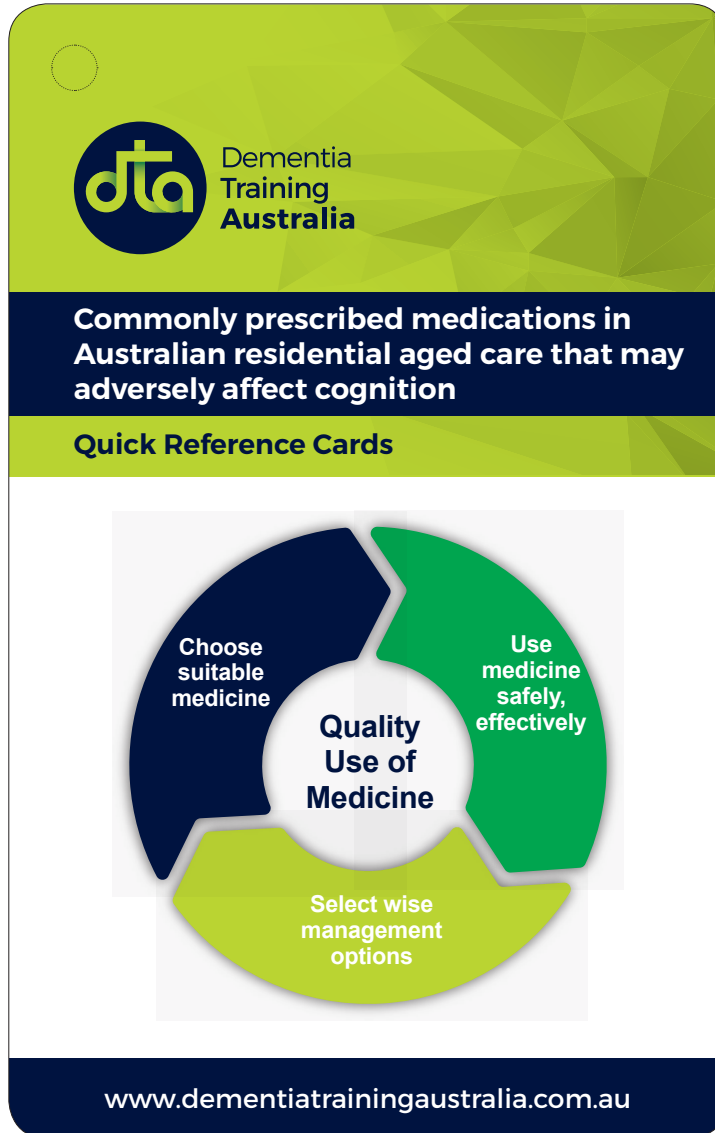


- Single-side print
- Fold page in half and crease along fold line
- Cut along outline
- Be sure to round the corners



**Commonly prescribed medications in Australian residential aged care that may adversely affect cognition**

**Quick Reference Cards**

**Quality Use of Medicine**

- Choose suitable medicine
- Use medicine safely, effectively
- Select wise management options

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FOLD LINE

MEDICATION AND COGNITION

## MEDICATION AND COGNITION

### How these cards were developed

- 1) Medications that may adversely affect cognition were identified from the literature and expert opinion.
- 2) Data on the prescribing frequency of all medications in Australian residential aged care was sourced.
- 3) Commonly prescribed medications that may adversely affect cognition were identified (Table 1).

### How to use these cards

The cards may be used as a reference to provide a **starting point** in identifying medications that may be adversely affecting a person's cognition. They are **NOT** intended to be used to guide prescribing decisions.

Keep these cards close-to-hand, such as attached to the medication trolley or beside a dispensing computer.

### Medication and cognition implications

Adverse cognitive effects may occur when any of the medications in Table 1 are taken at any dose.

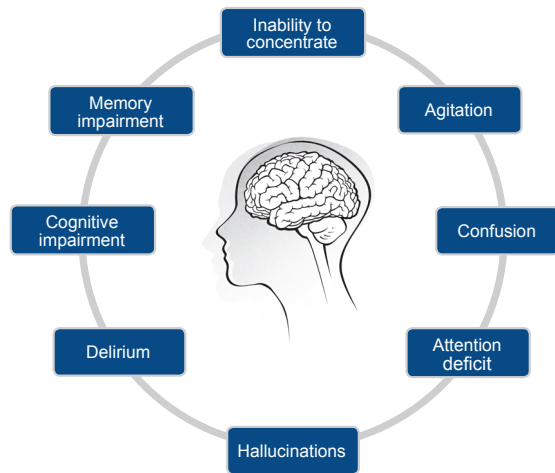
### Particularly high-risk circumstances include:

- When a medication from Table 1 is taken at a high dose and/or in combination.
- When any new medication is started, stopped, or the dose is changed.
- When there are medication interactions.
- During times of increased stress, e.g. illness, infection, pain.
- When a person has reduced 'cognitive reserve', e.g. cognitive impairment, frailty.

FOLD LINE

## MEDICATION AND COGNITION

Medicines may cause a number of unintentional effects on a person's cognition e.g. memory, thoughts and behaviour (see below). These effects may become apparent as soon as a new medication is started or a dose is changed, or may occur gradually over a period of time.



**!** If you have **ANY** concerns regarding possible adverse effects of a resident's medication, request a medication review.

MEDIATION AND COGNITION

## MEDICATION AND COGNITION

Cognition may be adversely affected by the **anticholinergic** and/or **sedative** effects of many medications.

In Table 1:

- HIGH RISK medications have the strongest anticholinergic effects, and may be considered as the MOST LIKELY to affect cognition.
- LOWER RISK medications have less anticholinergic effect, and are more likely to affect cognition when used in combination with other medications in Table 1, or at high doses.

Many of the medications listed in Table 1 have sedative effects which may also impair cognition.

Other potential adverse effects of these medications include:

### **Anticholinergic effects**

- Dry mouth
- Urinary retention
- Constipation
- Irregular heart rate
- Blurred vision

### **Sedative effects**

- Feeling sleepier/increased lethargy
- Slurred speech
- Dizziness, unsteadiness

**!** Both anticholinergic and sedative medications are strongly associated with an increased **risk of falls**.

FOLD LINE

## MEDICATION AND COGNITION

Table 1. Selected medications that may adversely affect cognition and are commonly prescribed in Australian residential aged care.

	Anticholinergic effects	
	Higher	Lower
Antipsychotics	<ul style="list-style-type: none"> <li>Chlorpromazine</li> <li>Clozapine</li> <li>Fluphenazine</li> <li>Olanzapine</li> <li>Pericyazine (<i>periciazine</i>)</li> <li>Trifluoperazine</li> </ul>	<ul style="list-style-type: none"> <li>Aripiprazole</li> <li>Asenapine</li> <li>Haloperidol</li> <li>Paliperidone</li> <li>Quetiapine</li> <li>Risperidone</li> <li>Ziprasidone</li> </ul>
Antidepressants	<ul style="list-style-type: none"> <li>Amitriptyline</li> <li>Clomipramine</li> <li>Doxepin</li> <li>Dosulepin (<i>dothiepin</i>)</li> <li>Imipramine</li> <li>Nortriptyline</li> </ul>	<ul style="list-style-type: none"> <li>Citalopram</li> <li>Fluoxetine</li> <li>Fluvoxamine</li> <li>Mirtazapine</li> <li>Paroxetine</li> <li>Phenelzine</li> <li>Selegiline</li> <li>Sertraline</li> <li>Venlafaxine</li> </ul>
Antihistamines	<ul style="list-style-type: none"> <li>Cyproheptadine</li> <li>Dexchlorpheniramine</li> <li>Promethazine</li> </ul>	<ul style="list-style-type: none"> <li>Alimemazine (<i>trimeprazine</i>)</li> <li>Cetirizine</li> <li>Loratadine</li> </ul>

**Note:** Many of these medications may also have sedative effects.

MEDICATION AND COGNITION

## MEDICATION AND COGNITION

Table 1 (continued). Selected medications that adversely affect cognition and are commonly prescribed in Australian residential aged care.

	Anticholinergic effects	
	Higher	Lower
Opioids	<ul style="list-style-type: none"> <li>Tapentadol</li> </ul>	<ul style="list-style-type: none"> <li>Codeine</li> <li>Fentanyl</li> <li>Morphine</li> <li>Oxycodone</li> <li>Tramadol</li> </ul>
Bladder antispasmodics	<ul style="list-style-type: none"> <li>Darifenacin</li> <li>Oxybutynin</li> <li>Propantheline</li> <li>Solifenacin</li> <li>Tolterodine</li> </ul>	
Other medicines	<ul style="list-style-type: none"> <li>Atropine</li> <li>Benzotropine (<i>benzatropine</i>)</li> <li>Hyoscyamine</li> <li>Trihexyphenidyl (<i>benzhexol</i>)</li> </ul>	<ul style="list-style-type: none"> <li>Benzodiazepines</li> <li>Amantadine</li> <li>Baclofen</li> <li>Carbamazepine</li> <li>Colchicine</li> <li>Entacapone</li> <li>Loperamide</li> <li>Metoclopramide</li> <li>Pramipexole</li> <li>Prochlorperazine</li> <li>Ranitidine</li> <li>Valproate</li> </ul>

**Note:** Many of these medications may also have sedative effects.



Remember, many other less-commonly prescribed medications may also cause similar adverse effects on cognitive function.

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## REFERENCES

### These cards are based on:

*Anticholinergic cognitive burden scale*. (2012 update). Indianapolis: Regenstrief Institute, Inc. Retrieved from [http://www.agingbraincare.org/uploads/products/ACB\\_scale\\_-\\_legal\\_size.pdf](http://www.agingbraincare.org/uploads/products/ACB_scale_-_legal_size.pdf)

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This set of reference cards may be used by all staff involved with medication management in community and residential aged care settings. The cards accompany the DTA 'Optimising medication management of behavioural and psychological symptoms of dementia (BPSD)' quick reference cards. The information focuses on commonly prescribed medications in Australian residential aged care and their associated degree of adverse cognitive effects, primarily medications with anticholinergic and sedative actions. The medication list is not exhaustive, and should not be used as the sole reference when managing a patient with a suspected cognitive adverse effect. They are not intended to be used to guide prescribing decisions. These cards provide general information only and do not claim to reflect all considerations. As with all guidelines, these cards must be used in consideration of each individual patients' circumstances and goals of care.

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