Implementing outpatient alcohol withdrawal management into primary

care

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Disclosure Information (Required)

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Learning Objectives

- Discuss evidence for outpatient alcohol withdrawal symptom (AWS) management
- Apply validated screening tools to develop effective and safe AWS management protocols
- Implement EHR tools to facilitate protocol adoption
- Review pre- and post-implementation provider knowledge and satisfaction



"Justin"

- ◆ 34 yo M, uncomplicated medical history presents for help to stop drinking.
- Expecting child in next 1-2 months, thinks daily drinking might be getting to be a bit more of a problem.
- Typically drinks 10-12 drinks per night. "Daily hangover" that improves with more alcohol. Concerned that he won't be able to quit cold turkey.
- No history of withdrawal seizures or inpatient treatment. Outpatient treatment in the past, no other substance use. Last drink was last night and



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"Justin"

 Justin would prefer outpatient treatment, what treatment option would you recommend for him?

- A. Refer to social detox program
- B. Transfer to medically supervised detox facility
- C. Advise to gradually reduce alcohol intake and provide ER precautions for severe withdrawal
- **D.** Prescribe gabapentin or carbamazepine for outpatient detox
- E. Prescribe benzodiazepine or barbiturate for outpatient detox







ALCOHOL IS KILLING MORE PEOPLE PER YEAR THAN THE OPIOID CRISIS, AND MOST DEATHS ARE YOUNG WOMEN

BY KELLY WYNNE ON 11/17/18 AT 9:51 AM

- High risk drinking increased 30%¹
- AUDs increased 50%
- Deaths attributable to ETOH increased 35% 2007-2017
- 85% increase among women
- Large increases in binge drinking-related ED visits 2006-2014



¹GBD 2016 Alcohol Collaborators. Alcohol use and burden for 195 countries and territories, 1990-2016: a systematic analysis for the Global Burden of Disease Study. 2018 Lancet 2018; 392: 1015–35.



Scope of the problem

- 2-9% of all U.S. outpatients meet criteria for AUD²
- Perhaps <10% of patients with AWS require inpt detoxification³
- Availability of detox a barrier to ongoing treatment, sobriety⁴
- ◆ 3% of commercially insured pts with AUD received Rx therapy in 2012
- 8% received any treatment in 2015 (mostly non-medical)

Patients	AUD Diagnosis	Percent
86838	4965	5.72%
86838	4055	4.67% *

* Excludes remission codes



²Muncie HL, Ysainian Y, Oge L. Outpatient Management of Alcohol Withdrawal Syndrome. *Am Fam Phys* 2004;88:589-595.
 ³Saitz R, Mayo-Smith MF, Roberts MS, Redmond HA, Bernard, DR, Calkins DR. JAMA. 1994;272:519-523.
 ⁴Klijnsma MP, Cameron ML, Burns TP, et al. Out-patient alcohol detoxification—outcome after 2 months. Alcohol Alcohol. 1995; 30(5):669-673

Why outpatient?

Inpatient

- Standard of care
- Limited access (hospital admission or medical detox)
- Disruptive to patients
- Expensive

Outpatient

- Greater access
- Less disruption of work, family life
- Inexpensive⁵
- Multiple
- Underutilized⁶
- Serious withdrawal relatively uncommon⁷



⁵Hayashida M, et al. Comparative effectiveness and costs of inpatient and outpatient detoxification of patients with mild to moderate alcohol withdrawal syndrome. *NEJM.* 1989;320:358.
 ⁶Bayard M, et al. Alcohol Withdrawal Syndrome. *Am Fam Physician.* 2004;69(6):1443-1450.
 ⁷Wood E, Albarqouni L, Tkachuk S, Green CJ, Ahamad K, Nolan S, et al. Will This Hospitalized Patient Develop Severe Alcohol Withdrawal Syndrome?: The Rational Clinical Examination Systematic Review. 2018 *JAMA*, *320*(8), 825–833.

IS OUTPATIENT WITHDRAWAL MANAGEMENT SAFE? IS IT EFFECTIVE?



2017 Systematic Review⁸

- Most studies conducted in 1990's-2000's
- 20 studies
 - 13 in UK, 2 in U.S., 2 in Australia. 4 RCTs
- High completion rates
- Reported safe
- Good acceptability
- Cost-saving
 - Hospitalization 6-22x more expensive



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⁸Nadkarni A et al. Community detoxification for alcohol dependence: a systematic review. *Drug Alcohol Rev* 2017;36:389-399

Significant barriers⁸

Time constraints

- Concerns about patient medication misuse
- Absence of caregiver
- Children at home
- Multiple detoxifications
- Housing instability
- Social isolation/poor support
- Medical, psychiatric disease
- Provider prescribing expertise



Review Conclusions⁸

- Safe, effective
- Cost-saving
- Improves outcomes
- Absence of evidence, even in resource-rich settings
- "A safe and effective community detoxification program should be characterized by *clearly defined eligibility criteria*, *non ambiguous medication protocols* based on *objective measurement of withdrawal symptoms*, at least daily structured monitoring of the patient's progress, and linkage with *continuing psychosocial care* after completion of detoxification."



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⁸Nadkarni A et al. Community detoxification for alcohol dependence: a systematic review. *Drug Alcohol Rev* 2017;36:389-399

ASAM Clinical Practice Guideline⁹

 Level of care determination should be based on a patient's current signs and symptoms; level of risk for developing severe or complicated withdrawal or complications of withdrawal; and other dimensions such as recovery capital and environment. Alcohol withdrawal can typically be safely managed in an ambulatory setting for those patients with limited or mitigated risk factors.



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⁹Wong J, Saver B, Scanlan JM, et al. The ASAM Clinical Practice Guideline on Alcohol Withdrawal Management. J Addict Med. 2020;14(3S)(suppl 1):1-72.

Conclusions

- Outpatient detoxification likely safe, effective, and cost-saving
- Recommended by national guidelines/experts
- No widely accepted criteria for outpatient detox
 - Most studies exclude prior complicated withdrawal, baseline severe medical or psychiatric disease, or absence of a caregiver
- Barriers to greater utilization include:
 - Time constraints
 - Intensity of monitoring
 - Prescriber comfort



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PROTOCOLS AND IMPLEMENTATION



Predictor of Alcohol Withdrawal Severity Scale (PAWSS)¹⁰



Easy and quick to administer



Accurate

Sensitivity 93.1% (95%CI[77.2, 99.2%]) Specificity 99.5% (95%CI[98.1, 99.9%]) PPV: 93.1% NPV: 99.5% High inter-rater reliability



¹⁰Maldonado JR, Sher Y, Das S, Hills-Evans K, Frenklach A, Lolak S, Talley R, Neri E. Prospective Validation Study of the Prediction of Alcohol Withdrawal Severity Scale (PAWSS) in Medically III Inpatients: A New Scale for the Prediction of Complicated Alcohol Withdrawal Syndrome. Alcohol Alcohol. 2015 Sep;50(5):509-18.

PAWSS

Thr	reshold criteria:		
	ient consumed any amount of alcohol within the last 30 days OR patient has a sitive blood alcohol level (>200 mg/dL) at visit	Yes	No
Asł	or the patient:		
1.	Have you been recently intoxicated or drunk within the last 30 days?	Yes	No
2.	Have you ever experienced previous episodes of alcohol withdrawal?	Yes	No
3.	Have you ever experienced withdrawal seizures?	Yes	No
4.	Have you ever experienced delirium tremens (DTs)?	Yes	No
5.	Have you ever undergone alcohol rehabilitation treatment (i.e., inpatient or outpatient treatment programs, or Alcoholics Anonymous attendance)?	Yes	No
6.	Have you ever experienced blackouts?	Yes	No
7.	Have you combined alcohol with other "downers" (e.g. benzodiazepines, barbiturates) during the last 90 days?	Yes	No
8.	Have you combined alcohol with any other substance of abuse during the last 90 days?	Yes	No
Clir	, nical evidence:	Yes	No
9.	Blood alcohol level (BAL) >200 mg/dL on presentation?	Yes	No
10.	Evidence of increased autonomic activity (i.e., HR >120, tremor, sweating, agitation, nausea)		

Score of 4 or greater indicates higher risk



Short Alcohol Withdrawal Scale (SAWS)¹¹

- Anxious
- Feeling confused
- Restless
- Miserable
- Memory problems
- Tremors or shakes
- Nausea
- Heart pounding
- Sleep disturbance, insomnia
- Sweating

- Self-assessment
- Score each criterion from 0-3:
 - Score 0: none
 - Score 1: mild
 - Score 2: moderate
 - Score 3: severe
- Score <12: mild</p>
- Score ≥12:
 moderate to severe





POUNDES PARA

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Medication protocols

Day	Gabapentin		Carbamazepir	ne	
1	600 mg BID or 300 TID-QID		200 mg BID-QID or 400 mg BID		
2	600 mg BID or 300 TID-QID		200 mg BID-QID or 400 mg BID		
3	300 mg am/ 300-600 at bedtime		200 mg BID-TID		
4	300 mg am/ 300-600 at bedtime		200 mg BID-TID		
5	300 mg BID		200 mg BID		
6	300 mg BID		200 mg once daily		
7	300 mg at bedtime		200 mg once daily		
Day	Clorazepate	Chloridia	zepoxide	Diazepam	
Day 1	-		zepoxide every 6 hrs	Diazepam 10-20 mg every 6 hrs	
		25-50 mg		-	
1	15-30 mg every 8 hrs 15-30 mg every 12	25-50 mg 25-50 mg	every 6 hrs	10-20 mg every 6 hrs	
1 2	15-30 mg every 8 hrs 15-30 mg every 12 hrs	25-50 mg 25-50 mg 25-50 mg	every 6 hrs every 8 hrs	10-20 mg every 6 hrs 10-20 mg every 8 hrs 10-20 mg every 12	



Companion Tools

Standard Notes

Intake

Follow up

Order Sets

- Lab testing
- Medications

Instructions for caregivers

- Medication dosing
- Importance of hydration
- Possible need for transfer
- Warning signs of decompensation:
 - Persistent vomiting
 - Agitation despite multiple medication doses
 - Hallucinations
 - Confusion
 - Seizure
 - Over-sedation



"Justin"

- PAWSS = 3
- CIWA-Ar = 3
- Gabapentin taper prescribed.

When should he be followed up? Phone or in-person?

- Next day
- Every other day
- Next week
- See him back in a month; you don't have time for this



Follow up

- "Arrange patient check-ins with a "qualified health provider (e.g., MA, Nurse) daily for up to 5 days following cessation or reduction...."
- "Alternating in person visits with remote check-ins via phone or video call is an appropriate alternative"⁹



"Justin"

- Follow-up calls were made daily through the week
- Seen in-person in clinic on Monday the following week
- Withdrawal symptoms were minimal
- Last alcohol use prior to first visit

What should you do now?

- Nothing; he's cured
- Refer him to specialty addiction treatment
- Refer him to AA or another mutual help group
- Begin a maintenance medication



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"Justin"

- Started on naltrexone the following Monday
- Followed up 1 month later. Abstained from alcohol for the last 30 days and refilled naltrexone



How to measure success?

- "Several leading guidelines conclude that the success of AW management episode is defined not only by the acute management of withdrawal...but by the engagement in continued treatment for AUD by patients."9
- Initiate AUD treatment concurrent with withdrawal management when possible
- Warm handoff to treatment providers at a minimum



What are reasonable goals?

- Abstinence
- Reduced craving?
- Reduced binging?
- Reduced consequences?
- Harm reduction goals may be increasingly accepted in treatment community¹²



¹²Witkiewitz K, Wilson A, Roos CR, Swan J, Votaw V, Stein E, et al. (2020, June 17). Can Individuals with Alcohol Use Disorder Achieve and Sustain Non-Abstinent Recovery? Non-Abstinent Outcomes 10 Years After Alcohol Use Disorder Treatment. https://doi.org/10.31234/osf.io/zpcsr

PILOT RESULTS



Quantitative Measures	Results
# of individuals enrolled	16 4 females, 12 males Ages 21-60
# of individuals who completed withdrawal	13
# of individuals inducted onto MAT following completion	13
# and type of complications, if any	ED visit in 1 patient
PAWSS score mean	4.31
Withdrawal medications used	Librium (8), Gabapentin (8)
Mean # of follow up visits during treatment	3.31



PROVIDER SURVEY RESULTS



Provider Surveys

 Pre- (n=11) and post-implementation (n=18) surveys were conducted with providers

 Questions included comfort prescribing medications for AWS, comfort counseling patients, comfort with maintenance medications, and frequency of AWS episode management



Results

Question	Pre	Post
Comfort with withdrawal medication use		
Benzodiazepines	54.5%	44.1%
Gabapentin	81.8%	67%
Comfort counseling patients/family	54.5%	50%
Comfort prescribing maintenance medications		
Naltrexone oral	54.5%	88.9%
Naltrexone IM	45.4%	55.6%
Gabapentin	45.4%	72.2%
Acamprosate	45.4%	60.1%
Frequency of outpatient withdrawal management		
Never	36.4%	16%
Monthly or more than monthly	9%	22.2%
SAM [®]		

Final Takeaways

Outpatient AWS Management is underutilized

- Wider adoption facilitated by implementing evidence-based tools in clear protocols, with EHR supports
- Can be a source of satisfaction for providers
- Measures of success must look beyond protocol completion



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ADDITIONAL CASES



Case 2: "Freddy"

- 51yoM with history of DVT and alcohol use disorder presents for help with quitting drinking.
- Outpatient treatment episodes in the past with some success, most recently in officebased addiction treatment.
- Prescribed naltrexone, but now feels like he needed "something stronger" to stop drinking.
- Wants to stop drinking to be a better father when he has his children 4 days per week.
- Drinking 6 pack and ½ pint of liquor per day. Last drink yesterday, feeling tremulous with a headache today.
- History of mild withdrawal but no seizures. Uses cocaine when he drinks and occasional blacks out. He lives with his minor children 4 days per week and alone on other days.



"Freddy"

 Freddy would prefer outpatient treatment, what treatment option would you recommend for him?

- A. Refer to social detox program
- **B.** Transfer to medically supervised detox facility
- C. Advise to gradually reduce alcohol intake and provide ER precautions for severe withdrawal
- **D.** Prescribe gabapentin or carbamazepine for outpatient detox
- E. Prescribe benzodiazepine or barbiturate for outpatient detox



"Freddy"

- \diamond PAWSS = 4
- Started on gabapentin
- Made one follow up appointment and then lost to follow up
- Several months later returned with similar story
- Started gabapentin again. Team emphasized importance of follow up appointments
- Daily phone follow up x 5. Was able to stop drinking with minimal withdrawal symptoms.
- Did not return for 1 week follow up appointment





- 59yoF with history of severe alcohol use disorder, osteoporosis and recent hip fracture presents with her partner who is in recovery for help with stopping drinking.
- Drinking ½ box of wine per day (17 drinks). Last period of sobriety was 9 months ago and was able to stop drinking for about 2 months with support from AA meetings.
- Tried to quit cold turkey about 3 weeks ago and got very shaky and sick after about 36 hours so she started drinking again.
- Last drink was last night about 10 hours ago and she is starting to feel a little shaky now.
- She reports a history of DTs, but no seizures. Has had blacks out in the recent pass. Daily smoker, no other substance use.



"Janie"

 Janie would prefer outpatient treatment, what treatment option would you recommend for her?

- A. Refer to social detox program
- **B.** Transfer to medically supervised detox facility
- C. Advise to gradually reduce alcohol intake and provide ER precautions for severe withdrawal
- **D.** Prescribe gabapentin or carbamazepine for outpatient detox
- E. Prescribe benzodiazepine or barbiturate for outpatient detox



"Janie"

- PAWSS = 5, CIWA-Ar = 6
- Partner is reliable caregiver
- Started on chlordiazepoxide 25-50mg q6h on day 1
- Daily follow up by phone, in-person visit in clinic on day 2
- Experienced mild-moderate withdrawal for first 3 days of protocol but then declining symptoms. Max CIWA-Ar = 9-10
- Sedation with 50mg dose, decreased to 25mg dose with better tolerability
- Started oral naltrexone at 1 week follow up visit, then naltrexone-XR at subsequent 1 week follow up.
- Has re-engaged in AA with her partner



Case 4: "Dori"

- 61yoF with history of severe alcohol use disorder, MDD and anxiety presenting for help with stopping drinking.
- Alcohol use for several decades. Starting to have other health problems including episodic alcoholic pancreatitis and alcoholic hepatitis which is motivating her to stop drinking.
- History of DT's and seizures and has required hospitalization for alcohol detox in the past. Drinks about a fifth of vodka per day. Recently has tried to cut back but gets shakes and sweats if she cuts back too much.



"Dori"

 Dori would prefer outpatient treatment, what treatment option would you recommend for her?

- Referral to social detox program
- Transfer to medically supervised detox facility
- Advise to gradually reduce alcohol intake and provide ER precautions for severe withdrawal
- Prescribe gabapentin or carbamazepine for outpatient detox
- Prescribe benzodiazepine or barbiturate for outpatient detox



"Dori"

- PAWSS 6; CIWA-Ar <3</p>
- No caregiver at home
- Referred to inpatient medical detox
- LAC completed intake with patient over the phone at treatment facility
- Patient ambivalent about going to inpatient treatment and has yet to begin her detox.





Thank you! jblum@dhha.org

Further discussion and questions



