

Medication-related Impairment of Cognitive and/or Physical Function Risk Assessment Tool (FUN-RAT)

This tool enables categorisation of impairment of cognitive and/or physical function risk related to medication use and outlines recommended actions that should be taken as a result of risk categorisation.

Health Service Organisations (HSOs) may have other approved tools to assess medication-related cognitive and/or physical function impairment risk and identify patients at high risk. This tool may be amended/adapted by HSOs that do not have their own risk stratification tool.

Risk category	Identification criteria	Action required
High	<p>The patient is prescribed (or has had temporarily withheld during hospital admission) 2 or more anticholinergic and/or sedative medications</p> <p>OR</p> <p>The patient has a calculated DBI score greater than or equal to 1, for those with a DBI tool.</p>	<p>Referral for a hospital-based medication review. Other further medication-related interventions may also be appropriate.</p>
Moderate	<p>The patient is prescribed (or has had temporarily withheld during hospital admission) only 1 anticholinergic or sedative medication</p> <p>OR</p> <p>The patient has a DBI score greater than 0 and less than 1 (i.e. $0 < DBI < 1$), for those with a DBI tool.</p>	<p>Medication-related interventions such as medication review may be appropriate.</p>
Low	<p>The patient is prescribed (or the list of temporarily withheld medicines during hospital admission contains):</p> <p>No anticholinergic or sedative medications</p> <p>OR</p> <p>The patient has a DBI score of 0, for those with a DBI tool.</p>	<p>Non-medication-related interventions for reducing the risk of cognitive and/or physical impairment may still be applicable.</p>
<p>See accompanying table for a list of anticholinergic and central nervous system (CNS) medicines commonly associated with impairment of cognitive and/or physical impairment risk. Some medicines have both anticholinergic and sedative properties. Some medications associated with delirium may not have anticholinergic or sedative properties, for example, corticosteroids.</p> <p>If further risk stratification is required due to limited resources for intervention, the addition of risk factors such as frailty, age over 75 years, previous ADR, recent and/or frequent hospitalisation may be added to the risk assessment.</p> <p>NSW TAG QUM Indicator 8.3 provides further information about risks of medication-related impairment of cognitive and/or physical function. Available here: https://www.nswtag.org.au/qum-indicators/</p> <p>Abbreviations: DBI = Drug Burden Index; ADR = Adverse Drug Reaction; QUM = Quality Use of Medicines</p>		

Common Medicines Associated with Impairment of Cognitive and/or Physical Function in Older Persons

Disclaimer: The list provided is not exhaustive; for a more comprehensive list or further detailed information, consult medicine reference texts such as the current Australian Medicines Handbook.

Hyperlinks to relevant Australian Medicines Handbook (January 2020 edition) information are provided.

Antiepileptic medicines	<ul style="list-style-type: none"> Phenytoin 	<ul style="list-style-type: none"> Carbamazepine 	<ul style="list-style-type: none"> Valproate
Antidepressants	<p><u>Tricyclic antidepressants</u></p> <p><u>Comparative adverse effects</u></p>	<p><u>Other antidepressants</u></p> <ul style="list-style-type: none"> Mianserin Mirtazapine 	
Antihistamines	<p><u>Sedating antihistamines</u></p>	<p><u>Less sedating antihistamines</u></p>	
Parkinsonism Medicines	<ul style="list-style-type: none"> <u>Levodopa</u> Amantadine Entacapone 	<p><u>Dopamine agonists</u></p> <ul style="list-style-type: none"> Bromocriptine Rotigotine 	<p><u>Anticholinergics</u></p> <ul style="list-style-type: none"> Benzatropine Trihexyphenidyl
Antipsychotics	All <u>Comparative adverse effects</u>		
Anxiolytics/ Sedatives/ Hypnotics	<p><u>Benzodiazepines</u></p>	<p><u>Z-drugs</u></p>	
Gastro-intestinal medicines	<ul style="list-style-type: none"> Hyoscine (hydrobromide or butylbromide) 	<ul style="list-style-type: none"> Prochlorperazine 	
Genitourinary medicines	<ul style="list-style-type: none"> <u>Anticholinergics</u> 		
Opioids	All, alone or in combination		
Other	<ul style="list-style-type: none"> Orphenadrine 	<ul style="list-style-type: none"> Pizotifen 	

References:

1. Australian Medicines Handbook Aged Care Companion [Internet]. Adelaide: Australian Medicines Handbook Pty Ltd; 2020 [cited 2020 Mar]. Available from: <https://agedcare.amh.net.au/appendices/appendix-anticholinergic-drugs>
2. Australian Medicines Handbook [Internet]. Adelaide: Australian Medicines Handbook Pty Ltd; 2020 [cited 2020 Mar]. Available from: <https://amhonline.amh.net.au/>