» Vital signs: pulse, respiratory rate, blood pressure, temperature, level of consciousness and hydration.
» Monitor particularly for respiratory depression: if respiratory rate drops to < 12 breaths/minute, call doctor urgently and ventilate with bag-valve mask (1 breath/3-5 seconds) attached to oxygen at 15 L/minute.

REFERRAL

» All cases.

16.1.3 AGGRESSIVE DISRUPTIVE BEHAVIOUR IN CHILDREN AND ADOLESCENTS

R45.1/R45.4-6

As with adults, agitation among children and adolescents may escalate to overt aggression and violence. However, aggression may also occur suddenly, without warning signs, particularly in children with neurodevelopmental conditions such as intellectual disability and autism spectrum disorder. All children and adolescents should be treated respectfully and calmly, especially if seen in a busy, noisy clinic environment.

Possible causes for aggressive, disruptive behaviour include:

» **Physical:** epilepsy (pre-, intra-, and post-ictal), acute medical (e.g. encephalopathy, infection, metabolic disease, medication adverse effects) or surgical conditions, injuries (including traumatic brain injury).
» **Neuropsychiatric:** severe anxiety, distress, and/or acute or chronic traumatic stress, especially in children with neurodevelopmental disorders (which may be mild and missed clinically; See Section 16.8.1 Special considerations: Intellectual disability).
» **Substance use:** alcohol, cannabis, methaqualone (mandrax) intoxication or withdrawal, stimulant (cocaine, methamphetamine [tik], methcaninone [cat]) intoxication or withdrawal.
» **Psychological factors:** high levels of impulsivity and antagonism, hypersensitivity to rejection or insult, and poor frustration tolerance may contribute to aggression and rage.

CAUTION

» **An unsafe home, school, or community environment must always be considered**
» Children who have been abused, and/or have a neurodevelopmental or other psychiatric condition may also have medical conditions, trauma, and substance misuse.
» **Do not assume that aggressive behaviour is due to abuse, mental illness or psychological factors**

GENERAL MEASURES

» Be prepared – have in place:

  - a step-wise protocol to ensure safety and protection of the child or adolescent aligned with the Children's Act No. 38 of 2005 and the national Policy Guidelines on Child and Adolescent Mental Health (available from https://www.gov.za/documents/policy-guidelines-child-and-adolescent-mental-health).
  - clear roles for all staff members.
  - a triage plan for children and adolescents at high risk of aggression.
  - a designated calming area – suitable for regular monitoring.
- » De-escalate and contain:
  - Be calm, confident, kind and reassuring.
  - Maintain a submissive posture with open hands; do NOT turn your back.
  - Limit the number of the people attending the child, limit noise levels.
  - Do NOT attempt to touch the patient unnecessarily.
  - Do NOT confront, argue, or smother with kindness.
  - Try and discern the child's/adolescent's wishes and attend to them immediately.
- » Examine for delirium, medical, and other causes while calming the patient.
- » Mechanical restraint:
  - Only use when absolutely necessary to protect the patient and others in an acute setting for as short a period of time as possible.
  - Beware of using excessive force, especially if the child/adolescent fights back.
  - Type, sites, and duration of any restraints used must be documented, with 15-minute monitoring of vital signs, mental state, restraint sites, and reasons for use.
  - For people managed under the MHCA, complete and submit MHCA Form 48, along with reports of any injuries or death incurred, to the Mental Health Review Board and health facility quality assurance department.

MEDICINE TREATMENT

For children < 6 years of age:

Sedation with psychotropic agents should only be considered in extreme cases and only after consultation with a specialist.

For children ≥ 6 years of age and adolescents:

- Benzodiazepines, e.g.: (Doctor prescribed)
- Midazolam, IM, 0.1–0.15 mg/kg/dose immediately as a single dose.
  - Onset of action: within 5 minutes.

If sedation with benzodiazepines is inadequate: See Hospital Paediatric STGs Chapter 14.1 SEDATION OF AN ACUTELY DISTURBED CHILD OR ADOLESCENT for further medicine management.

CAUTION

» Always consult with a doctor, preferably a psychiatrist where possible, when prescribing antipsychotic medication to children and adolescents.

» Rapid tranquillisation may cause cardiovascular collapse, respiratory depression, neuroleptic malignant syndrome (See Section 16.2.2: Neuroleptic malignant syndrome), and acute dystonic reactions (See Section: 16.2.1: Extra-pyramidal side effects).

» The elderly, children, intellectually disabled, and those with comorbid medical conditions and substance use are at highest risk.

» **An emergency trolley, airway, bag, oxygen and intravenous line equipment must be available.**

16.2 ANTIPSYCHOTIC ADVERSE DRUG REACTIONS

16.2.1 EXTRA-PYRAMIDAL SIDE EFFECTS

G21.1/G24.0/G25.8-9/Y11/Y13/Y88.0 + (T43.0-6/T43.8-9)

DESCRIPTION

Extra-pyramidal side effects (EPSE) may occur with any antipsychotic, but are most commonly due to haloperidol, risperidone, and flupenthixol and zuclopenthixol injections.

» At-risk groups include those with underlying medical conditions such as epilepsy, intellectual disability, dementia, and late onset psychosis (more often associated with a medical condition than psychosis in youth).
» People with bipolar disorder are more susceptible to EPSE than those with schizophrenia.

EPSEs may present as a variety of clinical syndromes:

Early appearing:

» Acute dystonic reaction (sustained muscle contraction that causes twisting and repetitive movements, abnormal posture or abnormal eye position, or laryngospasm within a few minutes to days after receiving an antipsychotic tablet or injection.
» Parkinsonism (slow, shuffling gait, delayed responses, masked facies, and a pill rolling tremor).
» Akathisia (a subjective and observed motor restlessness e.g.: pacing, rocking, marching, crossing and uncrossing legs).

Late appearing:

» Tardive dyskinesia (choreoathetoid involuntary movements that particularly involve the face, lips, and tongue (e.g.: lip smacking or chewing, tongue protrusion ("catching flies"), but occasionally also arms, legs or trunk. More common in older women, depression, bipolar disorder, people with cognitive impairment. Only about 50% of cases are reversible.