

# Welcome to UVM/AHEC ECHO: Children's Mental Health

1-21-2021

Facilitators:

Michael Hoffnung, DO

David Rettew, MD

Kathy Mariani, MD, MPH

Julie Cole, MPA

Presenter:

Michael Hoffnung, DO

- RECORDING OF SESSION TO BEGIN



# Treatment of Irritability and Aggression in Autism Spectrum Disorders

**Michael A. Hoffnung, D.O.**

Assistant Professor, Departments of Psychiatry and Pediatrics

UVM Larner College of Medicine

Attending Child Psychiatrist, Vermont Center for Children, Youth and Families

Faculty Lead, UVM/AHEC ECHO on Children's Mental Health



# Agenda

- Introductions
- Objectives
- Didactic Presentation (15-20 min)
- Case presentation
  - Clarifying questions
  - Participants – then faculty panel
- Discussion
- Recommendations
- Summary
- Closing Announcements
  - Submission of new cases
  - Completion of evaluations



# Please sign up to present a case!!

## Remaining Sessions:

Date	Topic	Case Presentation
2/18/21	Gender Identity in Children and Adolescents (Dickerson)	
3/18/21	Cannabis Use in Adolescents (Heward)	
4/15/21	What to do when first line treatments are not Successful – Depression (Pawlowski)	
5/20/21	Managing Psychiatric Emergencies (Abdul-Karim and McGowan)	
6/5/21	Wellness and Self Care (Hoffnung)	
6/17/21	Eating Disorders (Mariani)	



# CME Disclosures

University of Vermont (UVM) Office of Continuing Medical and Interprofessional Education (CMIE) is approved as a provider of Continuing Medical Education (CME) by the ACCME. UVM designates this internet live activity for a maximum of 1.0 AMA PRA Category 1 Credits. Participants should claim only the credit commensurate with the extent of their participation in the activity.

## Interest Disclosures:

- As an organization accredited by the ACCME to sponsor continuing medical education activities, UVMCMIE is required to disclose any real or apparent conflicts of interest (COI) that any speakers may have related to the content of their presentations.



# Series Objectives

- By the end of this series, the learners should be able to:
  - Feel more comfort and confidence in **identifying, treating, and referring** a variety of complex children's mental health presentations.

# Session Objectives

- By the end of this activity, the learners should be able to:
- Describe an algorithmic approach to assessing irritability and aggression in Autism Spectrum Disorder
- Identify pharmacologic and non-pharmacologic treatment strategies to target this presentation



# Conflicts of interest

No conflicts to declare

Off-label medication use may be discussed

# DSM-5 ASD (for reference)

## **Autism Spectrum Disorder Diagnostic Criteria 299.00 (F84.0)**

A) Persistent deficits in **social communication** and **social interaction** across multiple contexts, as manifested by **ALL** of the following, currently or by history

**1. Deficits in social-emotional reciprocity**

**2. Deficits in nonverbal communicative behaviors used for social interaction**

**3. Deficits in developing, maintaining, and understanding relationships**



# DSM-5 ASD (for reference)

## **Autism Spectrum Disorder Diagnostic Criteria 299.00 (F84.0)**

B) Restricted, repetitive patterns of behavior, interests, or activities, as manifested by **at least two** of the following, currently or by history

- 1. Stereotyped or repetitive motor movements, use of objects, or speech**
- 2. Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior**
- 3. Highly restricted, fixated interests that are abnormal in intensity or focus**
- 4. Hyper- or hyporeactivity to sensory input or unusual interest in sensory aspects of the environment**



# Autism Spectrum Disorder: Severity Levels – DSM-5 (for reference)

Severity level	Social communication	Restricted, repetitive behaviors
Level 3 “Requiring very substantial support”	<p>Severe deficits in verbal and nonverbal social communication; rarely initiates interaction and, makes unusual approaches to meet needs only and responds to only very direct social approaches.</p> <p>Marked deficits in verbal and nonverbal social communication skills; social impairments apparent even with supports in place; interaction is limited to narrow special interests, and has markedly odd nonverbal communication.</p>	<p>Inflexibility of behavior, extreme difficulty coping with change, or other restricted/repetitive behaviors markedly interfere with functioning in all spheres. Great distress/difficulty changing focus or action.</p>
Level 2 “Requiring substantial support”	<p>Marked deficits in verbal and nonverbal social communication skills; social impairments apparent even with supports in place; interaction is limited to narrow special interests, and has markedly odd nonverbal communication.</p>	<p>Inflexibility of behavior, difficulty coping with change, or other restricted/repetitive behaviors appear frequently enough to be obvious to the casual observer</p>
Level 1 “Requiring support”	<p>For example, a person whose to-and-fro conversation with others fails, and whose attempts to make friends are odd and typically unsuccessful.</p>	<p>Inflexibility of behavior causes significant interference with functioning in one or more contexts. Difficulty switching between activities. Problems of organization and planning hamper independence.</p>



# Irritability and Aggression (or problem behavior) Defined

Irritability: vocal or motor outbursts indicating anger, frustration, or distress

Aggression/Problematic Behaviors can often include aggression towards property, self or others

Important to understand Frequency, Severity, and whether there is a safety risk involved.

1  **Assess for I/PB.**

Has this patient <i>recently</i> shown:		If yes, how much of a problem?			Safety risk?	
Tantrums, meltdowns, rages?	No <input type="checkbox"/> Yes <input type="checkbox"/>	None <input type="checkbox"/>	Mild–Moderate <input type="checkbox"/>	Severe <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>
Property destruction?	No <input type="checkbox"/> Yes <input type="checkbox"/>	None <input type="checkbox"/>	Mild–Moderate <input type="checkbox"/>	Severe <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>
Aggression to others?	No <input type="checkbox"/> Yes <input type="checkbox"/>	None <input type="checkbox"/>	Mild–Moderate <input type="checkbox"/>	Severe <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>
Self-injury?	No <input type="checkbox"/> Yes <input type="checkbox"/>	None <input type="checkbox"/>	Mild–Moderate <input type="checkbox"/>	Severe <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>

Source: Pediatrics. 2016 Feb;137 Suppl 2:S136-48. doi: 10.1542/peds.2015-2851L. Epub 2016 Feb 1. PMID: 26908469.



# Step 1: Assess Safety

Is there a risk of harm to self or others, and does it exceed family ability to cope?

Options: Crisis Services, respite, step up intervention, admission to specialized inpatient unit.

\* Avoid ED whenever possible, it can make things worse.



## Step 2: Qualify and Quantify Behavior

As best as possible, qualify and quantify the targeted behavior

Where/when does it tend to occur? how frequently?  
Are there triggers? How does the environment respond?

**What is the longitudinal course? (this is where PCP's have a significant advantage!)**

## Step 3: Consider Possible Contributing Factors

1. Medical problems: consider GI/abdominal pain, dental pain, new onset infection
2. Iatrogenic: recent medication change or supplements introduced
3. Sleep changes
4. Environment change



# Step 4: Consider Communication Challenges and Unintended Reinforcement Patterns

This likely requires outside specialty input- but know to ask if it is available.

Examples: facilitated communication devices, functional behavior analysis

# Behavioral Interventions

Behavioral Intervention is recognized as an efficacious approach for improving outcomes for children with autism spectrum disorders (ASD).

How much? Numerous expert panels recommend at least 25 hours of high intensity intervention per week.

Delivered by: Look for BCBA- leading the team (board certified behavior analyst).



# What is ABA? (reference)

## Applied Behavior Analysis

Based on principles of Operant Conditioning described by B.F. Skinner- involves reinforcing and shaping targeted behaviors.

"Applied behavior analysis" means the design, implementation, and evaluation of environmental modifications using behavioral stimuli and consequences to produce socially significant improvement in human behavior. The term includes the use of direct observation, measurement, and functional analysis of the relationship between environment and behavior.

**Vermont General Assembly-8 V.S.A. § 4088i**



# Step 5: Consider Co-occurring Psychiatric Conditions

ADHD- estimated to affect 30-61% of children with ASD

Anxiety: Estimated 11-40% of children with ASD

Depression: Less common: Estimated 7% prevalence (up to 26% in adults)

Psychosis: Less Common: Estimated 4-35% (in adults)



# Common Co-occurring Difficulties-ADHD

No rating scales validated specifically for ASD+ADHD, but in my clinical experience the Vanderbilt Rating scale (or an analog) is helpful.

Here's a link I have bookmarked for rating scales of all sorts:

<https://projectteachny.org/rating-scales/>

# Golden Rule of Psychopharmacology In ASD

**Start LOW and go SLOW**

**(but go!)**



# ADHD- Inattention, Hyperactivity, Impulsivity

- Methylphenidate has demonstrated efficacy in children with Autism and ADHD,
- Amphetamine based stimulants likely effective as well (though no literature specific to comorbidity)
- Atomoxetine (Strattera) and Guanfacine have also shown some benefit in children with ASD and ADHD (similarly Clonidine likely beneficial but no literature)



# Assessing for Anxiety and OCD

## **Assessing for Anxiety can be tricky, especially in minimally verbal children**

Cognitive symptoms: Worry, feeling on edge, restless, difficulty concentrating

Objective symptoms of anxiety:

- Grinding teeth • Physical symptoms (GI symptoms, muscle-tension)

Disturbed sleep

- Autonomic symptoms: (increased sweating)

- Worsening of Autistic Features

(stemming, tics, sensory dysregulation, cognitive rigidity)



# Treatment: Anxiety/OCD

Treat as you would neurotypical children, but **start low and go slow.**

- Fluoxetine and Sertraline are the two best studied SSRI's for treatment of Anxiety in children and adolescents (no positive studies in co-occurring condition)
- Buspirone has some limited data in Co-occurring anxiety and ASD.
- Controlled studies of SSRI's on repetitive behaviors in children with ASD have NOT shown clear benefit



# Step 6: Pharmacologically treat Irritability and Aggression

Risperidone and Aripiprazole: Both FDA approved for Autism Related Irritability

Incidentally these are the **only** medications that have an FDA indication for Autism.

Risperidone ages 5 and up

Aripiprazole ages 6 and up

My Threshold for starting: functional impairment making either home life or educational setting unsustainable



# Dosing Range

Risperidone: dosing range 0.25mg-4mg (I rarely go above 3mg) (can be dosed daily, or BID)

Aripiprazole: 2mg-15mg (dosed daily)

Reasonable titration schedule; incremental titration every 7-14 days until control or resolution of symptoms.

Taper gradually unless discontinuing due to adverse effect



# Side effects of concern

Extrapyramidal Symptoms (EPS)

Dyslipidemia

Hyperprolactinemia (risperidone only)

Weight Gain/Glycemic change

Constipation

Sedation

QT prolongation

# Monitoring

Baseline Weight, BMI, CBC, Lipid Panel and HgB A1C

If no personal or major family cardiac history- I do not get an EKG prior to starting; Seizures not necessarily a contraindication, more a caution.

Each visit: Observe for dystonia, dyskinetic movements- if concerned consider the AIMS

Repeat Metabolic monitoring q6mo-1yr

# Treatment Duration

View these as band-aids; want to use them for as short a duration as possible at as low of a dose as possible.

Consider gradual taper off 3 months after resolution of symptoms

Utilize as a way to get other interventions in place

# Questions



The University of Vermont  
LARNER COLLEGE OF MEDICINE  
OFFICE OF PRIMARY CARE & AHEC PROGRAM



- RECORDING TO BE STOPPED FOR CASE PRESENTATION



# Cases/HIPAA

- Names
- Address
- DOB
- Phone/Fax #
- Email address
- Social Security #
- Medical Record #



The discussion and materials included in this conference are confidential and privileged pursuant to 26VSA Section 1441-1443. This material is intended for use in improving patient care. It is privileged and strictly confidential and is to be used only for the evaluation and improvement of patient care.



# Conclusion

- Volunteers to present cases (this is key to the Project ECHO model)
  - Please submit cases to [Michael.Hoffnung@uvmhealth.org](mailto:Michael.Hoffnung@uvmhealth.org)
- Please complete evaluation survey after each session
- Claim your CME at [www.highmarksce.com/uvmmed](http://www.highmarksce.com/uvmmed)
- Please contact us with any questions, concerns, or suggestions
  - [Michael.Hoffnung@uvmhealth.org](mailto:Michael.Hoffnung@uvmhealth.org)
  - [Elizabeth.Cote@uvm.edu](mailto:Elizabeth.Cote@uvm.edu)
  - [ahec@uvm.edu](mailto:ahec@uvm.edu)

