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Management of Alcohol Withdrawal Syndrome in the Emergency Department

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Barbara Barrett, Committee Chairperson, Nursing Faculty

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Walden University
2026

Executive Summary: Clinical Practice Guideline

Management of Alcohol Withdrawal Syndrome in the Emergency Department

by

Janet Fuller

Executive Summary Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

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Summary

This Doctor of Nursing Practice project involved development and approval of a clinical practice guideline (CPG) for management of alcohol withdrawal syndrome (AWS) in the emergency department (ED) of a large community trauma center in the southeastern United States. AWS is a common, potentially life-threatening condition requiring timely assessment and intervention to prevent. Variability in ED screening and treatment contributes to delayed intervention, increased rapid response activations, and intensive care transfers. The project purpose was to develop and obtain expert approval of an evidence-based CPG using the Clinical Institute Withdrawal Assessment for Alcohol–Revised (CIWA-Ar) tool to support standardized screening, symptom-triggered treatment, and disposition decisions. The practice-focused question asked whether a CIWA-Ar–based CPG would be approved by an expert panel for ED use. An interdisciplinary expert panel consisting of an ED physician, nurse leader, and an acute care practice specialist independently evaluated the guideline's quality using the Appraisal of Guidelines for Research and Evaluation II (AGREE II) instrument. Quantitative AGREE II ratings were analyzed using descriptive statistics and qualitative feedback. Results demonstrated favorable ratings of greater than 96.3% across all six AGREE II domains with the guideline receiving a recommendation for use without modification. Implementation of the guideline has the potential to improve early recognition of AWS, reduce deterioration, intensive care transfers and promote high-quality care for a vulnerable population thereby contributing to positive social change.

Background

Alcohol withdrawal syndrome (AWS) represents a significant clinical burden in emergency departments (EDs), particularly in trauma centers serving diverse and vulnerable populations. Variability in assessment practices and inconsistent use of validated tools such as the Clinical Institute Withdrawal Assessment for Alcohol-Revised (CIWA-Ar), located in Appendix A, contribute to delayed recognition of symptom severity and inconsistent pharmacologic management, increasing the risk of adverse outcomes.

Alcohol withdrawal syndrome affects a substantial proportion of individuals with alcohol use disorder and frequently presents in emergency care settings (American Society of Addiction Medicine [ASAM], 2020). Approximately half of individuals with alcohol dependence experience withdrawal symptoms, and up to 5% develop severe complications such as seizures or delirium tremens (Habas et al., 2023). Emergency departments are often the first point of contact for patients in early or evolving withdrawal; however, many organizations lack standardized protocols for systematic screening and management in this setting (Gottlieb et al., 2024).

The project question and purpose emerged from identified practice gaps and organizational concern regarding preventable intensive care unit (ICU) transfers related to alcohol withdrawal. Evidence supporting practice change includes systematic reviews and existing clinical practice guidelines (CPGs) demonstrating that standardized CIWA-Ar–based assessment and symptom-triggered management reduce complications and improve outcomes.

Within the partner organization, an increase in rapid response team activations and ICU transfers was observed among patients admitted from the ED who later developed alcohol withdrawal. Many were initially admitted for other diagnoses, and alcohol use or early withdrawal risk was not consistently identified during triage or early evaluation. Although inpatient units utilized a CIWA-Ar–based protocol, no equivalent ED-specific guideline existed, resulting in practice variation and missed opportunities for early intervention.

Systematic reviews and national guidelines support symptom-triggered management guided by validated assessment tools such as CIWA-Ar as best practice for alcohol withdrawal (ASAM, 2020; Becciolini et al., 2025). The strength of evidence supporting this practice change is moderate to high, supporting development and implementation of a standardized ED-specific CPG. A systematic appraisal of literature was conducted using structured searches of PubMed, CINAHL, and the Cochrane Library, along with review of professional organization standards and CPGs. The search yielded 15 peer-reviewed studies published between 2020 and 2025, which informed development of the CPG for early identification and management of AWS in the ED. The evidence included systematic reviews, national CPGs, randomized controlled trials, and quality improvement studies, providing a methodologically robust foundation for guideline development (Dang et al., 2022).

Findings consistently demonstrated that standardized assessment and symptom triggered protocols, such as the use of the CIWA-Ar, improve early recognition, support timely intervention, and enhance clinical Outcomes for patients experiencing alcohol

withdrawal (Becciolini et al., 2025). Systematic reviews further confirmed that evidence-based CPGs incorporating early identification strategies are feasible within ED workflows and improve quality and consistency of care (Gottlieb, et al., 2024).

Collectively, evidence supports the development of a structured evidence-based CPG to guide standardized symptom management and escalation of care in the ED. Evidence appraisal and synthesis followed the Johns Hopkins Evidence-Based Practice model, which categorized evidence ranging from Level I through Level V, with Level I highlighting the highest level of evidence (Dang et al., 2022).

Clinical Practice Guideline Development

Guideline development and reporting were guided by the AGREE II framework to ensure methodological rigor, transparency, and quality (AGREE Next Steps Consortium, 2017). The AGREE II framework is used to assess guideline quality across 23 items within six domains. The AGREE II panelists' instructions and the scoring worksheet are in Appendix B. The developed guideline (see Appendix C) was presented to a multidisciplinary expert panel consisting of an emergency physician, an ED nurse leader, and an acute care practice specialist. Panel members were selected based on clinical expertise, leadership roles, and experience with alcohol withdrawal management and emergency care workflows. The Algorithm Flowchart: ED Alcohol Withdrawal (CIWA-Ar–based) is presented in Appendix D. This flowchart provides an operational pathway for ED clinicians to identify, assess, and manage adult patients with suspected or confirmed AWS. The Quick Reference Algorithm Card: ED Alcohol Withdrawal (CIWA-Ar–based) is in Appendix E. This quick reference tool provides a rapid algorithm

for ED clinicians to identify, assess, and manage adult patients with suspected or confirmed AWS.

Results

Results of the AGREE II expert panel review demonstrated uniformly favorable ratings across all six domains related to scope, rigor, clarity, and applicability. Qualitative feedback supported feasibility of implementation within ED workflows and identified minor areas of clarification. Feedback from ED stakeholders indicated that the guideline's recommendations were clear, evidence-based, and aligned with current ED workflows and practice expectations.

Data collected from three expert panelists were analyzed using descriptive statistics. Each panelist independently rated the guideline across all 23 AGREE II items using the 7-point Likert scale. Domain scores were calculated using the standardized AGREE II scoring methodology by converting obtained scores to into scaled percentages of the maximum possible domain score.

Domain scores were calculated using the AGREE II standardized scoring formula. (Obtained Score – Minimum Possible Score) / (Maximum Possible Score – Minimum Possible Score) x 100. Analysis of the six AGREE II domains revealed the following findings:

- Domain 1 (Scope and Purpose): Reviewers indicated that the guideline's overall objectives, clinical focus and target population were clearly defined. The scope of the guideline was appropriate for the ED setting, and relevant professional perspectives and intended users were clearly identified. Appraisal

by three independent reviewers resulted in Domain 1: Scope and Purpose score of 100%

- Domain 2 (Stakeholder Involvement): Expert panelists agreed that the guideline development process included appropriate interdisciplinary clinical expertise and clearly identified intended users supporting relevance and usability within ED practice. Appraisal by three independent reviewers resulted in Domain 2: Stakeholder Involvement score of 96.3%, reflecting strong incorporation of stakeholder perspectives despite minor variability in ratings for items addressing patient and target population involvement.
- Domain 3 (Rigor of Development): High scores in this domain reflected the use of systematic evidence-search methods, transparent connections between supporting evidence and recommendations and inclusions of a defined procedure for future guideline updates. Appraisal by three independent reviewers resulted in Domain 3: Rigor of Development score of 100%
- Domain 4 (Clarity of Presentation): Scores in this domain indicate that recommendations were specific, unambiguous, and easily identifiable. The organization and formatting of the guideline supported efficient use in the fast-paced emergency workflow. Appraisal by three independent reviewers resulted in Domain 4: Clarity of Presentation score of 100%
- Domain 5 (Applicability): A perfect score in this domain demonstrated that facilitators, barriers to implementation considerations, and monitoring criteria

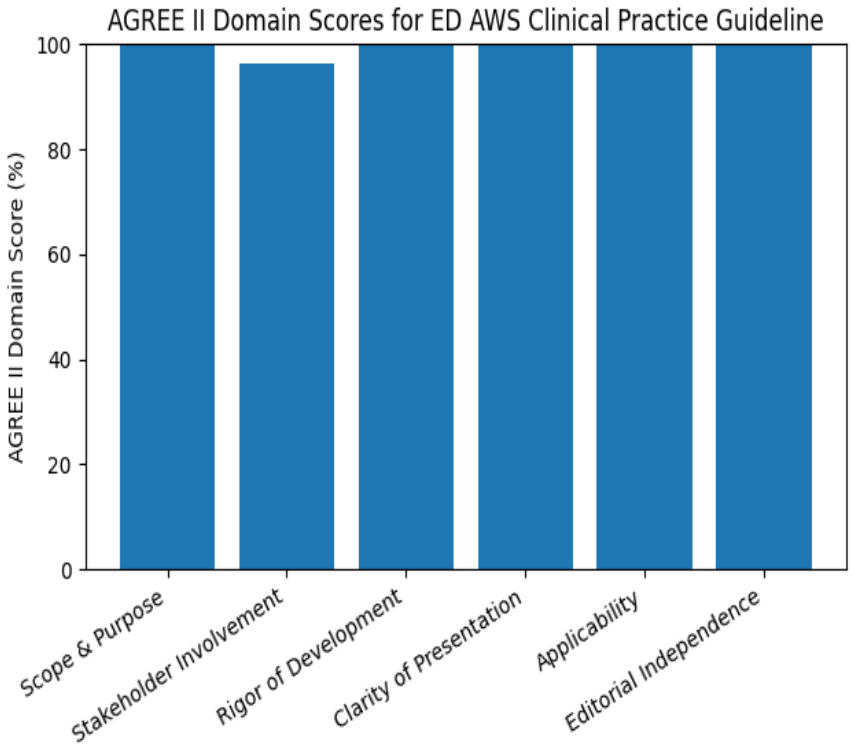
were clearly addressed and feasible within ED workflows. Appraisal by three independent reviewers resulted in Domain 5: Applicability score of 100%

- Domain 6 (Editorial Independence): Scores confirm that the guideline was developed free from funding influence or competing interests, supporting transparency and credibility. Overall, the guideline received a recommendation for use, supporting its readiness for organizational approval and future implementation. Appraisal by three independent reviewers resulted in Domain 6: Editorial Independence score of 100%.

The overall rating of the guideline is 99.4 %. All domains scored above 96% indicating strong rigor, clarity, applicability and editorial independence. The AGREE II scoring results from the panelists' assessment of the guideline are reflected in Figure 1. Scores are presented as scaled domain percentages calculated using AGREE II methodology.

Figure 1

*AGREE II Domain Scores (*N = *3)*



Overall, the high domain scores indicate excellent methodological quality and supports the guideline's appropriateness for clinical implementation in the emergency department setting. These findings indicate strong expert consensus regarding the guideline's clarity, methodological rigor, applicability, and editorial independence. Specifically, reviewers agreed that the guideline clearly defined its objectives, target population, and clinical scope.

Organizational Impact of Adopting This Guideline

Potential organizational impacts include improved consistency of care, earlier identification and initiation of treatment, reduced rapid response activations, and fewer

unplanned ICU transfers. Adoption of the CPG is anticipated to enhance patient safety, support nursing clinical decision-making, and promote standardized, evidence-based care across ED workflows.

Limitations

Identified limitations for this CPG project were related to the evaluation conducted by a relatively small interdisciplinary expert panel, consistent with guideline appraisal processes in practice-focused doctoral projects. Although panelists were purposefully selected for their expertise in emergency care, leadership roles, and alcohol withdrawal management, the limited number of reviewers may have restricted the range of perspectives represented. This limitation aligns with AGREE II Domain 2 (Stakeholder Involvement), as broader multidisciplinary or patient representation may further strengthen future guideline evaluations.

A second limitation relates to the absence of patient-level or organizational outcome data. The scope of this project was limited to guideline development and expert appraisal rather than implementation or effectiveness testing. Consequently, the impact of the guideline on clinical outcomes such as ICU transfers, length of stay, or adverse events cannot be empirically confirmed at this stage. This limitation is consistent with AGREE II Domain 3 (Rigor of Development) and reflects the distinction between guideline development and subsequent implementation and evaluation phases.

Finally, this guideline was developed within the context of a single large community trauma center, and organizational characteristics such as patient demographics, staffing models, and electronic health record functionality may influence

feasibility in other ED settings. In alignment with AGREE II Domain 5 (Applicability), the guideline incorporates flexibility to support clinical judgment, including assessment of patient presentation, vital signs, and physiologic indicators when CIWA-Ar scoring is limited by altered mental status, language barriers, or concurrent medical conditions. Adaptation may therefore be required to ensure alignment with local workflows and resources in other practice environments.

Importance Beyond the Local Site

Development and evaluation of an ED-specific, CIWA-Ar–based CPG addresses a recognized gap in emergency care for patients experiencing alcohol withdrawal and has relevance beyond the local practice setting. The guideline supports nursing leadership, evidence-based practice, patient safety, and system-level quality improvement across diverse emergency care environments. Ongoing evaluation, staff education, and dissemination to additional ED and healthcare settings are recommended to support broader adoption and sustainability. Evaluation methods include monitoring CIWA-Ar documentation compliance, time to treatment, and trends in rapid response activations and ICU transfers.

Conclusion

Development and evaluation of an ED-specific, CIWA-Ar–based CPG addresses a clearly identified gap in emergency care for patients experiencing alcohol withdrawal. Adoptions and implementation of this standardized, evidence-based CPG has the potential to improve early recognition, reduce clinical deterioration, and enhance patient safety while promoting safe, equitable care in the ED.

Further Recommendations

This project demonstrates the role of the Doctor of Nursing Practice in advancing nursing leadership, evidence-based practice and system-level quality improvement. Recommendations include ongoing evaluation, structured staff education, and dissemination of the guideline to additional ED and inpatient clinical areas. Evaluation methods include continued monitoring of CIWA-Ar documentation compliance, time to treatment, and trends in rapid response activations and ICU transfers.

Potential Implications for Nursing Practice

This CPG has important implications for nursing practice by supporting standardized, evidence-based assessment and management of AWS in the ED. By providing nurses with a clear, symptom-triggered framework grounded in validated assessment and escalation criteria, the guideline strengthens clinical decision-making, promotes consistency of care, and enhances patient safety in high-acuity environments. Standardization reduces practice variability and supports nurses in identifying early signs of withdrawal, initiating timely interventions, and communicating effectively across interprofessional teams.

The guideline also supports positive social change by addressing a condition that disproportionately affects vulnerable and marginalized populations, including individuals with substance use disorders, limited access to primary care, homelessness, mental health comorbidities, and socioeconomic instability. Early recognition and standardized management of alcohol withdrawal may reduce preventable clinical deterioration, unplanned ICU transfers, and associated healthcare costs, thereby improving access to

safe, high-quality care for populations that often experience fragmented or delayed treatment.

From a perspective of diversity, equity, and inclusion, the guideline promotes equitable care delivery by emphasizing objective assessment, consistent screening, reliance on physiologic indicators and clinical judgment when standardized tools such as CIWA-Ar are limited by altered mental status, language barriers, or coexisting medical conditions. This approach supports inclusive nursing practice by reducing reliance on subjective judgment, mitigating implicit bias, and promoting equitable evaluation and treatment regardless of communication ability, cultural background, or clinical presentation. Collectively, these implications reflect the contribution of advanced nursing leadership to equity-focused practice, and system-level quality improvement in emergency care settings, thereby supporting diversity, equity, and inclusion while fostering positive social change.

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Appendix A

Clinical Institute Withdrawal Assessment for Alcohol – Revised (CIWA-Ar)

Scoring Tool (Quick Reference Diagram)

Note: This diagram represents the CIWA-Ar assessment tool only. Clinical management, medication selection, monitoring frequency, escalation, and disposition are addressed in Appendix D, with supporting evidence outlined in Appendix B.

↓

Confirm Eligibility
Patient is alert, oriented, and able to answer questions and follow commands

↓

Assess CIWA-Ar Categories and Assign Scores

- Nausea and vomiting (0–7)
- Tremor (0–7)
- Paroxysmal sweats (0–7)
- Anxiety (0–7)
- Agitation (0–7)
- Tactile disturbances (0–7)
- Auditory disturbances (0–7)
- Visual disturbances (0–7)
- Headache or fullness in head (0–7)
- Orientation and clouding of sensorium (0–4)

↓

Calculate Total CIWA-Ar Score
Sum of all category scores below (maximum score = 67)

Document and Reassess

Record individual scores and total score at each assessment

CIWA-Ar Assessment Categories and Scoring

Nausea and Vomiting

0 = None
1–6 = Increasing nausea
7 = Constant nausea, frequent vomiting

Tremor

0 = No tremor
1–6 = Tremor present with arms extended
7 = Severe tremor at rest

Paroxysmal Sweats

0 = No sweating
1–6 = Increasing diaphoresis
7 = Drenching sweats

Anxiety

0 = No anxiety
1–6 = Increasing anxiety
7 = Acute panic or severe anxiety

Agitation

0 = Calm
1–6 = Increasing restlessness
7 = Pacing or thrashing

Tactile Disturbances

0 = None
1–6 = Pins and needles, itching, burning
7 = Continuous hallucinations

Auditory Disturbances

0 = None
1–6 = Sounds harsh or frightening
7 = Continuous hallucinations

Visual Disturbances

0 = None
1–6 = Sensitivity to light or visual misperceptions
7 = Continuous hallucinations

Headache / Fullness in Head

0 = None
1–6 = Increasing headache
7 = Severe, incapacitating headache

Orientation and Clouding of Sensorium

0 = Oriented to person, place, and time
1–3 = Increasing disorientation
4 = Disoriented to person, place, or time

Total CIWA-Ar Score

Total Score = Sum of all category scores
Maximum possible score = 67

Severity Interpretation

Low Risk (Mild AWS; CIWA-Ar < 8)

• Monitor in the ED every 2 hours for 4–6 hours.
• Provide hydration, reassurance, and observation.

Moderate Risk (CIWA-Ar 8–15)

• Begin symptom-triggered benzodiazepine therapy.
• Continue reassessments every 1–2 hours.

High Risk (CIWA-Ar ≥ 16 or complicated features)

• Initiate aggressive symptom-triggered therapy.
• Continuous cardiorespiratory monitoring.
• Early consultation with critical care or hospitalist service for admission planning.

Appendix B

Reviewer Instructions and AGREE II Scoring Worksheet

Please evaluate this Clinical Practice Guideline (CPG): Management of Alcohol Withdrawal in the Emergency Department using the Appraisal of Guidelines for Research and Evaluation II (AGREE II) instrument. The AGREE II tool is an internationally recognized framework designed to assess the quality, methodological rigor, and transparency of clinical practice guidelines. It contains 23 key items grouped into six quality domains, each addressing a unique aspect of guideline development, presentation, applicability, and independence. Each item should be rated on a 7-point Likert scale that reflects the extent to which the guideline meets the criteria outlined in the AGREE II User's Manual. The scale is defined as follows and is reflected on the attached scoring sheet:

Likert Scale Rating	**Descriptor**	**Definition**
1 – Strongly Disagree	*No information or very poor quality*	The concept is either completely absent or insufficiently addressed. Little to no detail is provided, and the information fails to meet minimum methodological or reporting standards.
2 – Disagree	*Major shortcomings*	The item is addressed superficially, with limited clarity or inadequate supporting evidence. There are significant weaknesses in the process or documentation.
3 – Somewhat Disagree	*Below average quality*	The guideline provides minimal or incomplete information. Several

		important components are missing or poorly justified.
4 – Neutral	*Moderate quality or partially addressed*	The concept is present and moderately developed but lacks depth, specificity, or supporting detail. Improvements are required for methodological transparency.
5 – Somewhat Agree	*Above average quality*	The item is well described, with sufficient clarity and supporting evidence. Methodology and rationale are sound, though a few minor details could be improved.
6 – Agree	*Good quality*	The item is well described, with sufficient clarity and supporting evidence. Methodology and rationale are sound, though a few minor details could be improved.
7 – Strongly Agree	*Exceptional quality*	All criteria are fully met with comprehensive, clear, and methodologically rigorous presentation. The description, rationale, and supporting evidence are of the highest quality.

Reviewers should use the full range of the scale as appropriate and avoid defaulting to mid-range scores. Comments are highly encouraged to justify each rating, note strengths, and suggest areas for improvement. Constructive qualitative feedback will help refine the final version of the guideline. Please complete this form within 10 business days of receipt and return it anonymously through the project's Qualtrics link or in a sealed envelope to the project mentor. Your expert evaluation will guide revisions prior to usability testing and organizational submission for approval.

Appendix C

Clinical Practice Guideline

Part I – Triage and Screening (Assessment)	Recommendation	Level of Evidence/Quality ratings	Comments	Source of Evidence
1. Triage and screen all adult ED patients with: • Suspected alcohol use or withdrawal using CIWA-Ar tool at triage and repeat every hour based on severity	Strongly Recommended	Level I – High	Early detection allows for symptom-triggered therapy and improved outcomes. Integrate into ED triage workflow via EHR.	ASAM, 2020
2. Elicit alcohol use history in all undifferentiated patients with compatible symptoms: • Tremor • Agitation • Tachycardia • Hypertension • Anxiety • Diaphoresis • Nausea	Strongly Recommended	Level II – Good	Identifies hidden alcohol withdrawal risk in patients not primarily admitted for AUD.	Gottlieb et al., 2024
3. Identify high-risk features:				

• prior withdrawal seizures • delirium tremens • multiple detoxifications • severe comorbidities	Recommended	Level II – Good	Supports early risk stratification and safe disposition planning.	ASAM, 2020
4. Document: • baseline vitals • mental status • comorbidities Repeat CIWA-Ar every hour for moderate or severe withdrawal.	Strongly Recommended	Level I – High	Promotes early recognition of symptom escalation	Becciolini et al., 2025
5. For unresponsive or altered patients, defer CIWA-Ar until clinically appropriate and use physiologic indicators: • Tachycardia • Tremor • Agitation	Strongly Recommended	Level III – Moderate	Allows safety-first approach while maintaining vigilance for early withdrawal.	Gottlieb et al., 2024

Part II Implementation (Treatment)				
Pharmacologic and Supportive Management:				
1. Implement symptom-triggered benzodiazepine therapy guided by CIWA-Ar thresholds.	Strongly Recommended	Level I – High	Reduces total benzodiazepine exposure and shortens length of stay compared with fixed-dose regimens.	Becciolini et al., 2025; ASAM, 2020
2. Preferred agents: • Lorazepam • Diazepam • Chlordiazepoxide	Strongly Recommended	Level II – Good	Choice based on pharmacokinetics, half-life, and clinical presentation. Check liver function at baseline and intermittently.	ASAM, 2020
3. Consider adjunctive agents (e.g., phenobarbital) for refractory or severe withdrawal in consultation with critical care.	Strongly Recommended	Level II – Good	May reduce ICU admissions; requires airway monitoring capability.	Gottlieb et al., 2024, Naegle et al., 2023
4. Administer Thiamine 100 mg IV (or IM) prior to glucose; provide folate/multivitamins as indicated.	Strongly Recommended	Level II – Good	Prevents Wernicke Encephalopathy; parenteral route indicated for severe or malnourished patients.	Martel et al., 2024; Habas et al., 2023
5. Supportive Care • Correct fluids/electrolytes per facility protocol • Monitor vitals • Monitor mental status	Strongly Recommended	Level II – Good	Supportive care integral to preventing complications.	ASAM, 2020

Part III Monitoring & Disposition				
1. Continuous assessment and monitoring. Cardiorespiratory and seizure precautions for moderate–severe AWS.	Level II – Good	Escalate to a higher level of care if worsening despite therapy.	ASAM 2020	
2. ICU consult for: • Refractory withdrawal • DTs • Hemodynamic/respiratory instability	Level II – Good	Phenobarbital or dexmedetomidine may be considered as adjuncts with critical care support.	Wolf et. al., 2020	
3. If stabilized and/or low-risk: • admit to med-surg • if applicable discharge with intervention • harm-reduction education or referral to addiction services via case management/social services	Level III – Moderate	Warm handoff to admitting floor or community resources improves continuity of care.	ASAM 2020	

Guideline Monitoring – In accordance with the organization's policy review cycle, this *Management of Alcohol Withdrawal in the Emergency Department Clinical Practice Guideline* (CPG) will undergo formal review every 3-5 years. The review will be conducted by the System Nursing Director of Professional Practice, the System Chief Nursing Officer, the Emergency Department Medical Director and Educators. This review timeline aligns with current evidence-based recommendations for maintaining the currency and validity of clinical practice guidelines.

Appendix D

Emergency Department CIWA-Ar–Based Alcohol Withdrawal Algorithm

Flowchart

Summary Description

The *Management of Alcohol Withdrawal in the Emergency Department Flow Algorithm* begins with universal screening at triage, followed by risk-stratified management based on CIWA-Ar scoring. It emphasizes early symptom-triggered benzodiazepine therapy, thiamine supplementation, supportive care, and continuous reassessment. The flow concludes with evidence-based disposition decisions and embedded metrics for ongoing quality monitoring. This document directly aligns with the developed guideline (Appendix C).

Intended Use

This algorithm is designed as a flowchart for ED clinicians (RNs, NPs, PAs, MDs/DOs) to standardize the recognition and treatment of alcohol withdrawal, enhance patient safety, and improve inter-departmental continuity of care.

Part I. Triage and Initial Screening Assessment

1. Screen and assess all adult emergency department patients with suspected alcohol use or compatible withdrawal symptoms (e.g., tremor, agitation, anxiety, diaphoresis, tachycardia, hypertension, nausea) using CIWA-Ar tool.

2. Elicit alcohol history to support early identification of alcohol withdrawal risks. Identify high risk features such as prior withdrawal seizures, delirium tremens, multiple detoxifications and severe comorbidities.

3. Document baseline vital signs, mental status (Glasgow Coma Scale, orientation, agitation), specific comorbidities. Document screening results and notify the ED provider immediately if CIWA-Ar ≥ 8 or concerning features are present.

4. Calculate total CIWA-Ar and stratify withdrawal severity as mild, moderate or severe in accordance with Appendix B recommendations.

5. For patients who are unresponsive or present with an altered mental status, defer CIWA-Ar until clinically appropriate. Use physiological indicators (e.g., tremor, agitation, anxiety, diaphoresis, tachycardia, hypertension, nausea).

Part II. Implementation (Treatment)

Pharmacologic and Supportive Management

1. Initiate symptom-triggered benzodiazepine therapy based on withdrawal severity rather than fixed dosing schedules.

2. Preferred Medications: Lorazepam/Diazepam.

   Symptom-Triggered Benzodiazepine Standard Dosing
   • *Lorazepam 2–4 mg IV/PO q1h prn* if CIWA-Ar ≥ 8; repeat until < 8.
   • *Diazepam 10–20 mg IV q1h prn* (preferred if normal hepatic function).
   • Target CIWA-Ar ≤ 10 for stabilization.

3. Consider adjunctive therapy.

   Adjunctive/Rescue Therapy
   • *Phenobarbital 65–130 mg IV q20min prn* refractory symptoms, in consultation with critical care.
   • Avoid polypharmacy; ensure airway monitoring.

   Administer thiamine and initiate supportive care including IV fluids and electrolyte correction as clinically indicated and per facility protocol.

   Supportive Measures
   • Administer *Thiamine 100 mg IV (or IM) before glucose* to prevent Wernicke encephalopathy.
   • Supplement *Folate 1 mg PO/IV daily/Multivitamin IV/PO daily*.

4. Correct IV fluids and electrolytes per facility protocol. Monitor vital signs and mental status.
   • Correct *electrolytes* (Magnesium, Potassium, Phosphorus).
   • Maintain IV fluids and continuous pulse oximetry.

Part III. Monitoring and Disposition

1. Continuous assessment and monitoring with seizure precautions using CIWA-Ar score every hour until stable (< 8 for two consecutive readings). Monitor vital signs, mental status, and oxygen saturation continuously for clinical response to therapy to identify improvement or deterioration. Watch for signs of worsening withdrawal or complications (seizures, hallucinations, tachyarrhythmias, autonomic instability).

2. Escalate care for refractory or worsening symptoms by initiating an intensive care consultation for phenobarbital therapy per institutional protocol.

3. If stable and/or low risk: Admit to med-surgical if any other concerns. If applicable, may discharge with intervention (harm reduction education or referral to addiction services via case management or social services.

Appendix E

Quick Reference Algorithm Card: ED Alcohol Withdrawal (CIWA-Ar–based) tool for screening, risk stratification, treatment, and disposition.

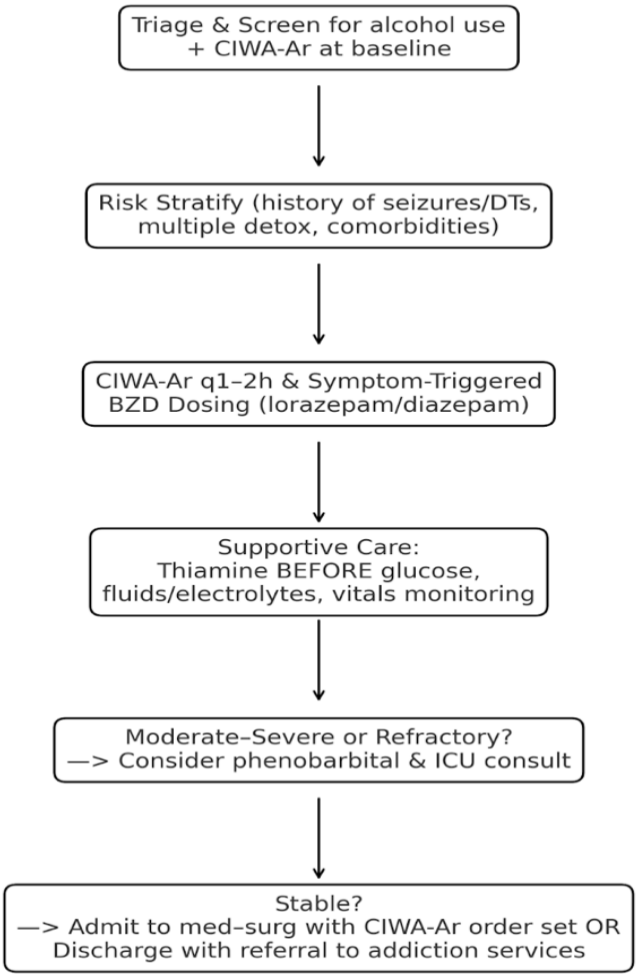
Summary Description

The *Management of Alcohol Withdrawal in the Emergency Department Quick Reference Algorithm* Card begins with universal screening at triage, followed by risk-stratified management based on CIWA-Ar scoring. It emphasizes early symptom-triggered benzodiazepine therapy, supplemental therapy, supportive care, continuous reassessment and disposition.

Intended Use

This algorithm card is designed as a quick-reference tool for ED clinicians (RNs, NPs, PAs, MDs/DOs) to standardize the recognition and treatment of alcohol withdrawal, enhance patient safety, and improve inter-departmental continuity of care. This Quick Reference tool aligns with the Clinical Practice Guideline and Flowchart.

Note: This quick reference algorithm card is intended as a clinical support tool and does not replace provider judgment.


Triage & Screen for alcohol use
+ CIWA-Ar at baseline
Risk Stratify (history of seizures/DTs,
multiple detox, comorbidities)
CIWA-Ar q1–2h & Symptom-Triggered
BZD Dosing (lorazepam/diazepam)
Supportive Care:
Thiamine BEFORE glucose,
fluids/electrolytes, vitals monitoring
Moderate–Severe or Refractory?
—> Consider phenobarbital & ICU consult
Stable?
—> Admit to med–surg with CIWA-Ar order set OR
Discharge with referral to addiction services