

PICU DRUG INFORMATION – QUICK REFERENCE GUIDE

for Intravenous Opiate & Sedative Agents

First Line Agents:

	<u>Morphine</u>	<u>Fentanyl</u>	<u>Alfentanil</u>	<u>Clonidine</u>	<u>Propofol</u>
Loading Dose	50 micrograms/kg (over 5 mins)	0.5-1micrograms/kg (over 2-5min)	Neonates and Child < 50kg = 50micrograms/kg (over 10 mins) Child > 50kg = 2mg (NOT per kg) (over 10 mins)	Not required	1-2mg/kg
Initial Infusion Maintenance Dose	Neonates and Child < 50kg = 20micrograms/kg/hr Child > 50kg = 1-2mg/hr (NOT per kg)	Neonates and Child < 50kg = 1-4micrograms/kg/hr Child > 50kg = 50-200micrograms/hr (NOT per kg)	Neonates and Child < 50kg = 30micrograms/kg/hr Child > 50kg = 2mg/hr (NOT per kg)	0.5 – 1microgram/kg/hr	1mg/kg/hr
Usual Maximum Maintenance Dose	60micrograms/kg/hr (higher doses may be required at consultant discretion)	6micrograms/kg/hr (higher doses may be required at consultant discretion)	Neonate: 60micrograms/kg/hr Child <50kg: 120micrograms/kg/hr Child > 50kg: 10mg/hr	4micrograms/kg/hr Up to maximum 150micrograms/hr (NOT per kg)	4mg/kg/hr
Bolus Dose	Neonates and Child < 50kg = 20micrograms/kg Child > 50kg = 1-2mg	Neonates and Child < 50kg = 0.5-1micrograms/kg Child > 50kg = 1-2mg	Child <50kg: 10-15micrograms/kg Child > 50kg: 0.5-1mg (NOT per kg)	0.5-1micrograms/kg SLOW BOLUS (over 20-30min)	0.5-1mg/kg
Titration Steps	5-10 micrograms/kg/hr	0.2-0.5 micrograms/kg/hr	10micrograms/kg/hr	0.5micrograms/kg/hr	0.5mg/kg/hr
Time to steady state	8 hours	2-4 hours	6 hours	24-96 hours	2-6 hours
Time to Initial Onset of Action (inc. bolus)	20 mins	1-5 mins	5-10 mins	20 minutes	2-4 minutes
Dose at which to consider additional agent	40micrograms/kg/hr	4micrograms/kg/hr	40micrograms/kg/hr	1.5micrograms/kg/hr	4mg/kg/hr To minimise risk of PRIS, the MAX DURATION of continuous infusion is 48hrs. More prolonged use needs <u>PICU consultant authorisation</u> . Pause infusion for at least 12hrs every 48hrs. Check LACTATE at least 12-hourly. Check CK and Triglycerides daily.
Weaning dose steps (decrements)	5-10 micrograms/kg/hr	0.2-0.5 micrograms/kg/hr	5-10micrograms/kg/hr	0.5micrograms/kg/hr	0.5mg/kg/hr

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Second Line Agents:

	<u>Midazolam</u>	<u>Dexmedetomidine</u>
Loading Dose	50-100micrograms/kg	0.5 – 2 micrograms/kg (CONSULTANT DECISION)
Infusion Initial Dose	30-50 micrograms/kg/hr (0.03-0.05mg/kg/hr)	0.4micrograms/kg/hr
Bolus Dose	100micrograms/kg (0.1mg/kg)	Do Not Bolus
Usual <u>Maximum Maintenance Dose</u>	200micrograms/kg/hr (0.2mg/kg/hr) Up to maximum 20mg/hr (NOT per kg)	1.4micrograms/kg/hr
Titration Steps	10-50 micrograms/kg/hr (0.01-0.05mg/kg/hr)	0.1micrograms/kg/hr
Time to steady state	6-10 hours	8 hours
Time To Initial Onset of Action (inc. bolus)	5-10 minutes	15 mins
Dose at which to consider additional agent	150micrograms/kg/hr (0.15mg/kg/hr)	1micrograms/kg/hr
Weaning dose steps (decrements)	10 micrograms/kg/hr (0.01mg/kg/hr)	0.1micrograms/kg/hr

Appendix 3 to Neurocognitive Care Living Guideline Version 1.1, 23rd March 2026

Authors: J Armour-Marshall, C Begg, C Gillis, E Henderson, C Lamb, P McDonald, M McGale, I McKeivitt, L Wiliams, N. Wilson, L Woodgate, PICU neurocognitive care group

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