Hasbro Children's Hospital

Pediatric Acute Psychiatric/ Behavioral Agitation Management Guideline (P and T Approved 09/21/2021

Recognize patient agitation: Opposition, crying, pacing, yelling, head-banging, threatening or self harm or aggression against family or staff

Initiate calming interventions**

Intervention successful?

Yes

Team members:
-**Continue** monitoring for agitation
-**Maintain**/resume interventions that have been effective as needed
-**Return** to algorithm if necessary

No

Assign MD Team leader: - **Assess** patient to determine Level of Acute Agitation
- Review **Behavioral Health SBAR^** with RN (**^**see page 2 for SBAR)
- Designate a **communication point person** for patient, staff
- Consult patient **Behavioral Care Plan**, if available (check EMR)

****Calming Interventions**
-**Listen to patient + validate distress**
-Elicit patient's **wants/needs** (e.g. food/drink)
-Offer **distraction** or calming elements (e.g. parents, activity, food or drink)
-Offer **choices** to provide patient control
-Reduce environmental stimuli
-Remove dangerous objects
-Remove sources of stress (e.g. parents, loud noises)

Determine Level of Acute Agitation

Resolving Agitation
(e.g. sitting, quietly crying)
No **acute** safety concerns
Able to redirect and engage with staff

Agitation WITHOUT unsafe behavior
(e.g. yelling, pacing, hyperkinetic,opposition)
Low/Minimal **acute** safety concerns
Able to redirect and engage with staff

Agitation with mild/moderate unsafe behavior
(e.g. picking at self, head-banging, threatening violence)
Moderate **acute** safety concerns
Difficult to redirect and engage with staff

Agitation with severe unsafe behavior
(e.g. physical violence to self or others, elopement)
High **acute** safety concerns
Unable to redirect or engage

-**Continue de-escalation, calming interventions****
-Maintain interventions that have been effective
-Initiate/continue patient Behavioral Care Plan (if available).
-Consider offering PO medication to help prevent further escalation (see PO medication box below)

- **Assess and plan immediate safety needs of patient and staff**, put security on standby
- **Assign medication RN** (review any PRN plan in EMR, elicit prior successful meds)
- Point person **continues de-escalation interventions**, Behavioral Care Plan
- **Lead MD Develop medication administration plan** (orders in chart, plan when to give)

Reassess Level of Acute Agitation

Improving **agitation WITHOUT unsafe behavior**

Continued or deescalated to: **Agitation with mild/moderate unsafe behavior**

Continued or escalated to: **Agitation with severe unsafe behavior**

-Initiate **restraints** per policy
-Engage PEM MD in ED or **Child Psychiatrist** for inpatients

Child able and willing to take PO medication?

No

Yes

No

Non pharm interventions
-**Maintain** effective interventions
-**Engage** additional support (e.g. Child life, Child Psychiatry Team)
-**Monitor** closely
-**Offer** meds again for persistent agitation

PO Medications

1) If **already taking psychiatric medications:** Give home scheduled medication if due, AND home PRN medications for agitation. If not due/ no PRN, consider extra or early dose of prescribed antipsychotics or anxiolytics.

2) If **no home medications, or none are appropriate:** use prior effective medications per EMR or patient/family report.

3) If **no prior effective treatments:** offer one of the following as indicated (see chart):

- **1st option**: diphenhydramine (Benadryl) or **2nd option** : lorazepam (Ativan)
- **3rd option** : clonidine (Catapres), indicated for <12yo and/or ASD/DD with prior history of disinhibition/paradoxical reaction to diphenhydramine (Benadryl) or lorazepam (Ativan)
- **4th option**: risperidone (Risperdal) or **5th option** olanzapine (Zyprexa)
  - **When considering 4th or 5th option: Consult** Child Psychiatry Attending MD and/or PEM Attending MD for ED patients.

IM Medications

1) **If already taking psychiatric medications:** give appropriate home medications via IM route (if IM formulation available and dose due)
2) **If no home PRN medications, or none are appropriate:** (e.g. not available IM), use prior effective medication per EMR or patient/family report
3) **If no prior effective treatments:** offer one of the following as indicated (see chart, **review contraindications**):

- **1st option:** diphenhydramine (Benadryl) if no h/o paradoxical reaction
- **2nd option:** lorazepam (Ativan) if no prior paradoxical reaction
- **3rd option**; Combine diphenhydramine (Benadryl) with lorazepam (Ativan) if extremely agitated
- **4th option:** olanzapine (Zyprexa), ONLY if no IM/IV benzodiazepines within previous hour.
- **5th option :** haloperidol (Haldol) if olanzapine contraindicated

-**Consider time to onset and peak effect of medication prior to administering second dose or additional agent**
- Assure appropriate level of monitoring with consideration of onset, peak effects, additive effects, duration of actions when adding doses or agents
-If patient received an antipsychotic, monitor for and be prepared to treat Acute Dystonic Reaction. Treat with IM/IV diphenhydramine if symptoms develop (see chart)

Reassess Level of Acute Agitation.
If agitation persists or is worsening, return to "Determine Level of Agitation" and follow appropriate tract/ Consult Child Psychiatry

Continuously monitor and re-evaluate need for restraints; end restraints as soon as safe to do so

Acute agitation resolved:
-Evaluate for injury once calm, consider cardio-respiratory monitors
-Debrief with family (and patient, if able) and staff separately
-Order PRN medications and document future de-escalation plan

NOTE: This evidence-based guideline was developed for educational purposes and for use in the Division of Pediatric Emergency Medicine and Departments of Pediatrics and Child and Adolescent Psychiatry at Hasbro Children's Hospital. Decisions about evaluation and treatment are the responsibility of the treating clinician and should always be tailored to the individual clinical circumstances. Contact: Susan Duffy, MD (401) 444-6882 sduffy@lifespan.org.

Medication Treatment for Acute Pediatric Psychiatric/Behavioral Agitation

Medication	Recommended Dosing	Maximum Total Daily Dose	Forms/Onset	Peak Effect	Indication	Contraindications	Side Effects
Diphenhydramine (Benadryl)	1.25 mg/kg PO/IM (max single dose 50 mg)	<12yo: 50-100 mg/day ≥12yo: 100-200 mg/day	PO: 30-60 minutes IM: 5-30 minutes IV : 5-15 minutes	PO: 2 hours IM: 2 hours IV: 2 hours	General 1st line for mild to moderate agitation	Prior poor response, delirium, intoxication , history of QTC prolongation	Sedation, paradoxical reaction, QTC prolongation, hyperthermia, rhabdomyalisis
Lorazepam (Ativan)	0.05 mg/kg PO/IM (max single dose is 2 mg)	<12yo: 4 mg/day ≥12yo: 6-8 mg /day*	PO: 30-60 minutes IM: 15-30 minutes IV: 5-15 minutes	PO: 1-2 hours IM: 1-2 hours IV: 10 minutes	Intoxication, unclear etiology of agitation, paradoxical or ineffective response to Benadryl	ASD/DD, under 5 years, prior paradoxical reaction, Olanzapine within 1 hour	Paradox reaction; sedation, respiratory depression if administered with antipsychotic
Risperidone (Risperdal)	<20kg - 0.25mg PO/ODT 20-40 kg - 0.5mg; PO/ODT > 40kg - 1mg PO/ODT	<12yo: 2 mg/day ≥12yo: 3 mg/day*	PO/ODT: 30-60 minutes	PO/ODT: 60 minutes	Mild to moderate Agitation in patient with ASD/DD .paradoxical or ineffective response to diphenhydramine	History of NMS, severe dystonia, history of QTC prolongation	Sedation, Akathisia, QTc prolongation, hypotension, EPS, respiratory depression if administered with a benzodiazepine
Haloperidol (Haldol)	<40 kg 0.1 mg/kg, PO/IM ≥40 kg 5mg PO/IM (Max single dose 10 mg)	3-12 years : 6 mg/day ≥12-21 years: 15 mg/day* Adult: 30 mg/day *	PO: 30-60 minutes IM: 15-30 minutes	PO: 2-6 hrs IM: 20-60min	Severe agitation in adolescents	History of NMS, severe dystonia, history of of QTc prolongation	EPS, Hypotension, QTc prolongation, lowers seizure threshold, respiratory depression if administered with a benzodiazepine
Zyprexa (Olanzapine)	<40 kg: 2.5mg PO/ODT/IM ≥ 40 kg: 5 mg PO/ODT/IM (maximum dose 10 mg dose)	10-13 years: 12.5 mg/day 13-17 years :20 mg/day* Adult: 30 mg/day*	PO/ODT: 1-8.5 hours IM: 15-45 minutes	PO/ODT: ~5 hours IM: 15-45 minutes	Other agents ineffective and/or moderate to severe agitation	IV or IM benzodiazepine administration within prior hour, history of QTc prolongation	Paradoxical reaction, Sedation, Respiratory depression if administered with benzodiazepines
Clonidine (Catapres)	<40 kg: 0.05 mg PO ≥ 40 kg : 0.1 mg PO	27-40.5 kg: 0.2 mg/day 40.5-45 kg: 0.3 mg/day >45 kg: 0.4 mg/day	PO: 30-60 minutes	PO: 1-3 hours	Mild to Moderate agitation if lorazepam and diphenhydramine are contraindicated; ASD/DD and ADHD patients	Patient with hypotension or bradycardia; caution with antipsychotics and benzodiazepines (worsens hypotension)	Hypotension, Bradycardia, Sedation

*May be higher if prior history of use/tolerance

Key: EPS=Extrapyramidal symptoms, including Acute Dystonic Reaction; "ASD/DD"= Autism Spectrum Disorder or other neurodevelopmental disorder;

Acute Dystonic Reaction

-Muscle spasms, often in neck and/or face
-Abnormal rigid posturing
- Normal mental status. Patient remains alert and responsive

Treatment:

IM diphenhydramine (Benadryl)1.25 mg/kg (maximum single dose 50mg)
Alternatives: IV diphenhydramine (Benadryl) 1.25 mg/kg (maximum single dose 50mg),
IM benzotropine (Cogentin) 0.5-1mg

Goals and Metrics:

Improve safety of patients, families, providers, and staff with minimal necessary intervention.

Reduce number of:
- Physical restraints
- Acute agitation medications (IM)
- Required security interventions

Reference:

Gerson et al, Best Practices for Evaluation and Treatment of Agitated Children and Adolescents in the Emergency Department: Consensus Statement of the AAEP. *West JL Emerg Med.20,#2, March 2019*

Behavioral Health SBAR

Use standard SBAR with specific focus on:
-**Situation**: acute unsafe behaviors
-**Background**: Patient age and Psychiatric/neurodevelopmental diagnoses. Known medical problems. Known medications. Behavioral plan, and history of response to interventions including medications.
-**Assessment**: Level of acute agitation (per algorithm). Known triggers of agitation, Interventions attempted and patient response. Staff involved. Medications administered including , time, route and response.
-**Recommendation:** identify next steps most immediately needed? What additional staff may be required?