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.

MEDICINE TREATMENT

Acute dystonic reaction

Children

- Anticholinergic, e.g.:
- Biperiden, IM/slow IV, 0.05–0.1 mg/kg to a maximum of:
  - 1–6 years: 1–2 mg immediately
  - 7–10 years: 3 mg immediately
  - > 10 years: 5 mg immediately

LoE:IVb[7]

OR

- Promethazine, IM, 0.125–0.5 mg/kg to a maximum of:
  - 5–10 years: 12.5 mg immediately
  - 10–16 years: 25 mg immediately

LoE:Ivb[8]

Adults

- Anticholinergic, e.g.:
- Biperiden, IM, 2.5 mg immediately.
  - May be repeated every 30 minutes.
  - Maximum of 3 doses within 24 hours.

LoE:Ivb[9]

OR

- Promethazine, IM, 50 mg immediately.

Drug-induced parkinsonism

- Anticholinergic, e.g.:
- Orphenadrine, oral, 50 mg 8 hourly, whilst awaiting review.

LoE:Ivb[10]

REFERRAL

» Refer all children urgently.
» All patients for review of psychotropic medication.

16.2.2 NEUROLEPTIC MALIGNANT SYNDROME

G21.0 + (T43.0-6/T43.8-9)

DESCRIPTION

» Neuroleptic malignant syndrome (NMS) is a rare but potentially fatal syndrome characterised by a tetrad of fever, muscle rigidity, altered mental state, and autonomic dysfunction.
» An altered mental state with confusion, delirium, or stupor may precede other clinical signs of NMS.
» Suspect if there is a history of exposure to an antipsychotic, fever and sweating, muscle rigidity, and elevated or fluctuating blood pressure.
» Most common after initiation or increase in dose of haloperidol, risperidone, or injectable antipsychotic, but may occur with any antipsychotic at any dose.

LoE:IVb[11]

» Combinations of antipsychotics with SSRIs or lithium may increase the risk.
» Agitation, dehydration, exhaustion, and iron deficiency increase the risk of NMS.
» Other causes of fever must be investigated and treated.