2: Slight tremor observable</td>
<td>2: Yawning three or more times during assessment</td>
</tr>
<tr>
<td>3: Vomiting or diarrhoea</td>
<td>4: Gross tremor or muscle twitching</td>
<td>4: Yawning several times/minute</td>
</tr>
<tr>
<td>5: Multiple episodes of diarrhoea or vomiting</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety or irritability</td>
<td>Gooseflesh: skin</td>
<td></td>
</tr>
<tr>
<td>0: None</td>
<td>0: Skin is smooth</td>
<td></td>
</tr>
<tr>
<td>1: Patient reports increasing irritability/anxiety</td>
<td>3: Piloerection can be felt or hairs standing up on arms</td>
<td></td>
</tr>
<tr>
<td>2: Obviously anxious or irritable</td>
<td>5: Prominent piloerection</td>
<td></td>
</tr>
<tr>
<td>4: So anxious or irritable that participation in assessment is difficult</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key for scoring withdrawal

| 5-12 Mild | 13-24 Moderate | 25-36 Moderate to Severe | Greater than 36 Severe |
|-----------|----------------|-------------------------|-----------------------|-----------------------|

PUBLIC I1-A1
Appendix B - Pupil size chart

1 mm  2 mm  3 mm  4 mm  5 mm  6 mm  7 mm  8 mm  9 mm
# CLINICAL OPIOID WITHDRAWAL SCALE (COWS)

**Patient Label**
- Unit Record No.: ____________________________
- Surname: ____________________________
- Given Names: ____________________________
- Date of Birth: ____________________________ Sex: ____________________________

**Instructions:**
1. Use this chart to detect and monitor signs and symptoms of opioid withdrawal that may occur when patients have stopped taking or reduced their intake of opioids.
2. Observations should be recorded 4-hourly and continued until the COWS scores is < 5 for 24 hours.
3. If the COWS score is > 5 contact treating doctor as pharmacological treatment for opioid withdrawal may be required (non-opioid symptomatic treatment unless COWS > 13).

<table>
<thead>
<tr>
<th>Date</th>
<th>Time of observation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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**Resting Pulse Rate:** Record beats per 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 1/2 hour not accounted for by room temp or patient activity
- 0: No report of chills or flushing
- 1: 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: Reports difficulty sitting still, but able to do so
- 2: Frequent shifting or extraneous movements of legs/arms
- 3: 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
- 3: Pupils so dilated that only the rim of the iris is visible
- 5: Pupils so dilated that only the rim of the iris is visible

**Bone or Joint Aches:** if patient was having pain previously, only the additional component attributed to opioid withdrawal is scored
- 0: Not present
- 1: Patient reports increasing irritability/anxiousness
- 2: Patient reports severe diffuse aching joints/muscles
- 3: Patient is rubbing joints/muscles and is unable to sit still because of discomfort
- 4: Patient reports severe diffuse aching joints/muscles and is unable to sit still because of discomfort
- 5: Patient is rubbing joints/muscles and is unable to sit still because of discomfort

**Runny Nose or Tears not accounted for by cold symptoms or allergies**
- 0: Not present
- 1: Nasal stuffiness or unusually moist eyes
- 2: Nose running or tearing
- 3: Vomiting or diarrhoea
- 4: Nose constantly running/tears streaming down cheeks

**GI Upset:** over last 1/2 hour
- 0: No GI symptoms
- 1: Stomach cramps
- 2: Nausea or loose stool
- 3: Vomiting or diarrhoea
- 5: Multiple episodes of diarrhoea or vomiting

**Tremor Observation of Outstretched Hands**
- 0: No tremor
- 1: Tremor can be felt, but not observed
- 2: Slight tremor observable
- 3: Tremor can be felt, but not observed
- 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
- 3: Yawning several times/minute

**Anxiety or Irritability**
- 0: None
- 1: Patient reports increasing irritability/anxiousness
- 2: Obviously anxious or irritable
- 3: So anxious or irritable that participation in assessment is difficult

**Gooseflesh: Skin**
- 0: Skin is smooth
- 5: Prominent piloerection standing up on arms

**Total**

**Signature**

**Key for Scoring Withdrawal**
- 5-12 Mild
- 13-24 Moderate
- 25-36 Moderate to Severe
- Greater than 36 Severe
Patients taking prescription opioids (as prescribed) long-term for pain and MATOD patients (inpatient or in the Emergency Department)
[for patients using illicit opioids see Patients Taking Illicit Opioids Flowchart]
FOR MORE DETAIL REFER TO FULL GUIDELINE

Must confirm dose [and time of last dose] from:
1. Dispensing pharmacy OR
2. Recent dispensing label OR
3. The prescriber OR
4. The Drugs of Dependence Unit 1300 652 584

Risk of Opioid Withdrawal?

Commence Clinical Opioid Withdrawal Scale (COWS) and recording of vital signs and sedation score. Observations should be recorded 4 hourly until COWS <5 for 24 hours.

Dose confirmed? (check quantity and time of last dose)

Oral Intake?

No

Acute Pain?

Yes

Titrated with immediate-release opioids for analgesia & withdrawal management. Seek advice from acute pain service, or local anaesthetist or GP anaesthetist in country areas.

Prescribe usual opioid once confirmed

• Prescribe the stated opioid at one-quarter of the stated dose
• If MATOD patient: maximum 20mg methadone syrup or 4mg/1mg buprenorphine/naloxone (Suboxone®)
• Seek advice from hospital Drug and Alcohol CL where available, or DACAS 7087 1742 [24/7]

If COWS ≥ 13

Inpatient

• If COWS ≥13 give buprenorphine/naloxone [Suboxone®] 2/0.5mg to 4/1mg and monitor for 2 hours
• NB – patient needs to be admitted before Suboxone® can be given
• Seek advice from hospital Drug and Alcohol CL where available, or DACAS 7087 1742 [24/7]

Contact hospital Drug & Alcohol CL or ring DACAS 7087 1742 [24/7]

Emergency

Yes

No

COWS Score ≥13 after 4 hours?

• Discharge patient if clinically appropriate
• Inform authorised prescriber and pharmacy of presentation and treatment

Another dose at quarter of stated dose as above

Symptoms settled?

No

Continue COWS

Yes

Public I1-A1
Patients taking illicit opioids presenting to hospital for other reasons
[For patients prescribed opioids for pain or methadone or Suboxone® (buprenorphine/naloxone) for opioid dependence see Prescription Opioids/MATOD Flowchart]
REFER TO FULL GUIDELINE FOR MORE DETAIL.

Risk of Opioid Withdrawal?

Yes

Commence Clinical Opioid Withdrawal Scale (COWS) and recording of vital signs and sedation score.
[Observations should be recorded 4 hourly until COWS ≤5 for 24 hours]

Pregnant?

Yes

• Urgent O&G regarding O&G issues
• Urgent DACAS call regarding withdrawal management as withdrawal presents significant risk

No

Acute pain?

Yes

• Use standard age-based opioid doses at commencement
• Adjust upwards as needed
• Tolerance MAY be present
• Seek advice from acute pain service, or local anaesthetist or GP anaesthetist in country areas

No

Usually a five day regimen to manage withdrawal if it develops
• Seek advice from Drug and Alcohol CL (where available) or DACAS 7087 1742 [24/7] if needed

COWS ≥13?

Yes

• Continue 4 hourly COWS until ≤5 for 24 hours
• Use other symptomatic management

No

Prescribe buprenorphine/naloxone (Suboxone®) as outlined in the full guideline

5 days completed?

Yes

Discuss follow up with:
• Drug and Alcohol CL (where available)
or
• DACAS 7087 1742 [24/7]

No

Discuss with:
• Drug and Alcohol CL (where available)
or
• DACAS 7087 1742 [24/7]
16. Reference


17. Document Ownership & History

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<th>Version</th>
<th>Who approved New/Revised Version</th>
<th>Reason for Change</th>
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<td>Transferred to correct template and minor amendments re contacts.</td>
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<tr>
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