CHILD HEALTH BC
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TIERS OF SERVICE

HIERARCHY OF SAFETY ALGORITHM

CHILD/YOUTH IS EXHIBITING UNSAFE BEHAVIOUR (Imminent Risk to Self or Others)
When use of restraints cannot be prevented, the hierarchy of safety must be maintained
1. Engagement **2.** Environmental Supports **3.** Oral Medications **4.** Seclusion / Injectable Medications / Physical/Mechanical Restraints

WHEN CHILD/YOUTH FIRST PRESENTS
- Support emotional, social and cultural safety by building rapport
- Ask the child and family what coping strategies work best for them and possible interventions if things become unsafe
- Problem solve together the types of supports and activities you can offer for distraction and self-soothing
- Decrease environmental stimulation (noise, lights, crowds of people) and remove clutter

ENGAGEMENT (ONGOING)
- Check in frequently
- Use simple, direct language and soft voice
- Be clear that your role is to support them and to keep everyone safe
- Ask for their input and provide choice when possible
- If something cannot change because it is a safety issue, let them know why
- Be consistent, predictable and calm

ALWAYS:
ASSESS
DOCUMENT
MONITOR

If not effective, utilize **ENVIRONMENTAL SUPPORTS** such as a quiet area/room, distraction tools, or monitored room

Consider **ORAL MEDICATIONS** that promote anxiety relief, relaxation or sedation

If not effective, CONSIDER USE OF RESTRAINTS
ONLY WHEN THERE IS IMMINENT RISK TO SELF OR OTHERS. Restraint should never be used as:
- A disciplinary or punitive measure
- A convenience or as a substitute for inadequate staffing
- Solely to prevent property damage or absconding

Truly a last resort option: Use the LEAST RESTRICTIVE restraint suitable to achieve the intended outcome for the LEAST AMOUNT OF TIME
- Must follow Health Authority/Site procedures
- May not be ordered as a PRN
- Assess risk factors prior to considering restraint
- Type of restraint used should take into consideration previously discussed individualized safety plans

Mental Health Act

OBTAIN APPROPRIATE CONSENTS and authorization from child/youth, family or temporary substitute decision maker when possible. If certification is required follow process as per the Mental Health Act. Obtain physician order as appropriate.

- **Document assessments, interventions and rationale**
- **Debrief with child/youth, family and staff**
- **Initiate a review process whenever restraint is used, to minimize future use and for quality improvement to minimize future use**

INJECTABLE MEDICATIONS

- Offer voluntarily first and communicate reasons for using
- May require physical restraint during injection
- Should be planned as a team prior to use
- Follow Health Authority/Site CODE WHITE procedures
- If the situation remains unresolved, a physician or NP must assess the child/youth and support treatment decisions

SECLUSION

- Where available, seclusion should occur in a room specifically designed for that purpose
- In most cases a patient requiring seclusion must be involuntarily admitted under the Mental Health Act
- Offer child/youth the option of entering the seclusion space voluntarily
- If the situation remains unresolved, a physician or NP must assess the child/youth and support treatment decisions

PHYSICAL/MECHANICAL

- Most associated with mortality & morbidity; most painful to patient; and most traumatic to patient, family and staff
- Physical/mechanical restraint should only be performed by trained personnel (as per HA policies)
- Only Health Authority approved methods and devices for children and youth, may be used
- If the situation remains unresolved, a physician or NP must assess the child/youth and support treatment decisions. Every physical/mechanical restraint intervention requires a unique order

MONITORING AND OBSERVATION AS PER HEALTH AUTHORITY GUIDELINES

- Best practice recommends that a health care provider (RN or RPN) be available within sight and sound at all times
- Regular re-assessment should include assessment of vital signs, signs of physical and psychological distress, and mental status changes
- The team should regularly assess the need for continued use of restraints and discontinue as early as possible

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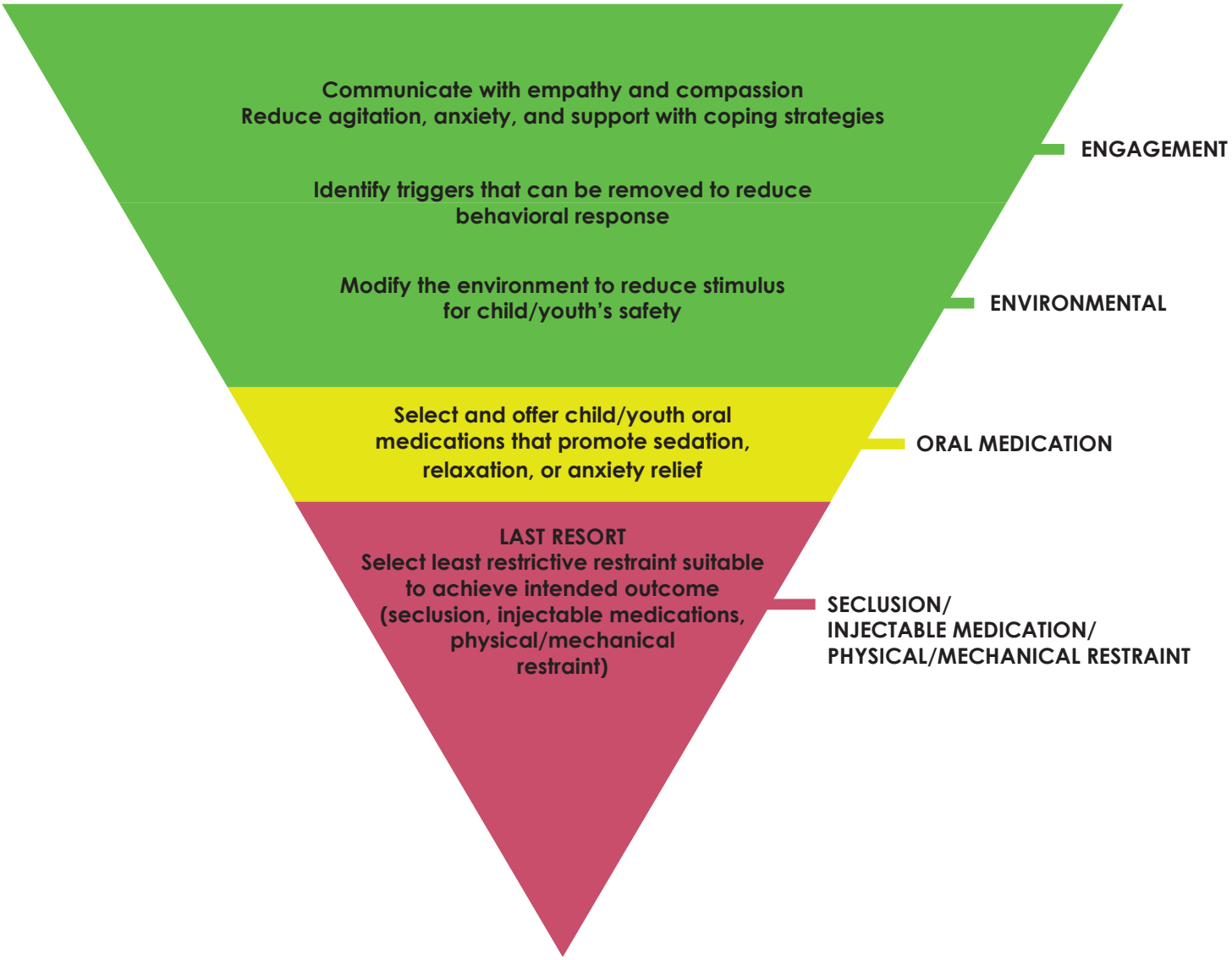
TIERS OF SERVICE

HIERARCHY OF SAFETY PYRAMID

Safety is the Priority

The RIGHT approach at the RIGHT time



- Document assessments, interventions and rationale
- Debrief with child/youth, family and staff
- Initiate a review process whenever restraint is used, to minimize future use and for quality improvement

GUIDELINE FOR PHARMACOLOGIC MANAGEMENT OF ACUTE AGITATION IN PEDIATRIC PATIENTS

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Apply non-pharmacologic strategies **first**

Moderately agitated behavior: Start at Step 1

Severely agitated behavior: Start at Step 2

DIAGNOSIS	STEP 1	STEP 2	STEP 3
	• Review subsequent pages for potential contraindications, precautions, and alternative medications. • If no response after 30-60 min (PO) or 15-30 min (IM), move to the next step. **Note:** If partial response, consider repeat dose or dose escalation before moving to next step.		If Step 2 was not effective, consider internal or external consult or transfer to higher level of care
Substance intoxication or withdrawal	lorazepam PO/SL	lorazepam PO/SL/IM*	lorazepam PO/SL/IM* + loxapine PO/IM
Delirium	risperidone or loxapine PO	repeat previous or loxapine IM or haloperidol IM/IV	haloperidol IM/IV + diphenhydramine IM/IV +/- lorazepam PO/SL/IM*
ADHD, ODD, conduct disorder, neurodevelopmental disorder, or autism **Unknown etiology < 12 years old**	risperidone, chlorpromazine, quetiapine, or loxapine PO	antipsychotic (repeat previous or loxapine IM) + lorazepam PO/SL/IM*	
Anxiety, trauma, PTSD, or eating disorder **Unknown etiology ≥ 12 years old**	lorazepam PO/SL	lorazepam PO/SL/IM* + loxapine PO/IM	If any signs of EPS or dystonia occur after an antipsychotic medication, give benztropine or diphenhydramine (see medication table for details)

*lorazepam can also be given IV in critical care

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Created by Sarah Leung, BScPharm, ACPR2(Ped)

MEDICATIONS FOR ACUTE AGITATION

NAME	USUAL DOSE (FOR ACUTE EPISODE)	ACTION	ADVERSE EFFECTS	CONTRAINDICATIONS
Benztropine	**EPS:** 0.5-1 mg/dose PO/IM Max: 0.1 mg/kg/24h or 6 mg/24h **Acute dystonia:** 1-2 mg/dose IM/IV	Anticholinergic	Sedation, dry mouth, blurred vision, tachycardia, constipation, urinary retention.	**Avoid:** Age < 3 years (use diphenhydramine), anticholinergic delirium **Caution:** Ileus, narrow angle glaucoma
Chlorpromazine	0.5-1 mg/kg/dose PO (round to nearest 12.5 mg) Max: 50 mg/dose	FGA, low potency	Postural hypotension, tachycardia, QTc prolongation, lowered seizure threshold. Less risk of EPS vs. haloperidol, but more anticholinergic effects.	**Avoid:** Seizure disorders, anticholinergic delirium **Caution:** Cardiac conditions, other QTc prolonging medications
Clonidine	1 mcg/kg/dose PO Max: 50 mcg/dose	Alpha-2 agonist	Dizziness, hypotension, bradycardia.	**Avoid:** Hypotension, bradycardia **Caution:** Anticholinergic delirium
Diphenhydramine	1 mg/kg/dose PO/IM/IV (round to nearest 5 mg). Max: 50 mg/dose. Given with haloperidol to prevent dystonic reaction. Use IM/IV route for treating acute dystonia.	Anticholinergic, used to treat agitation or EPS/dystonia	Sedation, dry mouth, blurred vision, tachycardia, constipation, urinary retention. QTc prolongation in high doses. Paradoxical excitation can occur; more common in younger children and those with neurodevelopmental disorders.	**Avoid:**: Anticholinergic delirium **Caution:** Ileus, narrow angle glaucoma
Haloperidol	0.025-0.075 mg/kg/dose PO/IM/IV Max: 5 mg/dose	FGA, high potency	High incidence of EPS and dystonic reactions in children and adolescents. IM route may have higher risk of dystonia, and IV route may have higher risk of QTc prolongation. Hypotension, lowered seizure threshold. Minimal anticholinergic effects.	**Avoid:** Cardiac conditions (particularly arrhythmias or prolonged QTc), other QTc prolonging medications **Caution:** Seizure disorders
Lorazepam	0.025-0.1 mg/kg/dose PO/SL/IM (round to nearest 0.25 mg) Max: 2 mg/dose (higher doses may be required for stimulant overdose or substance withdrawal; max single dose 4 mg)	Benzodiazepine	Confusion, mild cardiovascular suppression. Higher risk of respiratory depression when combined with opioids. Paradoxical excitation can occur; more common in younger children and neurodevelopmental disorders.	**Avoid:** Respiratory depression **Caution:** Patients taking opioids
Loxapine	0.1-0.2 mg/kg/dose PO/IM (round to nearest 2.5 mg) Max: 25 mg/dose	FGA, moderate potency	Moderate incidence of EPS and dystonic reactions, moderate anticholinergic effects.	**Caution:** Cardiac conditions, seizure disorders, other QT prolonging medications, anticholinergic delirium
Methotrimeprazine	**Child:** 0.125 mg/kg/dose PO **Adolescent:** 2.5-10 mg/dose PO **Child & Adolescent:** 0.06 mg/kg/dose IM/IV (round to nearest 2.5 mg)	FGA, low potency	Sedation, anticholinergic effects, postural hypotension. Less risk of EPS vs. haloperidol, but more anticholinergic effects.	**Avoid:** Hypotension, anticholinergic delirium **Caution:** Seizure disorders, cardiac conditions, other QTc prolonging medications
Olanzapine	2.5-10 mg/dose IM Max: 3 doses or 20 mg/24h, given 2-4 h apart (onset of PO route too slow for PRN use in acute agitation)	SGA	Postural hypotension (monitor before each IM dose), anticholinergic effects, lowered seizure threshold, akathisia. Minimal risk of QTc prolongation.	Do NOT combine IM route within 1 hour of parenteral benzodiazepine; reported cases of respiratory depression and death. **Avoid:** Hypotension, anticholinergic delirium **Caution:** Seizure disorders
Quetiapine	**Child:** 12.5-50 mg/dose PO **Adolescent:** 25-100 mg/dose PO	SGA	Sedation, dizziness, postural hypotension, tachycardia, QTc prolongation, anticholinergic effects, lowered seizure threshold. Lower risk of EPS than other agents.	**Avoid:** QTc prolongation, hypotension, anticholinergic delirium **Caution:** Cardiac conditions, other QTc prolonging medications, seizure disorders
Risperidone	**Child:** 0.125-0.5 mg/dose PO **Adolescent:** 0.25-1 mg/dose PO	SGA	Postural hypotension, EPS (in higher doses), lowered seizure threshold, akathisia. Minimal risk of anticholinergic effects.	**Caution:** Seizure disorders, cardiac conditions, CYP2D6 inhibitors (e.g. fluoxetine) – consider dose reduction with repeat/regular dosing of risperidone

EPS – Extrapyramidal symptoms; FGA – First generation antipsychotic; SGA – Second generation antipsychotic

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