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Drug-Disease Interaction: Medications and Fall Risk in Older Adults

According to a recently published epidemiological study, 94 percent of older adults in 2017 received a prescription drug that increased their risk of falling, while the rate of death caused by falls in older adults doubled between 1999 and 2017.[1] Fall risk reduction interventions have the potential to reduce serious injuries, emergency department visits, hospitalizations, nursing home placements and functional decline. Certain medications, such as psychoactive drugs, have consistently been associated with increased fall risk. If a patient must use a high fall risk medication, it should be used at the minimum effective dose for the shortest possible duration while monitoring for falls.[2]

An important Healthcare Effectiveness Data and Information Set (HEDIS) measure assesses the use of medications with the potential to cause harmful drug-disease interactions in patients 65 years and older with a history of fall or hip fracture.[3] Consider the following alternative therapies to reduce the risk of falls in your patients who are 65 years of age and older:

Drug Class	Examples of Medications to Avoid[3]*	Potential Alternatives[4,5]
Antiepileptics	• carbamazepine • divalproex sodium • ethosuximide • felbamate • fosphenytoin • gabapentin • lamotrigine • levetiracetam • oxcarbazepine • phenobarbital • phenytoin • pregabalin • topiramate • valproic acid	• For new-onset epilepsy: newer agents such as lamotrigine and levetiracetam preferred • For neuropathic pain: OTC capsaicin topical or low-dose duloxetine for shortest duration possible • For post-herpetic neuralgia: lidocaine patch • For diabetic neuropathy: lidocaine patch¥
Antipsychotics	• aripiprazole • brexpiprazole • cariprazine • clozapine • fluphenazine • haloperidol • lurasidone • olanzapine • paliperidone • quetiapine • risperidone • ziprasidone	• For delirium: short-term use of antipsychotics should be restricted to those at risk of harming themselves or others • For behavioral complications of dementia: low-dose anticholinergic agents (risperidone¥, quetiapine¥) for shortest duration possible can be used after nonpharmacological approaches have failed
Benzodiazepines	• alprazolam • clonazepam • diazepam • estazolam • lorazepam • oxazepam • temazepam • triazolam	• For anxiety: buspirone, mirtazapine¥ • For insomnia: ramelteon, trazodone¥, mirtazapine¥^
Nonbenzodiazepine hypnotics	• eszopiclone • zaleplon • zolpidem	• For insomnia: ramelteon, trazodone¥, mirtazapine¥^
Selective serotonin reuptake inhibitors (SSRIs)	• citalopram • escitalopram • fluoxetine • fluvoxamine • paroxetine • sertraline	• For depression: bupropion, trazodone, mirtazapine • For anxiety: buspirone, mirtazapine¥
Serotonin-norepinephrine reuptake inhibitors (SNRIs)	• desvenlafaxine • duloxetine • levomilnacipran • venlafaxine	• For depression: bupropion, trazodone, mirtazapine • For anxiety: buspirone, mirtazapine¥ • For neuropathic pain: OTC capsaicin topical or low-dose duloxetine for shortest duration possible
Tricyclic antidepressants	• amitriptyline • clomipramine • desipramine • doxepin (>6 mg) • imipramine • nortriptyline • protriptyline	• For depression: bupropion, trazodone, mirtazapine • For neuropathic pain: OTC capsaicin topical or low-dose duloxetine for shortest duration possible

*Not a comprehensive list. A full list is available for download at: https://store.ncqa.org/hedis-my-2022-volume-2-epub.html
¥Off-label; ^For adults with insomnia secondary to comorbid dysthymic disorder

References

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OneCare Formulary: www.caloptima.org/en/ForProviders/PharmacyInformation/OneCareMedicarePartD.aspx