National Commission on Correctional Health Care
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Guideline for Disease Management in Correctional Settings

ALCOHOL DETOXIFICATION

Recommended Resources to Support Evidence-Based Practice and Quality Improvement
NCCHC issues guidelines to assist correctional health care clinicians in evidence-based decision making. For specific clinical practice guidelines and recommendations, please see the resources listed on pages 3-4.

Introduction

Although clinical guidelines are important decision support for evidence-based practice, to leverage the potential of guidelines to improve patient outcomes and resource use, NCCHC recommends that health care delivery systems also have components including primary care teams, other decision support at the point of care (such as reminders), disease registries, and patient self-management support. These components have been shown to improve outcomes for patients with chronic conditions. In addition, we recommend establishment of a strategic quality management program that supports ongoing evaluation and improvement activities focused on a set of measures that emphasize outcomes as well as process and practice. For information on the chronic care model, model for improvement, and outcomes measures, see the resources listed on pages 3-4.

Alcohol Detoxification in Corrections

If not recognized and adequately treated, alcohol withdrawal syndrome (AWS) can progress to delirium tremens (DTs) and death. AWS is prevalent among those entering holding centers and jails, often beginning during the first 24 hours following the person's last drink. It complicates management of medical and psychiatric problems and is associated with increased suicide risk. National surveys show significant gaps in quality for management of AWS in corrections, including underuse of recommended protocols for detoxification. Thus, AWS represents an important preventable cause of death in corrections. The general approach to AWS comprises four essential components:

- Universal screening. All inmates should be screened for potential AWS symptoms upon entry into the facility from the community.
- Medical evaluation. All inmates who screen positive should be referred for medical clearance and formally assessed for AWS using a standardized instrument.
- Detoxification. All inmates with clinically significant AWS should be treated with effective medication.
- Referral for substance abuse treatment. All inmates with AWS should be educated about their disease and referred for substance abuse evaluation and treatment following detoxification.

Universal Screening. All persons entering correctional facilities from the community should be screened for AWS risk upon admission. Screening requires appropriately trained staff and standardized questionnaires. Staff should provide a rationale to the person being screened (e.g., "We ask these questions to identify persons needing treatment for alcohol [drug] withdrawal") before asking about use to encourage honest responses. Screening includes questions regarding type, amount, frequency, duration of use, and history of prior withdrawal symptoms. Standardized screening instruments (e.g., Simple Screening Instrument for Substance Abuse [SSI-SA]) are available. Persons who screen positive from the SSI-SA or who report heavy, regular use of alcohol [or sedatives/hypnotics] or have a history of AWS or who show observable signs (alcohol on breath, unsteady gait, tremor, confusion) should be referred for immediate medical evaluation.

Medical Evaluation. Given the appreciable mortality risk associated with AWS, the medical evaluation should be conducted by a health professional trained in assessment and treatment of AWS. Evaluation includes a history of alcohol use (amount, quantity, duration, last use, and prior withdrawal symptoms); assessment for medical and psychiatric comorbidity such as gastrointestinal hemorrhage, trauma (particularly to the head), liver disease, seizures, pancreatitis, and suicidal ideation; concurrent drug use; and prescribed medications. Heavy alcohol use, long-term heavy drinking, and previous AWS increase the risk for DTs. The physical exam should pay particular attention to unstable vitals, patient sensorium and mental status, and neurological, cardiovascular, and pulmonary systems. Laboratory testing should include complete blood count, comprehensive serum chemistry, urine toxicology (drug use), and pregnancy test for females. Results of breathalyzer testing and/or blood alcohol should be documented in the medical record.

Validated withdrawal assessment instruments should be used such as the Clinical Institute Withdrawal Assessment of Alcohol Scale*,* Revised (CIWA-Ar). It can be administered in 2 minutes by a nurse trained to use it. Withdrawal risk should be stratified into three groups: low, moderate, and high risk.

- Low risk includes patients who are asymptomatic or have minimal symptoms (CIWA-Ar < 10) and have no prior history of significant AWS and no complicating major medical or psychiatric morbidity. They should be monitored for symptoms, described below.
- Moderate risk includes patients with a history of significant AWS, concurrent medical or psychiatric morbidity, or moderate AWS symptoms (CIWA-Ar 10-15). They require more intensive monitoring and aggressive treatment, described below.
- High-risk patients include those with a history of severe AWS, seizures, DTs, suicidal ideation, or pregnancy, or patients with CIWA-Ar scores > 15 or those who show rapid escalation in scores. High-risk patients should be referred to a facility, such as a hospital, equipped for intensive management of complex and/or severe AWS.

Detoxification. Detoxification reduces patient symptoms, morbidity, and mortality. Standardized withdrawal scales (e.g., the CIWA -Ar) should guide detoxification. Low-risk persons scoring < 10 often do not require detoxification with medications, but should be monitored every 4 to 8 hours for at least 72 hours, ideally using the CIWA-Ar. Patients at moderate risk should be monitored every 2 to 4 hours and treated when CIWA-Ar scores reach 10 (or lower when other risk factors are present). Patients with severe withdrawal (i.e., scores > 15) should be transported immediately to the hospital. Induction begins with a standard dose of a short-acting benzodiazepine (e.g., lorazepam) that is titrated upward, through either a fixed-dose escalation schedule or through symptom-triggered treatment. Symptom-triggered treatment allows the dose to be tailored to the CIWA-Ar score, minimizing risk of under- or overdosing, and reduces the duration of detoxification. If fixed doses are given for detoxification, it is important to provide additional doses of the drug if symptoms are not controlled on the fixed schedule. Once symptoms begin to abate, a longer acting benzodiazepine may be substituted based on results from renal and hepatic function and potential drug–drug interactions. Uncomplicated detoxification for AWS may be completed in 3 to 5 days. Stabilization refers to the subsiding of withdrawal symptoms. This typically occurs within the first 24 to 48 hours. Delirium tremens usually occur with 72 hours, but may occur up to 7 to 10 days following last drink, underscoring the need for monitoring after detoxification is completed.

Carbamazepine represents an alternative drug for treating AWS in those with moderate symptoms and no major comorbidity. Beta blockers may reduce autonomic symptoms but do not have anticonvulsant activity. Neuroleptic agents (e.g. haloperidol) reduce agitation but do not prevent DTs and may lower seizure threshold. Thiamine 100 mg should be given for at least 10 days to all patients with AWS to prevent Wernicke's disease. Daily folic acid 1 mg and multivitamins address nutritional deficiencies commonly seen with alcohol disorders.

Alcohol Disorder Treatment. Detoxification does not treat the underlying disease of addiction. All patients with an alcohol disorder and/or AWS should be educated about their condition and the risks associated with AWS and offered alcohol treatment. Depending on circumstances, the patient should be offered enrollment in treatment programs within the facility or referred upon release to comprehensive treatment

programs that offer both behavioral and pharmacological treatment. Engagement in community treatment should be done quickly because correctional release often triggers relapse.

Quality Improvement Measures

The following quality improvement measures are suggested, but they are not intended to be a complete list necessary to ensure a successful alcohol detoxification program in a correctional setting. We recommend that the improvement measures for a patient population be reported at a facility level and at a provider or team level.

- Percentage of new inmates who are screened for AWS upon entry from the community
- Percentage of new inmates who screen positive for AWS risk who are referred for medical evaluation
- Percentage of new inmates who screen positive for AWS risk who are seen by an appropriate health professional for medical evaluation within 2 hours of admission
- Percentage of patients who screen positive who are assessed for AWS using a formal scale (e.g., the CIWA-Ar) within 2 hours of entry
- Percentage of patients who are subsequently diagnosed with AWS who were not identified through screening or evaluation
- Percentage of new inmates with AWS (or an alcohol disorder) who are referred for substance abuse treatment on release from the facility
- Any patient death involving AWS

Recommended Resources to Support Evidence-Based Practice and Quality Improvement

RESOURCE	ADHD: Clinical Practice Guideline for the Diagnosis, Evaluation and Treatment of Attention-Deficit/Hyperactivity Disorder in Children and Adolescents (2011)
SOURCE	American Academy of Pediatrics, Subcommittee on Attention-Deficit/Hyperactivity Disorder and Steering Committee on Quality Improvement and Management, published in *Pediatrics*
URL	http://pediatrics.aappublications.org/content/early/2011/10/14/peds.2011-2654
RESOURCE	Attention-Deficit/Hyperactivity Disorder (ADHD)
SOURCE	Centers for Disease Control and Prevention
URL	http://www.cdc.gov/ncbddd/adhd/guidelines.html
RESOURCE	Diagnostic and Statistical Manual of Mental Disorders, 5th ed. (2013)
SOURCE	American Psychiatric Association
URL	http://www.dsm5.org
RESOURCE	Practice Parameter for the Assessment and Treatment of Youth in Juvenile Detention and Correctional Facilities (2005)
SOURCE	Penn, J. V., Thomas, C. R., & AACAP Work Group on Quality Issues, published in the *Journal of the American Academy of Child & Adolescent Psychiatry*
URL	http://www.ncbi.nlm.nih.gov/pubmed/16175113 (abstract)
RESOURCE	Strategies for System Change in Children's Mental Health: A Chapter Action Kit (2007)
SOURCE	American Academy of Pediatrics, Task Force on Mental Health
URL	http://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Mental-Health/Documents/finalcak.pdf
RESOURCE	Chronic Care Model (1998)
SOURCE	Developed by Ed Wagner MD, MPH, MacColl Institute for Healthcare Innovation, Group Health Cooperative of Puget Sound, and the Improving Chronic Illness Care program; available from the Institute for Healthcare Improvement
URL	http://www.ihi.org/knowledge/Pages/Changes/ChangestoImproveChronicCare.aspx

RESOURCE Model for Improvement (1997)
SOURCE Associates in Process Improvement; available from the Institute for Healthcare Improvement
URL http://www.ihi.org/IHI/Topics/Improvement/ImprovementMethods/HowToImprove

RESOURCE Measures
SOURCE Institute for Healthcare Improvement
URL http://www.ihi.org/knowledge/Pages/Measures

RESOURCE HEDIS & Quality Measurement
SOURCE National Committee for Quality Assurance
URL http://www.ncqa.org/tabid/59.aspx

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For the latest version, go to
http://www.ncchc.org/resources/clinicalguides.html

Table 1. DSM-5 Criteria for Substance [Alcohol] Disorder
1. Taking the substance in larger amounts or for longer than you meant to
2. Wanting to cut down or stop using the substance but not managing to
3. Spending a lot of time getting, using, or recovering from use of the substance
4. Cravings and urges to use the substance
5. Not managing to do what you should at work, home, or school because of substance use
6. Continuing to use, even when it causes problems in relationships
7. Giving up important social, occupational, or recreational activities because of substance use
8. Using substances again and again, even when it puts you in danger
9. Continuing to use, even when the you know you have a physical or psychological problem that could have been caused or made worse by the substance
10. Needing more of the substance to get the effect you want (tolerance)
11. Development of withdrawal symptoms, which can be relieved by taking more of the substance
< 2 criteria: No diagnosable substance [alcohol] disorder 2-3 criteria: Mild substance [alcohol] disorder 3-5 criteria: Moderate substance [alcohol] disorder > 5 criteria: Severe substance [alcohol] disorder

Figure 1.

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ALCOHOL WITHDRAWAL ASSESSMENT AND TREATMENT FLOWSHEET

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FEDERAL BUREAU OF PRISONS

Assessment Protocol **a.** Assess vitals and CIWA-Ar. **b.** If total CIWA-Ar score ≥ 8, repeat every hour. Once the CIWA-Ar score < 8, then repeat every 4–8 hours until score has remained < 8 for 24 hours. **c.** If initial Total CIWA-Ar score < 8, repeat CIWA every 4–8 for 24 hours. **d.** If indicated, administer PRN medications per BOP protocol.	**Date**								
	Time								
	Pulse								
	RR								
	O_2 sat								
	BP								
Use the CIWA-Ar Scale to assess and rate each of the following 10 criteria.									
Nausea/Vomiting: *Rate on scale of 0–7.* **0** - none; **1** - mild nausea, no vomiting; **4** - intermittent nausea; **7** - constant nausea, frequent dry heaves and vomiting									
Tremors: *Have patient extend arms and spread fingers. Rate on scale of 0–7.* **0** - no tremor; **1** - not visible, but can be felt fingertip-to-fingertip; **4** - moderate with arms extended; **7** - severe, even with arms not extended									
Anxiety: *Rate on scale of 0–7.* **0** - none, at ease; **1** - mildly anxious; **4** - moderately anxious or guarded, so anxiety is inferred; **7** - equivalent to acute panic states, as in severe delirium or acute schizophrenic reactions									
Agitation: *Rate on scale of 0–7.* **0** - normal activity; **1** - somewhat normal activity; **4** - moderately fidgety and restless; **7** – constantly paces or thrashes about									
Paroxysmal Sweats: *Rate on scale of 0–7.* **0** - no sweats; **1** - barely perceptible sweating, palms moist; **4** - beads of sweat obvious on forehead; **7** - drenching sweats									
Orientation & Clouding of Sensorium: *Ask, "What day is this? Where are you? Who am I?" Rate on scale of 0–4.* **0** - oriented; **1** - cannot do serial additions, uncertain about date; **2** - disoriented to date by no more than 2 days; **3** - disoriented to date by > 2 days; **4** - disoriented to place and/or person									
Tactile Disturbances: *Ask, "Have you experienced any itching, pins and needles sensation, burning or numbness, or a feeling of bugs crawling on or under your skin?" Rate on scale of 0–7.* **0** - none; **1** - very mild itch, P&N, burning, numbness; **2** - mild itch, P&N, burning, numbness; **3** - moderate itch, P&N, burning, 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?" Rate on scale of 0–7.* **0** - not present; **1** - very mild 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 you or that you know isn't there?" Rate on scale of 0–7.* **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?" Rate on scale of 0–7. Do not rate dizziness or lightheadedness.* **0** - not present; **1** - very mild; **2** - mild; **3** - moderate; **4** - moderately severe; **5** - severe; **6** - very severe; **7** - extremely severe									
Total CIWA-Ar Score: (8–9 = mild withdrawal; 10–15 = moderate withdrawal; >15 = severe withdrawal)									
Indications for PRN Medication: Please follow the protocol in BOP *Clinical Practice Guidelines for Detoxification of Chemically Dependent Inmates* for use of lorazepam and other medications for withdrawal. See Table 2 and Section 6 on Alcohol Withdrawal that begins on page 5.									
Medication administered? (see Medication Administration Record) **Yes/No:**									
Time of PRN medication administration:									
Assessment of response: (CIWA-Ar Score 30–60 minutes after medication administered)									
Provider initials:									

Inmate Name _____

Reg No. _____

Date of Birth ____/____/____

Institution _____

Signature/Title	Initials	Signature/Title	Initials