Adapted from the 2019 Consensus Statement of the American Association for Emergency Psychiatry

Pediatric Agitation Pathway in the Emergency Department

The following information is intended as a guideline for the acute management of children and adolescents with acute agitation in the emergency department (including GNSH and BHED).
Management of your patient may require a more individualized approach.

Agitation is a symptom, like pain, with many potential etiologies and often multiple contributing in the moment. Even if a child has a known psychiatric/developmental disorder history, comorbid physical disease, anxiety, or other acute triggers should still be ruled out and a broad differential mantained. Non-pharmacologic approaches used for de-escalation should be employed early with a preventative, proactive approach. The goal for pharmacotherapy is twofold: 1) Target the underlying cause of distress; and 2) calm the patient sufficiently for rapid assessment and treatment. Pharmacologic strategies should be used in concert with non-pharmacologic de-escalation efforts continuing during and after medication administration

SEE OPPOSITE PAGE FOR MEDICATION DOSING

Is the patient developmentally delayed or autistic?

Yes →
- Attempt behavioral interventions
- Assess pain, hunger, other physical needs, and what usually soothes the patient
- Utilize sensory tools
- Ask about prior medication responses (especially to benazodiazepines and Benadryl)

Still severely agitated and needs medication →
- Consider extra dose of patient's regular standing medication (antipsychotic)
- Avoid benzodiazepines or antihistamines due to risk of disinhibition
- Antipsychotics: Risperidone (**Risperdal**), Chlorpromazine (**Thorazine**), Olanzapine (**Zyprexa**)

No ↓

Does the patient have a clear psychiatric diagnosis?

Yes →

ADHD
Clonidine (**Catapres**) or Diphenhydramine (**Benadryl**) or Risperidone (**Risperdal**)

Anxiety, trauma, or PTSD
Lorazepam (**Ativan**) or Clonidine (**Catapres**)

Oppositional defiant disorder or Conduct Disorder
Chlorpromazine (**Thorazine**) or Lorazepam (**Ativan**) or Olanzapine (**Zyprexa**) or Risperidone (**Risperdal**)

Mania or psychosis
- If on standing antipsychotic give extra dose
- Risperidone (**Risperdal**) or Chlorpromazine (**Thorazine**) or Olanzapine (**Zyprexa**) or Haloperidol (**Haldol**) +/- Lorazepam (**Ativan**)

No ↓

Is it delirium?
Acute onset/fluctuating course *plus* inattention *plus* disorganized thinking or altered level of consciousness?

Yes →
- Address unerlying medical etiology
- Assess pain
- Avoid benzodiazepines (BZD) and anticholinergics which may worsen delirium

Still severely agitated and needs medication →
- Risperidone (**Risperdal**) or Clonidine (**Catapres**) or Olanzapine (**Zyprexa**) or Chlorpromazine (**Thorazine**) or Haloperidol (**Haldol**) +/- Lorazepam (**Ativan**) if there are seizure concerns or catatonia

No ↓

Is it substance intoxication or withdrawal?

Yes →

Unknown Substance
Lorazepam (**Ativan**), with or without Haloperidol (**Haldol**)

Opiate withdrawal
Clonidine (**Catapres**) +/- opiate replacement
Add supportive meds as needed

EtOH/Bzd withdrawal or stimulant intoxication
Lorazepam (**Ativan**) + Haloperidol (**Haldol**) if severe agitation or hallicunating

EtOH/Bzd intoxication
Haloperidol (**Haldol**) or Chlorpromazine (**Thorazine**)

Utox Negative
Suspect synthetic cannabinoids or cathinones; Lorazepam (**Ativan**) +/- Haloperidol (**Haldol**) or Chlorpromazine (**Thorazine**)

No ↓

Unknown etiology of agitation?

Yes →

Unknown etiology with mild agitation or verbal aggression
Utilize behavioral and environmental strategies to deescalate

Unknown etiology with moderate agitation or aggression against objects
Diphenhydramine (**Benadryl**) or Lorazepam (**Ativan**) or Olanzapine (**Zyprexa**)

Unknown etiology with severe agitation or aggression to self/others
Haloperidol (**Haldol**) +/- Lorazepam (**Ativan**) or Chlorpromazine (**Thorazine**) or Olanzapine (**Zyprexa**)

Last revision 10/4/19. Contact Dr. Daniel Park (daniel.park@unc.edu) for questions regarding this document

Medications for Acute Agitation

Medication	Dose	Peak effect	Max daily dose	Notes/monitoring
Diphenhydramine [**Benadryl**] (antihistaminic)	PO/IM: 12.5-50mg 1 mg/kg/dose TID-QID PRN (50 mg max per dose)	PO: 2 hours	Child: 50-100 mg Adolescent: 100-200 mg	Avoid in delirium
Lorazepam [**Ativan**] (benzodiazepine)	PO/IM/IV:0.5 mg-2 mg Q4-8hrs PRN (2 mg max per dose) 0.05 mg-0.1 mg/kg/dose	IV: 10 mins PO/IM: 1-2 hours	Child: 4 mg Adolescent: 6-8 mg Depending on weight/prior medication exposure	Avoid in delirium. **Do not give with olanzapine** (especially IM due to risk of respiratory suppression).
Clonidine [**Catapres**] (alpha 2 agonist)	PO: 0.05 mg- 0.1 mg Q8 hrs PRN	PO: 30-60 mins	27-40.5 kg: 0.2 mg/day 40.5-45 kg: 0.3 mg/day >45 kg: 0.4 mg/day	Monitor for hypotension and bradycardia Avoid giving with benzodiazepines (BZD) or atypical antipsychotics due to hypotension risk
Chlorpromazine [**Thorazine**] (antipsychotic)	PO/IM: 12.5-60 mg Q6-8hrs PRN 0.55 mg/kg/dose	PO: 30-60 mins IM: 15 mins	Child <5 years: 40 mg/day Child >5 years: 75 mg/day	Monitor hypotension Monitor for QT prolongation
Haloperidol [**Haldol**] (antipsychotic)	PO/IM: 0.5 mg- 5 mg 0.05-0.1 mg/kg/dose Q6hr PRN (5 mg max per dose)	PO: 2 hours IM: 20 mins	15-40 kg: 6mg >40 kg: 15 mg Depending on prior antipsychotic exposure	Monitor hypotension Consider EKG or cardiac monitoring for QT prolongation, especially for IV administration. Note EPS risk with major depressive disorder (MDD) > 3 mg/day, with IV dosing having very high EPS risk.
Olanzapine [**Zyprexa**] (antipsychotic)	PO/ODT or IM: Age 4 to <6: 1.25 mg once Age 6-12 years: 2.5 mg once Age >12: 2-5-5 mg once	PO: 5 hours (range 1-8 hours) IM: 15-45 mins	10-20 mg Depending on antipsychotic exposure	**Do not give IM with or within 1 hour of any BZD given risk for respiratory suppression**
Risperidone [**Risperdal**] (antipsychotic)	PO/ODT: 0.25-1mg 0.005-0.01 mg/kg/dose	PO: 1 hour	Child: 1-2 mg Adolescent: 2-3 mg Depending on antipsychotic exposure	Can cause akathisia (restlessness/agitation) in higher doses

For any dosing or formulation questions call the pharmacy

Psych ED Pharmacy: 4-4097
ED Pharmacy: 4-3765
Peds Pharmacy (7a-10p): 4-6679
Central Pharmacy (10p-7a): 4-8761