



Clinical Practice Guidelines: Medical/Acute dystonic reaction

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Date	January, 2020
Purpose	To ensure consistent management of patients with acute dystonic reaction.
Scope	Applies to Queensland Ambulance Service (QAS) clinical staff.
Health care setting	Pre-hospital assessment and treatment.
Population	Applies to all ages unless specifically mentioned.
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Acute dystonic reaction

January, 2020

Acute dystonic reactions are an extrapyramidal side-effect due to an imbalance between dopaminergic deficiency and cholinergic excess neurotransmission in the basal ganglia.^[1]

Presentations are caused by numerous medications (*Table 1*) and although relatively common and distressing, are rarely life-threatening.^[1]

Table 1:

Class	Examples
Antipsychotics	haloperidol, droperidol, fluphenazine, clozapine, olanzapine, quetiapine, risperidone
Antiemetics*	metoclopramide, prochlorperazine
Antidepressants	SSRIs (eg. fluoxetine)
Antibiotics	erythromycin
Anticonvulsants	carbamazepine
Antihistamines (H₂)	ranitidine
Recreational	cocaine

* most common

Dystonia itself refers to involuntary, sustained, repetitive muscle contractions that may be painful.^[2] Dystonia is different to akathisia (patient feels the need to constantly move), which may also occur with these medications.^[3]

The onset of dystonia varies. It may occur shortly after administration of the drug but usually occurs hours to days later.

Clinical features



• Presentations of acute dystonia^[3,4,5]

- oculogyric crisis – deviated eye gaze +/- eyelid spasm
- laryngospasm – stridor, dysphonia, throat pain, dyspnoea – potentially life-threatening
- torticollis
- opisthotonus – arms flexed, legs extended, back arched
- macroglossia – tongue feels enlarged (clinically not) and protrudes from mouth
- buccolingual crisis – may have trismus, dysarthria, grimacing
- tortipelvic crisis – involves hips, pelvis and abdominal wall muscles
- spasticity of trunk or limbs

• Other features that may be present

- anxiety
- agitation
- diaphoresis
- tachycardia
- tachypnoea

• The patient has normal mentation.

Risk Assessment



- Often an idiosyncratic reaction, but more common in young males, especially if prior history.
- Acute dystonia may mimic a number of other conditions (e.g. seizures, meningitis, hyperventilation).

+ Additional information

- If there is no improvement with Benztropine (benzatropine), it is unlikely to be an acute dystonic reaction.^[1-3]

CPG: Clinician safety
CPG: Standard cares

Life-threatening laryngospasm?

Y

N

Consider:

- Oxygen
- Benztropine (benzatropine)
- Assist ventilation
- IV fluids

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- Benztropine (benzatropine)
- IV fluids

Note: Clinicians are only to perform procedures for which they have received specific training and authorisation by the QAS.

Transport to hospital
Pre-notify as appropriate