Fact Sheet: Antipsychotics - July 2019

SA Palliative Care Community Pharmacy Update

A joint initiative of South Australian Palliative Care Services

Psychoactive medicines are commonly used throughout the disease journey including the last days of life. This update reviews antipsychotic use in palliative care (Benzodiazepines discussed in the last update (253kb pdf)).

Clinical use

Antipsychotics are generally divided into First-generation (Typical) and Second-generation (Atypical), the separation mostly reflective of their ADR profile.

The multiple clinical and adverse effects of each agent depend on the combination of receptor occupancy however the dopamine pathway (particularly D_2 receptor) is the primary target for countering symptoms of dopamine excess (eg hallucinations and delusions).

Antipsychotics also interact with differing affinities at non-dopaminergic receptors (see Table1). Dopamine and serotonin receptor polymorphisms affect both efficacy and risk of ADRs and are unpredictable.

Antipsychotics have been used in palliative care for a range of symptoms including;

- Psychosis
- Delirium associated psychosis and agitation
- Nausea and vomiting
- Terminal (last days of life) agitation
- Intractable hiccup
- Treatment resistant depression.

Selecting the right antipsychotic

Indication, patient factors and risk of ADR should be considered when prescribing antipsychotics. Non-pharmacological options should be considered as part of overall management.

Delirium is common in palliative care and can be highly distressing to patients and their carers. Evidence supporting the use of antipsychotics in delirium is mixed with risk of greater harm than good in some patients. Hypoactive delirium is unresponsive to dopamine antagonists.

Nausea and vomiting can be reduced through D_2 activity in the CTZ. In addition, olanzapine and levomepromazine (via SAS) block emetic signals through other messaging pathways.

ADRs associated with a reduced dopamine state include extrapyramidal side effects (parkinsonism, akathisia, dystonia, tardive dyskinesia) as well are rare but life threatening neuromalignant syndrome.

Cautions

- Doses used in palliative care are lower than used for psychosis. Lower doses may be required for subcut route (326kb pdf)
- Dose-dependent seizure threshold reduction correlated with the sedating properties of the antipsychotic, risk is lowest with haloperidol
- All D_2 antagonists worsen symptoms of Parkinson's Disease, quetiapine and olanzapine are preferred if there is no alternative to an antipsychotic
- Risk of QT prolongation should be considered in the context of other patient factors and goals of care

Useful Resources

1. Pallimeds App
2. Tasmanian Palliative Care Formulary

	D_2 Antipsychotic Antiemetic Cognitive and EPS ADR	$5HT_{2A}$ Antidepressant Anxiolytic Weight gain	$5HT_{2C}$ Antidepressant Anxiolytic / Sedation Weight gain	$5HT_3$ Antiemetic	H_1 Sedation Appetite stimulant	α_1 Orthostatic - Hypotension Analgesia possibly	α_2 Hypotension Reflex tachycardia	M_1 Anticholinergic	Oral Bioavailability (F)	Time to Cmax
Haloperidol	✓	✓	-	-	-	✓	-	-	**45-75**	**2-6**hr (po) **10-20**min (subcut)
Levomepromazine	✓	✓	^	^	✓	✓	✓	✓	**40**	**1-3**hr (po) **30-90**min (subcut)
Olanzapine	✓	✓	✓	✓	✓	✓	✓	✓	**60**	**5-8**hr
Prochlorperazine	✓	✓	✓	-	✓	✓	-	✓	**6** (14 buccal)	**4**hr 4-8hr buccal
Quetiapine	✓	✓	✓	-	✓	✓	✓	-	**100**	**1.5**hr
Risperidone	✓	✓	✓	-	✓	✓	✓	-	**99**	**1-2**hr

^= no data available
Reference: Palliative Care Formulary 5

Table 1: Antipsychotics in palliative care

This update is intended to provide practical up to date and factual information relating to pharmacy and medicines management in the setting of Palliative Care and is based on critical review of available evidence. Individual patient circumstances must be considered when applying this information. Please feel free to distribute this update further to interested colleagues.

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