

# Withdrawal Management Protocols/Guidelines and Services



Government of  
Saskatchewan



The College of  
Family Physicians  
of Canada



Compiled by the Addictions Medical Advisory Committee  
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# Introduction

The following are the general treatment guidelines and suggested withdrawal management protocols for alcohol, benzodiazepines, opiates and cocaine. This document is meant to serve as a reference for physicians' use in treating detoxification resulting from chronic substance use.

These guidelines should be implemented only after appropriate clinical assessment has taken place including history, physical examination, laboratory investigations and toxicology screens. One should be cautioned that the history regarding the substance(s) used may not always be accurate. Once stabilised, patients are encouraged to attend local Alcohol and Drug Services (Please refer to Appendix D).

The protocols have been developed by the Addictions Medicine Advisory Committee, the members of which represent Family Medicine, Pharmacology, Psychiatry, Saskatchewan Health and Alcohol and Drug Services across the province. This committee was established in 1997 in order to fulfill an obligation to clients to keep current in the medical aspects of chemical dependency and to begin to establish medical protocols/guidelines in chemical dependency treatment. In addition, this committee acts as a consultative resource for health districts and health professionals.

## Definitions

**Substance Withdrawal:** The signs and symptoms experienced when the use of a substance is ceased. These tend to be the opposite of the effects of the drug itself.

**Treatment Context / Setting:** Guidelines for treatment within the following treatment settings will be referred to throughout this document.

- **Outpatient** - indicated when there is good family support or other support systems in place.
- **Residential Social (Non-hospital) Detoxification Program** - indicated for individuals with an inadequate support system.
- **Inpatient Medical** - indicated where medical complications are present or anticipated.
- **Inpatient Psychiatric** - indicated for individuals with concurrent unstable psychiatric disorders.

# 1. Alcohol

## 1.1 Alcohol Withdrawal Symptoms

Withdrawal Status	Signs and Symptoms
<b>Stage I</b> <b>Mild Withdrawal</b>	<ul style="list-style-type: none"> <li>• Slight tremors</li> <li>• Sweating</li> <li>• Feelings of apprehension</li> <li>• Slight increase in heart rate, blood pressure and respiration</li> <li>• Decreased appetite</li> </ul>
<b>Stage II</b> <b>Moderate Withdrawal</b>	<ul style="list-style-type: none"> <li>• Coarse tremor</li> <li>• Increased heart rate, blood pressure and respiration</li> <li>• Sweating</li> <li>• Gastrointestinal tract distress</li> <li>• Agitation</li> <li>• Insomnia</li> </ul>
<b>Stage III</b> <b>Severe Withdrawal</b>	<ul style="list-style-type: none"> <li>• Marked agitation</li> <li>• Tremor</li> <li>• Elevation of vital signs and autonomic activity</li> <li>• Alcoholic hallucinosis</li> <li>• Seizures</li> <li>• Insomnia</li> <li>• Sensory distortion</li> </ul>
<b>Stage IV</b> <b>Acute Medical</b>	<ul style="list-style-type: none"> <li>• Uncontrollable agitation</li> <li>• Gross tremulousness</li> <li>• Anxiety</li> <li>• Severe autonomic activity</li> <li>• Disorientation, delirium</li> <li>• Seizures</li> <li>• Delirium tremens</li> <li>• Death</li> </ul>

*\*Based on information provided by, and used with the permission of, the Province of Nova Scotia "Treatment and Rehabilitation Manual."*

## 1.2 Management of Alcohol Withdrawal Protocol

### I. *Benzodiazepines*

#### Indications

- May be used during any withdrawal phase, as required. Caution should be exercised with repeated use due to the frequency of poly-substance abuse.

**Note:** Benzodiazepines may potentiate respiratory depression produced by alcohol, barbiturates and opiates. **DO NOT COMMENCE** within 12 hours of the last drink. Use prn for 7 days.

#### a) *Diazepam - Drug of choice*

#### Advantages

- Long half-life
- Rapid absorption
- Small dosage numbers
- Wide use - most family physicians are familiar with it
- Anti-seizure effects
- Can be used alone

#### Dosage

#### Outpatient

- Diazepam - patient weight: 76 kgs or less, 20 mgs per hour po for the first 3 hours  
76 to 90 kgs, 20 mgs per hour po for the first 4 hours  
over 90 kgs, 20 mgs per hour po for the first 5 hours

**N.B. This is the maximum recommended dosage.**

#### Residential Social Detoxification

- Diazepam - exactly the same as Outpatient protocol. Other anti-convulsants are generally not necessary.

#### Inpatient Medical

- Diazepam - 0.1 mg per kg IV, give the first dose slowly over 3 to 5 minutes.
- Then give 5 to 10 mg IV q 1 hr prn, reverting to oral recommendations as above.
- Treat GI symptoms as necessary.

#### Inpatient Psychiatric

- Diazepam - 10 to 20 mgs po q 1-2 hrs prn [HR >100 and diastolic B/P >100 are often used as objective measures of withdrawal].

## ***I. Benzodiazepines (con't)***

### ***b) Lorazepam - Drug of second choice***

#### **Advantages**

- Multiple routes of administration
- Ease of administration
- Speed of onset
- Useful in elderly and in hepatic complications
- Dosage of lorazepam would be approximately 0.2 x that of diazepam

### ***c) Chlordiazepoxide - Drug of third choice***

#### **Aspects**

- Variable absorption
- Dosage of chlordiazepoxide would be approximately 2 x that of diazepam

## **II. Beta Blockers**

### **Indications**

- Used in Stage II through Stage IV for tremors and tachycardia.
- Tend to be used in conjunction with benzodiazepines.

#### **a) *Atenolol***

### **Advantages**

- Has been shown to have advantages over other beta-blockers in alcohol withdrawal treatment.

### **Contraindications**

- Congestive heart failure, diabetes and asthma **must** be ruled out.

### **Dosage**

#### **Outpatient**

- Atenolol - 50 mg po od for 7 days.

#### **Residential Social Detox**

- Atenolol - 50 mg po od for 7 days.

#### **Inpatient Medical**

- Propranolol - 1 mg IM or IV can be administered every 15 minutes up to a maximum of 4 mg during the Acute Medical Stage. **Vital signs must be monitored.** Switch back to oral atenolol as soon as possible if a beta-blocker still needed.

#### **Inpatient Psychiatric**

- Beta-blockers - same protocol as Inpatient Medical.



### **III. Neuroleptics (Major Tranquilizers)**

#### **Indications**

- For treatment of anticipated Stage III and Stage IV symptoms of alcohol withdrawal.
- Used in conjunction with benzodiazepines.

#### **a) *Haloperidol***

#### **Advantages**

- Does not lower the seizure threshold as much as other neuroleptics have been shown to do

#### **Disadvantages**

- Potential extrapyramidal side effects
- Dystonia
- These can usually be reversed with Cogentin® or Benadryl® respectively

#### **Dosage**

#### **Inpatient Medical**

- Haloperidol - 2 to 10 mg q 12 h po IM or IV.
- May be combined with benzodiazepines.

#### **Inpatient Psychiatric**

- Same as Inpatient Medical.
- Other psychiatric medications as indicated.

#### ***IV. Nutrition and Hydration***

Make sure independent assessment is completed by health care personelle.

##### **Outpatient**

- Multi-vitamins.
- Thiamine 100 mg po od.

##### **Residential Social Detoxification**

- Multi-vitamins.
- Thiamine 100 mg po od.

##### **Inpatient Medical**

- IV fluid as indicated.
- Glucose 25 g IV prn .
- Multi-vitamins.
- Thiamine 100 mg IV or po od.

##### **Inpatient psychiatric**

- Same as Inpatient Medical.
- Thiamine 100 mg IV or IM x1, then 100 mg po od.

## 2. Benzodiazepines

### 2.1 High Dose Benzodiazepine Withdrawal Signs and Symptoms

Withdrawal Status	Signs and Symptoms
<b>Stage I Minor Withdrawal</b>	<ul style="list-style-type: none"> <li>• Anxiety</li> <li>• Insomnia</li> <li>• Tremor of the hands and fingers</li> <li>• Dilated pupils</li> <li>• Progressive weakness</li> <li>• Dizziness</li> <li>• Visual illusions</li> <li>• Nausea/vomiting</li> <li>• Weight loss</li> <li>• Orthostatic hypertension</li> </ul>
<b>Stage II Major Withdrawal</b>	<ul style="list-style-type: none"> <li>• Tonic clonic seizures</li> <li>• Delirium</li> <li>• Confusion</li> <li>• Disorientation</li> <li>• Agitation</li> <li>• Markedly elevated vital signs</li> <li>• Visual hallucinations</li> </ul>

*\*Based on information provided by, and used with the permission of, the Province of Nova Scotia "Treatment and Rehabilitation Manual*

## 2.2 Management of Benzodiazepine Withdrawal

### Protocol

- If the patient is using short half-life benzodiazepines (see conversion table page 12), switch to long half-life benzodiazepines (diazepam) and withdraw slowly (decrease by 10% of the dose per week or every other week).
- For example: If a patient is using alprazolam at 5 mg per day then begin with diazepam at 50 mg per day (10 x 5 mg : conversion factor times daily dose) and reduce by 5 mg per day for the next 1 - 2 weeks, then 4 - 5 mgs per day for 1 to 2 weeks and so on with 10% stepped reductions. At 15 mgs per day decrease at 1 mg per day for 1 to 2 weeks until finished.
- Most patients will have difficulty controlling their use. Dispense weekly, or, if the pharmacist and patient are willing, every one to three days to provide a measure of external control.
- Highly motivated individuals could be withdrawn more rapidly once converted to a diazepam equivalent regimen.
- An SSRI can be used to treat a pre-existing mood disorder, and can be initiated at any time during the withdrawal process.

## Diazepam Conversion Table

<b>DRUG NAME (®originator)</b>	<b>ACTIVE METABOLITES</b>	<b>PLASMA HALF-LIFE (Hours)</b>	<b>TOTAL HALF-LIFE (A) (Hours)</b>	<b>DIAZEPAM CONVERSION FACTOR (B)</b>
alprazolam ®Xanax	yes	10 to 14	20 to 28	10
bromazepam ®Lectopam	no	8 to 19	8 to 19	0.83
chlordiazepoxide ®Librium	yes	7 to 13	85 to 185	0.5
clobazam ® Frisium	yes	10 to 30	45 to 75	0.5
clonazepam ® Rivotril	no	18 to 28	18 to 28	5
clorazepate ®Tranxene	yes	1 to 3	45 to 115	0.66
diazepam ®Valium	yes	30 to 56	75 to 170	1
flumazenil ® Anexate <b>(C)</b>	no	<b>1 (i.v.)</b>	1	n.a.
flurazepam ® Dalmane	yes	first pass	50 to 100	0.33
lorazepam ® Ativan	no	9 to 19	9 to 19	5
nitrazepam ® Mogadon	no	23 to 29	23 to 29	1
oxazepam ® Serax	no	6 to 10	6 to 10	0.33
temazepam ® Restoril	no	5 to 17	5 to 17	0.33
triazolam ® Halcion	no	2 to 4	2 to 4	20

**(A) elimination half-life of parent drug plus half-lives of any active metabolites**

**(B) daily dose of the drug multiplied by diazepam conversion factor gives equivalent dose of diazepam**

**(C) flumazenil reverses the actions of the other benzodiazepines and may be used in benzodiazepine overdose. Caution: may precipitate seizures**

*\*Based on the Benzodiazepine Equivalent table noted in the 2000 CPS p.188*

## 3. Opiates

### 3.1 Opiate Withdrawal Symptoms

Withdrawal Status	Signs and Symptoms
<p><b>Stage I</b></p> <p><i>Onset:</i> within hours of last dose</p> <p><i>Peak:</i> 36 to 72 hours</p>	<ul style="list-style-type: none"> <li>• Craving for the drug</li> <li>• Tearing</li> <li>• Running nose</li> <li>• Yawning</li> <li>• Sweating</li> <li>• Dysphoria</li> </ul>
<p><b>Stage II</b></p> <p><i>Onset:</i> about 12 hours</p> <p><i>Peak:</i> 72 hours</p>	<ul style="list-style-type: none"> <li>• Mild to moderate sleep disturbances</li> <li>• Dilated pupils</li> <li>• Loss of appetite</li> <li>• Piloerection</li> <li>• Irritability</li> <li>• Tremor</li> </ul>
<p><b>Stage III</b></p> <p><i>Onset:</i> about 24 to 36 hours</p> <p><i>Peak:</i> about 72 hours</p>	<ul style="list-style-type: none"> <li>• Severe insomnia</li> <li>• Violent yawning</li> <li>• Weakness</li> <li>• Nausea, vomiting, diarrhea</li> <li>• Chills, fever</li> <li>• Muscle spasms, especially in the lower extremities</li> <li>• Flushing</li> <li>• Spontaneous ejaculation</li> <li>• Abdominal pain</li> </ul>

*\*Based on information provided by, and used with the permission of, the Province of Nova Scotia "Treatment and Rehabilitation Manual."*

## 3.2 Management of Opiate Withdrawal

### Protocol

#### a) *Codeine, or Acetaminophen plus Codeine*

##### Indications

- Appropriate at Stage I, II or III to reduce symptoms.

##### Contraindications

- Since one can not determine the amount of acetaminophen the patient might have on board prior to commencing treatment, codeine 60 mg may be preferable to acetaminophen plus codeine.

##### Dosage

- Codeine - 30 mg x 2 po qid, and reduce by 30 mg every 24 hours until completed.
- Dimenhydrinate (®Gravol) for nausea.

#### b) *Clonidine*

##### Indications

- Can be used alone, or in combination with either codeine or methadone, to reduce symptoms.

##### Dosage

- Clonidine - 0.1 mg qid for 3 to 4 days, then discontinue. May be used up to 8 days in some settings, decreasing by 0.1 mg per day q1-2 days.
- Dimenhydrinate for nausea as needed .
- Non-steroidal anti-inflammatories for pain as needed.

#### c) *Methadone*

##### Indications

- Appropriate at Stage I, II or III, to reduce symptoms.

**N.B. Special licensing required.**

##### Dosage

- Low dose therapy.
- Methadone - 10 mg tid for three days then taper by 10 mg per day (Methadone related deaths have occurred, almost exclusively at doses in excess of 30 mgs per day. Reference Ball and Ross).
- 5 mg on final day.
- ®Gravol for nausea.

## 4. Cocaine

### 4.1 Cocaine Withdrawal Symptoms

Withdrawal Status	Signs and Symptoms
<p><b>Stage I</b></p> <p>Crash Begins within hours and lasts four days</p>	<ul style="list-style-type: none"> <li>• Agitation</li> <li>• Marked dysphoria</li> <li>• Fatigue</li> <li>• Hypersomnolence</li> <li>• Hyperphagia</li> <li>• Anorexia</li> <li>• Dysphoria</li> </ul>
<p><b>Stage II</b></p> <p>Begins after four days and lasts 1 to 10 weeks</p>	<p><i>First Week:</i></p> <ul style="list-style-type: none"> <li>• Normal sleep</li> <li>• Euthymia</li> <li>• Little anxiety</li> <li>• Minimal cocaine craving</li> </ul> <hr/> <p><i>The following can be anticipated in subsequent weeks</i></p> <ul style="list-style-type: none"> <li>• Anhedonia</li> <li>• Increasing anxiety</li> <li>• Panic</li> <li>• Depression</li> <li>• Loss of energy</li> <li>• Extreme cocaine craving</li> <li>• Relapse is likely to occur during this period</li> </ul>
<p><b>Stage III</b></p> <p>Begins after 1 to 10 weeks May last for months to years</p>	<ul style="list-style-type: none"> <li>• Cocaine craving with reminders of past cocaine use</li> <li>• Desire for cocaine abates with time</li> </ul>

*\*Based on information provided by, and used with the permission of, the Province of Nova Scotia "Treatment and Rehabilitation Manual."*



## 4.2 Management of Cocaine Withdrawal

- Management of cocaine withdrawal consists of dealing with the symptoms presented in the stages of withdrawal. Appropriate medications for the treatment of symptoms can be used as felt necessary, however, **prolonged benzodiazepine use, as with alcohol use, may induce euphoric recall and/or reduce impulse control resulting in relapse.**
- Pharmacological intervention is not routinely required for acute symptoms unless associated with cardiovascular complications. (Cocaine is rapidly metabolized and acute cardiac ischemia, cardiac failure, hypertension or tachycardia from acute intoxication may be present in immediate "withdrawal.")

## References

American Psychiatric Association. (1994). Diagnostic and Statistical Manual of Mental Disorders. (4<sup>th</sup> Ed.). Washington, USA.

Canadian Pharmacists Association. (2000). Compendium of Pharmaceuticals and Specialties. (35<sup>th</sup> Ed.). Toronto, Canada.

Government of Nova Scotia. (1995). *Drug Dependency Services Detoxification Standards and Guidelines*.

J.C. Ball & A. Ross. Springer-Verlag New York Inc. (1991). The Effectiveness of Methadone Maintenance Treatment: Patients, Programs, Services and Outcomes.

## Further reading

Ashton, C.H., (2000). Benzodiazepines: How They Work and How to Withdraw. University of Newcastle, Newcastle upon Tyne , U. K. 42 p.

Holbrook, M., Crowther, R., (1999). Diagnosis and Management of Acute Alcohol Withdrawal. Canadian Medical Association Journal. 160: 675-680.

Holbrook, M., Crowther, R., Lotter, A., Cheng, C., King, D. (1999). Meta-Analysis of Benzodiazepine Use in the Treatment of Acute Alcohol Withdrawal. Canadian Medical Association Journal. 160: 649-655.

Mendonca, J.D., Velanoor, V.R. (1999, May). Emergency Management for Substance Abuse. The Canadian Journal Of Diagnosis. Volume: 96-109.

Mezciems, P.E. (1996). Withdrawal Strategies for Outpatients: Alcohol, Benzodiazepine, Barbiturate, and Opiate Addictions. Canadian Family Physician. 42: 1745-1752.

## APPENDIX A BENZODIAZEPINES

The benzodiazepines are a large family of compounds that act as agonists on specific receptors on cell membranes. Although the endogenous compound that stimulates these receptors has not yet been identified, the receptors themselves have been quite well characterized. So far, two subtypes of benzodiazepine receptors, referred to as BZ-1 and BZ-2, have been shown to be part of the GABA-A receptor. GABA is the major inhibitory neurotransmitter in the brain. Activation of the GABA-A receptor opens a chloride ion channel in the nerve membrane, which allows negatively charged chloride ions to enter the neuron. This increases the negative charge inside the neuron and reduces or blocks the transmission of action potentials. Stimulation of the BZ receptors increases the affinity of the GABA receptors for GABA and increases the amount of time the chloride channel stays open. Thus, the benzodiazepines potentiate GABA's inhibitory control over nerve impulse traffic. Clinical situations in which augmenting GABA inhibition can be beneficial include anxiety, insomnia and epilepsy.

Continuous exposure of a receptor to its agonist results in a reduction in the number of those receptors. When the receptors have been downregulated, the agonist has less of an effect and, if that agonist was being used for its therapeutic action, we say that the patient has developed tolerance to the direct drug effect. In general, it takes about three weeks for maximal receptor downregulation/tolerance to develop. Conversely, if the drug is withdrawn after tolerance has developed, it takes two to three weeks for the receptors to return to their pre-drug state. During withdrawal, the person experiences the exact opposite of the direct drug effects. Since the benzodiazepines reduce anxiety, produce sleep and reduce seizures, the benzodiazepine withdrawal syndrome includes increased anxiety, insomnia and convulsions. When a person stops taking a drug, that drug is cleared from the body over a period of time corresponding to 3 to 5 times the plasma clearance half-life of that drug. Since it takes several weeks for the receptors to return to their predrug state, but less than 1 day for short half-life drugs to be completely eliminated from-lives than with drugs having long half-lives. When a person who has developed tolerance to a short half-life drug, such as triazolam or oxazepam, is to be withdrawn from that drug, substituting a long half-life drug, such as diazepam, from the same family will reduce the severity and the risks of withdrawal.

## APPENDIX B OPIOID ANALGESICS

Formerly known as narcotic analgesics, the opioid analgesics are compounds that act as agonists on the receptors for the endorphin family of neurotransmitters. The four endorphin neurotransmitters are endorphin, leucine-enkephalin, methionine-enkephalin and dynorphin. These endorphin neurotransmitters, also referred to as the endogenous opioid neuropeptides, are the products of 3 separate genes. To date, 3 classes of opioid receptors, called mu, delta and kappa, have been characterized, and each class has several subtypes. The endogenous opioid neuropeptides are inhibitory neurotransmitters and they reduce impulse traffic in neural pathways involved in anxiety and in the processing of pain sensory information. Most of the older narcotic analgesics, such as morphine, codeine and their synthetic relatives diamorphine, meperidine and methadone, are predominantly mu agonists but also stimulate delta and kappa receptors as well. Butorphanol, nalbuphine and pentazocine stimulate kappa receptors but block mu receptors, and so are mixed agonist/antagonist analgesics. Among the consequences attributed to mu receptor stimulation are euphoria, analgesia, respiratory (and cough) suppression, and constipation. Delta and kappa stimulation produce analgesia and 'depersonalization,' a mind-body separation that results in an 'out of body' experience.

Continuous exposure of a receptor to its agonist results in a reduction in the number of those receptors. When the receptors have been downregulated, the agonist has less of an effect and, if that agonist was being used for its therapeutic action, we say that the patient has developed tolerance to the direct drug effect. In general, it takes about three weeks for maximal receptor downregulation/tolerance to develop. Conversely, if the drug is withdrawn after tolerance has developed, it takes two to three weeks for the receptors to return to their pre-drug state. During withdrawal, the person experiences the exact opposite of the direct drug effects. Since the opioids reduce anxiety and pain, and produce euphoria and a sense of relaxed well being, the opioid withdrawal syndrome includes increased anxiety, hyperalgesia, dysphoria and agitation. When a person stops taking a drug, that drug is cleared from the body over a period of time corresponding to 3 to 5 times the plasma clearance half-life of that drug. Since it takes several weeks for the receptors to return to their predrug state, but less than 1 day for short half-life drugs to be completely eliminated from the body, the symptoms of withdrawal are much more severe with drugs having short half-lives than with drugs having long half-lives. When a person who has developed tolerance to a short half-life drug, such as morphine or heroin, is to be withdrawn from that drug, substituting a long half-life drug from the same family, such as methadone, will reduce the severity and the risks of withdrawal.



## APPENDIX D

### ADDICTION RESEARCH FOUNDATION CLINICAL INSTITUTE WITHDRAWAL ASSESSMENT FOR ALCOHOL

Patient: \_\_\_\_\_ Date \_\_\_\_\_ Time: \_\_\_\_\_ (24 hr)

Pulse or heart rate, taken for one minute: \_\_\_\_\_ Blood pressure: \_\_\_\_\_

<p style="text-align: center;"><b>Nausea and Vomiting:</b></p> <p>Ask "Do you feel sick to your stomach? Have you vomited?"</p> <p>Observation:</p> <p>0 no nausea and no vomiting                  1 mild nausea with no vomiting                  2                  3                  4 intermittent nausea with dry heaves                  5                  6                  7 constant nausea, frequent dry heaves and vomiting</p>	<p style="text-align: center;"><b>Tactile disturbances</b></p> <p>Ask "have you any itching, pins and needles sensations, any burning, any numbness, or do you feel bugs crawling on or under your skin?"</p> <p>Observation:</p> <p>0 none                  1 very mild itching, pins and needles, burning or numbness                  2 mild itching, pins and needles, burning or numbness                  3 moderate itching, pins and needles, burning or numbness                  4 moderately severe hallucinations                  5 severe hallucinations                  6 extremely severe hallucinations                  7 continuous hallucinations</p>
<p style="text-align: center;"><b>Tremor</b></p> <p>Arms extended and fingers spread apart.</p> <p>Observation:</p> <p>0 no tremor                  1 not visible, but can be felt fingertip to fingertip                  2                  3                  4 moderate, with patient's arms extended                  5                  6                  7 severe, even with arms not extended</p>	<p style="text-align: center;"><b>Auditory disturbances</b></p> <p>Ask "Are you more aware of sounds around you? Are they harsh? Do they frighten you? Are you hearing anything that is disturbing to you? Are you hearing things you know are not there?"</p> <p>Observation:</p> <p>0 not present                  1 very mild harshness or ability to frighten                  2 mild harshness or ability to frighten                  3 moderate harshness or ability to frighten                  4 moderately severe hallucinations                  5 severe hallucinations                  6 extremely severe hallucinations                  7 continuous hallucinations</p>
<p style="text-align: center;"><b>Paroxysmal Sweats</b></p> <p>Observation:</p> <p>0 no sweat visible                  1 barely perceptible sweating, palms moist                  2                  3                  4 beads of sweat obvious on forehead                  5                  6                  7 drenching sweats</p>	<p style="text-align: center;"><b>Visual Disturbances</b></p> <p>Ask, "Does the light appear to be too bright? Is its color different? Does it hurt your eyes? Are you seeing anything that is disturbing to you? Are you seeing things you know are not there?"</p> <p>Observation:</p> <p>0 not present                  1 very mild sensitivity                  2 mild sensitivity                  3 moderate sensitivity                  4 moderately severe hallucinations                  5 severe hallucinations                  6 extremely severe hallucinations                  7 continuous hallucinations</p>
<p style="text-align: center;"><b>Anxiety</b></p> <p>Observation:</p> <p>0 no anxiety                  1 mild anxious                  2                  3                  4 moderately anxious, or guarded, so anxiety is inferred                  5                  6                  7 equivalent to acute panic states as seen in severe delirium or acute schizophrenic reactions</p>	<p style="text-align: center;"><b>Headache, fullness in head</b></p> <p>Ask, "Does your head feel different? Does it feel like there is a band around your head?" Do not rate for dizziness or lightheadedness. Otherwise, rate severity.</p> <p>0 not present                  1 very mild                  2 mild                  3 moderate                  4 moderately severe                  5 severe                  6 very severe                  7 extremely severe</p>
<p style="text-align: center;"><b>Agitation</b></p> <p>Observation:</p> <p>0 normal activity                  1 somewhat more than normal activity                  2                  3                  4 moderate fidgety and restless                  5                  6                  7 paces back and forth during most of the interview, or constantly thrashes about</p>	<p style="text-align: center;"><b>Orientation and clouding of sensorium</b></p> <p>Ask, "What day is this? Where are you? Who am I?"</p> <p>0 oriented and can do serial additions                  1 cannot do serial additions or is uncertain about date                  2 disoriented for date by no more than 2 calendar days                  3 disoriented for date by more than 2 calendar days                  4 disoriented for place/or person</p>

**Total: CIWA-Ar Score** \_\_\_\_\_ Rater's Initials \_\_\_\_\_ Maximum possible score: 67. The maximum score is 67 (see instrument). Patients scoring less than 10 do not usually need additional medication for withdrawal.

## **APPENDIX E**

### **Alcohol and Drug Services**

Saskatchewan offers a full range of recovery services for individuals and their families who have problems because of alcohol and/or other drug use. Outpatient services are available in each of Saskatchewan's 32 health districts as well as through a number of community-based organizations located throughout the province. Inpatient, detoxification and long term residential facilities are also available in several health districts.

#### **Services available include:**

##### **⇒ Outpatient Service**

Outpatient service agencies are the starting point for families and individuals concerned about their own, or others', use of alcohol or other drugs. Most people with substance use problems can be adequately helped on an outpatient basis. Outpatient services are available in every health district. Qualified addictions rehabilitation counselors provide a wide range of services, including assessments, intensive one on one and group counseling, education and support. Clients that attend outpatient appointments carry on with their day to day activities, such as working, school and caring for the family.

##### **⇒ Detoxification Services**

For people with more severe substance use problems, recovery often begins in a detoxification facility. Staff at these facilities work to provide a safe and comfortable environment in which the client is able to undergo the process of alcohol and other drug withdrawal and stabilization. Usually, detoxification lasts seven to ten days. During this time, clients may be required to attend self-help groups such as Alcoholics Anonymous (AA) or Narcotics Anonymous (NA), and participate in activities held at the facility.

##### **Inpatient Services**

Some people may require inpatient services. These programs offer activities similar to those of outpatient services, but on a more structured and intensive basis, with the client actually living at the facility. These programs usually last about four weeks, but may be longer depending on individual needs.

##### **Long Term Residential Services**

Many people with substance use problems require assistance in other life areas as well. Long term residential facilities provide services for a more extended period to individuals recovering from chemical dependency and addiction. These facilities offer counseling, education and relapse prevention in safe and supportive environment. Life skills training, which allows clients to further develop and enhance the skills needed for successfully building recovery, is also an important service offered at such facilities.

## DIRECTORY OUTPATIENT AND COMMUNITY BASED ORGANIZATIONS OUTPATIENT SERVICES

### **Assiniboine Valley Health District**

Alcohol and Drug Services  
Box 868  
Canora, Saskatchewan  
S0A 0L0  
Phone: (306) 563-5656  
Fax: (306) 563-5134

### **Battlefords Health District**

Battlefords District Addictions Services  
1092 - 107th Street  
North Battleford, Saskatchewan  
S9A 1Z1  
Phone: (306) 446-6440  
Fax: (306) 446-7343

### **Central Plains Health District**

George Bailey Centre\*  
Central Plains District Health Board  
Box 2764  
Humboldt, Saskatchewan  
S0K 2A0  
Phone: (306) 682-3249  
Fax: (306) 682-1920

### **East Central Health District**

Alcohol and Drug Services  
120 Smith Street East  
Yorkton, Saskatchewan  
S3N 3V3  
Phone: (306) 786-0520  
Fax: (306) 786-0525

### **Parkland Alcohol and Drug Abuse Society**

7 Broadway Street West  
Yorkton, Saskatchewan  
S3N 0L3  
Phone: (306) 783-5777  
Fax: (306) 783-1980

### **Gabriel Springs Health District**

Alcohol and Drug Services  
Box 796  
Wakaw, Saskatchewan  
S0K 4P0  
Phone: (306) 233-4363  
Fax: (306) 233-4602

### **Greenhead Health District**

Alcohol and Drug Services  
Box 459  
Wilkie, Saskatchewan S0K 4W0  
Phone: (306) 843-2644  
Fax: (306) 843-3222



**Keewatin Yathe Health District**

Alcohol and Drug Programs  
 Box 283  
 Beauval, Saskatchewan  
 S0M 0G0  
 Phone: (306) 833-2463  
 Fax: (306) 833-2330

Alcohol and Drug Programs  
 Ile a la Crosse, Saskatchewan  
 S0M 1C0  
 Phone: (306) 833-5500  
 Fax: (306) 833-2474

Alcohol and Drug Programs  
 Box 40  
 Buffalo Narrows, Saskatchewan  
 S0M 0J0  
 Phone: (306) 235-2220  
 Fax: (306) 235-2229

Beauval Outpatient Centre\*  
 Box 321  
 Beauval, Saskatchewan  
 S0M 0G0  
 Phone: (306) 288-4808  
 Fax: (306) 288-4622

Kiyenaw Outpatient Centre\*  
 Box 460  
 Buffalo Narrows, Saskatchewan  
 S0M 0J0  
 Phone: (306) 235-5845  
 Fax: (306) 235-4686

Clearwater Outpatient Centre\*  
 Box 98  
 La Loche, Saskatchewan  
 S0M 1G0  
 Phone: (306) 822-2020  
 Fax: (306) 822-2441

**Living Sky Health District**

Addictions Services  
 Box 1060  
 Lanigan, Saskatchewan  
 S0K 2M0  
 Phone: (306) 365-1438  
 Fax: (306) 365-2099

**Lloydminster Health District**

Walter A. "Slim" Thorpe Recovery Centre  
 4204 - 54<sup>th</sup> Avenue  
 Lloydminster, Alberta  
 T9V 2R6  
 Phone: (780) 875-8890  
 Fax: (780) 875-2161

**Mamawetan - Churchill River**

Alcohol and Drug Programs  
 Box 6000  
 La Ronge, Saskatchewan  
 S0J 1L0  
 Phone: (306) 425-4840  
 Fax: (306) 425-8514

**CADAC Outpatient Centre\***

Alcohol and Drug Programs  
 Box 760  
 Creighton, Saskatchewan  
 S0P 0A0  
 Phone: (306) 688-8291  
 Fax: (306) 688-3784

**Sandy Bay Outpatient Centre\***

Alcohol and Drug Programs  
 Box 40  
 Sandy Bay, Saskatchewan  
 S0P 0G0  
 Phone: (306) 754-2050  
 Fax: (306) 754-2048

**Midwest Health District**  
Alcohol and Drug Services  
Box 1300  
Rosetown, Saskatchewan  
S0L 2V0  
Phone: (306) 882-6413  
Fax: (306) 882-6474

**Moose Jaw/Thunder Creek Health District**  
Addictions Services  
#116 - 110 Ominica Street  
Moose Jaw, Saskatchewan  
S6H 6V2  
Phone: (306) 691-6495  
Fax: (306) 691-6499

**Moose Mountain Health District**  
Moose Mountain Alcohol  
and Drug Outpatient Centre\*  
Box 699  
Kipling, Saskatchewan  
S0G 2S0  
Phone: (306) 736-2363  
Fax: (306) 736-2271

**North Central Health District**  
Addictions Services  
Box 1480  
Melfort, Saskatchewan  
S0E 1A0  
Phone: (306) 752-8747  
Fax: (306) 752-8711

**North-East Health District**  
Alcohol and Drug Services  
Box 340  
Nipawin, Saskatchewan  
S0E 1E0  
Phone: (306) 862-0760  
Fax: (306) 862-2277

Pine Island Out-Patient Crisis Centre\*  
Box 218  
Cumberland House, Saskatchewan  
S0E 0S0  
Phone: (306) 888-2155  
Fax: (306) 888-4633

**North Valley Health District**  
Saul Cohen Centre\*  
Box 164  
Melville, Saskatchewan  
S0A 2P0  
Phone: (306) 728-2629  
Fax: (306) 728-5569

**Northwest Health District**  
Robert Simard Centre\*  
#3, 711 Centre Street  
Meadow Lake, Saskatchewan  
S9X 1E6  
Phone: (306) 236-1540  
Fax: (306) 236-4409

**Parkland Health District**  
Addictions Services  
Box 69  
Spiritwood, Saskatchewan  
S0J 2M0  
Phone: (306) 883-3344  
Fax: (306) 883-3329

**Pasquia Health District**

Hudson Bay and District Assessment  
and Resource Service\*  
Box 898  
Hudson Bay, Saskatchewan  
S0E 0Y0  
Phone: (306) 865-4211  
Fax: (306) 865-2141

Pasquia District Health Board  
Addiction Services  
Box 1525  
Tisdale, Saskatchewan  
S0E 1T0  
Phone: (306) 873-3012  
Fax: (306) 873-4240

**Pipestone Health District**

Alcohol and Drug Services  
Box 970  
Grenfell, Saskatchewan  
S0G 2B0  
Phone: (306) 697-4000  
Fax: (306) 697-2686

**Prairie West Health District**

Danny Fisher Centre\*  
Box 1688  
111 1st Avenue East  
Kindersley, Saskatchewan  
S0L 1S0  
Phone: (306) 463-4464  
Fax: (306) 463-4466

**Prince Albert Health District**

Addiction Services  
101 - 15th Street East  
Prince Albert, Saskatchewan  
S6V 1G1  
Phone: (306) 765-6550  
Fax: (306) 765-6554

**PACADA Addiction Services\***

101-15th Street East  
Prince Albert, Saskatchewan  
S6V 1G1  
Phone: (306) 765-6550  
Fax: (306) 765-6554

**Regina Health District**

Alcohol & Drug Services  
2110 Hamilton Street  
Regina, Saskatchewan  
S4P 2E3  
Phone: (306) 766-7910  
Fax: (306) 766-7909

**Rolling Hills Health District**

Alcohol and Drug Services  
Vanguard Health Centre  
Box 190  
Vanguard, Saskatchewan  
S0N 2V0  
Phone: (306) 582-2056  
Fax: (306) 582-4833

**Saskatoon District Health**

Addiction Services  
8th Floor, 122 Third Avenue North  
Saskatoon, Saskatchewan  
S7K 2H6  
Phone: (306) 655-4100  
Fax: (306) 655-4115

**South Central Health District**

Alcohol and Drug Services  
Box 2003  
Weyburn, Saskatchewan  
S4H 2Z9  
Phone: (306) 842-8693  
Fax: (306) 842-8692

**South Country Health District**

Alcohol and Drug Services  
Box 1120  
Assiniboia, Saskatchewan  
S0H 0B0  
Phone: (306) 642-5733  
Fax: (306) 642-5433

**Southeast Health District**

Addiction Services  
St. Joseph's Hospital  
1176 Nicholson Road  
Estevan, Saskatchewan  
S4A 0H3  
Phone: (306) 634-0422  
Fax: (306) 634-8785

**Southwest Health District**

Alcohol and Drug Services  
Box 1328  
Maple Creek, Saskatchewan  
S0N 1N0  
Phone: (306) 662-5330  
Fax: (306) 662-5349

**Swift Current Health District**

Addiction Services - Youth Program  
350 Cheadle Street West  
Swift Current, Saskatchewan  
S9H 4G3  
Phone: (306) 778-5280  
Fax: (306) 778-5408

**Addictions Services-Adult Program**

429 - 4th Avenue N.E.  
Swift Current, Saskatchewan  
S9H 2J9  
Phone: (306) 778-5280  
Fax: (306) 773-9513

**Touchwood Qu'Appelle Health District**

Community Service Team  
Box 1819  
Fort Qu'Appelle, Saskatchewan  
S0G 1S0  
Phone: (306) 332-3305 / 332-3308  
Fax: (306) 332-1226

**Twin Rivers Health District**

Addiction Services  
Box 629  
Maidstone, Saskatchewan  
S0M 1M0  
Phone: (306) 893-4850  
Fax: (306) 893-4480

## **Health District and Community Based Organization Detoxification Services**

### **Walter A. "Slim" Thorpe Recovery Centre\***

Detox, Outpatient and  
Residential Services  
4204-54th Avenue  
Lloydminster, Alberta  
T9V 2R6  
Phone: (780) 875-8890  
Fax: (780) 875-2161

### **La Ronge Health Centre**

Detox/Hostel Unit  
Box 6000  
La Ronge, Saskatchewan  
S0J 1L0  
Phone: (306) 425-3205  
Fax: (306) 425-5513

### **Angus Campbell Centre - Detox Centre\***

Box 118  
Moose Jaw, Saskatchewan  
S6H 4N7  
Phone: (306) 693-5977  
Fax: (306) 693-0908

### **Regina Recovery Homes - Detox Centre\***

2839 Victoria Avenue  
Regina, Saskatchewan  
S4T 1K6  
Phone: (306) 522-5662  
Fax: (306) 525-2382

### **Larson Intervention House - Detox Centre\***

201 Avenue 0 South  
Saskatoon, Saskatchewan  
S7M 2R6  
Phone: (306) 655-4195  
Fax: (306) 655-4196

## Health District and Community Based Organization Inpatient Services

### **Northwest Alcohol and Drug Abuse Centre**

Box 129  
Ile- a -la- Crosse, Saskatchewan  
S0M 1C0  
Phone: (306) 833-2462  
Fax: (306) 833-2330

### **Walter A. "Slim" Thorpe Recovery Centre\***

Detox, Outpatient and  
Residential Services  
4204 54th Avenue  
Lloydminster, Alberta  
T9V 2R6  
Phone: (780) 875-8890  
Fax: (780) 875-2161

### **La Ronge Health Centre**

Detox/Hostel Unit  
Box 6000  
La Ronge, Saskatchewan  
S0J 1L0  
Phone: (306) 425-3205  
Fax: (306) 425-5513

### **Pine Lodge Treatment Centre\***

Box 457  
Indian Head, Saskatchewan  
S0G 2K0  
Phone: (306) 695-2251  
Fax: (306) 635-2514

### **Calder Centre (Adult and Adolescent Programs)**

2003 Arlington Avenue  
Saskatoon, Saskatchewan  
S7J 2H6  
Phone: (306) 655-4500  
Fax: (306) 655-4545

### **St. Louis Alcoholism Rehabilitation Centre (Impaired Driver Training Program)\***

Box 220  
St. Louis, Saskatchewan  
S0J 2C0  
Phone: (306) 422-8533  
Fax: (306) 422-8488

### **Metis Addictions Council of Saskatchewan Incorporated (MACSI)**

#### **MACSI Regina**

329 College Avenue East  
Regina, Saskatchewan  
S4N 0V9  
Phone: (306) 352-9601  
Fax: (306) 347-7902

#### **MACSI Saskatoon**

419 Avenue E South  
Saskatoon, Saskatchewan  
S7M 1S4  
Phone: (306) 652-8951  
Fax: (306) 665-0703

#### **MACSI Prince Albert**

334 19th St. East  
Prince Albert, Saskatchewan  
S6V 1J7  
Phone: (306) 953-8250  
Fax: (306) 953-8261

## **Long-Term Residential Services**

### **Hopeview Recovery Home**

1891 96<sup>th</sup> St.  
North Battleford, Saskatchewan  
S9A 0J1  
Phone: (306) 446-7370  
Fax: (306) 445-0424

### **Regina Recovery Home**

2825 Victoria Avenue  
Regina, Saskatchewan  
S4T 1K6  
Phone: (306) 522-55763  
Fax: (306) 525-2382

**METIS ADDICTION COUNCIL OF  
SASKATCHEWAN INCORPORATED (MACSI)**

Since 1969, MACSI has been providing rehabilitation, education and prevention services to persons who are affected by substance use. Rehabilitation services include inpatient, detoxification, and outpatient and field services for adults and youth. You should contact the centre nearest you for specific information regarding what services are available. While the majority of MACSI clients are of Indian or Metis ancestry, services are available to all members of the population. MACSI services are a vital component of alcohol and drug recovery services in Saskatchewan.

**MACSI services in Saskatchewan:**

**MACSI Regina**

329 College Avenue East  
Regina, Saskatchewan  
S4N 0V9  
Phone: (306) 352-9601  
Fax: (306) 347-7902  
(Inpatient, Outpatient,  
Youth Field Worker)

**MACSI Saskatoon**

419 Avenue E South  
Saskatoon, Saskatchewan  
S7M 1S4  
Phone: (306) 652-8951  
Fax: (306) 665-0703  
(Inpatient, Outpatient,  
Adult Field Worker)

**MACSI Prince Albert**

334 - 19th St. East  
Prince Albert, Saskatchewan  
S6V 1J7  
Phone: (306) 953-8250  
Fax: (306) 953-8261  
(Detox, Inpatient, Outpatient)

**Other Alcohol and Drug -  
related Services not funded by  
Saskatchewan Health or Health  
Districts**

- National Native Alcohol and Drug Abuse Program (306) 780-7449
- Methadone Programs:  
Private physicians in some areas provide methadone services, in cooperation with pharmacists and community services, for opiate addicted individuals who meet the criteria.

**MACSI North Battleford**

Adult and Youth Field Workers  
Box 1752  
North Battleford, Saskatchewan  
S9A 3W2  
Phone: (306) 445-3319  
Fax: (306) 445-6004

**MACSI Fort Qu'Appelle**

Adult Field Worker  
Box 1188  
Fort Qu'Appelle, Saskatchewan  
S0G 1S0  
Phone: (306) 332-4771  
Fax: (306) 332-1869

**MACSI Archerwill**

Adult Field Worker  
Box 158  
Archerwill, Saskatchewan  
S0E 0B0  
Phone: (306) 323-4232  
Fax: (306) 323-4520

**MACSI Yorkton**

Youth Field Worker  
212 Myrtle Avenue  
Yorkton, Saskatchewan  
S3N 1R2  
Phone: (306) 783-8755  
Fax: (306) 783-6780

*\*Based on information provided  
by, and used with the permission  
of, Saskatchewan Health.*