ACCEPT
Addiction & Co-morbid Conditions: Enhancing Prevention & Therapeutics

Agenda

Zoom link to join from PC, Mac, iOS or Android**:** https://echo.zoom.us/j/156261634

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Zoom Meeting ID: 156 261 634

For attendance, purposes please text the following code: WEPBEZ to 608-260-7097

Session Date: Friday July 19, 2019

Didactic Topic and Presenter:
Alcohol Withdrawal: Medical Management
by Dean D. Krahn, MD, MS – Program Director, UW Addiction Psychiatry Fellowship Program

Content Experts:
Ritu Bhatnagar, MD and Susan Mindock, CSAC; and Sheila Weix, MSN, RN, CARN

- 12:30 PM: Attendance text-in – Introductions
- 12:45 PM: Case #1 & discussion
  - Presenter: Catherine Best, MD – Aurora Health Care – Behavioral Health Center
- 1:15 PM: Didactic Presentation
  - Presenter: Randy Brown, MD, PhD, DFASAM
- 1:30 PM End of Session

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2018-2020

Alcohol Withdrawal: Medical Management

Friday July 19, 2019

Randy Brown, MD, PhD, DFASAM

Provided by the University of Wisconsin–Madison Interprofessional Continuing Education Partnership (ICEP)

Intended Audience:

Physicians, Physician Assistants, Nurses, Social Workers, Pharmacists and Counselors.

Objectives:

As a result of this educational regularly scheduled series, learners will be able to:

1. Review appropriate opioid prescribing and monitoring practices.
2. Participate in office-based management of substance use disorders.
3. Seek, with greater frequency, overdose prevention education.
4. Identify the role of medication assisted therapies, such as methadone, naltrexone, and buprenorphine in the management of substance use disorders.

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Name/Role	Financial Relationship Disclosures	Discussion of Unlabeled/Unapproved uses of drugs/devices in presentation?
Catherine Best, Case Presenter	No relevant financial relationships to disclose	No
Briana Kleinfeldt, RSS Coordinator	No relevant financial relationships to disclose	No
Randy Brown, RSS Chair	No relevant financial relationships to disclose	Yes
Chris Nicholas, Content Expert, Psychology-SUD/Mental Health Counselor	No relevant financial relationships to disclose	Yes
Paul Hutson, Content Expert, Pharmacy	Consultant for Projections Research Inc.	Yes
Ritu Bhatnagar, Content Expert, Psychiatrist	No relevant financial relationships to disclose	Yes
Melissa Ngo, Content Expert, Pharmacist	No relevant financial relationships to disclose	No
Susan Mindock, Content Expert, AODA Counselor	No relevant financial relationships to disclose	No
Sheila Weix, Content Expert, Nurse	No relevant financial relationships to disclose	No
Eun Ha Kim, Content Expert	No relevant financial relationships to disclose	No
Dean Krahn, Content Expert	No relevant financial relationships to disclose	Yes
Kim Sprecker, OCPD Staff	No relevant financial relationships to disclose	No

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CONTINUING EUDCATION INFORMATION:

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The University of Wisconsin-Madison ICEP designates this live activity for a maximum of 1 hour of knowledge-based CE credit. Credit can be earned by successfully completing this live activity. Pharmacists and Pharmacy Technicians should claim only the credit commensurate with the extent of their participation in the activity. CE credit information, based on verification of live attendance, will be provided to NABP within 60 days after the activity completion.

Pharmacists and Pharmacy Technicians must enter their NABP number in their profile in order to receive credit.

2019 Universal Activity Number (UAN)
JA0000358-9999-19-002-L04-P
JA0000358-9999-19-002-L04-T

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The University of Wisconsin–Madison School of Nursing is Iowa Board of Nursing provider 350.

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Patient Case Presentation

***Please do not attach any patient-specific files or include any Protected Health Information.**

1. Date: 7/19/2019
2. Presenter Name: Cate Best M.D.
3. Presenter Organization: Aurora Health Care- Behavioral Health Center
4. ECHO ID: 2103
5. Have you presented this patient during this teleECHO clinic before? No
6. PLEASE STATE YOUR MAIN QUESTION FOR THIS PATIENT CASE: How do you assess if a patient is also getting buprenorphine from an outpatient treatment center?

Patient Demographic Information:

7. Age: 40
8. Sex: Male
9. Education/Literacy: High school graduate, literate
10. Income source: Mechanic
11. 1Social Factors/History: Lives with girlfriend and 2 yo son. Mother works in mental health and is encouraging treatment.

12. **Substance Use History:**

Tobacco: Current every day smoker of 1/4 pack a day
Alcohol: Denies
Marijuana, Hashish: Denies current use - use in adolescence
Cocaine: Denies any use
Opioids/opiates: Began using opiates during his freshman year of high school intranasally. Notes the pattern of use to be sporadic. Regular use began during his junior year of high school via IV. He would use intravenously before school and while at school he would find a desolate area to continue to use. Patient states "I played the good kid, but when I got home from school I would go downstairs and not come back up. I'd get high all night".

After graduation, he was arrested for stealing a vehicle. The judge gave him a choice of either being tried as an adult and be sent to prison, or to enlist. He maintained sobriety throughout the duration of his time serving in the marines. Once honorably discharged in 2007 he resumed heroin use.

He maintained sobriety again for six months while in residential treatment in Madison. He notes that he was not internally motivated at the time and that he relapsed the day he was released. He continued to use until he was arrested for assault and spent several years in prison. Most recently, he has been using 1 gram of heroin daily - twice a day - via IV. He notes that he prefers to mix his heroin with methamphetamine which he refers to as a "suicide ball". On December 20th he went to ASMMC BHU and detoxed for 4 days. He was discharged 12/24/18 and relapsed the following day. He has been able to maintain sobriety since then.

Amphetamine/Methamphetamine: He began using crystal meth 2 years ago via "hot rail". He did not like this route and began using IV methamphetamine mixed with heroin. He would regularly use 1 gram of methamphetamine with 1 gram of heroin daily. His last use followed the same pattern as his heroin; sobriety from 12/20 to 12/24 with a single use 12/25 - sober since.

Hallucinogens: No present use - history of acid and mushrooms

Volatile Solvents/Inhalants: Denies

Benzodiazepines: Denies

Caffeine: Denies

13. Consequences of Substance Use:

- Social/occupational/educational: As above

- Physical (including evidence of tolerance/withdrawal): When I saw him he had been sober for 2 weeks and was still experiencing cravings.

14. Interventions that have been tried:

As above. Denied ever being treated with methadone, buprenorphine or naltrexone.

15.

Current Addiction and Mental Health-related Medications:	Medical/Behavioral Health Diagnosis:
• Suboxone • Seroquel • Trazadone • Depakote • Zyprexa •	• PTSD • Bipolar Disorder

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16.

Patient Strengths/protective factors:	Risk factors:
• Supportive family • Employment500645	• PTSD • Bipolar • Polysubstance abuse

17. <u>Labs (as indicated), include summary of urine testing or last urine drug screen results:</u>

CBC and CMP were WNL when admitted to hospital. HIV and Hepatits panel were negative

18. <u>Patient Goals/Motivations for Treatment:</u>

Remain sober on MAT

19. <u>Proposed Diagnoses:</u>

OUD, severe, in early remission.

20. <u>Proposed Treatment Plan:</u>

Induce onto buprenorphine/naloxone.

His initial dose was 4 mg which he tolerated well. When increased to 8 mg he reported intolerable side effects. He settled into 4 mg daily dose and denied cravings. He followed up regularly while in our IOP and then did not return for treatment. Weeks later we were contacted by our local CTC and they indicated he was also getting treated with Suboxone at their treatment center. They discovered that we were involved in his care when they requested our IOP records and saw in the notes that I was treating him with Suboxone. They are not required to check PDMP and their treatment is not entered into PDMP. I would like to know if you have found any ways to prevent this type of problem?

By initialing here ____CB___ you have acknowledged that Project ECHO case consultations do not create or otherwise establish a provider-patient relationship between any ECHO clinician and any patient whose case is being presented in a teleECHO clinic.

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DSM 5 Criteria for Substance Use Disorder

A use disorder is characterized by maladaptive use resulting in repetitive consequences over the previous 12 months. A minimum of 2-3 criteria is required for a mild substance use disorder diagnosis, while 4-5 is moderate, and 6-7 is severe (American Psychiatric Association 2013)

1. Taking the substance in larger amounts and for longer than intended
2. Wanting to cut down or quit but not being able to do it
3. Spending a lot of time obtaining the substance
4. Craving or a strong desire to use
5. Repeatedly unable to carry out major obligations at work, school, or home due to use
6. Continued use despite persistent or recurring social or interpersonal problems caused or made worse by use
7. Stopping or reducing important social, occupational, or recreational activities due to opioid use
8. Recurrent use in physically hazardous situations
9. Consistent use despite acknowledgment of persistent or recurrent physical or psychological difficulties from using
10. *Tolerance as defined by either a need for markedly increased amounts to achieve intoxication or desired effect or markedly diminished effect with continued use of the same amount. (Does not apply for diminished effect when used appropriately under medical supervision)
11. *Withdrawal manifesting as either characteristic syndrome or the substance is used to avoid withdrawal (Does not apply when used appropriately under medical supervision)

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Alcohol Withdrawal: Medical Management

Randall Brown MD, PhD, DFASAM

July 19, 2019

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Project ECHO University of Wisconsin

Introduction

- 30% lifetime prevalence of AUD in US
- 30+% of patients in hospital & primary care settings engage in current risky or problem alcohol use
- 60% of individuals w/ AUD experience w/d Sx
  - 5% progress to Sz or delirium
- 20% mortality for untreated DTs

Overview

- Physiology
- Definitions
- Assessment/triage
- Treatment

Alcohol Physiology

- Acute effects
  - ↑ GABA (inhibitory transmitter)
  - ↓ glutamate (excitatory transmitter)
  - Endogenous opioids → rewarding effects/craving
- Chronic, heavy consumption
  - ↓ GABA
  - ↑ Glutamate
  - Unopposed CNS excitation & ↑dopaminergic transmission with abrupt cessation (alcohol withdrawal/craving)

DSM-5 Use Disorder

- Tolerance
- Withdrawal

} Physical dependence

- Larger amounts/longer period of use than intended
- Inability to cut down/control use
- ↑↑ Time spent obtaining, using, or recovering
- Important activities given up
- Use despite consequences
- Failure to fulfill major obligations
- Recurrent hazardous use
- Craving
- Use despite interpersonal problems

DSM-5 Alcohol Withdrawal

- Cessation/reduction of heavy use
- 2+ within hours/days
  - ↑ autonomic activity (HR, BP, sweating)
  - Tremor
  - Insomnia
  - N/V
  - Hallucinations
  - Agitation
  - Anxiety
  - Sz
- Cause distress and not caused by something else

“Complicated Withdrawal”

- Hallucinosis
  - Visual > tactile > auditory
  - May begin as subtle perceptual disturbance (e.g. light sensitivity, “clicking” noises)
  - Animal content = common
  - Command hallucinoses = uncommon
- Seizure
  - 8-24 hr after last drink
  - Generalized
- Delirium

Withdrawal Delirium

- Global confusion/disorientation
- Hallucinations
- Autonomic hyperactivity
- Agitation
- Sleep/wake disturbance
- Onset peak 72-96 hours after last drink

Predictors of Complicated Withdrawal

- High CIWA scores early
- Prior Sz/DTs
- Serum electrolyte abnormalities
- Medical co-morbidity
- ↑ MCV
- BAC > 300mg/dL
- Heritability(?)
  - A9 allele of dopamine transporter gene
  - A10 allele tyrosine hydroxylase

Outpatient Management

- Scheduled sedative replacement
  - Chlordiazepoxide 50mg q 6 x 4 then 25mg q 6 x 8 doses
  - Lorazepam 2mg q 6 x 4 then 1mg q6 x 8 doses
- Scheduled carbamazepine
  - 400mg BID tapered to 200mg once on day 5
- Scheduled gabapentin
  - 400mg TID (3d vs 6 wk+)
  - Consider titration to 1600-2400mg total daily
- Symptom-triggered outpatient

Inpatient Management

- Scheduled regimen
- Symptom-triggered
  - CIWA-Ar
  - Diazepam v lorazepam v other(?)
- Adjunctive medications
  - Neuroleptics
  - Anti-convulsants (carbamazepine, gabapentin)
- **Thiamine!!**
- **Phenobarbital** (e.g. 260mg followed by 130mg q 1 hr)

Severe Withdrawal

- Benzodiazepine infusion
  - Lorazepam (change therapy if > 10mg/hr x 24 hr)
  - Midazolam
  - Titrate to light sedation
- Adjunctive neuroleptics
- Adjunctive dexmedetomidine
- Propofol + intubation

Conclusions

- AUD is common, and withdrawal Sx are common among those w/ AUD
- Alcohol w/d is potentially life-threatening if inadequately managed
- Early symptom-triggered Tx (benzos, primarily) reduces hospital days and risk
- Remember that detox isn't AUD treatment!