



MCPAP Clinical Conversations: Management of Psychiatric Symptoms in Children and Adolescents with Autism Spectrum Disorders

Carrie Vaudreuil, MD
Massachusetts General Hospital
MCPAP Boston North
March 23, 2021

Outline

- Diagnostic Criteria
- Epidemiology
- Clinical Assessment
- Psychiatric Differential Diagnosis
- Overview of Services
- Medication Management and Monitoring

Autism Spectrum Disorders: Diagnostic Criteria

- A. Persistent deficits in social communication and social interaction across multiple contexts**
1. Deficits in social-emotional reciprocity
 2. Deficits in nonverbal communicative behaviors used for social interaction
 3. Deficits in developing, maintaining, and understanding relationships
- B. Restricted, repetitive patterns of behavior, interests, or activities.**
1. Stereotyped or repetitive motor movements, use of objects, or speech
 2. Insistence on sameness, inflexible adherence to routines, or ritualized patterns or verbal nonverbal
 3. Highly restricted, fixated interests that are abnormal in intensity or focus
 4. Hyper- or hyporeactivity to sensory input or unusual interests in sensory aspects of the environment

Deficits in social communication/social interaction

1. Deficits in social-emotional reciprocity:

- Difficulty having a back and forth conversation
- Reduced sharing of interests, emotions or affect
- Failure to initiate or respond to social interactions

2. Deficits in nonverbal communicative behaviors used for social interaction

- Limited use of eye contact and/or body language
- Difficulties understanding nonverbal cues
- Lack of facial expression

3. Deficits in developing, maintaining, and understanding relationships

- Difficulties adjusting behaviors to different social contexts
- Lack of imaginative play
- Difficulties making friends
- Lack of interest in peers

Restricted, repetitive patterns of behavior, interests, or activities

1. Stereotyped or repetitive motor movements, use of objects, or speech

- -Lining up toys or objects
- -Echolalia
 - Idiosyncratic phrases

2. Insistence on sameness, inflexible adherence to routines, or ritualized patterns or verbal nonverbal

- -Extreme distress with small changes
- -Difficulties with transitions
- -Rigid thinking patterns
- -Need to follow the same routine each day

Restricted, repetitive patterns of behavior, interests, or activities

3. Highly restricted, fixated interests that are abnormal in intensity or focus

- -Strong attachment to or preoccupation with unusual objects
- -Excessively circumscribed or perseverative interest

4. Hyper- or hyporeactivity to sensory input or unusual interests in sensory aspects of the environment

- -Indifference to pain/temperature
- -Adverse response to specific sounds or textures
- -Excessive smelling or touching of objects
- -Visual fascination with lights or movement

Epidemiology

- The CDC estimates that about 1 in 54 children have an Autism Spectrum Disorder diagnosis
- ASD is 4 times more common in boys than in girls
- ASD is reported to occur in all racial, ethnic, and socioeconomic groups

Assessment of children with Autism Spectrum Disorders

Medical history: children with ASD are more likely to have epilepsy (20%), sleep issues and GI issues.

Evaluation may be needed for learning issues, as well as standard screening for vision and hearing impairment

Attend to any dysmorphic features: ASD may present similarly to, or comorbid with: Fetal alcohol syndrome, Fragile X, Tuberous Sclerosis, Angelman syndrome, and Smith-Lemli-Opitz syndrome among others

Any regression in previously met milestones warrants medical workup, regardless of whether an ASD diagnosis is present.

Assessment of children with Autism Spectrum Disorders – Psychiatric Differential Diagnosis

Social concerns:

- Longstanding history of lack of interest in peers – ASD
- NEW social withdrawal or decrease in social motivation – depression, psychosis
- Inappropriate social behaviors with a history of abuse or neglect – reactive attachment disorder

Repetitive thoughts or behaviors:

- Repetitive actions, rituals, obsessions/preservation that are NOT distressing - ASD
- Obsessions and compulsions that ARE distressing– OCD

Emotional dysregulation

- Emotional dysregulation when things don't go as expected – ASD, ADHD, mood disorder, oppositional defiant disorder
- Persistent issues with mood – more suggestive of a mood disorder

Autism and other psychiatric disorders

Common comorbidities:

- -ADHD
- -Learning disabilities
- -Anxiety
- -Depression

Children with Autism may experience symptoms related to other psychiatric conditions without actually meeting criteria for the disorder, but treatment can still be helpful.

Additional concerns that may arise in ASD: irritability, aggression and self harm.

Services

ABA

Social skills groups

Social pragmatics

Sensory processing/OT

Parent guidance

Early intervention for younger children

Evaluation for IEP in school

Medication Management

Medications are used to target symptoms causing functional impairment in ASD

There are no medications currently available that treat social impairment in ASD

Always start medications at the lowest possible dose and increase slowly

For symptoms of **impulsivity and/or hyperactivity**:

- Stimulant medications
- Alpha agonists (clonidine or guanfacine)
- Use same dosing as in ADHD (refer to MCPAP ADHD Guidelines if needed)

For symptoms of **anxiety and/or repetitive behaviors**

- There are is no clear evidence for specific medications to treat these symptoms
- Consider MCPAP consultation for assistance

For **sleep disturbance** not responsive to sleep hygiene

Melatonin 1-6mg nightly

Clonidine 0.05mg nightly to start; can increase to 0.1mg if needed

**Please note that all of the above medications are supported by published evidence, but not FDA-approved. For any off label prescribing, please consider calling MCPAP for consultation.*

Treatment of irritability and aggression

- First, rule out any **medical conditions** that may be contributing, particularly if the symptoms are new or have a sudden onset
- Evaluate for **comorbid psychiatric treatments** that may be untreated or undertreated (anxiety, ADHD, depression)
- Behavioral interventions are first line – be sure to maximize services and supports
- Mild to moderate irritability can be treated with alpha agonists (clonidine or guanfacine)
- Severe irritability can be treated with atypical antipsychotics

Atypical Antipsychotics

Used for severe irritability, aggression and self-injurious behaviors in ASD

FDA-approved medication treatments: **Risperidone (5+) and Aripiprazole (6+)**.

Prior to starting medication, get baseline labs:

- -HbA1c
- -Fasting lipid panel
- -Fasting glucose
- -LFTs
- -Record vitals, height, weight and BMI
- -If personal or family history of cardiac abnormalities, obtain EKG (to evaluate for Qt prolongation)

Atypical Antipsychotics - Dosing

- Start test dose for 1 week (e.g. Risperidone 0.25mg daily, Aripiprazole 2mg daily)
- If test dose tolerated, increase daily dose gradually (every 7 days) to target dose
 - **Risperidone** target 0.5mg/day for children < 20kg and 1mg/day for children > 20kg. Max daily dose: <20kg 1mg/day, >20kg 3 mg/day. Higher doses may be appropriate on a case-by-case basis. Call MCPAP for further guidance.
 - **Aripiprazole** target 5mg/day, max daily dose 15mg/day.
- If medication causes sedation, consider nighttime dosing or split dosing.
- Monitor for worsening agitation, sedation; consult with MCPAP CAP as needed.

Atypical Antipsychotics - Monitoring

- Obtain height, weight, BMI and vital signs at regular intervals.
- Labs should be repeated as clinically indicated, or every six months.
- Monitor for movement disorders (tardive dyskinesia) every 6 months using the Abnormal Involuntary Movement Scale (AIMS).
- Follow up EKG if obtained initially, or if any cardiovascular side effects, to evaluate for QTc prolongation.
- If weight gain or abnormal lab values develop, consider switching to a more weight neutral agent (aripiprazole more weight neutral than risperidone), and/or add metformin.

Questions and Comments