Clinical Practice Guidelines:
Medical/Acute dystonic reaction

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<tr>
<th>Policy code</th>
<th>CPP_ME_ADR_0119</th>
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<tr>
<td>Date</td>
<td>January, 2019</td>
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<tr>
<td>Purpose</td>
<td>To ensure consistent management of patients with acute dystonic reaction.</td>
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<td>Scope</td>
<td>Applies to Queensland Ambulance Service (QAS) clinical staff.</td>
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<td>Health care setting</td>
<td>Pre-hospital assessment and treatment.</td>
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<td>Population</td>
<td>Applies to all ages unless specifically mentioned.</td>
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<tr>
<td>Source of funding</td>
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All feedback and suggestions are welcome. Please forward to: Clinical.Guidelines@ambulance.qld.gov.au

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**Acute dystonic reaction**

**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.\(^1\)

### Clinical features

- **Presentations of acute dystonia** \(^3-^5\)
  - 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.**

### 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.
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]

Consider:

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

Life-threatening laryngospasm?

Y

Consider:

- Benztropine (benzatropine)
- IV fluids

N

Other features of acute dystonia?

Transport to hospital

Pre-notify as appropriate

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