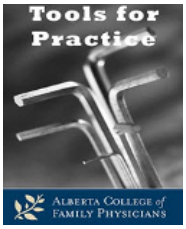
November 30, 2020



Gabapentin for Alcohol Use Disorder: Decrease pints with a pill?

Clinical Question: Is gabapentin effective in treating alcohol use disorder (AUD)?

Bottom Line: More patients on gabapentin (27%) could avoid heavy drinking days (example >5 standard drinks/day) compared to those on placebo (9%). There is mixed evidence for gabapentin and abstinence. Gabapentin may be considered as a second-line option (off-label) for AUD (after acamprosate or naltrexone). Concerns regarding abuse/misuse and drug related harms should inform therapeutic discussion.

Evidence:

- Results statistically significant unless noted.
  - Systematic review, 7 randomized controlled trials (RCTs), 3-26 weeks, 730 participants, with alcohol dependence or AUD, 300-3600mg gabapentin/day (immediate or delayed release) versus placebo, most included regular follow-up visits after ~3 days abstinence. Gabapentin:[1]
    - Decreased percentage of heavy drinking days.
      - Absolute numbers not reported.
    - No difference total abstinence.
    - 10% higher rate adverse events, no serious events reported.
  - Recent RCT (not in above review) gabapentin versus placebo:
    - 90 patients mean age 50, 77% male, average 11 drinks/day. Objective urine test used to confirm drinking/abstinence. 1200mg of gabapentin/day for 16 weeks increased:[2]
      - No heavy drinking days (>5 standard drinks/day):
        - 27% versus 9% (placebo), number needed to treat (NNT)=6.
      - Total abstinence:
        - 18% versus 4% (placebo), NNT=8.
      - Patients with more withdrawal symptoms benefit more.
    - Adverse events: dizziness, 56% versus 33% (placebo), number needed to harm=4.

Context:

- Gabapentin is recommended (off-label) as second line for moderate to severe AUD.[3]

    - Recommended first line agents include acamprosate and naltrexone with NNTs of 12 and 20, respectively, for abstinence.[3,4]
- Gabapentin misuse in general population is ~1%, and up to 15-22% in patients with history of opioid abuse. Risk with alcohol abuse history less clear.[5]
- Gabapentin related cases reported to US poison control increased by 72% between 2013-2017, including 120% increase in abuse/misuse and 80% increase in suicidality.[6]
- One observational study reported the death rate of those prescribed gabapentin for any reason was double that of the general population (RR 2.16), patients receiving these prescriptions may be at higher baseline risk.[7] Excess alcohol also increases mortality.[8]
- Clinicians should be aware of potential misuse/diversion when prescribing gabapentin.[9]

Authors:

Justin Weresch MD CCFP, Jessica Kirkwood MD CCFP (AM), Christina Korownyk MD CCFP

Disclosures:

Authors do not have any conflicts of interest to declare.

References:

1. Kranzler HR, Feinn R, Morris P, *et al.* Addiction. 2019; 114(9):1547-1555
2. Anton RF, Latham P, Voronin K, *et al.* JAMA Intern Med. 2020; 180(5):1-9
3. British Columbia Centre on Substance Use (BCCSU), B.C. Ministry of Health and B.C. Ministry of Mental Health and Addictions. Provincial Guideline for the Clinical Management of High-Risk Drinking and Alcohol Use Disorder. 2019. Vancouver, B.C.: BCCSU. Available at: https://www.bccsu.ca/clinical-care-guidance/. Accessed June 1, 2020.
4. Finley CR, Rumley C, Korownyk CS. Can Fam Physician. 2020; 66(8):583.
5. Smith RV, Havens JR, Walsh SL. Addiction. 2016; 111(7):1160-1174.
6. Reynolds K, Kaufman R, Korenoski A, *et al.* Clin Toxicol (Phila). 2020; 58(7):763-772.
7. Torrance N, Veluchamy A, Zhou Y, *et al.* Br J Anaesth. 2020; 125(2):159-167.
8. Di Castelnuovo A, Costanzo S, Bagnardi V, *et al*. Arch Intern Med. 2006; 166:2437-45.
9. Lennox R, Mangin D. CMAJ. 2019; 191(2):E47.