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STANDARD GUIDELINE SUBJECT:
Management of a Patient with Alcohol Withdrawal in Emergency Departments

PURPOSE:
To rapidly assess and identify patients presenting with Alcohol Withdrawal (AW), relieve the patient's discomfort/fears and manage symptoms of alcohol withdrawal in patients who present to the Emergency Department using a standardized approach.

- To recognize and safely manage serious medical complications (e.g., seizures or delirium) of patients presenting with alcohol withdrawal.
- To provide a pathway to support patients who are trying to quit alcohol and improve the patient's quality of life.

DEFINITIONS:
Alcohol Withdrawal Syndrome (AWS): is a clinical condition characterized by symptoms of autonomic hyperactivity such as agitation, irritability, hyperreflexia, confusion, hypertension, tachycardia, fever and diaphoresis. AWS usually develops in alcohol-dependent patients within 6-24 hours after abrupt discontinuation or decrease of alcohol consumption. It is a potentially life-threatening condition whose severity ranges from mild/moderate forms characterized by tremors, nausea, anxiety and depression, to severe forms characterized by hallucination, seizures, Delirium Tremens and coma.

Clinical Institute Withdrawal Assessment for Alcohol (CIW-Ar): it is a tool used to predict the severity of alcohol withdrawal. It is a 10-item scale, each item is scored separately. Summation of the scores yields an aggregate value that correlates with the severity of alcohol withdrawal and guides management. The maximum score is 67. Absent to mild are scores from 0-9, mild to moderate withdrawal are scores 10 to 19, and severe is greater than 19.
Delirium: disturbance in level of awareness and reduced ability to direct, focus, sustain or shift attention and a change in cognition, such as deficits in orientation, language and memory.

Delirium Tremens (DT): is a severe form of alcohol withdrawal, which involves sudden and severe mental or nervous system changes. Symptoms may include hallucinations, disorientation, tachycardia, hypertension, hyperthermia, agitation and diaphoresis after an acute reduction or abstinence from alcohol. The onset is usually within 48 hours and is usually most intense 4-5 days after the last alcoholic beverage.

Emergency Department (ED): Southern Health-Santé Sud Emergency Departments.

Korsakoff's Syndrome: can occur in untreated patients with Wernicke's Encephalopathy. It results in memory deficits, confusion and behavioral changes; severe alcoholism is a common underlying condition. Immediate memory is severely affected; retrograde and anterograde amnesia occurs in varying degrees. Emotional changes are common; they include apathy, blandness, or mild euphoria.

Observation: ongoing assessment of the individual's mental and physical health status to identify and treat or prevent any potential problems.

Prescriber: refers to a health care professional who is permitted to prescribe medications as defined by the Provincial and Federal legislation, his/her regulatory college or association, and practice setting.

Restraint: anything that restricts or reduces voluntary movement or freedom implemented to ensure safety of self, others, or the physical environment.

Seclusion: a type of environmental restraint that is either voluntary or involuntary confinement of a patient alone in a room locked from the outside for care, nursing and treatment.

Suicidal Ideation: having thoughts of wanting to end one's life**.**

Tardive Dyskinesia: a neurological disorder and can be a side effect of antipsychotic medication such as haloperidol that can cause uncontrolled stiff, jerky movements of the face, such as tongue sticking out, smacking lips, rapid eye blinking or of the body such as wiggling fingers, swaying side to side, flapping arms etc.

Triage: a sorting process utilizing knowledge and critical thinking in which an experience registered nurse assesses patients quickly on their arrival to the ED.

Wernicke's Encephalopathy: acute neurological condition characterized by a clinical triad of ophthalmoparesis (paralysis or weakness of one or more of the muscles that control the eye movement) with nystagmus, ataxia, and confusion. This life-threatening condition is caused by untreated thiamine deficiency, which primarily affects the peripheral and central nervous system. If untreated can progress to Korsakoff's Syndrome.

Withdrawal: characteristic group of signs and symptoms that typically develop after rapid marked decrease or discontinuation of a substance of dependence, which may or may not be clinically significantly or life threatening.

IMPORTANT POINTS TO CONSIDER:

Alcohol is the most common drug used by Canadians. The consumption of alcohol carries a risk of many adverse health issues, including liver and heart disease, and several types of cancers, adverse effects on mood and judgement that can increase the risk of violence and mental health issues.

Alcohol withdrawal (AW) is a common diagnosis that can be complicated by behavior and polysubstance abuse. It is often undertreated, with no standardized approach in the emergency departments.

Canada's Low – risk Alcohol Drinking Guidelines recommends women should consume no more than two alcoholic drinks a day, 10 per week, and men should consume no more than three alcoholic drinks a day, 15 per week. To reduce risk for alcohol related harm, woman should not exceed more than 3 alcoholic drinks and men should not exceed more than 4 alcoholic drinks on any single occasion.

There are risks of significant withdrawal symptoms that are associated with elderly patients even if they are consuming less than 6 alcoholic drinks a day. They may have a more complicated withdrawal course due to concurrent health problems and/or fragility.

- Ask the elderly patient about alcohol use if they present with falls, confusion, depression, problematic benzodiazepine use, or failure to cope. Obtain collateral information from family or care giver if applicable.

In many cases when an individual presents to the ED with alcohol withdrawal, they are in severe discomfort and the symptoms are disabling. They are there to seek help and may be ready to stop drinking alcohol. Many patients may be afraid to stop drinking due to the fears of developing withdrawal symptoms.

It is important to differentiate symptoms related to the acute or chronic alcohol abuse or abuse withdrawal, from those related to other psychiatric disorders. Clinicians are to consider and rule out a different diagnosis for AWS, which can mimic or coexist with alcohol withdrawal.

Once comorbid illnesses have been excluded or adequately treated, the management of alcohol withdrawal is directed at alleviating symptoms, identifying, and correcting metabolic abnormalities. AWS is based on the observation of signs and symptoms of withdrawal in those patients who experienced an abrupt reduction or cessation of alcohol consumption.

Patients who are severely dependent on alcohol become tolerant to alcohol and their nervous symptoms compensate for the sedation effects of alcohol. Alcohol withdrawal is dependent on the usual amount consumed and the duration of the consumption.

Alcohol alters how neurotransmitters are managed in the brain, especially gamma-aminobutyric acid (GABA), an inhibitory neurotransmitter that induces a feeling of relaxation and sedation. When there is an increase of GABA it can cause the appearance of being sluggish, slow and stumbling. A decrease in GABA can cause anxiety, panic attacks, or develop a seizure disorder.

- The risk of withdrawal affects patients with past withdrawals. Patients with a history of Delirium Tremens and withdrawal seizures are at a high risk of reoccurrence if they return to drinking and stopping again. The kindling withdrawal is the worsening of withdrawal

symptoms each time the individual attempts to quit alcohol again. The body becomes increasingly sensitive to changes in neurotransmitters, as GABA floods the brain during periods of drinking too much and is suddenly stopped during periods of abstinence.

- Alcohol can cause numerous physical and mental health problems, signs and symptoms include:
  - Short-term effects of alcohol use: intoxication, memory loss and blackouts, injury, violence, accidents, spousal abuse, suicide, alcohol toxicity (overdose), death.
  - Long term effects of alcohol use: alcohol dependence, increased risk of several types of cancer such as cancers of the mouth and throat, liver, breast and digestive tract, learning and memory problems, mental health such as depression, anxiety, social problems (e.g. lost productivity, unemployment, family problems), diabetes, cirrhosis, pancreatitis, low birth weight, fetal alcohol spectrum disorder.

There are many factors that affect the course of alcohol withdrawal. The severity and duration of withdrawal will depend on the following:

- Nature of substance,
- Half-life and duration of action,
- Length of time the substance is used,
- Amount that is consumed,
- Use of other substances,
- Presence of other medical and psychiatric conditions, and
- Individual biopsychosocial (biological, psychological, and social factors) variables.

There are some factors that distinguish between alcohol withdrawal and anxiety. Withdrawal maybe suspected if:

- The patient reports having 6 or more alcoholic drinks per day (except the elderly),
- Drinking begins at a predictable time in the morning or afternoon,
- Symptoms include sweating and tremors,
- Symptoms are quickly relieved by alcohol, and/or
- History of withdrawal or withdrawal seizures in the past.

Symptoms of alcohol withdrawal can develop from the time of the last alcoholic drink and when blood alcohol levels decrease. The onset and duration of withdrawal symptoms vary widely based on severity of withdrawal, which is partially dose-related. The signs and symptoms of AWS range from autonomic hyperactivity and agitation to Delirium Tremens. The signs and symptoms of AWS are:

- **Stage 1** - Minor Withdrawal Symptoms: tremors, diaphoresis, nausea/vomiting, hypertension, tachycardia, hyperthermia, tachypnea.
- **Stage 2** - Alcoholic Hallucinosis: dysperceptions: visual, auditory and tactile. Alcoholic hallucinosis is not associated with altered cognition such as disorientation, and vital signs are usually normal. The patient may recognize that the hallucinations are unreal.
- **Stage 3** – Alcohol Withdrawal Seizures: generalized tonic-clonic seizures (short or no postictal period),
- **Stage 4** – Delirium, Tremens: delirium, psychosis, hallucinations, hyperthermia, malignant hypertension, seizures and coma.
- After the treatment of acute AWS, some symptoms can persist from weeks to months following the 5-7 days of acute detoxification period.

Delirium Tremens (DT) is rare and the most severe form of alcohol withdrawal. It is considered a medical emergency. It can occur as early as 48 hours after abrupt cessation of alcohol and can last up to 5 days. Preceded by severe withdrawal symptoms including seizures, autonomic hyperactivity with agitation, sweating, tremor, tachycardia, fever, disorientation, delusions, vivid hallucinations, feelings of impending doom; and increased risk for flight and violence. Death can occur from fatal arrhythmias, complication illnesses such as pneumonia but with early identification and appropriate management, mortality from DT is less than 5 percent. Some risk for DT are:

- A history of DT,
- Age greater than 30,
- Prior history of alcohol withdrawal seizures,
- The presence of concurrent illness with associated comorbidities,
- Prior history of detoxification, and
- A longer period since the last alcoholic drink.

PROCEDURE:

Inclusion Criteria for using Treatment of Adult Alcohol Withdrawal Order Set

Patient presenting with symptoms that are not due to a general medical condition or another mental disorder but are symptoms of alcohol withdrawal syndrome (AWS) such as:

- Altered level of consciousness (LOC),
- Tremors,
- Anxiety,
- Diaphoresis,
- Nausea,
- Headache,
- Increase in blood pressure and heart rate,
- Tactile/auditory/visual disturbances, and/or
- Hallucinations.

1. Always consider differential diagnosis for AWS such as: other drugs/medications, infection/ sepsis, head trauma/cerebral vascular accident, psychiatric disorder, meningitis/ encephalopathy and Wernicke's/Korsakoff's.
2. Temporary Physical Restraints may be required for protection of the patient or others in exceptional situations. Whenever possible Restraints are avoided due to the risk of further escalation and the risk of life-threatening conditions.
   - Ongoing assessment and documentation is required for restraint use and an authorized prescriber order obtained within specific time frame as per the restraint policy.
3. Report all threats, hostility and/or violent incidents to a manager, nurse in charge, and/or physician. Complete a Safety Event Report (ORG.1810.PL.001.FORM.01).
4. Complete screening for Violence Prevention Program (VPP) and a care plan/safety plan as appropriate. Perform a violence and aggression reassessment using the Screening and Alert for Violence and Aggression: Acute Care (CLI.4510.PL.004.FORM.01) at least once per shift, with change in patient's behavior, at time of discharge, or when being transferred to an alternate clinical setting.

TRIAGE

The Triage Nurse:

1. Triage patient according to Canadian Triage and Acuity Score (CTAS) guidelines and the Triage and Waiting Room Monitoring (CLI.5110.PL.005).
2. Complete a routine triage history, assessment (including pain assessment) and vital signs with oxygen saturation if possible. If the patient is intoxicated or exhibiting signs of agitation or acute behavioral disturbance, try to de-escalate the behavior. Patient reassurance is a priority.
3. Identifying patients with alcohol withdrawal requiring treatment is an important clinical skill and assessment includes:
    - Examine for signs of trauma, neurological issues, and head injury,
    - Conduct a brief alcohol/drug history including:
        - type and amount of alcohol consumed in the last 12 hours;
        - how much alcohol is consumed per day/week;
        - changes in drinking pattern in the last 5 days; and
        - any other drugs consumed, how much and how often.
    - Ask patient about history of alcohol use disorder and history of AWS.
    - Assess and document signs of intoxication if applicable: odor of alcohol, slurred speech, staggering gait, etc.
    - A commonly used objective and reliable sign to identify withdrawal is tremors, which may not be visible when the patient is at rest.
        - **Intention Tremor:** a fine motor tremor that typically involves the hands and may not be obvious until the person makes a purposeful movement such lifting a finger to touch nose; typically, the tremor will worsen as an individual get closer to their target. It does not fatigue, the longer the patients hold their hands out the more pronounced the tremor may become.
        - **Postural Tremor:** occurs when a person maintains a position against gravity, such as holding arms outstretched.
        - **Tongue Tremor:** is difficult to feign and is more sensitive sign of an alcoholic tremor, which is observed when a tongue is protruded.
    - Consider differential diagnosis for AWS such as: other drugs/medications, infection/sepsis, head trauma/cerebral vascular accident, psychiatric disorder, meningitis/encephalopathy and Wernicke's/Korsakoff's.
4. Obtain preliminary collateral information from parties accompanying the patient as needed.
5. Place patients in a quiet, protective environment whenever possible.
    - Assess the appropriateness for increased level of observation based on their level of harm to self, others or environment with the least restrictive level, for the least amount of time within the least restrictive level is to be assigned. The Triage nurse collaborates with the interdisciplinary team including the nursing team caring for patient, the Prescriber and/or the Mental Health Liaison Nurse (MHLN) when appropriate to determine the appropriate level of observation.
    - Assess the appropriateness and availability of Seclusion when patient is an imminent risk for harm to self or others. Seclusion is considered an Environmental Restraint.
6. Consult the MHLN when a patient is identified at risk for Suicidal Ideation and/or mental health concerns.

TREATMENT AREA

Conduct a comprehensive initial assessment with completion of a neurological exam.

1. Examine for signs of trauma.
2. Gather a detailed history of all prior withdrawal experiences to assist in determining the expected time frame for emergence of withdrawal symptoms and the potential for severe withdrawal syndromes.
3. Obtain history of substance use with treatment history, including inpatient and outpatient programs and if they were helpful or not in the past.
4. Conduct a social history with identification of social supports and barriers in the patient's life can help determine appropriate treatment.
5. Engage MHLN if there is a potential or actual Suicidal Ideation and/or mental health concerns identified.
6. The interdisciplinary team including ED nurse, Prescribers and/or MHLN determines the need for increased level of observation and seclusion and temporary physical restraints.
7. If determined that the patient is at risk of serious harm to themselves and/or the public, it may be life-saving to contact and disclose personal health information to anyone that the health professional believes is necessary to lessen the harm in accordance to Personal Health Information Disclosure Due to Risk of Serious Harm (CLI.4110.PL.016). When possible, request permission from the patient to contact the individual(s) unless it is not safe to inform the patient of the disclosure. Refer to Duty to Warn policy (ORG.1810.SG.004)
8. Once the Prescriber has made the diagnosis that the patient is in alcohol withdrawal; the nurse completes the Alcohol Withdrawal Assessment Flowsheet CIWA-Ar CLI.5110.SG.013.FORM.02. The CIWA-Ar is not a diagnostic test for withdrawal; it is used for assessment of withdrawal severity once the diagnosis has been made. Record the score of each of the 10 items on the flowsheet then total the scores and record the actions(s) taken and the result. Notify Prescriber of any pertinent changes in patient status.
9. CIWA-Ar assesses for the following: nausea/vomiting, tremor (observe in both arms), anxiety, agitation, paroxysmal sweats, orientation, tactile disturbances, auditory disturbances, visual disturbances, and headache.
   - Complete CIWA-Ar assessment along with vital signs if possible on initial and BEFORE each benzodiazepine dose.
   - Continue CIWA-Ar q1h until score is less than 10 for 3 consecutive measurements.
   - If score remains less than 10 continue CIWA-Ar assessment q4h x 2, then q8h x 6. **Patients with CIWA-Ar score less than 10 yet still have a severe alcohol withdrawal tremor are at risk of complications of alcohol withdrawal if discharged from the ED.** If score greater than 10 at any time then continue CIWA-Ar q1h until score is less than 10 for 3 consecutive measurements.
   - Identify the severity of withdrawal by using the score from the CIWA-Ar assessment.
     - Absent or minimal withdrawal is a score of 0-9.
     - Mild to moderate withdrawal is a score of 10-19, treatment should be initiated.
     - Severe withdrawal is a score greater than 19.

TREATMENT OF ADULT ALCOHOL WITHDRAWAL STANDARD ORDERS

Inclusion Criteria for using Treatment of Adult Alcohol Withdrawal Order Set

Patient presenting with symptoms that are not due to a general medical condition or another mental disorder but are symptoms of alcohol withdrawal syndrome (AWS) such as:

- Altered level of consciousness (LOC),
- Tremors,
- Anxiety,
- Diaphoresis,
- Nausea,
- Headache,
- Increase in blood pressure and heart rate,
- Tactile/auditory/visual disturbances, and/or
- Hallucinations.

1. Always consider differential diagnosis for AWS such as: other drugs/medications, infection/sepsis, head trauma/cerebral vascular accident, psychiatric disorder, meningitis/encephalopathy and Wernicke's/Korsakoff's.
2. Benzodiazepines, such as diazepam and lorazepam are the first line of therapy for AWS. They are used to treat psychomotor agitation that most patients experience during withdrawal and to prevent progression of symptoms.
3. The Prescriber uses their best clinical judgment in determining appropriateness of the order set and medication option for each patient. Review of allergies, inclusion criteria and any medications given by Emergency Response Services (ERS) are considered before choosing how to proceed in caring for the patient.
4. Initiate Alcohol Withdrawal Standard Orders once the prescriber has identified the patient to be in alcohol withdrawal. Orders on the Standard Orders (CLI.5110.SG.013.FORM.01) with a:
   - black box (■): do not require physician activation and can be initiated by the nurse as long as there are no allergies and the patient has been identified as being in alcohol withdrawal by the prescriber and the prescriber initiates the standard order set.
   - open box (□): does require a physician's order to activate them by selecting the box □ with a checkmark (√) on the order sheet.
5. Document all medication administered on the Medication Administration Record (MAR).
6. For patients who present with clear signs/symptoms of alcohol withdrawal AND a history of withdrawal seizures OR Delirium Tremens; the Prescriber choses a dosage of diazepam 20 milligrams IV or PO regardless of the CIWA-Ar score. Hold any dose if patient is sedated and not easily roused.
7. For ongoing treatment of Alcohol Withdrawal, the Prescriber selects either Option 1 or 2.
   - **NOTE:** For option 1 or 2, provide additional Prescriber orders for doses above the maximums.
8. Consider Antipsychotics such as haloperidol **in combination with** benzodiazepines for severe agitation/hallucinations unresponsive to benzodiazepines.
   - The prescriber provides an order for the Haloperidol based on the recommended dosages on the Alcohol Withdrawal Treatment Standard Orders (page 2).
   - If haloperidol is used, obtain an electrocardiogram (EKG) 15 minutes after medication is given to assess QTc or when patient condition permits. Repeat EKG every 4 hours. QT

interval prolongation can occur with the use of antipsychotic medications. Consult Prescriber for further management of prolonged QTc.
    - Discontinue metoclopramide if haloperidol is administered since these medications together can increase the risk of neuroleptic malignant syndrome and extrapyramidal effects such as Tardive Dyskinesia.
    - Ondansetron is used with caution as QT interval prolongation can occur with the use of antipsychotic medications. Consult Prescriber for further management of prolonged QTc.
    - If haloperidol dosage is ineffective contact Prescriber for adjustment or consideration of another agent.
9. Thiamine therapy is required for patients with prolonged heavy drinking due to reduced absorption and increased secretion of thiamine. If there are concerns of Wernicke's encephalopathy (nystagmus, ataxia, confusion), higher doses of thiamine are recommended. **Administer thiamine before giving glucose in any form**. This is in order to ensure adequate thiamine for glucose metabolism. IV thiamine is given prior to running IV dextrose since PO absorption can be extremely low in people with chronic alcohol use.
10. Notify the prescriber immediately of any of the following changes:
    - Heart rate greater than 140 beats per minute (BPM) or less than 50 BPM;
    - Respiratory rate greater than 30 breaths per minute or less than 10 breaths per minute;
    - Patient is increasingly lethargic/difficult to rouse;
    - Systolic blood pressure greater than 180mmHg or less than 90 mmHg;
    - Diastolic blood pressure greater than 120 mmHg; and/or
    - Seizures or any other significant changes.
11. Reassess patients for the presence of alcohol withdrawal symptoms and determination of need for admission based on symptoms and acute safety concerns. The prescriber consults the Medical Withdrawal program at Portage District General Hospital if admission to the program is being considered and/or the Mobile Withdrawal Management program.
12. Consult social work for specific concerns such as psychosocial, abuse and neglect, harm reduction (problem with substance use), discharge planning (homelessness), finances (does not have access to required financial supports).

Discharge:

1. Consider Treatment for AWS complete when:
    - Patient is alert and oriented.
    - Tremor is minimal or resolved, as those with significant tremor are at risk of complications of alcohol withdrawal if discharged from ED and
    - Patient has been stable or reasonably improving with a CIWA-Ar score of less than 10 for 2 hours.
2. When patient is medically cleared, alert, ambulatory (or at baseline mobility) and the decision is made to discharge from the ED; educate the patient about alcohol withdrawal symptoms and the vulnerability to the effects of alcohol in the future.
3. Engage family/designate whenever possible in Discharge Planning.
4. Review with the patient of self-referral addiction treatment programs and the available resources and helplines. Consult the Medical Withdrawal program and/or the Mobile Withdrawal Management program. Discuss the risks of consuming alcohol and driving impaired.

5. Emergency physician notifies Manitoba Public Insurance (MPI) Driver Fitness Program if seizure activity occurs. Refer to Mandatory Reporting Policy (ORG.1810.PL.010) for the *"Management of a Reportable Medical Condition posing a danger to Operate a Motor Vehicle Checklist"* (ORG.1810.PL.010.SD.07)

SUPPORTING DOCUMENTS:

CLI.5110.SG.013.FORM.01	Adult Alcohol Withdrawal Treatment - Standard Orders
CLI.5110.SG.013.FORM.02	Alcohol Withdrawal Assessment Flowsheet CIWA-Ar
CLI.5110.SG.013.SD.01	Alcohol Withdrawal Assessment Flowsheet CIWA-Ar - Directions for Use
CLI.5110.SG.013.SD.02	CIWA-Ar Screening Tool for Assessment of Patient with Alcohol Withdrawal Presentation
ORG.1810.PL.001.FORM.01	Complete a Safety Event Report
CLI.4510.PL.004.FORM.01	Screening and Alert for Violence and Aggression: Acute Care
CLI.5110.PL.005	Triage and Waiting Room Monitoring
CLI.4110.PL.016	Personal Health Information Disclosure Due to Risk of Serious Harm
ORG.1810.PL.010	Mandatory Reporting Policy
CLI.4110.PL.016	Personal Health Information Disclosure Due to Risk of Serious Harm.
ORG.1810.PL.010.SD.07	Management of a Reportable Medical Condition posing a danger to Operate a Motor Vehicle Checklist
ORG.1810.SG.004	Duty to Warn guideline

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Medical Examination Report form from MPI website available at: https://www.mpi.mb.ca/Documents/Medical-Examination-Report.pdf

WRHA Emergency Program Guideline Management of a patient with alcohol withdrawal management-of-pt-with-aw-guideline.pdf (wrha.mb.ca) - June 2020