Clinical Practice Guidelines:
Toxicology and toxinology/Anticholinergic

Policy code	CPG_TO_AN_0120
Date	January, 2020
Purpose	To ensure a consistent approach to the management of anticholinergic toxidrome.
Scope	Applies to Queensland Ambulance Service (QAS) clinical staff.
Health care setting	Pre-hospital assessment and treatment.
Population	Applies to all ages unless stated otherwise.
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Anticholinergic

The **anticholinergic toxidrome** refers to the classical syndrome which results from competitive antagonism at the muscarinic receptor. [1] Multiple agents have anticholinergic properties including: [2]

Belladonna alkaloids:	• Atropine • Scopolamine • Plants including Angel's Trumpet, Deadly Nightshade and Mandrake
Antispasmodics:	• Oxybutynin • Hyoscine • Orphenadrine • Propantheline
Antihistamines:	• Chlorpheniramine • Cyproheptadine • Diphenhydramine • Doxylamine • Promethazine
Antipsychotics	• Chlorpromazine • Haloperidol • Olanzapine • Quetiapine • Clozapine
Tricyclic antidepressants:	• Amitriptyline • Clomipramine • Dothiepin • Doxepin • Imipramine • Nortriptyline
Anti-Parkinson agents:	• Benztropine • Amantadine
Other:	• Carbamazepine • Ipratropium bromide

The severity of toxicity can vary from mild to life-threatening, with symptoms persisting for many days. Good supportive care is the mainstay of therapy.

Clinical features

Central anticholinergic effects

- Agitated delirium
- Hallucinations
- Seizures
- Coma

Peripheral anticholinergic effects

- Mydriasis (dilated pupils)
- Tachycardia
- Dry, flushed skin
- Urinary retention
- Hyperthermia

Risk assessment

- Suspect anticholinergic toxicity in any patient with a deliberate ingestion of an agent with anti-muscarinic properties.
- Orphenadrine is highly toxic in overdose and can lead to myocardial depression, arrhythmia and death. [3]
- A 12-Lead ECG should be performed on all patients with suspected anticholinergic toxicity.

CPG: Clinician safety
CPG: Standard cares

Risk of harm to self or others?

Y

Consider:

- Verbal de-escalation
- QPS assistance
- Physical restraint
- EEA

Manage as per:

CPG: Sedation – Acute behavioural disturbance

N

Consider:

- Oxygen
- IV access
- IV fluid
- Cooling

Transport to hospital
Pre-notify as appropriate

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