Caring for patients with severe alcohol use disorders in the acute care setting: A managed alcohol approach

Karine Meador MD CCFP DABAM
Assistant Director; Inner City Health and Wellness, Addiction Recovery and Community Health (ARCH) Team
Royal Alexandra Hospital, Edmonton, AB

Disclosures

No commercial disclosures.

Dr. Meador receives a stipend for her work as the Assistant Director of the Inner City Health and Wellness Program and for other work within AHS related to opioid dependency treatment.

Contributors

Kathryn Dong MD, MSc, FRCP, DABAM
Elaine Hyshka BA, MA, PhD
Ginetta Salvalaggio MD, MSc, CCFP, FCFP
Jennifer Brouwer RN, MN
Hannah L. Brooks BSc

Outline

- The Evidence
  - Managed alcohol in the community
  - Managed alcohol in the hospital
- Development of an acute care Managed Alcohol Program (MAP)
- Current protocols and processes
- Case review

Managed Alcohol in the Community

- Implemented in multiple community-based settings in Canada
- Goal to help mitigate the negative consequences of severe alcohol use disorders
  - Homelessness
  - Overconsumption
  - Public intoxication
  - Non-beverage alcohol consumption
  - Health effects

The Evidence

"Shelter-based managed alcohol administration to chronically homeless people addicted to alcohol". Podymow T, Turnbull J, Coyle D, Yetisir E, Wells G. CMAJ January 2006 vol. 174 no. 1

- Ottawa; 15 bed shelter-based project, residents are chronically homeless with severe alcohol use disorders
- Residents receive up to 5 ounces of wine or 3 ounces of sherry hourly, on demand, from 0700-2200
- Nursing care, weekly physician appointments, client care worker

- Hospital charts (ambulance use, ED use, length of hospitalization, trauma/seizures/intoxication, blood alcohol levels), Police data (number of encounters), 3 years prior to enrollment and at least 5 months after (mean 16 months)
- Structured interviews of participants (drinking patterns, nutrition, sleep)
- Structured interviews of client care workers (observed drinking patterns, sleep, hygiene, nutrition, medication compliance)

- **Decreased number of ED visits and police encounters**
- **Self reported decreases of alcohol consumption**
- **Staff and clients reported improved hygiene, compliance with medical care, and health**

The Evidence

"Finding safety: a pilot study of managed alcohol program participants' perceptions of housing and quality of life". Pauly B, Gray E, Perkin K, Chow C, Vallance K, Krysowaty B, Stockwell T. Harm Reduction Journal 2016 13:15

- Thunder Bay; 15 beds, residents are chronically homeless with severe alcohol use disorders and high rates of police contact
- Residents receive up 6oz white wine (12%) hourly between 0800 and 2300, receive dose if not overly intoxicated and present at facility for 60min prior
- Help managing money, access to primary care, life skills training and counselling, help with legal and income supports, cultural support

- Structured survey of MAP participant and controls

- **MAP participants were more likely to retain housing and described increased safety and improved quality of life**
- **Clients described the MAP as a safe place characterized by caring, respect, trust, and a non-judgemental approach with a sense of family and home**

The Evidence

"Do managed alcohol programs change patterns of alcohol consumption and reduce related harm? A pilot study?" Vallance K, Stockwell T, Pauly B, Chow C, Gray E, Krysowaty B, Perkin K, Zhao J. Harm Reduction Journal 2016 13:13

- Thunder Bay program
- Data collected for MAP participants and controls
- Quantitative surveys (housing, alcohol and other substance use, severity of alcohol related problems, health and mental health, housing quality)
- MAP consumption records and alcohol use outside of MAP
- Liver function tests
- Police and healthcare records
- Qualitative surveys
- **MAP participants had fewer police contacts and incarcerations, fewer detox admissions, fewer hospital admissions (compared to controls and to periods off MAP)**
- **MAP participants had decreased LFT scores and reported less non-beverage alcohol use**

Managed Alcohol in the Hospital

The Rationale

- Patients with alcohol use disorders and unstable housing frequently experience negative acute care outcomes
  - Higher rates of leaving against medical advice
  - Higher rates of premature discharge
  - Greater risk of readmission within 15 days for the same initial diagnosis

1. Larimer M, Malone D, Garner M, Atkins D, Burlingham B, Lonczak H, et al. "Health care and public service use and costs before and after provision of housing for chronically homeless persons with severe alcohol problems". JAMA 2009;301(13):1349-57.
2. Mandelberg JH, Kuhn RE, Kohn MA. "Epidemiologic analysis of an urban, public emergency department's frequent users". Academy of Emergency Medicine 2000;7:637-46.
3. Hwang S, Li J, Gupta R, Chien V, Martin R. "What happens to patients who leave hospital against medical advice?" CMAJ 2003;168(4):418-420.

The Patients

1. Patient D; 67 y.o. man, severe alcohol use disorder, admitted after multiple seizures and failure to thrive
   - long hospitalization with multiple complications including hepatic encephalopathy and COPD exacerbations
   - fall while intoxicated outside of the hospital and sustained a fractured humerus
2. Patient A; 32 y.o. man, severe alcohol use disorder, admitted originally with fractured foot
   - developed post-operative infection
   - left hospital AMA multiple times
   - eventually required BKA

The Evidence

Drug and Alcohol Review APSAD

Comprehensive Review

Implementing managed alcohol programs in hospital settings: A review of academic and grey literature

Hannah L. Brooks, Shehzad Kassam, Ginetta Salvalaggio, Elaine Hyshka

First published: 18 January 2018 | https://doi.org/10.1111/dar.12693 | Cited by: 1

Key Findings

Forty-two studies met review inclusion criteria. Twenty-eight examined the administration of alcohol to hospital inpatients, with most reporting positive outcomes related to prevention or treatment of alcohol withdrawal. Fourteen studies examined MAPs in the community and reported that they help stabilise drinking patterns, reduce alcohol-related harms and facilitate non-judgemental health and social care.

Implications/Conclusions

MAPs in the community have been well described and research has documented effective provision of alcohol in hospital settings for addressing withdrawal. Implementing MAPs as a harm reduction approach in hospital settings is potentially feasible. However, there remains a need to build off extant literature and develop and evaluate standardised MAP protocols tailored to acute-care settings.

The Evidence

- Most published studies looked at using IV alcohol to treat or prevent alcohol withdrawal syndrome, doses were tapered off during hospitalization
- Retrospective chart reviews, case studies, and cross-sectional surveys with examples of providing beverage alcohol to patients
  - Inconsistent treatment
  - Lack of inclusion criteria, lack of administration and safety protocols
- From our own hospital…… Multiple anecdotes of providing alcohol to patients with challenging admissions with the goal of preventing discharge AMA

The Team

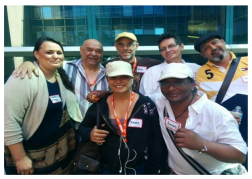
Inner City Health and Wellness Program

Mission Statement:

To provide patient-centered, evidence-based and holistic care for our patients with an active substance use disorder and/or those dealing with social inequity.

Guiding Principles

1. The team will take its direction from the needs of the community that it serves.
2. All activities will be driven by the philosophies of reducing harm, respect and empowering people to make healthy choices.
3. The team and its activities will be culturally competent and will focus on relationship building and trust.
4. A broad definition of health (including physical, mental, emotional and spiritual) will be used to define outcomes.
5. Research and educational initiatives will be action-oriented and widely accessible.



Core Team Members

Clinical Team
- Physician (EM, family medicine, psychiatry, IM)
- Nurse Practitioner
- Social Worker
- Addiction Counsellor
- Peer Support Worker

Education Team
- Clinical Nurse Specialist

Research Team
- Scientific Director
- Associate Scientific Director
- Study and Research Coordinator
- Research Assistants
- Students

Administrative Team
- Director
- Assistant Director
- Patient Care Manager
- Unit Manager
- Administrative Assistants

Addiction Recovery and Community Health Team (ARCH)

- Launched July 14, 2014
- Full team available weekdays from 0800 to 1600
- Peer support worker and addiction counsellor available 7 days/week from 0800 to 1600
- Physicians available 7 days/week from 0800 to 2100
- Accepting consults from: Inpatient units and the emergency department
- Outpatient clinic (urgent, next day appointments are available for patients discharged from the ED)

Hospital-Based Multidisciplinary Treatment

- Standardized intake and assessment
- Comprehensive, evidence-based addiction management
  - Treatment of complicated intoxication and/or withdrawal
  - Acute pain management in the setting of active substance use disorder
  - Initiation or maintenance of opioid agonist therapy
  - Pharmacotherapy for alcohol dependence
  - Harm reduction supplies and naloxone kits
  - Managed alcohol program
  - Counseling and motivational interviewing, peer support
  - Identification and shared management of co-morbid mental health conditions
- Maximize Social Determinants of Health
  - Housing, income support, photo ID, medication coverage
- Health Promotion and Prevention activities
  - STI screening, BBV screening (HIV, Hep C)
  - Hep A, Hep B, and other immunizations
  - Contraception and pap smears
- Community Connections
  - Post-discharge transitional care
  - Primary care
  - Addiction treatment programs/supports

The Process

- "Improving the care of patients with alcohol use disorders at the RAH" group formed in October 2015
  - Members
    - ARCH (clinical, education, research)
    - Surgery, ICU, psychiatry, internal medicine
    - Pharmacy
    - Community partners
    - AHS Addiction and Mental Health
- Goal: Develop inclusion criteria, protocols for administration, standardized forms

The Process

- Community Advisory Group approached for feedback
- Education roll out
  - Harm reduction roving cart
  - Unit specific education and support
- Pharmacy
  - Applied for liquor license
  - Procured alcohol (required sign off from AHS President and CEO)
- First patient initiated December 2016

Alberta Health Services

Affix patient label within this box

Managed Alcohol Program (MAP) Eligibility Critera

Patient Name	Date *(yyyy-Mon-dd)*

Patients who are on a managed alcohol program in the community do not need to meet all the criteria below, and should be maintained on their current treatment plan, if effective.

Individuals **must** meet all of the following criteria:

- ☐ 18 years of age or older
- ☐ Diagnosis of a severe alcohol use disorder (DSM-V criteria)
- ☐ Female patient must have a negative serum HCG
- ☐ Patient has declined an abstinence-based management plan while hospitalized and/or has continued to drink alcohol during hospitalization.
- ☐ Ongoing alcohol use has interfered with the patient's ability to address health concerns and/or has resulted in frequent emergency department visits and/or hospitalizations.
- ☐ Patient agrees to participate in a managed alcohol program and has reviewed and signed the Managed Alcohol Patient Agreement.

Alberta Health Services

Affix patient label within this box

Managed Alcohol Program (the program) Patient Agreement

- I choose to take part in the Managed Alcohol Program at the Royal Alexandra Hospital with the ARCH team.
- I will not drink any type of alcohol *(such as beer, wine, and liquor)* or non-beveraged alcohol *(such as hand sanitizer, mouthwash, hairspray)* while in this program for my own safety.
- I will tell my doctor all the medications, drugs and/or substances that I have been taking. I understand that mixing alcohol with certain medications/drugs can be dangerous and even cause death.
- I will let my doctor or nurse know if I experience withdrawal, so that my doses can be reviewed *(example: have my dose more often)* by the ARCH Team.
- I will drink all doses of alcohol in my room and I know that a staff member may watch me.
- I understand I cannot save alcohol provided to me to drink at a later time.
- I understand that the last possible dose of alcohol will be given at 3:00 am and the next dose will not be given until 6:00am.
- I know that the hospital staff can hold my dose at any time for health and safety reasons *(for example, if I am drunk)*.
- I understand I can choose not to have my dose.
- I will respect myself, staff and other patients. Abusive behavior *(for example yelling, threatening, swearing)* will not be tolerated and may lead to my removal from the program.

I agree to the expectations of patients in this document and will follow all rules and regulations of the Managed Alcohol Program.

Date *(yyyy-Mon-dd)*	Patient Name	Patient Signature
	Witness Name	Witness Signature

Alberta Health Services

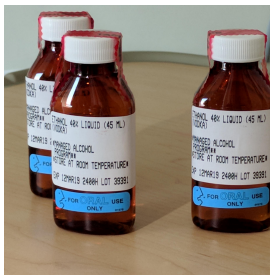
Affix patient label within this box

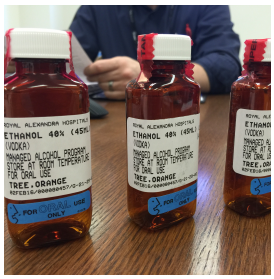
Managed Alcohol Program (MAP)
Intoxication Assessment Tool

Assess and document prior to administration of prescribed alcohol

If value equals 0, patient at baseline, consider giving dose.
If value is greater than 0, consider holding dose and reassess patient in one hour

Date (yyyy-Mm-dd)							
Time (hh:mm)							
Speech 0 Converses normally (*unaltered from baseline*) 1 Slurred and slowed speech, mumbling, disjointed and/or unintelligible							
Coordination 0 Unaltered walking and movements (from baseline) 1 Staggering, unsteady, falling; difficulty coming to or maintaining a standing position							
Judgment and Mood 0 Oriented and focused; appropriate behavior, judgment and emotion 1 Disoriented, confused, distractible; extremes of behavior (for example: overly friendly, laughing intensely, short-tempered, aggressive)							
Level of Consciousness 0 Alert and attentive 1 Nodding off, losing train of thought, difficult to rouse							
Total							
Alcohol dose given							
Signature							





Patient Orders Example

ARCH Suggests:
Managed Alcohol Program
1. Ethanol 40% 45ml po q3h prn, maximum 5 drinks per 24h
2. No doses to be administered between 0300 and 0600 daily
3. Complete Intoxication Assessment Tool prior to administration of each dose. Score must be zero in order for dose to be given.
4. All doses to be consumed in the patient's room, witnessed by RN, please confirm entire dose consumed.

Cases to Date

- First patient initiated on MAP in December 2016
- Average of 1 patient per month
- Outcomes:
  - Completed hospital treatment, discharge to community MAP
  - Completed hospital treatment, discharge back to community
  - 1 AMA while awaiting community MAP placement
  - 1 AMA after completing surgery and several weeks of IV abx
  - 2 patients declined MAP

Case #1 – Mr. F

- 67 y.o. man, admitted from community inner city senior's housing with hypoglycemia and malnutrition secondary to chronic alcohol use
- Long history of severe alcohol use disorder with minimal periods of abstinence, multiple hospital admissions and ED presentations for alcohol related issues
- Consequences of drinking included past homelessness, assaults, public intoxication, recurrent acute medical care needs, poor self care – evicted from housing on admission to hospital
- PMHx: L nephrectomy, BPH with urinary obstruction and chronic indwelling catheter, HTN, DMII, smoker, MoCA 28/30

Case #1 – Mr. F

- Prior to hospitalization patient reported drinking 8-10 beers/day + 13oz vodka/day, on admission he expressed a desire to keep drinking – unit applied to community managed alcohol program
- Sometime after admission, unit became concerned about ongoing drinking in hospital
  - Patient returning to unit ++intoxicated, often escorted by security
  - Staff finding empty liquor bottles in patient's room
- ARCH consulted
  - Patient adamantly declined any abstinence based approaches, pharmacotherapy, withdrawal management, counseling
  - MAP initiated
- Discharged to community MAP/assisted living residence 5 months later

Case #1 – Mr. F Lessons Learned

1. Dose titration
   - Frequent negotiations around maximum doses allowed and dosing intervals
2. Ongoing drinking from own supply
   - Management of finances
3. Improved relationships between patient and all health care providers/unit staff

Case #2 - Mr. S

- 46 y.o. man, admitted briefly after assault and subdural hematoma, left AMA
- Long history of severe alcohol use disorder, last period of abstinence ~15 years prior, chronically homeless, multiple hospital admissions and ED presentations for alcohol related issues but frequent AMAs, history of severe alcohol withdrawal syndrome (seizures, DTs)
- PMHx: PTSD, depression, HTN, smoker
- Followed in community by family physician who had concerns about enlarging hematoma and evolving maistoiditis
- 3 presentations to ED on advice of family physician but left without being seen each time

Case #2 – Mr. S

- Family physician called ARCH MD on call to advise that patient being sent back to ED
- ARCH consulted
  - Reported drinking 12 beers per day
  - Based on patient's history of AMAs and unclear goals around his alcohol use, MAP immediately initiated on admission
- Required extended course of IV abx, left hospital 5 days early but returned the following day and it was determined that IV abx were no longer required
- Discharged with approval back to community with family physician follow-up (community health clinic with social work, counseling, and other support services)

Case #2 – Mr. S Lessons Learned

1. Need for early intervention
2. Improved patient satisfaction and relationships with health care providers
3. Stabilization on lower doses
   - Prn versus fixed dosing

Case #3 – Mr. M

- 50 y.o. man, admitted with pneumonia and seizures (hx of seizure disorder secondary to TBI and alcohol withdrawal seizures)
- Previously had been quite successful in life – attended 2 years of university with plans of becoming a lawyer, unfortunately struggled with severe alcohol use disorder (including non-beverage use) and had been homeless for many years more recently, also legally blind
- ARCH consulted, initiated on acamprosate with good effect, engaged in counseling and peer support
- Pneumonia resolved but it was clear that he was unsafe for discharge back into homelessness, SW involved to find appropriate supportive care housing

Case #3 – Mr. M

- Pt relapsed on several occasions, relapses became more frequent and severe, left AMA after 4 months in hospital
- Readmitted several weeks after AMA with recurrent seizures/failure to thrive
- MAP initiated and stabilized on 5 drinks per day
- Discharge plan modified – listed for community MAP
- Currently still admitted to hospital transition unit awaiting placement in community, mood and health stabilized, continues to engage in counseling and peer support, engaging in other supports (e.g. CNIB)

Case #2 – Mr. M Lessons Learned

1. Flexible treatment planning needed
2. Advocacy for safe discharge planning
3. Stabilization on lower doses

Conclusion

- Community MAPs are a well established harm reduction approach to help those with severe alcohol use disorder with chronic homelessness.
- Minimal evidence around managed alcohol in acute care but ARCH experience demonstrates it can be a safe and effective treatment option for those with severe alcohol use disorders whose use is affecting their hospitalization/medical care.
- Hospitalization remains an excellent opportunity to engage patients with alcohol use disorders into care. However, patients drink alcohol in dangerous ways for complex reasons often which cannot be solved in the course of a hospitalization even with optimal treatment.
- The goals of inpatient MAP are pragmatic and compassionate; preventing premature discharges, decreasing non-beverage alcohol use in hospital, and better engaging patients into care.

Questions?

meador@ualberta.ca

@DrKLMeador
@TeamARCH