Elective Admission for Management of Alcohol Withdrawal in a Short-stay Medicine Unit in Toronto: Outcomes and Opportunities

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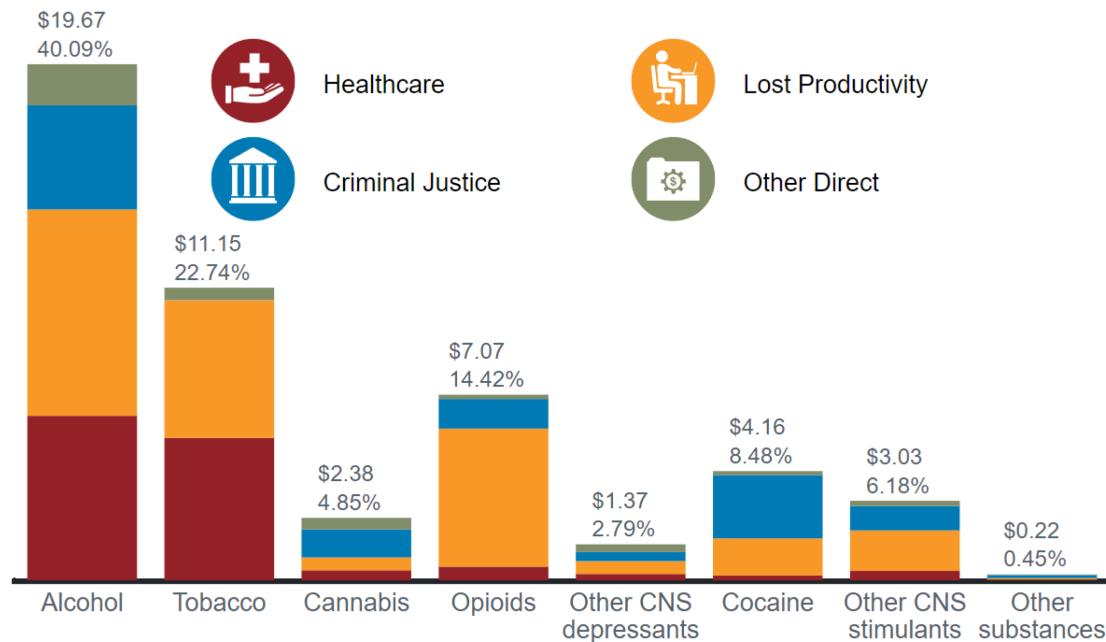
Learning Objectives

- Explain the rationale and protocol for planned admission to a general internal medicine short-stay unit for management of alcohol withdrawal.
- Describe patients' outcomes after a brief stay for alcohol withdrawal management.
- Discuss opportunities for alcohol withdrawal management in other settings.

Background



Canadian Substance Use Costs and Harms (2020). Retrieved from: https://csuch.ca/

Background - Rationale

- Daily withdrawal symptoms pose a significant challenge for patients to stop/reduce drinking and engage in treatment.
- Elective admission prioritize addressing withdrawal symptoms and facilitates the transition to community-based treatment for AUD, but medically supported detoxification services are limited.
- In contrast, ED withdrawal management prevents complications, but rarely initiates outpatient treatment for AUD.

Background – AACU at WCH

- Acute Ambulatory Care Unit (AACU) at Women's College Hospital is a short-stay General Internal Medicine unit (18-24 hours) staffed by a physician and medical nurses.
- AACU is not equipped with ICU capacity and admissions need to be planned as severe withdrawal could require transfer to a hospital with ICU capacity.
- Patients can be admitted by pre-arrangement → Patients are advised to have their last drink the night before planned admission.
- Patients supervised and supported during AACU stay to prevent complications from early stages of alcohol withdrawal

Background - Order Set

Protocol for alcohol withdrawal at AACU

- CIWA-Ar based protocol: symptom triggered dosing with diazepam 10-20mg or lorazepam 2-4mg for CIWA-Ar $\geq$ 10.
- Treatment discontinued when CIWA-Ar < 8 on two consecutive occasions, with minimal tremors.

At discharge

- In some cases, patients are given take-home diazepam doses to complete a taper.
- All patients are offered anti-craving medications if not already prescribed.
- Discharge planning including booked follow up in SUS clinic.

Methodology

Retrospective Chart Audit of patients admitted electively between January 1, 2019 and March 31, 2022. Data was abstracted and verified in July 2022.

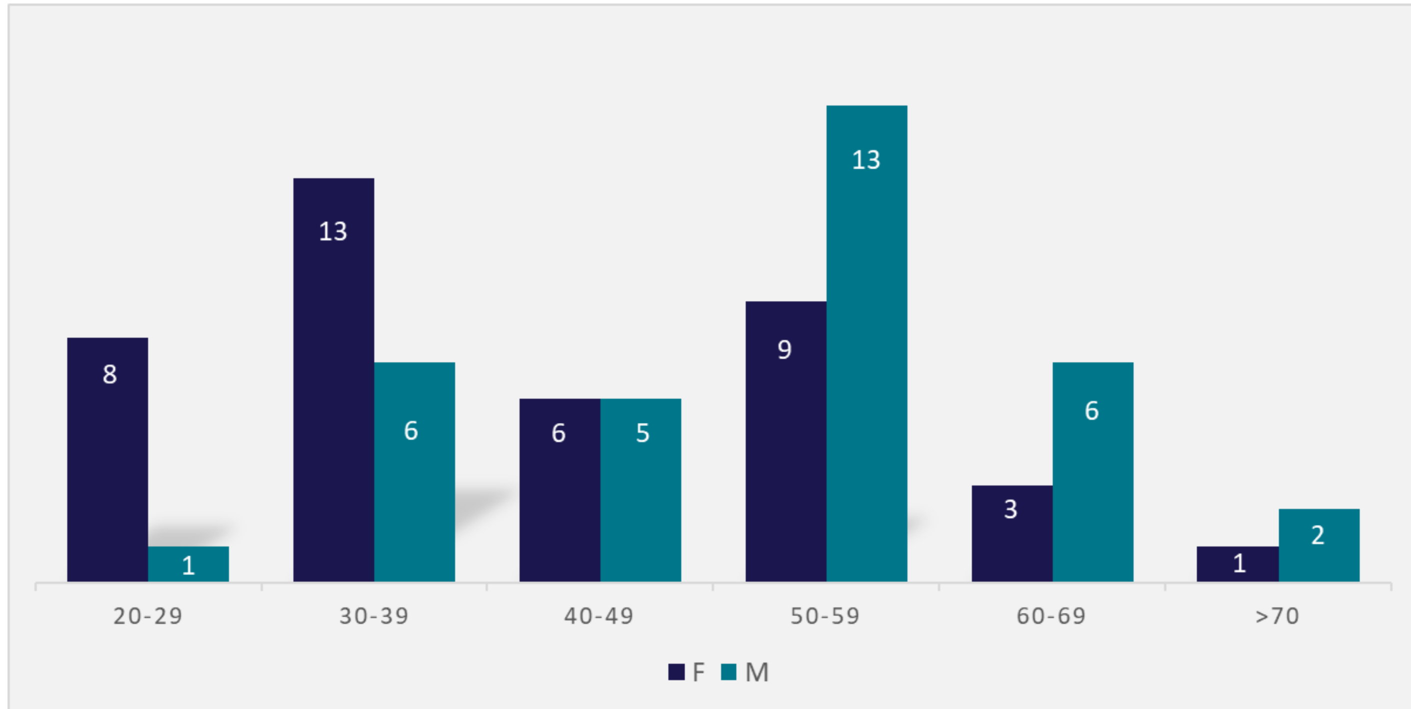
- 92 Charts
- 19 Excluded due to use of other substances
- N=73 Charts

Lorazepam was converted to diazepam equivalence (1.5mg lorazepam = 10mg diazepam)

Results - Demographics

Males: 33 (45%)
Females: 40 (55%)

Patient's Age and Gender



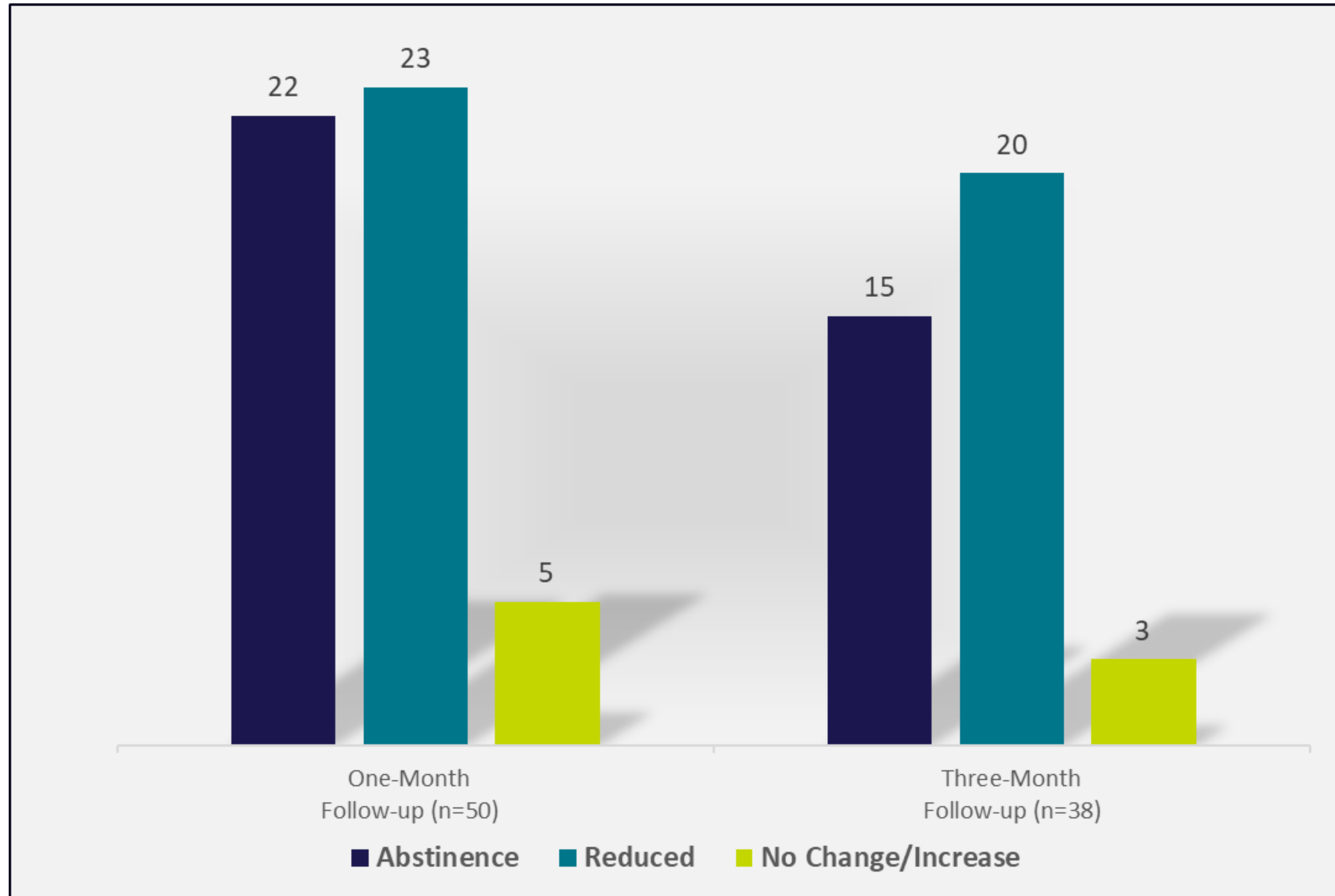
Results - Admission Characteristics

Characteristics	Overall Median (IQR)
Age	48 (34-55)
Alcohol use at admission (SD/day)	11 (7-17.3)
# of visits pre-admission	5 (1-16)

Results - Admission Characteristics

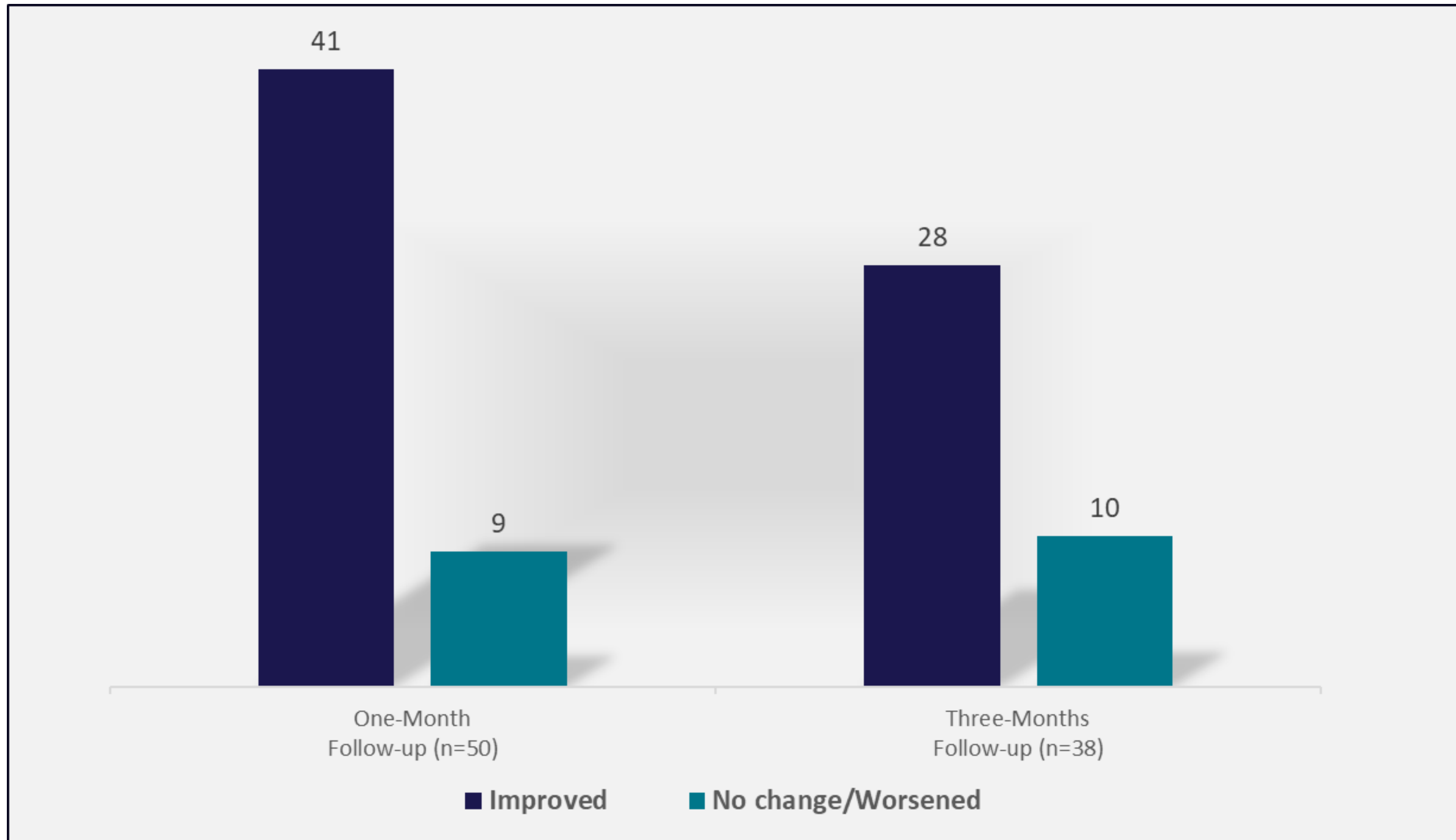
CIWA and Diazepam use	Overall Median (IQR)
CIWA-Ar scores (admission)	17 (13-24)
Total dose of diazepam equivalence (mg)	70 (33-120)
CIWA-Ar scores (on discharge)	3 (0-6)

Results - Changes in Alcohol Use



Results - Changes in Domain of Wellbeing

Wellbeing: Includes self-reports of enhanced energy levels, increased motivation, successful return to work, improved interpersonal relationships, strengthened social networks, and active participation in psychotherapy.



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Results

- Only 4/73 (5.5%) required transfer to a higher level of care.
- 94.5% were successfully managed in a low-acuity setting.
- 49 patients (67%) were on AUD pharmacotherapy prior to admission (n=49).
- There is a statistically significant difference ($p < 0.03$) in the number of visits before admission between those who had follow-up and those who did not at the three-month follow-up.

Key Takeaways

- Ideal patients for short-stay admission are:
  - ➢ Committed to abstinence or reduced drinking.
  - ➢ Unable to abstain from drinking due to ongoing daily withdrawal symptoms.
  - ➢ Withdrawal symptoms likely not manageable without medications.
  - ➢ Committed to anti-craving treatment, counselling and follow-up visits.

- Withdrawal management can be supported in a low-acuity setting.

- AACU is a safe and effective environment for medically supervised alcohol withdrawal.

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Key Takeaways

- Elective treatment of withdrawal had very positive outcomes at one and three month follow-up (i.e., abstinence/reduced drinking and improved sense of well-being) .
- Patients can be managed in a day setting and then discharged home to complete treatment with family's/friend's support.

Limitations

- Patients' self-reporting introduces the potential for recall bias
- Incomplete records and documentation inconsistencies impact the comprehensiveness and accuracy of analyses.
- Wellbeing was not assessed with a standardized tool.
- High loss of follow-up at three month-follow-up.

Conclusion

Planned short-stay admission to a GIM unit is associated with reduced drinking in motivated patients, strong participation in community addiction treatment, and improved sense of well-being. Hospitals with addiction consult services should consider admitting patients electively if they are highly motivated but unable to abstain because of recurrent withdrawal symptoms. Further research is required.

Thank you!