Deprescribing Intervention For Children Receiving Antipsychotic Medications Outside FDA-Approved Parameters

For Prescriber Use Only

Careful Evaluation

Antipsychotic not justified?

- Child not on antipsychotic for bipolar, schizophrenia, autism or a tic disorder
- Antipsychotic has not been helpful or has been causing side effects

Child stable/adequate dose?

- Child on antipsychotic for at least 3 months
- No dose increases in prior 3 months
- No emergency room visits in prior 3 months
- No hospitalizations in prior 3 months
- No planned major life events (e.g., moving, changing schools)

Initial Health Evaluation

- Conduct a full review of systems, record BMI
- Order labs if indicated and none recently recorded (e.g., if obese, fasting glucose and fasting lipid profile)
- Review medical & psychiatric history

Safety/Crisis Plan

- To address behavioral escalations or adverse reactions during study
- Integrate into clinical safety plan
- Provide contact information for clinic emergency services and 988
- Threat to self or others? Go to closest emergency room

INITIATE DEPRESCRIBING PROCESS

- Review with caregiver/child reasons the child was put on antipsychotics
- Help caregiver/child understand complexities of behavior, lack of efficacy of antipsychotics
- Discuss severity of risks, safety of deprescribing, benefits of behavioral interventions

TAPER SLOWLY

- Plan taper process over about 14 weeks
- Reduce dose by 10-25% every 2-4 weeks until discontinuation
  - For example, if conducting a 25% taper, reduce dose to 75% of original dose for 4 weeks, then to 50% for 4 weeks, then 25% for 4 weeks, then discontinue
  - See the other side of this guide for some medication-specific examples
- If feasible, stay closer to the 10% reduction
- Continue other medications as prescribed

MONITOR CLOSELY

Every Two Weeks

- Monitor for **Adverse Drug Withdrawal Events** and **Side Effects**

Monthly

- Prescriber office visit with child/family
- Nurse phone check-ins every 4 weeks, between prescriber visits
- Record BMI
- Monitor for **Adverse Drug Withdrawal Events** and **Side Effects**

End of Taper

- Record BMI
- Repeat any labs conducted at the initial health evaluation to evaluate any changes

Adverse Drug Withdrawal Events

- Withdrawal akathisia & dyskinesia
- Increase in irritability, challenging behaviors, or sleep difficulties

Antipsychotic Side Effects

- Akathisia
- Parkinsonism
- Tremors
- Sedation
- Appetite changes
- Affective side effects
- Headache
- Hyperprolactinemia
- Postural hypotension
- Gastrointestinal side effects
- Urinary symptoms
- Drooling/increased salivation
- Upper respiratory symptoms

Long-term side effects?
UNKNOWN

RESPOND TO EMERGENT ISSUES

Withdrawal Akathisia, Dyskinesia

- Consider increasing antipsychotic back to the prior visit dose, remain at dose for 2-4 weeks, try a smaller dose reduction
- Consider an alternate medication based on symptom profile (e.g., propranolol for Akathisia)

Increase in Irritability, Challenging Behaviors

- Consider boost in behavioral strategies (e.g., caregiver management training, CBT, trauma-focused therapy)
- Consider an alternative strategy (e.g., relaxation, reduction of environmental stimuli, development of activities/hobbies)
- Consider increasing antipsychotic back to the prior visit dose, remain at dose for 2-4 weeks, try a smaller dose reduction
- Consider an alternate medication based on side effect (e.g., melatonin for sleep difficulties)

Side Effects

- Consider an alternate medication based on side effect (e.g., melatonin for sleep difficulties)
- Consider increasing antipsychotic back to the prior visit dose, remain at dose for 2-4 weeks, try a smaller dose reduction

RESOURCES AND OTHER INFORMATION

Antipsychotics

Common Antipsychotics Used with Children, their Oral Forms, Dosage, Recommended & Example Tapers			
Generic Name (*Brand Name*)	Oral Form	Strength	Recommended Taper
Risperidone	S	1mg/ml solution	Taper in 0.25-0.5 mg increments. Higher original dose taper by 0.5 mg; lower original dose taper by 0.25 mg
(*Risperdal*)	T, D	0.25, 0.5, 1, 2, 3, 4 mg	
Example taper to reduce by 25% every 4 weeks over 14 weeks: Child taking risperidone 1 mg PO BID. Consider tapering to 0.75 mg PO BID for 4 weeks, then 0.5 mg PO BID for 4 weeks, then 0.25 mg PO for 4 weeks, then 0.125 mg PO BID for 2 weeks, and then discontinue.			
Aripiprazole (*Abilify*)	T	2, 5, 10, 15, 20, 30 mg	Taper in 2.5-5 mg increments. Higher original dose taper by 5 mg; lower original dose taper by 2.5 mg
Example taper to reduce by 10-25% every 2 weeks over 12 weeks: Child taking aripiprazole 30 mg PO QAM. Consider tapering to 25 mg PO QAM for 2 weeks, then 20 mg PO QAM for 2 weeks, then 15 mg PO QAM for 2 weeks, then 10 mg for 2 weeks, then 5 mg Po QAM for 2 weeks, then 2.5 mg for 2 weeks, and then discontinue.			
Quetiapine	T	25, 100, 200, 300 mg	Taper in 25-50 mg increments. Higher original dose taper by 50 mg; lower original dose taper by 25 mg
(*Seroquel*)	ER T	50, 150, 200, 300, 400 mg	
Example taper to reduce by 10-25% every 2 weeks over 14 weeks: Child taking quetiapine 200 mg PO BID. Consider tapering to 175 mg PO BID for 2 weeks, then 150 mg PO BID for 2 weeks, then 125 mg Po BID for 2 weeks, then 100 mg PO BID for 2 weeks, then 75 mg PO BID for 2 weeks, then 50 mg PO BID for 2 weeks, then 25 mg PO BID for 2 weeks, and then discontinue.			
Ziprasidone (*Geodon*)	T	20, 40, 60, 80 mg	Taper in 20-40 mg increments. Higher original dose taper by 40 mg; lower original dose taper by 20 mg
Example taper to reduce by 10-25% every 2 weeks over 12 weeks: Child taking ziprasidone 40 mg PO BID. Consider tapering to 40 mg PO QAM and 20 mg PO QPM for 4 weeks, then 20 mg PO BID for 4 weeks, then 20 mg PO QAM for 4 weeks, and then discontinue.			
Olanzapine	T	2.5, 5, 7.5, 10, 15, 20 mg	Taper in 2.5-5 mg increments. Higher original dose taper by 5 mg; lower original dose taper by 2.5 mg
(*Zyprexa*)	D	5, 10, 15, 20 mg	
Example taper to reduce by 10-25% every 2 weeks over 14 weeks: Child taking olanzapine 20 mg PO QHS. Consider tapering to 15 mg PO QHS for 4 weeks, then 10 mg PO QHS for 4 weeks, then 5 mg PO QHS for 4 weeks, then 2.5 mg PO QHS for 2 weeks, and then discontinue.			
S = Solution, T = tablet, C= Capsule, D = Disintegrating tablet, ER = extended release			

AACAP Guidelines for Monitoring Children on Atypical Antipsychotics

While the child remains on an atypical antipsychotic, even while tapering, monitor BMI, fasting lipids and glucose, and AIMS examination.

Below are the recommended monitoring parameters for your reference.

- Medication Initiation: BMI, fasting glucose, fasting lipid profile, AIMS examination
- Monthly for first three months: BMI
- At 3 months: Fasting glucose, fasting lipid profile; prolactin (only for risperidone), AIMS examination
- Every 3-6 months: BMI, AIMS examination
- Every 6-12 months: Fasting glucose, fasting lipid profile

Pros & Cons of Antipsychotics

Pros:

- Some children may experience an improvement in their disruptive behavior
- Some children may show improvement in irritability and aggression

Cons:

- Most children gain weight, usually 8 - 32 pounds per year
- 60% of children feel sleepy
- 30% of children have abnormal movements
- 20% of children have higher cholesterol
- 3% of children have higher blood sugar levels

Educate Caregivers about Antipsychotics

Many caregivers do not understand the reason their child is on a medication or the risks.

- Antipsychotic medications are not approved for irritability or challenging behaviors in children (unless they have an autism spectrum disorder), but have shown efficacy in some patients
- Antipsychotic medications can have significant side effects
- Children's behavior is complex; understanding these complexities and developing a biopsychosocial formulation and treatment plan allows for an approach that is more likely to be helpful
- The best medication decisions are those made by the doctor, caregivers and child together

Understanding Children's Behavior

All of us communicate through behaviors, but children and adolescents are not just "small adults," their brains are continuously developing and learning. Depending on their level of development and life experiences, they may have limitations in their ability to: (1) use language when upset or under stress, (2) understand and communicate their emotions, (3) convey their needs or wishes, or (4) cope with difficult life experiences.

In the absence of adult-level communication and coping skills, children communicate with their behavior. In other words, acts that are inappropriate, challenging or problematic are a form of communication. They are telling us something without words:

- When feeling rejected or lonely, they may display difficult behaviors to gain attention
- They may be feeling emotional pain and act out to let us know they are hurting
- If they are struggling with anxiety or depression, they may manifest aggression or irritability

It is important for caregivers to understand that their children are not doing this consciously. They simply have no other way of coping yet. Helping caregivers and children understand the complexities of behavior often allows them to feel some hope and agency about addressing difficult behaviors without medications. It can be scary if aggression is involved and the best way to treat this is with therapy and behavioral management techniques.