

Table 4. Medications for treatment of ICU delirium [12, 13, 14, 15]

	Atypical antipsychotic			Typical antipsychotic
License status	Unlicensed indication for treatment of delirium			
Drug name	Risperidone	Olanzapine	Quetiapine	Haloperidol
Oral/NG route	500 micrograms BD (up to max 4mg in 24 hours)	2.5 to 5mg daily (Usual max 20mg by oral/NG in 24 hours)	12.5 to 50mg BD Crush tablets for NG route	500 micrograms to 1mg BD with additional doses every 4 hours as needed (max 18mg in 24 hours)
Oral preparation for delirium	Tablets Orodispersible tablets Liquid 1mg/ml (100ml)	Tablets Orodispersible tablets	Tablets	Tablets Liquid 2mg/ml (100ml)
Injection				IV / IM injection (short acting): 500 micrograms to 1mg, observe for 30 to 60 minutes Repeat as necessary (Max 18mg in 24 hours)
Bioavailability	Tablet 70%	Tablet 40%	Tablet 100%	Tablet 60 to 70%
Time to peak	Oral: 1hour	Oral: 5 to 8 hours	Oral: 1.5 hours	Oral: 2 to 6 hours IM: 20 minutes IV: unknown (less than 20 minutes)
Elimination half life	3 to 20 hours	21 to 54 hours	7 hours	12 to 38 hours

Table 5. The side effects for the atypical and typical antipsychotics are as follows: [12, 13,14,15]

	Atypical antipsychotic			Typical
	Risperidone	Olanzapine	Quetiapine	Haloperidol
Renal impairment/ Elderly over 65 years old	High risk Starting oral/ NG dose 250 micrograms BD in severe renal impairment. Max.1mg BD in 24 hours	Moderate risk Starting oral/NG dose 2.5mg daily	Moderate risk Starting oral/NG dose 12.5mg BD	Moderate risk Starting oral/NG/IV dose 500 micrograms BD in severe renal impairment because of increased cerebral sensitivity
Hepatic impairment	Moderate risk Start with low dose	Moderate risk Start with low dose	Moderate risk Start with low dose	Lower risk
Cardiac effect: QT prolongation	Uncommon Caution	Uncommon Caution	Uncommon Caution	High risk may be increased with higher doses- baseline ECG before starting is essential
Sedation	Occur in high dose	Oral: Moderate	Mild to moderate	Mild
Seizure risk	Risk unclear Caution	Rare cases reported with other seizures risks	Low risk Caution	Seizure can be triggered by haloperidol Caution: epilepsy, alcohol withdrawal, brain injury
Comments	Avoid in acute porphyria Caution: Parkinson disease, hyperglycaemia Licensed for behavioural and psychological symptoms of dementia (BPSD) short term treatment up to 6 weeks	Avoid in acute MI, unstable angina, bradycardia Caution: Parkinson disease, hypotension, hyperglycaemia. When use with benzodiazepines have significant synergistic sedative and cardio-respiratory suppressants effects	Avoid concomitant administration HIV protease inhibitor, erythromycin Caution: Parkinson disease, hyperglycaemia, tachycardia, hypertension, elevated plasma triglyceridea and cholesterol concentrations	IV/IM dose equivalent to 40% of oral dose Caution: Parkinson disease Metabolites may accumulate in renal/hepatic impairment