

Psychiatric Medications

Benadryl/diphenhydramine

- Dosing: <12yo 25 mg (<25kg give 1mg/kg), >12yo 50 mg. Can be given every 6 hours.
- Onset of action: PO 15-60 minutes, IV/IM 15 minutes
- Mechanism of Action: H1 – receptor blocker on effector cells. Anticholinergic effects also possible
- Contraindications: Hypersensitivity to Benadryl or similar antihistamines
- Warnings/Side Effects:
 - CNS depression
 - May cause excitation

Atarax/hydroxyzine

- Dosing: <12yo 10-25 mg, >12yo 25 mg. Can be given every 6 hours.
- Onset of Action: PO 15-30 minutes
- Mechanism of Action: Competes with histamine for H1-receptor sites on effector cells
- Contraindications: hypersensitivity to Atarax (hydroxyzine), early pregnancy, prolonged QT interval
- Warnings/Side Effects:
 - CNS depression
 - QT prolongation/Torsades de pointes – typically occurring in patients with risk factors for QT prolongation

Ativan/lorazepam

- Dosing: <12yo 0.5-1mg, >12yo 1-2mg. Can be given q2hr PO; q4 hr IV/IM
- Onset of Action: PO 20-30 minutes, IV 2-5 minutes, IM 15-30 minutes
- Mechanism of Action: Binds to benzodiazepine receptors on postsynaptic GABA receptors
- Contraindications: hypersensitivity to benzodiazepines or to any component of the formulation
- Preferred drug of choice for agitation/aggression related to most ingestions
- Warnings/Side Effects:
 - Cannot give within 1-2 hours of Zyprexa-increases sedation (more of a concern with IM Zyprexa dosing)

Zyprexa/olanzapine (2nd generation)

- Dosing: 5-8yo 2.5 mg, 9-12yo 5 mg, >12yo 5-10 mg. Can be given every 2-4 hours
- Onset of action – IM 15-30 minutes, PO – 4 hours (max concentration); ODT 15-30min
- Mechanism of Action: Unknown exactly. It is a second generation thienobenzodiazepine antipsychotic –
- antagonism of serotonin, dopamine, histamine, and alpha1-adrenergic receptors
- Contraindications: hypersensitivity to Zyprexa, anticholinergic intoxication, active seizure disorder
- Warnings/Side Effects:
 - May prolong QT interval**
 - May cause anticholinergic effects
 - CNS depression
 - Cannot give within 1-2 hours of Ativan-increases sedation (more of a concern with IM dosing)
 - Orthostatic hypotension
 - **EPS/Acute dystonia

Risperdal/risperidone (2nd generation)

- Dosing: 6-12yo 0.25-0.5 mg, > 12yo 0.5-1 mg. Can be given every 12 hours.
- Onset of action: PO/ODT 1 hour.
- Mechanism of Action: benzisoxazole atypical antipsychotic with high 5-HT₂ and dopamine-D₂ receptor antagonist activity, Alpha₁, Alpha₂, and histaminergic receptors also antagonized with high affinity
- Contraindications: hypersensitivity to risperidone, paliperidone, anticholinergic intoxication, active seizure disorder
- Warnings/Side Effects:
 - May prolong QT interval**
 - Anticholinergic effects
 - CNS depression
 - Antiemetic properties – may mask toxicity of other medications/ingestions/conditions
 - Tachycardia
 - Hypertension
 - **EPS/Acute dystonia

Geodon/ziprasidone (2nd generation)

- Dosing: <12yo 5mg, > 12yo 10mg. Can be given every 2-4 hours (every 24 hours if <40kg).
- Onset of action: IM 15-30 minutes
- Mechanism of Action: Exact mechanism is unknown. Has binding affinity for dopaminergic, adrenergic, serotonergic, and histaminergic receptors
- Contraindications: hypersensitivity to Geodon, anticholinergic intoxication, active seizure disorder, h/o prolonged QT, recent MI, heart failure, concurrent use of other QTc Prolonging agents**
- Warnings/Side Effects:
 - CNS depression
 - QT prolongation
 - Orthostatic hypotension
 - **EPS/Acute dystonia

Haldol/haloperidol (1st generation)

- Dosing: 6-12yo 2 mg, > 12yo 5 mg. Can be given every 4 hours.
- Onset of action: PO 2-4 hours, IM 10-30 minutes
- Mechanism of Action: Butyrophenone antipsychotic that non selectively blocks postsynaptic dopaminergic D₂ receptors in brain
- Contraindications: hypersensitivity to Haldol, Parkinson disease, severe CNS depression, anticholinergic intoxication, active seizure disorder, withdrawal syndrome
- Warnings/Side Effects:
 - Altered cardiac conduction: sudden death, QT prolongation, Torsades de pointes**
 - Anticholinergic effects
 - CNS depression
 - **EPS/Acute dystonia

** EPS = Extrapyramidal Symptoms: akathisia (motor restlessness), Parkinsonism, and dystonia (involuntary contractions of major muscle groups)

- 1st generation (Haldol) vs 2nd generation (Zyprexa, Geodon, Risperdal)
 - 2nd generation antipsychotic agents are much more likely to cause QTc prolongation when compared to 1st generation agents, but 1st generation agents would be much more likely to cause movement disorder. These differences should be one of the major decision points for providers when deciding on which antipsychotic to give.

- For example: If the patient has a history of EPS/dystonia give a 2nd generation. If patient has a cardiac history or meds that would prolong the QTc, give a 1st generation. IF they have had both EPS/dystonia and cardiac history then provider use their discretion/comfort.
 - Geodon is the worst offender for prolonged QTc

If muscle stiffness or movement problems develop after use of any antipsychotic, give 1 mg/kg/dose of diphenhydramine PRN.

If agitation due to ingestion, benzos are the preferred first line treatment.

Telemetry and Pulse Ox for: for sedated patients following use of medications or based on provider discretion when using above medications if patient is not sedated. EKG once calm/safe for any patient with cardiac history.