ACCEPT

Addiction & Co-morbid Conditions: Enhancing Prevention & Therapeutics

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Session Date: Friday, June 16, 2023

Didactic Topic and Presenter:
Gabapentinoid Misuse and Abuse

Theresa Frey, PharmD, BCPP

- 12:15 PM: Attendance text-in – Introductions
- 12:25 PM: Case Presentation and Discussion
    - Presenter: Aishling Watson, MSN, RN, APNP, FNP-BC, PMHNP-BC - *Psychiatric Nurse Practitioner, Regent Mental Health Group, S.C.*
- 1 PM: Didactic Presentation
    - Presenter: Theresa Frey, PharmD, BCPP
- 1:15 PM End of Session

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ECHO ACCEPT
Addiction & Co-morbid Conditions: Enhancing Prevention & Therapeutics
2022-2024
Gabapentinoid Misuse and Abuse
6/16/23

Didactic Presenter: Theresa Frey, PharmD, BCPP
Case Presenter: Aishling Watson, MSN, RN, APNP, FNP-BC, PMHNP-BC

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:

- Describe prevalence of gabapentinoid misuse/abuse
- Identify risk factors for gabapentinoid misuse/abuse
- Describe the clinical presentation of gabapentinoid misuse/abuse and withdrawal
- Identify risk mitigation and monitoring strategies

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Name	Role	Financial Relationship Disclosures	Discussion of Unlabeled/Unapproved uses of drugs/devices in presentation?	COI completion date
Randall Brown	RSS Chair	Usona Institute (Grant / Contract), multi-disciplinary association for psychedelic studies (Grant / Contract)	Yes	1/30/2023
Nada Rashid	RSS Coordinator	No relevant financial relationships to disclose	No	1/31/2023
Kathleen Maher	RSS Coordinator	No relevant financial relationships to disclose	No	1/30/2023
Ritu Bhatnagar	Planner	No relevant financial relationships to disclose	Yes	1/29/2023
Paul Hutson	Planner	No relevant financial relationships to disclose	Yes	1/28/2023
Susan Mindock	Planner	No relevant financial relationships to disclose	No	1/31/2023
Sheila Weix	Planner	No relevant financial relationships to disclose	No	2/3/2023
Kellene Eagen	Planner	No relevant financial relationships to disclose	No	1/27/2023
Joseph Galey	Planner	No relevant financial relationships to disclose	Yes	1/27/2023
David Leinweber	Planner	No relevant financial relationships to disclose	No	4/13/2023

Theresa Frey	Presenter	No relevant financial relationships to disclose	No	6/7/2023
Aishling Watson	Presenter	No relevant financial relationships to disclose	Yes	6/8/2023

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Case Presentation

Aishling A. Watson, MSN, RN, APNP, FNP-BC, PMHNP-BC
Regent Mental Health Group, Madison, WI

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Case Introduction

One-liner (including age/sex):

- 21-year-old female with physical symptoms of alcohol withdrawal

Primary question for discussion:

- Is this patient safe to go through medical detox in the outpatient setting?
- If so, what is the best medication treatment plan?

Medical & Behavioral Health Diagnosis:	Current Medications:
• F33.1 Major depressive disorder, Recurrent episode, Moderate • F41.1 Generalized anxiety disorder • F90.0 Attention-deficit/hyperactivity disorder, Predominantly inattentive presentation • F12.90 Cannabis use, unspecified, uncomplicated • F17.210 Nicotine dependence, cigarettes, uncomplicated • F14.10 Cocaine use disorder, Mild	• Bupropion 150 mg BID • Abilify 20 mg daily • Fluoxetine 40 mg daily

Substance Use

History:

- Patient reports that for at least the last 2-3 months, she has been filling a 17-ounce bottle with Pink Whitney and drinks at least 26 ounces of alcohol daily.
- Drinks alone, isolated.
- Intermittent use of cocaine.
- Uses marijuana or Delta8 throughout the day (vape, gummies)
- Uses nicotine throughout the day (vape, cigarettes)

Consequences of Substance Use:

Social/occupational/educational:

- Volatile relationship with boyfriend
- Drinks alcohol while working, hasn't been caught
- Difficulty with finances, owes parents money, unable to afford vehicle

Substance Use

Physical (including evidence of tolerance/withdrawal):

- Poor medication compliance, regularly stops taking it for weeks/months.
- Patient states she may get a little buzzed but mainly drinks so that she doesn't get sick. She was late for appointment because she had been vomiting.
- Patient states she needs to drink alcohol in the morning because she gets sick if she doesn’t.

Past treatments:

- No previous admissions.
- Has refused any medications to help with decreasing alcohol use.
- Unable to follow through with a plan to decrease alcohol use.

Social History:	Family History:
Social Factors/History: • Lives with parents and siblings Education/Literacy: • Goes to community college, takes 2 classes per semester Income source: • Works at a doggy day care 20-40h/week	• Unknown

Patient strengths & protective factors:	Risk factors:
• She verbalizes hope for the future • She takes very good care of her dog • She is embedded in protective family • She is attached to therapy • She is hopeful that current treatment direction will be effective	• Partner uses alcohol • Poor medication compliance

Labs

- None at time of appointment

Patient Goals & Motivations for Treatment

- She is tired of feeling sick when she tries to stop alcohol
- She is worried her parents will find out and kick her out of house
- She is worried she will lose her job if she gets caught drinking at work
- She wants to get control of her life

Proposed Diagnoses

- F10.20 Alcohol use disorder, Severe

Proposed Treatment Plan

Call to UW Addiction Consultation Hotline and spoke with Dr. Leine-Weber & Dr. Alyssa Bruehlman. Ideally the best treatment plan for this patient is for inpatient detox, but if she is unwilling, then these are the recommendations:

- contact Newstart for Dual Diagnosis Treatment for Adults
- start gabapentin 300 mg TID and increase to 600 mg TID as tolerated
- start clonidine 0.1 mg transdermal patch to both arms, remove in 1 week
- since clonidine patch won't start working on day 1, have her take clonidine 0.1 mg PO QID for the first day
- prescribe zofran for nausea
- can also use Librium taper of 50 mg QID x 1 day, TID x 1 day, BID x 1 day, then once and stop

Proposed Treatment Plan

- Prescribe Narcan
- Advise her to use fentanyl strips to test cocaine as the area's cocaine supply has been laced with fentanyl
- Advise her not to share equipment (straws) due to the possibility of contracting hepatitis C
- Advise her of alcohol withdrawal problems
- Advise her to talk to her family about her use and withdrawal as she will need someone to be accountable and monitor her for seizures and take her to the emergency room
- Go to the emergency room or call 911 if seizures, fever, severe confusion, hallucinations, or irregular heartbeats occur.
- If you go to the hospital for another reason, tell the providers if you've been drinking heavily so they can monitor you for symptoms of alcohol withdrawal.

Discussion:

Primary question:

- Pink Whitney contains 30% alcohol content (60 proof) per 1.5 fluid ounce. The patient is averaging 26 ounces per day. Is it safe for this patient to detox at home?

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
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≥ 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.

Gabapentionoid Misuse and Abuse

Theresa Frey, PharmD, BCPP

6/16/2023

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Overview

- Describe prevalence of gabapentinoid misuse/abuse
- Identify risk factors for gabapentinoid misuse/abuse
- Describe the clinical presentation of gabapentinoid misuse/abuse and withdrawal
- Identify risk mitigation and monitoring strategies

- **Misuse:** any type of inappropriate use, irrespective of whether there is any dependency involved, and misuse might be accidental or even unrecognized

- **Abuse:** an active and recognized non-medical use of a substance, in most cases linked to dependence/addiction and (often) involving higher doses than normal

Gabapentinoid Misuse/Abuse trends

- Prevalence of gabapentinoid misuse estimated at:
  - 1.6-6.6% in the general population
  - 3-68% in individuals with SUD
- US misuse rates of gabapentin steadily increased
  - 0 cases in 2002 to 0.03 cases per 100,000 inhabitants in 2015
- Gabapentin 10th most common prescribed drug in 2022

What's the harm?

In Swedish patients, Pregabalin increased **Opioid Related Overdose death** and **all cause mortality** by a similar magnitude as BZDs in patients receiving MOUD

Among > 12,000 US commercially insured patients receiving MOUD, concomitant gabapentinoid use increased **all-cause mortality** (HR = 1.71, 95% CI 1.33–2.20)

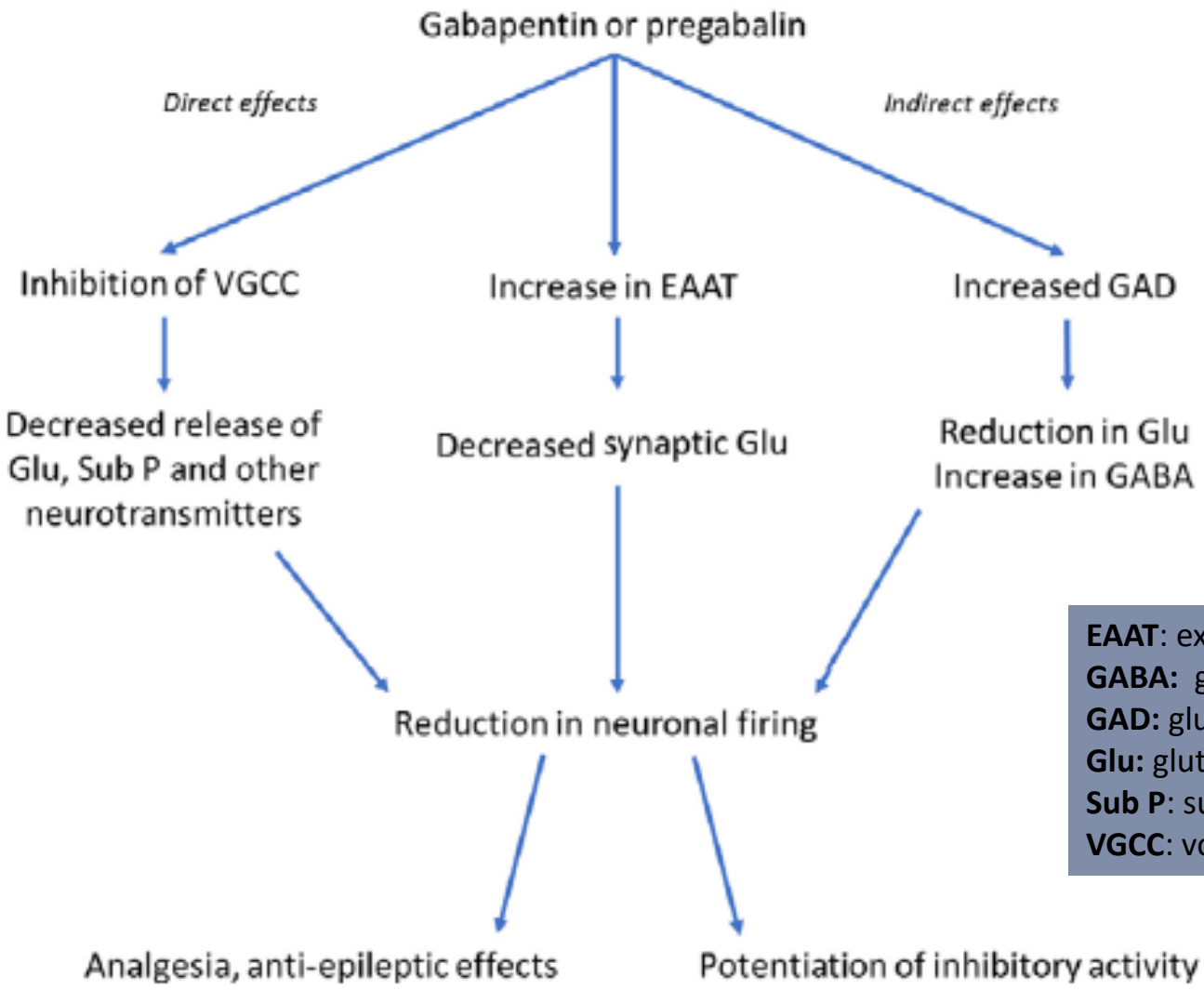
In commercially insured US patients, sustained gabapentin misuse/abuse increased **hospitalization risk** (OR = 1.366, 95% CI 1.055–1.769)

When used concomitantly with **opioid doses ≥ 50 MME/day** this **risk increased even further** [odds ratio (OR) = 4.083, 95% CI 2.582–6.457]

Risk Factors

- ≥ 50 morphine milligram equivalents (MME) per day
- methadone use
- younger age
- multiple prescribers
- diagnosis of cancer, multiple sclerosis, neuropathy, or depression
- Opioid misuse/OUD

Mechanism of Action



EAAT: excitatory amino acid transporter
GABA: gamma aminobutyric acid
GAD: glutamic acid decarboxylase
Glu: glutamate
Sub P: substance P
VGCC: voltage-gated Ca2+ channels

Reasons for use

- Relief from emotional or physical ailments
  - pain
  - anxiety
  - improved sociability
  - dissociation
- Recreation/Euphoria
- Increased energy or relaxation
- Synergism with other substances
- Not able to access preferred substances
- Withdrawal management
- Managing “come down” from other drugs

How Used

- Oral use (swallowing caps/tabs) most common
- Alternate routes:
  - Injecting cap/tab contents (alone or with heroin)
  - Snorting intransally
  - Emptying capsule and swallowing or parachuting
  - Chewing tabs
  - Administering rectally
- Co-admin
  - Opioids (esp. methadone or heroin)
  - Cocaine, stimulants, cannabis, BZDs, alcohol, muscle relaxers, antipsychotics
  - Nicotine, caffeine, sweet drinks
- Periodic use > regular use
- “Dosing”
  - Typically, supratherapeutic range doses (>600mg pregabalin; >3600mg gabapentin)
  - Pregabalin mean daily doses 1,424mg (German study); range 500-7,500mg (case reports)
  - Gabapentin range 1,500-12,000mg

Reported Withdrawal Effects

- Described as similar to alcohol or BDZ withdrawal
- Mild sx: agitation, anxiety, diaphoresis, gastrointestinal symptoms, irritability, insomnia, and hypertension
- Severe symptoms: confusion, tachycardia, catatonia, and status epilepticus.
- Sx typically 24-48 hours after discontinuation (range 12 hours to 7 days)

Clinical Management

- Withdrawal sx:
  - Re-initiation of gabapentinoid and supportive care
  - BZDs appear ineffective per multiple case reports
  - Limited evidence to support adjuvants
- Seizure tx:
  - case report of phenytoin and phenobarbital to abort status epilepticus
- Slow taper off over several weeks
  - 25% each week
  - Slower in elderly, renal insufficiency or intolerability
  - Faster if adverse events or risks outweigh benefits
  - Inpatient if hx of life-threatening gabapentin withdrawal sx

Clinical Management

- Gabapentinoid OD/poisoning
  - Supportive treatment
    - drug discontinuation, mechanical ventilation, fluid resuscitation, vasopressors, and gastrointestinal decontamination, depending on the severity and timing of the ingestion
  - Suggestion for extracorporeal treatment (ex. hemodialysis) if decreased kidney function and coma requiring mechanical ventilation are present (weak rec., low quality evidence)

Conclusions

- Caution in prescribed opioid and OUD populations
  - risk not limited to misuse/abuse situations
- Monitor for misuse/abuse
  - PDMP checks
  - Aberrant behavior
  - Consider shorter days supplies/less refills/more frequent follow-ups in at risk groups
- Limited evidence for management of misuse/abuse
  - Re-initiate and taper off
  - Focus on reason for use and address that (ex. OUD, anxiety, pain)

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References

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- Top 50 most prescribed drugs of 2022 (singlecare.com)