CNS Medication Oral Minimum Geriatric Effective Daily Dose (mg)*

Atypical Antipsychotics	
Aripiprazole	10
Asenapine	10
Olanzapine	5
Quetiapine	50
Risperidone	2
Ziprasidone	20

Benzodiazepine Receptor Agonists	
Alprazolam	0.25
Chlordiazepoxide	5
Clonazepam	0.25
Clorazepate	3.75
Diazepam	2
Estazolam	0.5
Eszopiclone	1
Flurazepam	15
Lorazepam	1
Oxazepam	10
Quazepam	7.5
Temazepam	7.5
Triazolam	0.125
Zaleplon	2.5
Zolpidem	2.5

*For additional agents/dosage forms, please consult Lexi-comp's® Geriatric Dosage Handbook or other suitable source.

Converting Oral Opioid Receptor Agonist Daily Dose to Morphine Milligram Equivalents (MME)

Oral Opioid	MME conversion factor
Codeine	0.15
Fentanyl (Transdermal)	7.2
Hydrocodone	1.3
Hydromorphone	5.0
Methadone	4.0
Morphine	1.0
Oxycodone	1.5
Tramadol	0.2

* Multiply oral opioid total daily dose times conversion factor and divide by min. effective geriatric dose of oral morphine (10mg/day) to calculate the standardized daily dose; Nielson S. Pharmacoepidemiol Drug Saf. 2016;25:733-7.

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How to Prevent Falls in Older Nursing Home Residents by Reducing CNS Medication Burden

Falls

1. Falls are a major safety problem in older nursing home residents
2. Up to 50% of older nursing home residents fall and 10% are serious
3. High CNS medication burden significantly increases the risk of falls. High burden is defined as a summated standardized daily dose (SDD) score of 3 or greater. CNS medications include antidepressants, antiepileptics, antipsychotics, benzodiazepines, and opioids.
4. Goal is to reduce SDD to <3 by reducing doses and/or stopping CNS medications

How to Calculate CNS Medication Burden

1. Determine if patient taking any CNS medication from adjoining panels
2. Divide the daily dosage of that drug by the minimum effective geriatric daily dose
3. Do that for each CNS drug and sum the results; If 3+ then suggest discontinue or lower dosage

EXAMPLE

Patient takes 2 CNS drugs; Tramadol 50 mg twice daily & Amitriptyline 50mg at bedtime

Tramadol 100mg per day x 0.2 = 20MME

20MME /10MME = 2

\+

Amitriptyline 50mg/day / 10mg/day = 5.0

SDD = 7.0-greater than 3 indicating a high fall risk

CNS Medication Oral Minimum Effective Geriatric Daily Dose (mg)*

Antidepressants

Tricyclic Antidepressants

Amitriptyline	10
Clomipramine	25
Desipramine	10
Doxepin	10
Nortriptyline	10

Selective Serotonin Reuptake Inhibitors

Citalopram	10
Escitalopram	5
Fluoxetine	10
Fluvoxamine	50
Paroxetine	10
Sertraline	50

Serotonin and Norepinephrine Reuptake Inhibitors

Desvenlafaxine	75
Duloxetine	40
Milnacipran	50
Venlafaxine	75

Antiepileptics

Carbamazepine	600
Gabapentin	900
Lamotrigine	150
Levetiracetam	1000
Oxcarbazepine	900
Phenytoin	300
Pregabalin	150
Primidone	750
Topiramate	100
Valproic acid	1000
Zonisamide	100

Antipsychotics

Conventional

Chlorpromazine	10
Fluphenazine	0.5
Haloperidol	0.5
Perphenazine	2
Thioridazine	10
Thiothixene	1
Trifluoperazine	1