Treatment of Aggression: Irritability, Self-Injury, Aggressive Behavior, and Explosive Outbursts in the Context of ASD and ID

Level 0 - Comprehensive Assessment:

See *Principles of Practice*.

- Identify and treat any medical or psychosocial factors contributing to irritability prior to initiating medication:
  - Medical problems, such as constipation, headaches, infections, sleep
  - Changes in the environment, such as family stressors, trauma, or bullying
  - Side effects of psychotherapeutic or anticonvulsant medications (e.g., stimulants, levetiracetam)
  - Learned/reinforced behavioral patterns
  - Limited means of communication
- Detailed developmental and symptom history (Use of rating scales are highly recommended.)
- Physical examination
- If acute and indicated by history and physical examination, consider referral to appropriate specialist (e.g., neurology, endocrinology, gastroenterology, dentistry).
- EEG and/or brain imaging (CT or MRI), if clinically indicated
- Safety assessment (particularly in the presence of significant aggression/ self-injury)

Level 1 - Psychosocial/non-pharmacological intervention and treatment of comorbidities:

- Psychoeducation
- Behavior therapy [Applied Behavioral Analysis (ABA)]
- Speech and language therapy
- Occupational therapy
- Family therapy
- Parent-child therapy [Parent-Child Interaction Therapy (PCIT), Parent Management Therapy (PMT)]
- Social skills therapy
- Multi-systemic therapy (MST)
- Treatment of comorbid medical problems (if not already addressed)

Level 2 Alpha-2 Agonist Monotherapy.

Although limited evidence exists, consider an alpha-2 agonist (i.e., clonidine or guanfacine) for mild to moderate aggression.

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Level 3 - Antipsychotic Monotherapy.

Consider risperidone or aripiprazole for severe irritability, including aggression, self-injury, and significant mood lability.

- ✦ If ASD, treatment with risperidone or aripiprazole is recommended. If monotherapy with one of these agents is ineffective, switch to the other agent.
- ✦ If ID, treatment with risperidone is recommended

Notes: Aripiprazole is not well studied in ID population. Risperidone and aripiprazole are FDA-approved for treatment of irritability associated with autism in children and adolescents for the following ages: risperidone - ages 5-16; aripiprazole - ages 6-17. However, risperidone or aripiprazole are recommended after alpha-2 agonist monotherapy for mild to moderate irritability/ aggression due to antispychotic adverse effect risk profile.

Refer to Table 9 below for dosing recommendations.

Level 4 - Reassess and consult specialist (for both ASD and ID):

- ✦ If no response or treatment-limiting side effects emerge with risperidone and aripiprazole monotherapy, reassess and refer to a specialist (child and adolescent psychiatrist, pediatric neurologist, or developmental pediatrician).
- ✦ Consider use of alternative antipsychotics based on side-effect profiles and efficacy in small open-label studies (ziprasidone or low-dose loxapine).
- ✦ Consider addition of metformin if antipsychotic is very effective for reducing symptoms but causes significant weight gain (7% or more of body weight).

Note: Other antipsychotics have been less comprehensively studied. Use of antipsychotic medications may be associated with several side-effects (e.g., olanzapine and weight gain).

- ✦ Consider stopping the medication to evaluate need for continued use.
- ✦ Need to monitor for adverse metabolic effects. See *Principles of Practice*.

Table 9.

Irritability, Self-Injury, Aggression, and Explosive Outbursts in the Context of ASD and ID: Dosing Recommendations

Medication	Starting Dose	Titration	Maximun Dose	Discontinuation
Children over Age 6 and Adolescents				
Risperidone (Risperdal®)	0.25 mg at bedtime	0.25 mg/ week	Child (6-12): 2 mg Adolescent (13-17): 4 mg	0.25 mg-0.5 mg/ 3 days
Aripiprazole (Abilify®)	2 mg/day	2-2.5 mg/ 1-2 weeks	Child (6-12): 15 mg Adolescent (13-17): 15 mg	2.5 mg-5 mg/ 3 days