ACCEPT

Addiction & Co-morbid Conditions: Enhancing Prevention & Therapeutics

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Session Date: Friday, November 18, 2022

Didactic Topic and Presenter:
Diagnosis and Treatment of ADHD in Patients Who Misuse Unprescribed Stimulants

Timothy Cordes, M.D., Ph.D.
Interim Assoc. Medical Director for Psychiatry at University Health Services, University of Wisconsin-Madison
Content Experts:
Ritu Bhatnagar, MD; Lindsey Peterson, MS, CRC; Sheila M. Weix, MSN, RN, CARN

- 12:15 PM: Attendance text-in – Introductions
- 12:25 PM: Case Presentation and Discussion
    - Presenter: Tony Davis-Maxwell, MD - *Assistant Professor, Division of General Internal Medicine, Medical College of Wisconsin, Milwaukee VA Medical Center*
- 1 PM: Didactic Presentation
    - Presenter: Timothy Cordes, M.D., Ph.D.- *Interim Assoc. Medical Director for Psychiatry at University Health Services, University of Wisconsin-Madison*
- 1:15 PM End of Session

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Project ECHO
University of Wisconsin

ECHO ACCEPT
Addiction & Co-morbid Conditions: Enhancing Prevention & Therapeutics
2022-2024
Diagnosis and Treatment of ADHD in Patients Who Misuse Unprescribed Stimulants
11/18/2022

Didactic Presenter: Timothy Cordes, M.D., Ph.D
Case Presenter: Tony Davis-Maxwell, MD

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

Intended Audience:

Nurses, Nurse Practitioners, Pharmacists, Physicians, Physician Assistants, Pharmacy Technicians, Psychologists, Social Workers, Patient/Caregivers, Students

Objectives:

As a result of this educational regularly scheduled series, learners as members of the healthcare team will be able to:

1. Identify elements from a patient history and testing that support the diagnosis of ADHD.
2. Explain confounding factors that impact patient's attention and distraction.
3. Identify warning signs for diversion of prescribed stimulants and ways to minimize the risk of diversion.
4. Explain potential treatments for ADHD in the context of concern for stimulant misuse.
5. Compare treatments for stimulant use disorders that have the strongest evidence in support of their use.

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Ritu Bhatnagar	Planner	No relevant financial relationships to disclose	Yes	2/13/2022
Paul Hutson	Planner	No relevant financial relationships to disclose	Yes	2/15/2022
Susan Mindock	Planner	No relevant financial relationships to disclose	No	2/15/2022
Sheila Weix	Planner	No relevant financial relationships to disclose	No	2/18/2022
Kellene Eagen	Planner	No relevant financial relationships to disclose	No	2/14/2022
Joseph Galey	Planner	No relevant financial relationships to disclose	Yes	6/23/21
Timothy Cordes	Presenter	No relevant financial relationships to disclose	Yes	11/10/2022
Tony Davis-Maxwell	Presenter	No relevant financial relationships to disclose	No	11/8/2022

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Case Presentation

Tony Davis-Maxwell, MD
Medical College of Wisconsin

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Project ECHO® University of Wisconsin

Case Introduction

- One-liner
  - 25-year-old woman with history of anxiety, depression, two months of heroin use, who presented to ED for suicidal ideation in the context of her parents discovering heroin use.

- Primary question for discussion:
  - How is treatment altered, if at all, for people with only very short history of opioid use disorder

Medical & Behavioral Health Diagnosis:	Current Medications:
• Anxiety • Depression • Migraines	• Sertraline 100 mg daily • Hydroxyzine 25 mg q6h4 PRN • Ondansetron 4 mg q8hr PRN • Pantoprazole 20 mg daily

Substance Use

- History: Started using heroin around 2 months ago after being involved in a MVA. Her use escalated quickly to the point of using daily for the past month, ½ g twice daily. Uses intranasally. Prior occasional use of cocaine, daily cannabis in the past which she stopped a few months prior. No history of any IVDU or overdose.
- Consequences of Substance Use:
  - Social/occupational/educational:
    - spent over $12k on substances in 2 months, has caused strife with family and strained relationships. Took longer than expected to find work and now won't be able to start given this current hospitalization
  - Physical (including evidence of tolerance/withdrawal):
    - Increased amount she used, current withdrawal
- Past treatments: none

Social History:	Family History:
• Substance Use Contacts: girlfriend uses heroin • Marital status: in a relationship • Living situation: with parents • Income source: family help, previous nannying work but recently quit	• MGM used substances, unsure if drugs or alcohol

Patient strengths & protective factors:	Risk factors:
• Has support from family, strong desire to quit, only short 2 month history of use	• Financial, lives with parents - strained relationship, SO/GF who uses heroin. Presently not employed. was supposed to start 3 new jobs this week but had to cancel

Labs

- UDS positive for opiates
- CBC, CMP normal

Patient Goals & Motivations for Treatment

- Goal is abstinence, getting a job that is meaningful to her, return to regular exercise, hobbies, recultivate relationships

Proposed Diagnoses

- Opioid use disorder, severe
- Depression with SI
- Anxiety

Proposed Treatment Plan

- Buprenorphine-naltrexone started while in the hospital, titrated up to 16 mg daily and doing well without any further opioid use and no cravings or desire to use 4 weeks after discharge.
- She does not want to be on suboxone forever, and is wondering how long she needs to be on this

Discussion:

- Primary question:
  - Patient is okay with continuing bup-naltrexone for now though wishes to stop in the future. She is open to recommendations for duration.
  - Given her recent onset use of only 2 months ago, what is the minimum amount of time you would you recommend this patient stay on bup-naltrexone?

DSM-5 Substance Use Disorder ("Addiction")

- Tolerance
- Withdrawal

} **Physical Dependence ≠ Use Disorder**

- Larger amts/longer periods than intended
- Persistent desire/failed attempts to quit/control use
- Much time obtaining/using/recovering
- Important activities sacrificed
- Continued use despite known adverse effects
- Failure to fulfill major obligations
- Recurrent hazardous use
- Craving
- Ongoing use despite interpersonal problems

2-3 = mild
4-5 = moderate
≥ 6 = severe

By initialing here _____ 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.

Diagnosis and Treatment of ADHD in Patients Who Misuse Unprescribed Stimulants

Timothy Cordes M.D., Ph.D.
BC General and Addiction Psychiatrist
Clinical Associate Professor
University Health Services
UW - Madison

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Learning Objectives

- Identify elements from a patient history and testing that support the diagnosis of ADHD.
- Explain confounding factors that impact patient's attention and distraction.
- Identify warning signs for diversion of prescribed stimulants and ways to minimize the risk of diversion.
- Explain potential treatments for ADHD in the context of concern for stimulant misuse.
- Compare treatments for stimulant use disorders that have the strongest evidence in support of their use.

Distraction Excess Disorder (DED?)

- Multiple modern trends impact attention
- Smartphone and device usage
- Social media
- Decrease in exercise
- Reduced sleep
- Diet factors
- If you don't notice that you're struggling with distraction at times, you must not be paying attention.
- This is the world we are operating in.

Diagnosis of ADHD

- In adults, 5 symptoms
- Impacting function
- Present in at least 2 domains like school, work, home
- With evidence of symptoms before age 12

Inattentive Symptoms

- Makes careless mistakes/lacks attention to detail
- Difficulty sustaining attention
- Does not seem to listen when spoken to directly
- Fails to follow through on tasks and instructions
- Exhibits poor organization
- Avoids/dislikes tasks requiring sustained mental effort
- Loses things necessary for tasks/activities
- Easily distracted (including unrelated thoughts)
- Is forgetful in daily activities

Hyperactive and Impulsive

- Fidgets with or taps hands or feet, squirms in seat
- Leaves seat in situations when remaining seated is expected
- Experiences feelings of restlessness
- Has difficulty engaging in quiet, leisurely activities
- Is “on-the-go” or acts as if “driven by a motor”
- Talks excessively
- Blurts out answers
- Has difficulty waiting their turn

Functional Questions

- Sometimes, additional questions are helpful to highlight impairment
- Have you ever been pulled over for speeding?
- Have you been in accident as a driver? Low-speed fender-benders count.
- Have you ever had someone break up with you because you “just don’t listen?”
- Have you ever been reprimanded at work or lost a job over not being on task?
- Have you ever lost your keys, wallet, or phone and had to replace them?

Making the Diagnosis

- Historical information can be helpful.
  - Parents, siblings, report cards
  - The SNAP IV is a free rating scale to share
- Neuropsychological testing
  - Provides some direct, more objective evidence of attention impairment
- A continuous performance task like the Conners is helpful
- Then, rule out confounders …

Conditions That Cause Attention Problems

- Sleep apnea
- Major depression
- Generalized Anxiety disorder
- PTSD
- Substance use (commonly cannabis)

Stimulant Activity

- Cocaine
  - Primary effect through inhibition of dopamine transporter
  - Shorter half-life
- Crack: minutes
- Cocaine 1-2 hours
- Stimulants
  - Mainly through triggering release of dopamine into the synapse as well as MAO inhibition, blocking reuptake
  - Effect lasts hours

Range of Use

- Stimulant use can range from misuse to a full use disorder
- Misuse
  - Example: trying a child's prescribed stimulant
  - Problem use
    - Obtaining stimulants to promote wakefulness to road trip
    - Taking it for euphoria-genic effect
  - Use disorder
    - Continued use despite consequences
    - Craving, consequences, lack of control, continued use (4 C's)

Diversion

- Risk factors for prescription stimulant diversion
  - White
  - Young adult in school
  - Low GPA
  - Sorority or fraternity
  - Immediate release forms

Warning Signs

- Early fills
- In a hurry
- Multiple prescribers or prescriber not available
- Lost or stolen
- Familiarity with brand names and “allergies”
- Guilt, threats, or pressure
- Using a surrogate like a child for stimulants
- Psychiatric symptoms not improving
- Appears with signs of intoxication or withdrawal

Reducing Diversion

- Begin with a clear diagnosis
  - Use long-acting formulations when appropriate
- Screen to monitor for adherence with treatment and abuse of other substances
- Review prescription drug monitoring program
- Consider obtaining ROI for family member early
  - Are they staying up all night cleaning the garage?

Treatment of ADHD

- Depends on degree of prior misuse vs. use disorder
- Cognitive behavioral therapy has some evidence for ADHD
  - Jensen, Christina Mohr, et al. "Cognitive behavioural therapy for ADHD in adults: systematic review and meta-analyses." ADHD
  - Attention Deficit and Hyperactivity Disorders 8.1 (2016): 3-11.
- Lowest risk
  - Atomoxetine
  - Typically 80-100mg in adults
  - at least 6 weeks
  - Atomoxetine generally improves ADHD but not the co-occurring SUD
    - Fluyau, Dimy, Neelambika Revadigar, and Christopher G. Pierre. "Systematic Review and Meta-Analysis: Treatment of Substance
    - Use Disorder in Attention Deficit Hyperactivity Disorder." The American Journal on Addictions 30.2 (2021): 110-121.

Treatment (continued)

- If hyperactive or impulsive symptoms predominate
  - Consider clonidine or guanfacine
  - These are not FDA approved in adults

If choosing Stimulants

- Need good relationship and buy in
- Pill counts and use of PDMP
- Long-acting versions like orosmethylphenidate
- Easier to monitor for other amphetamine use

Stimulant Use Disorder Treatment

- If there is a stimulant use disorder, that needs treatment.
- Best evidence is for
  - Contingency Management
    - Patients are rewarded for negative drug tests
    - Apps such as Reset can provide this
  - Cognitive Behavioral Therapy for relapse prevention.
    - Evidence for more sustained benefits

Conclusions

- ADHD and substance use disorders are often comorbid.
- Other causes of inattention should be considered. History and neuropsychologic testing are helpful in diagnosing ADHD.
- Atomoxetine can be helpful for ADHD in people who use substances.
- Stimulant use disorder treatments involve contingency management and CBT.

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