

Form Title **Emergency Department Alcohol Withdrawal Adult Order Set**

Form Number **20745Bond**



© 2018, Alberta Health Services, CKCM



This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. The license does not apply to content for which the Alberta Health Services is not the copyright owner.

To view a copy of this license, visit

<https://creativecommons.org/licenses/by-nc-nd/4.0/>

Disclaimer: *This material is intended for use by clinicians only and is provided on an "as is", "where is" basis. Although reasonable efforts were made to confirm the accuracy of the information, Alberta Health Services does not make any representation or warranty, express, implied or statutory, as to the accuracy, reliability, completeness, applicability or fitness for a particular purpose of such information. This material is not a substitute for the advice of a qualified health professional. Alberta Health Services expressly disclaims all liability for the use of these materials, and for any claims, actions, demands or suits arising from such use.*

**Emergency Department Alcohol Withdrawal
Adult Order Set**

Select orders by replacing a (✓) in the associated box

Last Name <i>(Legal)</i>		First Name <i>(Legal)</i>	
Preferred Name <input type="checkbox"/> Last <input type="checkbox"/> First		DOB <i>(dd-Mon-yyyy)</i>	
PHN	ULI <input type="checkbox"/> Same as PHN	MRN	
Administrative Gender <input type="checkbox"/> Male <input type="checkbox"/> Female		<input type="checkbox"/> Non-binary/Prefer not to disclose (X) <input type="checkbox"/> Unknown	

Goals of Care

Conversations leading to the ordering of a Goals of Care Designation (GCD) should take place as early as possible in a patient's course of care. The Goals of Care Designation is created, or the previous GCD is affirmed or changed resulting from this conversation with the patient or, where appropriate, the Alternate Decision-Maker.

Complete the Goals of Care Designation (GCD) Order Set within your electronic system, or if using paper process, complete the Provincial Goals of Care Designation (GCD) paper form (<http://www.albertahealthservices.ca/frm-103547.pdf>)

Intravenous Fluid Orders

- Intravenous Cannula - Insert
- Saline lock IV, flush with 2 to 5 mL 0.9% NaCl every 12 hours

IV Bolus

- 0.9% NaCl _____ mL over _____ hour(s)
- lactated ringers _____ mL over _____ hour(s)

IV Maintenance

- 0.9% NaCl infusion _____ mL/hour, reassess after _____ hours
- lactated ringers infusion _____ mL/hour, reassess after _____ hours

Laboratory Investigations

The anion gap (AG) can be calculated as, $Na^+ - (Cl^- + HCO_3^-)$ with a normal range of 4 to 12 mmol/L. An elevated gap in this population should lead clinicians to consider alcoholic ketoacidosis.

The osmol gap (OG) is calculated as the difference between measured serum osmolality and calculated osmolality. $Calculated\ osmolality = 2 \times Na^+ + glucose + urea + [ETOH \times 1.25]$ (all measured in mmol/L). A normal gap is generally less than 10 mOsm/kg. Both ketones and lactate will contribute to an osmolar gap. An unexplained gap of greater than 10 mOsm/kg could suggest a toxic alcohol co-ingestion.

Hematology

- Complete Blood Count (CBC)
- PT INR

Chemistry

- | | |
|---------------------------------------------------------------------|------------------------------------------|
| <input type="checkbox"/> Electrolytes (Na, K, Cl, CO ₂) | <input type="checkbox"/> Glucose |
| <input type="checkbox"/> Creatinine | <input type="checkbox"/> Urea |
| <input type="checkbox"/> ALT | <input type="checkbox"/> Bilirubin Total |
| <input type="checkbox"/> GGT | <input type="checkbox"/> Lipase |
| <input type="checkbox"/> Calcium | <input type="checkbox"/> Magnesium |
| <input type="checkbox"/> Phosphorus | <input type="checkbox"/> Albumin |

Blood Gases

- Blood Gas Venous
- Blood Gas Arterial

Therapeutic Drug Monitoring and Toxicology

- | | |
|----------------------------------------|------------------------------------------|
| <input type="checkbox"/> Ethanol | <input type="checkbox"/> Methanol |
| <input type="checkbox"/> Acetaminophen | <input type="checkbox"/> Isopropanol |
| <input type="checkbox"/> Salicylate | <input type="checkbox"/> Ethylene Glycol |
| <input type="checkbox"/> Osmolality | |

Prescriber Signature	Date <i>(dd-Mon-yyyy)</i>	Time <i>(hh:mm)</i>
----------------------	---------------------------	---------------------

**Emergency Department Alcohol Withdrawal
Adult Order Set**

Select orders by replacing a (✓) in the associated box

Last Name <i>(Legal)</i>		First Name <i>(Legal)</i>	
Preferred Name <input type="checkbox"/> Last <input type="checkbox"/> First		DOB <i>(dd-Mon-yyyy)</i>	
PHN	ULI <input type="checkbox"/> Same as PHN	MRN	
Administrative Gender <input type="checkbox"/> Male <input type="checkbox"/> Female		<input type="checkbox"/> Non-binary/Prefer not to disclose (X) <input type="checkbox"/> Unknown	

Laboratory Investigations (continued)		
<input type="checkbox"/> Urinalysis Random <input type="checkbox"/> Pregnancy Test, Urine		
Other Labs <i>(based on presentation needs of the patient)</i>		
<input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____		
Diagnostic Imaging		
<input type="checkbox"/> Chest X-Ray 2 projections <i>(posterior-anterior & lateral)</i> <input type="checkbox"/> Chest X-Ray 1 projection: Portable <i>(posterior-anterior)</i> <input type="checkbox"/> CT Head <i>(non-enhanced)</i>		
Other Investigations		
<input type="checkbox"/> Electrocardiogram - 12 Lead (ECG)		
Medications		
Supportive Care		
Thiamine <i>(recommended for chronically malnourished alcoholics to prevent Wernicke's)</i>		
<input type="checkbox"/> thiamine _____ mg IV every 24 hours <i>(recommended dosage 300 mg)</i> OR <input type="checkbox"/> thiamine _____ mg PO every 24 hours <i>(may give orally once patient tolerating regular diet, recommended dosage 300 mg)</i> OR <input type="checkbox"/> thiamine 300 mg IV every 8 hours x 3 days AND THEN 300 mg IV/PO every 8 hours x 5 days		
<input type="checkbox"/> vitamins multiple with minerals 2 tabs PO every 24 hours OR <input type="checkbox"/> vitamins multiple 10 mL in a 1 liter bag of IV solution once <i>(only for those with signs of obvious malnutrition)</i>		
<input type="checkbox"/> magnesium sulphate 2 g IV once <i>(consider if hypomagnesic/hypokalemic or cardiac dysrhythmia, or neuromuscular irritability)</i>		
<input type="checkbox"/> potassium chloride 10 mmol in 100 mL sterile water x ____ doses, each bag to be infused over 1 hour		
<input type="checkbox"/> potassium chloride SR tabs 40 mmol PO once <i>(each tab is 1500 mg = 20 mmol; 2 tablets = 40 mmol)</i> OR <input type="checkbox"/> potassium chloride liquid 40 mmol PO once <i>(each mL is 100 mg = 1.33 mmol; 30 mL = 40 mmol)</i>		
Other Medications		
<input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____		
Prescriber Signature	Date <i>(dd-Mon-yyyy)</i>	Time <i>(hh:mm)</i>

**Emergency Department Alcohol Withdrawal
Adult Order Set**

Select orders by replacing a (✓) in the associated box

Last Name (Legal)		First Name (Legal)	
Preferred Name <input type="checkbox"/> Last <input type="checkbox"/> First		DOB(dd-Mon-yyyy)	
PHN	ULI <input type="checkbox"/> Same as PHN	MRN	
Administrative Gender <input type="checkbox"/> Male <input type="checkbox"/> Female		<input type="checkbox"/> Non-binary/Prefer not to disclose (X) <input type="checkbox"/> Unknown	

Medications (continued)

Benzodiazepines

Recommend an hourly symptom-based regimen, using the Clinical Institute Withdrawal Assessment for Alcohol (CIWA-Ar) score or the short scale of withdrawal severity (SHOT) to assess medication initiation/continuation. The recommended goal is to achieve light somnolence OR to achieve minimal to moderate sedation.

LORazepam is the drug of choice for the elderly, or patients with COPD or severe liver disease.

ChlordiazepOXIDE should not be used for elderly patients or those with hepatic impairment.

See scoring tool on side B of this page

- Clinical Institute Withdrawal Assessment for Alcohol: to be completed with administration of benzodiazepines and reassess at a minimum of every 1 hour. Notify physician when CIWA-Ar score is 10 or less for 3 consecutive assessments to reassess monitoring/disposition planning.

Following initial assessment (loading dose recommendations):

If initial CIWA-Ar Score greater than 19 – Severe agitation - (choose ONE)

- diazepam 20 mg IV/PO once
- diazepam 10 mg IV/PO once

AND THEN

- diazepam _____ mg IV/PO every 15 minutes PRN to achieve a CIWA-Ar less than 19; reassess CIWA-Ar 1 hour following administration of first dose

- LORazepam 4 mg IV/SL/PO once
- LORazepam 2 mg IV/SL/PO once

AND THEN

- LORazepam __ mg IV/SL/PO every 15 minutes PRN to achieve a CIWA-Ar less than 19; reassess CIWA-Ar 1 hour following administration of first dose

If initial CIWA-Ar Score 10 to 19 – Moderate agitation - (choose ONE)

- diazepam 10 mg IV/PO once
- diazepam 5 mg IV/PO once
- LORazepam 4 mg IV/SL/PO once
- LORazepam 2 mg IV/SL/PO once

For subsequent medication dosing, adjust based on hourly CIWA-Ar scores:

If CIWA-Ar Score greater than 19 – Severe agitation - (choose ONE)

- diazepam 20 mg IV/PO every 1 hour PRN for CIWA-Ar score greater than 19
- diazepam 10 mg IV/PO every 1 hour PRN for CIWA-Ar score greater than 19
- LORazepam 4 mg IV/SL/PO every 1 hour PRN for CIWA-Ar score greater than 19
- LORazepam 2 mg IV/SL/PO every 1 hour PRN for CIWA-Ar score greater than 19

If CIWA-Ar Score 10 to 19 – Moderate agitation - (choose ONE)

- diazepam 10 mg IV/PO every 1 hour PRN for CIWA-Ar score 10 to 19
- diazepam 5 mg IV/PO every 1 hour PRN for CIWA-Ar score 10 to 19
- LORazepam 2 mg IV/SL/PO every 1 hour PRN for CIWA-Ar score 10 to 19
- LORazepam 1 mg IV/SL/PO every 1 hour PRN for CIWA-Ar score 10 to 19

If CIWA-Ar Score 0 – 9 for 4 consecutive hours may switch to PRN orders - (choose ONE)

- diazepam 5 to 10 mg PO every 6 hours PRN to control residual symptoms
- LORazepam 2 to 4 mg PO every 6 hours PRN to control residual symptoms
- chlordiazepOXIDE 25 to 50 mg PO every 6 hours PRN to control residual symptoms

Prescriber Signature	Date (dd-Mon-yyyy)	Time (hh:mm)
----------------------	--------------------	--------------

Alcohol Withdrawal Assessment Scoring Guidelines (CIWA-Ar)¹

Rate on scale as indicated by numbers in each section

Nausea/Vomiting 0 – None 1 – Mild nausea and vomiting 2 3 4 – Intermittent nausea 5 6 7 – Constant nausea and frequent heaves and vomiting	Tremors Patient to extend arms & spread fingers 0 – No Tremor 1 – Not visible but can be felt fingertip to fingertip 2 3 4 – Moderate with arms extended 5 6 7 – Severe, even with arms not extended
Anxiety 0 – No anxiety, patient at ease 1 – Mild anxious 2 3 4 – Moderately anxious or guarded, so inferred anxiety 5 6 7 – Equivalent to acute panic states seen in severe delirium or acute schizophrenic reactions	Agitation 0 – Normal Activity 1 – Somewhat normal activity 2 3 4 – Moderately fidgety and restless 5 6 7 – Paces back and forth or constantly thrashes about
Paroxysmal Sweats 0 – No sweats 1 – Barely perceptible sweating, palms moist 2 3 4 – Beads of sweat obvious on forehead 5 6 7 – Drenching sweats	Orientation and Clouding of Sensorium Ask: What day is this? Where are you? Who am I? Rate on scale 0 – 4 0 – Orientated 1 – Cannot do serial additions or is uncertain about the date 2 – Disorientated to date by no more than 2 calendar days 3 – Disorientated to date by more than 2 calendar days 4 – Disorientated to place/and or person
Tactile disturbances Ask: Have you experienced any itching, pins & needles, burning or numbness, or a feeling of bugs crawling on or under your skin? 0 – None 1 – Very Mild itching, pins & needles, burning or numbness 2 – Mild itching, pins & needles, burning or numbness 3 – Moderate itching, pins & needles, burning or numbness 4 – Moderate hallucinations 5 – Severe hallucinations 6 – Extremely severe hallucinations 7 – Continuous hallucinations	Auditory Disturbances Ask: Are you more aware of sounds around you? Are they harsh? Do they startle you? Do you hear anything that disturbs you or that you know isn't there? 0 – None Present 1 – Very middle harshness or ability to startle 2 – Mild harshness or ability to startle 3 – Moderate harshness or ability to startle 4 – Moderate hallucinations 5 – Severe hallucinations 6 – Extremely severe hallucinations 7 – Continuous hallucinations
Visual disturbances Ask: Does the light appear to be too bright? Is its color different than normal? Does it hurt your eyes? Are you seeing anything that disturbs your or that you know isn't there? 0 – Not Present 1 – Very mild sensitivity 2 – Mild sensitivity 3 – Moderate sensitivity 4 – Moderate hallucinations 5 – Severe hallucinations 6 – Extremely severe hallucinations 7 – Continuous hallucinations	Headache Ask: Does your head feel different than usual? Does it feel like there is a band around your head? (<i>Do not rate dizziness or light headedness</i>) 0 – Not Present 1 – Very mild 2 – Mild 3 – Moderate 4 – Moderate severe 5 – Severe 6 – Very severe 7 – Extremely severe

Adapted from Sullivan JT, Sykora K, Schneiderman J, Naranjo CA, Sellers. Assessment of alcohol withdrawal: the revised Clinical Institute Withdrawal Assessment for Alcohol scale (CIWA-Ar). Br Journal of Addict. 84(11):1353-1357.

**Emergency Department Alcohol Withdrawal
Adult Order Set**

Select orders by replacing a (✓) in the associated box

Last Name (Legal)		First Name (Legal)	
Preferred Name <input type="checkbox"/> Last <input type="checkbox"/> First		DOB(dd-Mon-yyyy)	
PHN	ULI <input type="checkbox"/> Same as PHN	MRN	
Administrative Gender <input type="checkbox"/> Male <input type="checkbox"/> Female		<input type="checkbox"/> Non-binary/Prefer not to disclose (X) <input type="checkbox"/> Unknown	

Medications (continued)
For hallucinations not controlled by adequate doses of benzodiazepines

- haloperidol _____ mg IM/PO/IV every _____ hour(s) PRN
 AND (if required to prevent or manage a dystonic reaction to haloperidol)
 benzotropine 1 mg IM/IV once
 OR benzotropine 2 mg IM/IV once
 diphenhydrAMINE 25 mg IM/IV once
 OR diphenhydrAMINE 50 mg IM/IV once

Other medications as required

- metocloproamide 5 to 10 mg IV/PO once and then metocloproamide 5 to 10 mg IV/PO every 4 hours PRN
 OR ondansetron 4 mg IV once and then ondansetron 4 mg IV every 8 hours PRN
 OR ondansetron 4 to 8 mg PO once and then ondansetron 4 to 8 mg PO every 8 hours PRN
 lidocaine viscous 2% / antacid liquid 30 mL PO once (5 mL lidocaine viscous and 25 mL antacid liquid)
 tetanus-diphtheria toxoids (DTaP) 0.5 mL IM once (if the patient has an open wound)

Patient Care
Monitoring

- Vital Signs (respiratory rate, pulse, blood pressure, temperature, oxygen saturation)
 as per Provincial Assessment and Reassessment of Patients Guideline
 every _____ hour(s) manual automatic
 every _____ minutes manual automatic
 Glasgow Coma Scale (GCS), pupillary size and reaction to light with reassessments
 as per local standards
 every _____ hour(s)
 every _____ minutes
 Notify physician if patient's GCS decreases by two or more points
 Measure and record Intake and Output every _____ hour(s)

Respiratory Care

- O2 Therapy @ _____ LPM via _____ to maintain O2 sat greater than or equal to 90%
 Notify physician if O2 flow required to be increased by greater than 2 L to maintain the same level of oxygenation or if there is a progressive increase in the work of breathing

Activity

- Bedrest (recommended)
 Activity as Tolerated
 Other Activity: _____

Safety and Precautions

- Soft physical restraints
 Remove hand sanitizer from room

Diet/Nutrition

- NPO NPO: May Take Meds
 Regular Diet Other Diet: _____

Prescriber Signature	Date (dd-Mon-yyyy)	Time (hh:mm)
----------------------	--------------------	--------------

