# CHLORAL HYDRATE

| Indication          | • Short term mild sedation  
|                     | • Procedural sedation (e.g. EEG; CT scan; MRI) |

## ORAL

| Presentation       | • Oral solution 100 mg/mL  
|                    | • QH-Central Pharmacy product: 50 mg/mL  |
| Dosage             | • Sedation  
|                    | o 8–10 mg/kg every 6 to 8 hours\(^1\)\(^3\)  
|                    | • Procedural sedation  
|                    | o 30–50 mg/kg stat\(^1\)  
|                    | o May start with 30 mg/kg, followed by 20 mg/kg after 20 minutes if required\(^2\)  |
| Preparation        | • Dilute 1-part chloral hydrate with 3 parts water for injection (unpleasant taste)  |
| Administration     | • Oral/OGT/NGT  
|                    | • 45–60 minutes prior to procedure  
|                    | • After feed\(^4\) to minimise gastric irritation\(^5\)  |

## RECTAL

| Presentation       | • Oral solution 100 mg/mL  
|                    | • QH-Central Pharmacy product: 50 mg/mL  |
| Dosage             | • Sedation  
|                    | o 8–10 mg/kg every 6 to 8 hours\(^1\)  
|                    | • Procedural sedation  
|                    | o 30–50 mg/kg stat\(^1\)  
|                    | o May start with 30 mg/kg, followed by 20 mg/kg after 20 minutes if required\(^2\)  |
| Preparation        | • Nil required  |
| Administration     | • Rectal  
|                    | • 45–60 minutes prior to procedure  |

## Special considerations

- Contraindicated  
  - Severe cardiac disease\(^5\)  
- Caution if:  
  - Gastritis  
  - Acute porphyrias  
  - Renal and hepatic dysfunction\(^5\)  
  - Used with other CNS depressants\(^5\)  
- Short term use only—not recommended if repeat dosing necessary\(^5\) (half-life of active metabolite prolonged in neonates; repeated administration may lead to accumulation)  
- Duration of action 4–8 hours\(^5\)  
- No analgesic properties  
- Use rectal route only if oral route not available as absorption variable and erratic  
- Schedule 4 (S4) medicine  

## Monitoring

- Heart and respiratory rate\(^5\) for up to 24 hours post-procedure  
- Level of sedation  

## Compatibility

- Nil known  

## Incompatibility

- Nil known  

## Interactions

- Central nervous system (CNS) depressants  
  - Additive CNS depression with other CNS depressants (e.g. barbiturates, opiates, benzodiazepines\(^5\))  
- IV frusemide administration after chloral hydrate reported to produce a hypermetabolic state with symptoms of diaphoresis, flushing and variable blood pressure\(^5\)  

## Stability

- Store below 25 °C. Protect from light\(^5\)
### Side effects
- Post-procedural bradycardia and respiratory depression (particularly at lower gestations and birth weight)\(^6,7\)
- Gastrointestinal upset and irritation
- CNS excitement instead of sedation
- Hypotension, respiratory and myocardial suppression, arrhythmias, especially with toxicity
- Tolerance and physical dependence possible with prolonged use\(^5\)

### Actions
- Sedative, hypnotic, CNS depressant\(^5\)

### Abbreviations
CNS: central nervous system; CT: computerised tomography; EEG: electroencephalogram; IV: intravenous; MRI: magnetic resonance imaging;

### Keywords
chloral hydrate, neonatal procedural sedation, sedative

The Queensland Clinical Guideline *Neonatal Medicines* is integral to and should be read in conjunction with this monograph. Refer to the disclaimer. Destroy all printed copies of this monograph after use.

### References

### Document history

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