Drug Therapy Protocols: Droperidol

Policy code	DTP_DRO_0924
Date	September, 2024
Purpose	To ensure a consistent procedural approach to droperidol administration.
Scope	Applies to all Queensland Ambulance Service (QAS) clinical staff.
Health care setting	Pre-hospital assessment and treatment.
Population	Applies to all ages unless specifically mentioned.
Source of funding	Internal – 100%
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Droperidol

September, 2024

Drug class

Antipsychotic [1,2]

Pharmacology [1]

Droperidol is an antipsychotic drug from the butyrophenone group that produces sedation.

Metabolism [1]

Hepatic metabolism with biliary/renal excretion as inactive metabolites.

Indications [1–7]

- **Acute behavioural disturbance meeting all of the following criteria:**
  - Unresponsive to de-escalation strategies; and
  - SAT Score ≥ 2; and
  - Requiring emergency sedation to prevent harm to themselves or others

Contraindications [1,2,4–7]

- **Absolute** contraindication:
  - Allergy AND/OR Adverse Drug Reaction
  - Known Lewy Body Dementia (LBD)
  - Suspected or confirmed Parkinson's disease
  - Previous dystonic reaction to droperidol
  - Patients less than 8 years of age
- **Relative** contraindication (*QAS Clinical Consultation & Advice Line* consultation and approval required in all of the following situations):
  - Suspected sepsis

Precautions

- Hypoperfused state
- Concurrent use of CNS depressants

Side effects

- Vasodilation/hypotension
- Extrapyramidal effects e.g. dystonic reactions (rare)

Presentation

- Vial, 10 mg/2 mL *droperidol* (DORM®)

Onset (IV/IM)	Duration (IV/IM)	Half-life
5–15 minutes	4–6 hours	N/A

Schedule

- S4 (Restricted drugs).

Routes of administration	
Intramuscular injection (IM)	ACP2 CCP
Intravenous injection (IV)	ACP2 CCP

Droperidol

Adult dosages [4–7]

Acute behavioural disturbance meeting all of the following criteria:

- Unresponsive to de-escalation strategies; and
- SAT Score ≥ 2; and
- Requiring emergency sedation to prevent harm to themselves or others

ACP2	**IM**	*QAS Clinical Consultation and Advice Line* consultation and approval required in all patients ≥ 65 years **OR** 13–15 years. ≥ 65 years – **5 mg** May be repeated once at 15 minutes. **Total maximum dose 10 mg.** 16 years to < 65 years – **10 mg** May be repeated once at 15 minutes. **Total maximum dose 20 mg.** 13–15 years – **0.1–0.2 mg/kg** Single maximum dose 10 mg. May be repeated once at 15 minutes. **Total maximum dose 20 mg.**
CCP	**IM**	*QAS Clinical Consultation and Advice Line* consultation and approval required in all patients 13–15 years. ≥ 65 years – **5 mg** May be repeated once at 15 minutes. **Total maximum dose 10 mg.** 16 years to < 65 years – **10 mg** May be repeated once at 15 minutes. **Total maximum dose 20 mg.** 13–15 years – **0.1–0.2 mg/kg** Single maximum dose 10 mg. May be repeated once at 15 minutes. **Total maximum dose 20 mg.**

Adult dosages [4–7]

Acute behavioural disturbance meeting all of the following criteria:

- Unresponsive to de-escalation strategies; and
- SAT Score ≥ 2; and
- Requiring emergency sedation to prevent harm to themselves or others

ACP2	**IV**	*QAS Clinical Consultation and Advice Line* consultation and approval required in all patients ≥ 65 years **OR** 13–15 years. ≥ 65 years – **5 mg** May be repeated once at 15 minutes. **Total maximum dose 10 mg.** 16 years to < 65 years – **10 mg** May be repeated once at 15 minutes. **Total maximum dose 20 mg.** 13–15 years – **0.1–0.2 mg/kg** Single maximum dose 10 mg. May be repeated once at 15 minutes. **Total maximum dose 20 mg.**
CCP	**IV**	*QAS Clinical Consultation and Advice Line* consultation and approval required in all patients 13–15 years. ≥ 65 years – **5 mg** May be repeated once at 15 minutes. **Total maximum dose 10 mg.** 16 years to < 65 years – **10 mg** May be repeated once at 15 minutes. **Total maximum dose 20 mg.** 13 – 15 years – **0.1–0.2 mg/kg** Single maximum dose 10 mg. May be repeated once at 15 minutes. **Total maximum dose 20 mg.**

Paediatric dosages [4–7]

Acute behavioural disturbances (with a SAT Score ≥ 2)

ACP2 CCP	**IM**	*QAS Clinical Consultation and Advice Line* consultation and approval required in all situations. 8–12 years – **0.1–0.2 mg/kg** Single maximum dose 10 mg. May be repeated once at 15 minutes. **Total maximum dose 20 mg.**
ACP2 CCP	**IV**	*QAS Clinical Consultation and Advice Line* consultation and approval required in all situations. 8–12 years – **0.1–0.2 mg/kg** Single maximum dose 10 mg. May be repeated once at 15 minutes. **Total maximum dose 20 mg.**

Special notes

- Ambulance officers must only administer medications for the listed indications and dosing range. Any consideration for treatment outside the listed scope of practice requires mandatory approval via the *QAS Clinical Consultation and Advice Line*.
- Droperidol may be considered for patients following olanzapine administration who present with increased agitation (SAT +2 or +3).
- Where a second dose of droperidol has been administered by an ACP2, a CCP (where available) must be requested. The responding CCP may be cancelled if the second dose of droperidol achieves the desired sedation effect.

Special notes *(cont.)*

- If a patient has received droperidol prior to arrival of paramedics, subsequent administrations by QAS must consider prior dosage(s) and time of last administration to ensure compliance with the QAS Droperidol DTP is maintained.
- LBD is a specific classification of dementia caused by the degeneration and death of nerve cells in the brain. The name comes from the presence of abnormal spherical structures called Lewy bodies, which develop inside nerve cells.[2,4] For other presentations of dementia (e.g. Alzeheimer's disease that affects 70% of dementia patients) droperidol is a suitable pharmacological agent for the management of acute behavioural disturbance.
- In LBD, antipsychotics (e.g. droperidol) can cause a deterioration in cognitive function, worsened parkinsonism/rigidity and excessive or over sedation.
- If ambulance clinicians observe the patient displaying obvious signs of cogwheeling rigidity and resting tremor without reporting a history of Parkinson's disease or LBD, droperidol must not be administered.
- There is no significant difference in the onset of effect following IM or IV injection.
- All parenteral medications must be prepared in an aseptic manner. The rubber stopper of all vials must be disinfected with an appropriate antimicrobial swab and allowed to dry prior to piercing.
- Under **no** circumstances is an IV cannula to be inserted for the sole purpose of droperidol administration. **IV droperidol administration is only to occur when an IV cannula is already insitu.**