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## **Indicator: High Sedative Load**

Data Source	Definition	Numerator	Denominator	Comments	Covariates
PBS	Proportion of home care recipients who experienced a high sedative load (SL≥3).	Number of home care recipients who experienced high sedative load (SL≥3) medication use within a 91-day period in the reporting period of 1 year (see details on calculation of sedative load below). Sedative load is calculated by summing the sedative rating of each medication dispensed during the same period (Table 1).	Number of home care recipients.  Exclude history of schizophrenia or Huntington's disease (Table 2) or receiving pharmacological cancer treatment (Table 3).	The published literature was searched to identify medications that contribute to high sedative load (1-4).	Age, sex, number of health conditions.
PBS	Proportion of home care recipients with dementia who experienced a high sedative load (SL≥3).	Number of home care recipients with dementia who experienced high sedative load (SL≥3) medication use within a 91-day period (see details on calculation of sedative load below) at least once in the reporting period of 1 year. Sedative load is calculated by summing the sedative rating of each medication dispensed during the same period (Table 1).	Number of home care recipients who had a dementia diagnosis.  Exclude history of schizophrenia or Huntington's disease (Table 2) or receiving cancer pharmacological treatment (Table 3).	The published literature was searched to identify medications that contribute to high sedative load (1-4)	Age, sex, number of health conditions other than dementia.
PBS	Proportion of home care recipients without dementia who experienced a high sedative load (SL≥3).	Number of home care recipients without dementia who experienced high sedative load (SL≥3) medication use within a 91-day period (see details on calculation of sedative load below) at least once in the reporting period of 1 year. Sedative load is calculated by summing	Number of home care recipients without dementia diagnosis.  Exclude history of schizophrenia or Huntington's disease (Table 2) or receiving cancer pharmacological	The published literature was searched to identify medications that contribute to high sedative load (1-4).	Age, sex, number of health conditions.









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	the sedative rating of	treatment (Table	
	each medication	3).	
	dispensed during the		
	same period (Table 1).		

PBS: Pharmaceutical Benefits Scheme. SL: Sedative Load.

## **Calculation of sedative load**

Sedative load is calculated by summing the sedative rating of each different medication dispensed within the 91-day period (Table 1). Each drug is only counted once towards sedative load within the 91-day period regardless of the number of scripts or quantity dispensed.

\*91-day periods for sedative load defined as follows:

START = reporting period start date

END = min (date of death, exit date from HCP or transition to permanent residential aged care, 'last day of year')

Period 1: START to (START + 90) or END

Period 2: (START + 91) to (START +181) or END

Period 3: (START +182) to (START + 272) or END

Period 4: (START +273) to (START + 363) or END

Table 1. Medications with sedative properties, description, ATC Codes, and sedative rating.

Description	Code	Sedative Rating <sup>1</sup>
Conventional antipsychotics including butrophenones and prochlorperazine	N05AA*, N05AB*, N05AC*, N05AD*, N05AF*	2
Antidepressants; tricyclic agents, non-selective monoamine reuptake inhibitors, antidepressant of second generation, combinations	N06AA*, N06CA01, N06AF*	2
Second-generation antidepressants (mianserin)	N06AX03	2
Anxiolytics	N05B*	2
Hypnotics and sedatives	N05C* (excluding N05CM*)	2
Other (lithium)	N05AN*	2
Antispasmodics with psychoepileptics	A03C*	1
Other alimentary (metoclopramide, scopolamine and in combinations)	A03FA01, A04AD01, A04AD51, N05CM05	1
Indometacin	M01AB51, M01AB01	1
Centrally acting muscle relaxants including psychotropics (baclofen, tizanidine, orphenadrine and orphenadrine combinations)	M03BX01, M03BX02, M03BC01, M03BC51	1
Opioids	N02A*	1
Antiepileptics	N03*	1
Gabapentinoids (Gabapentin)	N02BF01	1
Gabapentinoids (Pregabalin)	N02BF02	1
Antiparkinsonian drugs anticholinergic agents	N04A*	1
Atypical antipsychotics	N05AE*, N05AH*, N05AL*, N05AX*	1











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Selective serotonin reuptake inhibitors	N06AB*, N06CA03	1
Other antidepressants of second generation	N06AX* (excluding	1
	N06AX03), N06AG02	
Dopamine agonists	N04BC* (excluding N04BC01)	1
Migraine preparations	N02C*	1
Old antihistamines and antiemetics or drugs for dizziness,	R06AA*, R06AB*, R06AD*,	1
including psychotropics	R06AE*	
Xanthines	R03DA*, R03DB*	1
Antitussives with sedating components (cough	R05DA*, R05F*, R05CB02	1
suppressants excluding combinations with expectorants,		
cough suppressants and expectorants, combinations,		
bromhexine)		
Anticholinergic drops for eyes	S01FA* (excluding S01FA06	1
	and S01FA56)	

<sup>&</sup>lt;sup>1</sup>Sedative rating 2= primary sedatives. Sedative rating 1= medications with sedation as prominent side-effect or preparations with a sedating component.

Note: For medications that appear on PBS as a 5-digit ATC indication, the WHO ATC code has been used to classify the sedative load.

ATC: Anatomical Therapeutic Chemical Classification System. WHO: World Health Organisation. PBS: Pharmaceutical Benefits Scheme.

Table 2. Health Conditions, ACAP MDS v2.0/NSAF descriptions and codes.

Data Sources	Description	Code <sup>1</sup>
ACAP/NSAF	Dementia in Huntington's disease	0523
	Huntington's disease	0602
	Schizophrenia	0551
Data Sources	Condition*	ICD-10-AM codes
SA APC, SA NAEC, NSW	Schizophrenia	F20*
APDC, NSW EDDC, VAED,	Schizotypal disorders	F21*
VEMD, QLD EDC,	Persistent delusional disorders	F22*
QHAPDC	Acute polymorphic psychotic disorder with	F23.1*
	symptoms of schizophrenia	
	Schizoaffective disorders	F25*
	Schizophrenia	U792
	Dementia in Huntington's disease (G10+)	F02.2
	Huntington's disease	G10

<sup>&</sup>lt;sup>1</sup>Diagnosis ascertained from ACAP assessment prior to home care package episode.

ACAP: Aged Care Eligibility Assessment Program. MDS V2.0: Minimum Dataset v2.0. NSAF: National Screening and Assessment Form. ICD-10-AM: International Classification of Diseases, Tenth Revision, Australian Modification. SA APC: South Australian Admitted Patient Care; SA NAEC: South Australian Non-Admitted Emergency Care; NSW APDC: New South Wales Admitted Patient Data Collection; NSW EDDC: New South Wales Emergency Department Data Collection; VAED: Victorian Admitted Episodes Dataset; VEMD: Victorian Emergency Minimum Dataset; QLD EDC: Queensland Emergency Department Collection; QHAPDC: Queensland Hospital Admitted Patient Data Collection.

\*Hospitalisations or ED presentations for or with schizophrenia or Huntington's disease in the 365 days prior to HCP episode. For the ROSA Historical Cohort, hospitalisation or ED presentation records will be limited to four states: NSW, QLD, VIC and SA.





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Description	Code
Antineoplastic and immunomodulating agents <sup>1</sup>	L01*

<sup>1</sup>Determined using 6 months of PBS prescription data prior to home care episode (Rx-Risk-V). ATC: Anatomical Therapeutic Chemical.

**Table 3. Pharmacological Cancer Treatment Descriptions and ATC Codes.** 

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## References

- 1. Linjakumpu T, Hartikainen S, Klaukka T, Koponen H, Kivela SL, Isoaho R. A model to classify the sedative load of drugs. Int J Geriatr Psychiatry. 2003;18(6):542-4.
- 2. Peklar J, O'Halloran AM, Maidment ID, Henman MC, Kenny RA, Kos M. Sedative load and frailty among community-dwelling population aged >/=65 years. J Am Med Dir Assoc. 2015;16(4):282-9.
- 3. Taipale HT, Bell JS, Soini H, Pitkala KH. Sedative load and mortality among residents of longterm care facilities: a prospective cohort study. Drugs Aging. 2009;26(10):871-81.
- 4. Taipale HT, Bell JS, Hartikainen S. Sedative load among community-dwelling older individuals: change over time and association with mortality. International Clinical Psychopharmacology. 2012;27(4):224-30.