

Pharmacotherapy Resources for Alcohol Use Disorder Care in the Emergency Department

Lauren Yearwood MSI4
Supervisors: Elizabeth Stacy & Dr Isabelle Miles
FLEX 449

Background Information

- Alcohol use disorder (AUD) is common and significantly undertreated in Canada
 - ~18% lifetime prevalence
 - <2% receive evidence-based pharmacotherapy
- Emergency departments frequently see patients with:
 - Acute intoxication or withdrawal
 - Alcohol-related injuries or complications
 - Recurrent presentations without longitudinal treatment
- ED visits represent **key opportunities for intervention**:
 - Moments of crisis, readiness, or transition
 - Often the only point of healthcare contact
- Despite strong evidence, **anti-craving pharmacotherapy is rarely initiated in the ED** due to:
 - Time constraints
 - Lack of ED-specific prescribing guidance

Research Question

Primary Question

Which evidence-based pharmacotherapies for alcohol use disorder are feasible and appropriate for initiation in the emergency department, and how can ED-specific guidance optimize their safe and effective prescribing?

Why This Matters

- Outpatient guidelines do not always translate to ED realities
- ED clinicians need:
 - Simple, safe prescribing frameworks
 - Clarity around contraindications
 - Clear follow-up pathways

Project Summary

What I Did:

- Conducted a focused literature review of:
 - Canadian and international AUD guidelines
 - ED-specific evidence (including GRACE-4)
 - Safety data for first-line medications
- Synthesized evidence into **ED-relevant, practical guidance**

Key Findings:

- **Oral naltrexone:**
 - First-line agent for ED initiation
 - Safe in patients with and without liver disease
 - Hepatic contraindications commonly cited are outdated
- **Acamprosate:**
 - Appropriate alternative for patients with opioid dependence
 - Decreased renal function (GFR <30) is main contraindication
- **Gabapentin:**
 - Useful for withdrawal symptoms, not recommended as monotherapy for long-term AUD treatment
 - Risk of misuse including risk of overdose and dependence
- **GRACE-4 Guidelines:**
 - Explicitly support ED-initiated anti-craving pharmacotherapy
 - Emphasize feasibility, safety, and workflow integration

Project Summary

Project Output:

- ED-focused medication table and prescribing guidance aligned with GRACE-4
- Emphasis on minimizing delays and reducing unnecessary barriers to treatment initiation

Next Steps

Immediate Next Steps

- Finalize ED prescribing resource with ongoing internal review
- External review with clinical committee
- Final review and knowledge translation

Future Goals

Share resource with:

- ED supervisors
- Residents
- Quality improvement or addiction medicine leads
- Explore integration into:
 - ED order sets
 - Clinical decision support tools
 - Local guidelines or pathways

Long-Term Vision

- Normalize ED-initiated pharmacotherapy for AUD
- Reduce missed opportunities for treatment
- Improve linkage to ongoing addiction care

Reflection

What I Learned

- There is evidence supporting ED initiation of AUD pharmacotherapy, but:
 - Practice lags behind evidence
- Many commonly cited contraindications—particularly for naltrexone—are based on outdated teaching
- ED-specific guidance (like GRACE-4) is critical for changing practice

Challenges

- Translating broad outpatient evidence into ED-feasible tools

Personal Takeaway

- This project reinforced my interest in:
 - Emergency medicine
 - Addiction care
 - Knowledge translation
- Small, practical tools can have meaningful impact in acute care settings

Call to Action

For Emergency Clinicians

- Consider **initiating oral naltrexone** in eligible patients with AUD directly from the ED

For Departments / Sites

- Align local practice with **GRACE-4 recommendations**
- Establish clear referral pathways to:
 - Primary care
 - Addiction medicine clinics (local or virtual)

Accessing the Resource

Stay tuned for information regarding the next stages of this project.

Thank you

Any Questions?

References

1. Wood E, Bright J, Hsu K, et al; Canadian Alcohol Use Disorder Guideline Committee. Canadian guideline for the clinical management of high-risk drinking and alcohol use disorder. *CMAJ*. 2023;195(40):E1364-E1379. doi:10.1503/cmaj.230715
2. META:PHI (Mentoring, Education, and Clinical Tools for Addiction: Partners in Health Integration). Withdrawal Management Services: Medical Recommendations. Toronto, ON: META:PHI; 2021. Available at: https://www.metaphi.ca/wp-content/uploads/Guide_WMSMedicalRecommendations.pdf. Accessed December 1, 2025.
3. Borgundvaag B, Bellolio F, Miles I, et al. Guidelines for Reasonable and Appropriate Care in the Emergency Department (GRACE-4): Alcohol use disorder and cannabinoid hyperemesis syndrome management in the emergency department. *Acad Emerg Med*. 2024;31(5):425-455. doi:10.1111/acem.14911
4. British Columbia Ministry of Health. High-Risk Drinking and Alcohol Use Disorder: Clinical Management Guideline. <https://www2.gov.bc.ca/gov/content/health/practitioner-professional-resources/bc-guidelines/high-risk-drinking-and-alcohol-use-disorder>. Accessed December 1, 2025.
5. BC Centre on Substance Use. Provincial Guideline for the Clinical Management of High-Risk Drinking and Alcohol Use Disorder. Vancouver, BC: BC Centre on Substance Use; 2023.
6. Fairbanks J, Umbreit A, Kolla BP, et al. Evidence-Based Pharmacotherapies for Alcohol Use Disorder: Clinical Pearls. *Mayo Clin Proc*. 2020;95(9):1964-1977. doi:10.1016/j.mayocp.2020.01.030
7. Bahji A, Bach P, Danilewitz M, et al. Pharmacotherapies for Adults With Alcohol Use Disorders: A Systematic Review and Network Meta-analysis. *J Addict Med*. 2022;16(6):630-638. doi:10.1097/ADM.0000000000000992
8. Anton RF, O'Malley SS, Ciraulo DA, et al. Combined pharmacotherapies and behavioral interventions for alcohol dependence: the COMBINE study: a randomized controlled trial. *JAMA*. 2006;295(17):2003-2017. doi:10.1001/jama.295.17.2003
9. Punia K, Scott W, Manuja K, et al. SAEM GRACE: Anti-craving medications for alcohol use disorder treatment in the emergency department: A systematic review of direct evidence. *Acad Emerg Med*. 2024;31(5):504-514. doi:10.1111/acem.14806
10. Murphy SM, Velez LF, Colby L, et al. Extended-Release Naltrexone and Case Management for Treatment of Alcohol Use Disorder in the Emergency Department. *Acad Emerg Med*. 2021;28(8):899-909. doi:10.1111/acem.14327
11. Ayyala D, Botlyan T, Tien C, et al. Naltrexone for alcohol use disorder: Hepatic safety in patients with and without liver disease. *Hepatol Commun*. 2022;6(12):3433-3442. doi:10.1002/hep4.2080
12. Kee DP, Buyske JJ, Calcaterra SL. Things We Do for No Reason™: Avoiding naltrexone for alcohol use disorder in liver disease. *J Hosp Med*. 2025;20(7):768-771. doi:10.1002/jhm.13569