



Medications with Fall Risk Precautions

Antipsychotic Drugs

Factors Contributing to Fall Risk

Drowsiness, dizziness, confusion, hypotension (low blood pressure), orthostatic hypotension (sudden drop in blood pressure when upright), syncope (fainting), ataxia (gait disturbance), blurred vision, disorientation, abnormal involuntary movements of the body, slowed body movements, tremors, muscle rigidity, muscle spasms, seizure risk, heart rate irregularities, risk of delirium

Typical Antipsychotics (First Generation)

Chlorpromazine (Thorazine®), Fluphenazine (Prolixin®), Haloperidol (Haldol®), Loxapine (Loxitane®), Perphenazine (Trilafon®), Prochlorperazine (Compazine®), Thioridazine (Mellaril®), Thiothixene (Navane®), Trifluoperazine (Stelazine®)

Atypical Antipsychotics (Second Generation)

Aripiprazole (Abilify®, Aristada®), Asenapine (Saphris®, Secuado®), Clozapine (Clozaril®, FazaClo®, Versacloz®), Iloperidone (Fanapt®), Lurasidone (Latuda®), Olanzapine (Zyprexa®), Paliperidone (Invega®), Quetiapine (Seroquel®), Risperidone (Risperdal®), Ziprasidone (Geodon®), Cariprazine (Vraylar®), Brexpiprazole (Rexulti®), Lumateperone (Caplyta®), Pimavanserin (Nuplazid®), Olanzapine/Fluoxetine (Symbyax®)

Anti-anxiety Drugs

Factors Contributing to Fall Risk

Drowsiness, dizziness, weakness, confusion, orthostatic hypotension (sudden drop in blood pressure when upright), disorientation, blurred vision, unsteadiness, ataxia

(gait disturbance), tremor, risk of seizures (with abrupt discontinuation), blurred vision, worsening of respiratory depression, risk of delirium

Long-acting Benzodiazepines

Chlordiazepoxide (Librium®), Clorazepate (Tranxene®), Diazepam (Valium®), Flurazepam (Dalmane®), Clonazepam (Klonopin®)

Intermediate to Short-acting Benzodiazepines

Alprazolam (Xanax®), Lorazepam (Ativan®), Oxazepam (Serax®)

Other Anxiolytics

Buspirone (Buspar®), Meprobamate (Equanil®; Miltown®)

Sedative Hypnotic Drugs

Factors Contributing to Fall Risk

Daytime drowsiness, dizziness, confusion, orthostatic hypotension (sudden drop in blood pressure when upright), ataxia (gait disturbance), hangover effect, disorientation, syncope (fainting), blurred vision, tremor, agitation, bizarre behavior, worsening of respiratory depression, risk of delirium

Short-acting Benzodiazepines

Alprazolam (Xanax®), Estazolam (Prosom®), Lorazepam (Ativan®), Oxazepam (Serax®), Temazepam (Restoril®), Triazolam (Halcion®)

Non-benzodiazepines

Diphenhydramine (Benadryl®; Sominex®; Nytol®), Doxylamine (Unisom®), Eszopiclone (Lunesta®), Zaleplon (Sonata®), Zolpidem (Ambien®; Intermezzo®), Suvorexant (Belsomra®), Lemborexant (Dayvigo®), Daridorexant (Quviviq®)

Antidepressant Drugs

Factors Contributing to Fall Risk

Drowsiness, dizziness, confusion, hypotension (low blood pressure), orthostatic hypotension (sudden drop in blood pressure when upright), disorientation, syncope

(fainting), blurred vision, unsteadiness, numbness in the extremities, weakness, fatigue, agitation, restlessness, risk of delirium, risk for hyponatremia (low blood sodium, fall risk)

TCA's have highest fall risk compared to other antidepressants. TCA special precautions: cardiac arrhythmias, tachycardia (increased heart rate), risk of stroke, cognitive impairment, seizure risk (with TCAs and Bupropion).

SSRIs pose greatest fall risk during the first 2 weeks of initiation.

Tricyclics (TCAs)

Amitriptyline (Elavil®), Clomipramine (Anafranil®), Desipramine (Norpramin®), Doxepin (Sinequan®), Imipramine (Tofranil®), Nortriptyline (Pamelor®)

Tetracyclics

Maprotiline (Ludiomil®), Mirtazapine (Remeron®)

Selective Serotonin Reuptake Inhibitors (SSRIs)

Citalopram (Celexa®), Fluvoxamine (Luvox®), Fluoxetine (Prozac®), Paroxetine (Paxil®; Pexeva®), Sertraline (Zoloft®)

Serotonin-norepinephrine Reuptake Inhibitors (SNRIs)

Desvenlafaxine (Pristiq®), Duloxetine (Cymbalta®), Venlafaxine (Effexor®)

Other Antidepressants

Bupropion (Wellbutrin®; Zyban®), Nefazodone (Serzone®), Trazodone (Desyrel®; Oleptro®), Vilazodone (Viibryd®), Vortioxetine (Trintellix®)

Antimanic, Anticonvulsant Drugs

Factors Contributing to Fall Risk

Drowsiness, dizziness, unsteadiness, confusion, blurred vision, some drugs may require periodic lab work to monitor for toxic levels, hyponatremia (low blood sodium, fall risk) and electrolyte imbalances

Some drugs may cause irregular heartbeat.

Drugs

Carbamazepine (Tegretol®), Ethosuximide (Zarontin®), Gabapentin (Neurontin®), Lamotrigine (Lamictal®), Lithium Carbonate (Eskalith®; Lithobid®), Levetiracetam (Keppra®), Phenobarbital, Phenytoin (Dilantin®), Pregabalin (Lyrica®), Primidone (Mysoline®), Tiagabine (Gabitril®), Topiramate (Topamax®), Valproic Acid/Divalproex Sodium (Depakene®; Depakote®), Zonisamide (Zonegran®), Lacosamide (Vimpat®), Oxcarbazepine (Trileptal®), Eslicarbazepine (Aptiom®)

Pain Relievers (Opioids, Synthetic Analgesics)

Factors Contributing to Fall Risk

Sedation, drowsiness, confusion, disorientation, dizziness, fatigue, hypotension (low blood pressure), syncope (fainting), shortness of breath (more noticeable in ambulatory individuals), opioid dose-related respiratory depression & irregular breathing with possible hypoxia (reduced blood oxygen)

Tramadol may increase the risk of seizures.

Some drugs may cause cardiac arrhythmias (e.g. methadone).

Drugs

Buprenorphine (Butrans® patch), Butalbital (Esgic®; Fioricet®; Fiorinal®), Butorphanol (Stadol® nasal spray), Codeine (various pain relievers/cough medicines in tablet and liquid forms), Fentanyl (Actiq®; Duragesic® patches), Hydrocodone (Lorcet®; Lortab®; Norco®; Vicodin®; Vicoprofen®), Hydromorphone (Dilaudid®; Exalgo®), Methadone (Dolophine®; Methadose®), Morphine (various tablet and liquid forms; Avinza®; Kadian®; MS Contin®; Oramorph®; Roxanol®), Oxycodone (OxyContin®; Percodan®; Percocet®; Tylox®), Oxymorphone (Opana®), Pentazocine (Talacen®; Talwin®), Tapentadol (Nucynta ER®), Tramadol (Ultram®; Ultracet®), Tapentadol (Nucynta®)

Muscle Relaxants

Factors Contributing to Fall Risk

Sedation, drowsiness, dizziness, fatigue, weakness, impaired functional ability, confusion, hypotension (low blood pressure), syncope (fainting), some have seizure risk

Drugs

Baclofen (Lioresal®), Carisoprodol (Soma®), Chlorzoxazone (Parafon Forte®), Cyclobenzaprine (Flexeril®), Metaxalone (Skelaxin®), Methocarbamol (Robaxin®), Orphenadrine (Norflex®; Norgesic®), Tizanidine (Zanaflex®)

Anticholinergic, Antimuscarinic, Antiemetic Drugs

Factors Contributing to Fall Risk

Drowsiness, dizziness, sedation, fatigue, hypotension (low blood pressure), disturbed coordination, confusion, disorientation, blurred vision, nervousness, restlessness, agitation, palpitations, increased risk of delirium

Drugs with strong anticholinergic and antimuscarinic activity will have additive effects with other drug classes that have CNS (central nervous system) action.

Prochlorperazine is an antipsychotic drug typically prescribed to treat nausea/vomiting.¹

Antihistamines (Anti-itch, Anti-nausea and Anti-vertigo)

Dimenhydrinate (Dramamine®), Diphenhydramine (Benadryl®), Hydroxyzine (Atarax®; Vistaril®), Meclizine (Antivert®; Bonine®; Dramamine II®), Scopolamine (Transderm Scop®)

Drugs for Various Gastrointestinal Disorders

Atropine, Belladonna Alkaloids (Donnatal®), Cyproheptadine (Periactin®), Dicyclomine (Bentyl®), Diphenoxylate/Atropine (Lomotil®), Glycopyrrolate

(Robinul®), Hyoscyamine (Anaspaz®; Levid®; Levsin®; NuLev®), Metoclopramide (Reglan®), Prochlorperazine¹ (Compazine®; Compro® suppositories), Promethazine (Phenergan®), Trimethobenzamide (Tigan®), Dronabinol (Marinol®)

Drugs to Treat Movement Disorders (e.g. extrapyramidal symptoms-EPS)

Benztropine (Cogentin®), Trihexyphenidyl (Artane®)

Drugs to Treat Over-Active Bladder Disorders

Darifenacin (Enablex®), Fesoterodine (Toviaz®), Flavoxate (Urispas®), Mirabegron (Myrbetriq®), Oxybutynin (Ditropan®; Oxytrol® patch), Solifenacin (VESicare®), Tolterodine (Detrol®), Trospium (Sanctura®)

Diuretics (Drugs Treating Fluid Retention and Blood Pressure)

Factors Contributing to Fall Risk

Excessive diuresis leading to dehydration, electrolyte depletion, blood volume reduction with circulatory collapse

These medications require periodic lab work to monitor for electrolyte imbalances. Watch for signs of weakness, drowsiness, dizziness, muscle cramps, muscular fatigue, hypotension (low blood pressure), orthostatic hypotension (sudden drop in blood pressure when upright), tachycardia (increased heart rate) or arrhythmias, blurred vision, vertigo.

Carbonic Anhydrase Inhibitors

Acetazolamide (Diamox®), Methazolamide (Neptazane®)

Loop Diuretics

Bumetanide (Bumex®), Furosemide (Lasix®), Torsemide (Demadex®)

Potassium-sparing Diuretics

Amiloride (Midamor®), Spironolactone (Aldactone®), Eplerenone (Inspra®), Triamterene (Dyrenium®)

Thiazide Diuretics

Chlorothiazide (Diuril®), Hydrochlorothiazide (HydroDIURIL®; Microzide®; Esidrix®), Indapamide (Lozol®), Methyclothiazide (Enduron®), Metolazone (Zaroxolyn®)

Antihypertensives (Blood Pressure Lowering Drugs)

Factors Contributing to Fall Risk

Hypotension (low blood pressure), orthostatic hypotension (sudden drop in blood pressure when upright), lightheadedness, syncope (fainting), vertigo, fatigue, weakness, possible tachycardia (increased heart rate), possible arrhythmias, palpitations, bradycardia (slowed heart rate), numbness or tingling in the extremities, blurred vision

Some drugs in this category will require periodic lab work to monitor for electrolyte imbalances.

Alpha-Adrenergic Receptor Antagonists (Central Acting)

Clonidine (Catapres®), Guanfacine (Tenex®), Methyldopa (Aldomet®)

Alpha-adrenergic Receptor Antagonists (Peripherally Acting)

Doxazosin (Cardura®), Prazosin (Minipress®), Terazosin (Hytrin®)

Angiotensin Converting Enzyme Inhibitors (ACE Inhibitors)

Benazepril (Lotensin®), Captopril (Capoten®), Enalapril (Vasotec®), Fosinopril (Monopril®), Lisinopril (Prinivil®; Zestril®), Moexipril (Univasc®), Perindopril (Aceon®), Quinapril (Accupril®), Ramipril (Altace®), Trandolapril (Mavik®)

Angiotensin II Receptor Blockers (ARBs)

Candesartan (Atacand®), Irbesartan (Avapro®), Losartan (Cozaar®), Olmesartan (Benicar®), Telmisartan (Micardis®), Eprosartan (Teveten®), Valsartan (Diovan®)

Beta Blockers

Acebutolol (Sectral®), Atenolol (Tenormin®), Bisoprolol (Zebeta®), Carvedilol (Coreg®), Labetalol (Trandate®), Metoprolol Tartrate (Lopressor®), Metoprolol Succinate ER (Toprol-XL®), Nadolol (Corgard®), Nebivolol (Bystolic®), Pindolol (Visken®), Propranolol (Inderal®), Timolol (Blocadren®)

Calcium Channel Blockers

Amlodipine (Norvasc®), Diltiazem (Cardizem®; Dilacor®), Felodipine (Plendil®), Isradipine (Dynacirc®), Nifedipine (Adalat CC®; Procardia®), Nisoldipine (Sular®), Verapamil (Calan®; Covera-HS®; Isoptin®; Verelan®)

Renin Inhibitors

Aliskiren (Tekturna®)

Vasodilators, Drugs Used to Treat Angina

Hydralazine (Apresoline®), Isosorbide Dinitrate (Isordil®), Isosorbide Mononitrate (Ismo®; Imdur®; Monoket®), Nitroglycerin (Nitro-Bid®; Nitrostat®; Nitrolingual Pumpspray®; Nitro-Dur patch®; Transderm-Nitro®), Ranolazine (Ranexa®)

Note: The above medication list is not all-inclusive; it is designed to provide examples of common drugs and drug categories associated with falls in the long-term care setting. Medication related fall risk is only one of numerous modifiable contributing factors that should be analyzed to prevent falls and related injuries in older adults.

Additional Resource: STOPPFall (Screening Tool of Older Persons Prescriptions in older adults with high fall risk): a Delphi study by the EuGMS Task and Finish Group on Fall-Risk-Increasing Drugs - PubMed ([nih.gov](https://pubmed.ncbi.nlm.nih.gov/))

¹ Created by HHSC Pharmacists January 2023. References: Drugs.com/professionals (FDA Professional Monograph)