High Risk Medication Alternative Table

Description	High Risk Medication	Rationale for risk*	Alternatives
Anticholinergics	brompheniramine[2], carbinoxamine[2], chlorpheniramine[2], clemastine[2], cyproheptadine, dexbrompheniramine[2], dexchlorpheniramine[2], diphenhydramine (oral)[2], dimenhydrinate[2], doxylamine[2], hydroxyzine, meclizine, promethazine,	Highly anticholinergic, clearance reduced with advanced age, and tolerance develops when used as hypnotic; greater risk of confusion, dry mouth, constipation, and other anticholinergic effects and toxicity.	**Allergy:** levocetirizine, desloratadine, montelukast, azelastine, intranasal steroid (e.g., fluticasone), OTCs such as cetirizine, loratadine, fexofenadine, or intranasal normal saline (member to pay out of pocket) **Cough:** OTCs such as guaifenesin, dextromethorphan (member to pay out of pocket) **Anti-emetic:** ondansetron-oral[1], granisetron-oral[1], aprepitant-oral[1]
	benztropine (oral), trihexyphenidyl	Not recommended for prevention of extrapyramidal symptoms with antipsychotics; more-effective agents available for treatment of Parkinson's disease.	carbidopa & levodopa, carbidopa & levodopa & entacapone, ropinirole, pramipexole, amantadine
Antithrombotics	dipyridamole - oral short acting (does not apply to ER combination with aspirin)	May cause orthostatic hypotension; more effective alternatives available; intravenous form acceptable for use in cardiac stress testing.	dipyridamole & aspirin, clopidogrel
Anti-infective	nitrofurantoin	Potential for pulmonary toxicity; safer alternatives available; lack of efficacy in patients with CrCl < 30 mL/min due to inadequate drug concentration in the urine.	For **UTI Treatment,** use sulfamethoxazole/trimethoprim, fluoroquinolone (i.e., ciprofloxacin), cephalosporins (i.e., cephalexin), amoxicillin-clavulanate Note: Dosage reduction required for ciprofloxacin and sulfamethoxazole/trimethoprim if CrCl <30 mL/min For **UTI Prophylaxis**, consider methenamine hippurate
Cardiovascular	digoxin	In heart failure, higher dosages are not associated with additional benefit and may increase risk of toxicity; decreased renal clearance may lead to risk of toxic effects.	Limit use to no more than 0.125 mg of digoxin per day. Ensure patient is adherent prior to increasing dose of digoxin.
	clonidine guanfacine	High risk of adverse CNS effects; may cause bradycardia and orthostatic hypotension; not recommended as routine treatment for hypertension.	Multiple antihypertensive formulary alternatives available: thiazide or thiazide-type diuretics, ACE inhibitor/ARB, beta blocker, calcium channel blocker
	nifedipine - immediate release	Potential for hypotension; risk of precipitating myocardial ischemia.	nifedipine er, felodipine er, nisoldipine er
Central Nervous System	amoxapine, amitriptyline, clomipramine, desipramine, doxepin (>6mg/day) , imipramine, nortriptyline, paroxetine	Highly anticholinergic, sedating, and causes orthostatic hypotension; safety profile of low-dose doxepin (6 mg/day) is comparable with that of placebo.	**Neuropathic pain**: gabapentin, duloxetine, pregabalin, lidocaine patch[1], lidocaine topical/ointment[3], capsaicin topical (OTC – member to pay out of pocket) Note: Dosage reduction required for gabapentin and pregabalin if CrCl <60 mL/min **OCD**: fluoxetine, sertraline, fluvoxamine **Depression**: citalopram, escitalopram, fluoxetine, sertraline, venlafaxine, desvenlafaxine er
	butalbital[2] phenobarbital primidone	High rate of physical dependence; tolerance to sleep benefits; risk of overdose at low dosages.	**Sedative/Insomnia**: ramelteon, doxepin (≤ 6mg /day), trazodone **Seizure:** levetiracetam, ethosuximide, gabapentin, divalproex sodium, valproic acid, lamotrigine, topiramate, felbamate, carbamazepine, Dilantin, phenytoin, oxcarbazepine, pregabalin
	meprobamate	High rate of physical dependence; very sedating.	buspirone
	eszopiclone[2], zaleplon[2], zolpidem	Benzodiazepine-receptor agonists that have adverse events similar to those of benzodiazepines in older adults (e.g., delirium, falls, fractures); minimal improvement in sleep latency and duration.	Consider short-term use (< 90 days); suggest sleep hygiene techniques; re-evaluate the need for this medication after 90 days; ramelteon, doxepin (≤ 6mg/day), trazodone
	ergoloid mesylates[1]	Lack of efficacy.	Consider ChEI's (donepezil, rivastigmine, galantamine), memantine

Endocrine	estrogens** with or without progesterone (oral and topical patch products only)	Evidence of carcinogenic potential (breast and endometrium); lack of cardioprotective effect and cognitive protection in older women. Evidence that vaginal estrogens for treatment of vaginal dryness is safe and effective; women with a history of breast cancer should discuss risks and benefits of low-dose vaginal estrogen (estradiol < 25 mcg twice weekly) with their provider. Avoid oral and topical patch. Vaginal cream or vaginal tablets: acceptable to use low-dose intravaginal estrogen for the management of dyspareunia, recurrent lower urinary tract infections, and other vaginal symptoms.	Premarin vaginal cream, estradiol vaginal cream, yuvafem tablet, OTC lubricants such as KY Jelly or Astroglide (member to pay out of pocket) **Bone density:** calcium with vitamin D (OTC), alendronate, risedronate, ibandronate-oral, raloxifene, Prolia[1] **Hot flashes:** venlafaxine er, paroxetine er, sertraline, fluoxetine, gabapentin, clonidine
	Sulfonylureas (all, including short- and longer-acting) Gliclazide[2] Glimepiride Glipizide Glyburide[2] (Glibenclamide)	Prolonged half-life in older adults; can cause prolonged hypoglycemia. Among sulfonylureas, long-acting agents (e.g., glyburide, glimepiride) confer a higher risk of prolonged hypoglycemia than short-acting agents (e.g., glipizide).	Multiple antidiabetic formulary alternatives available: metformin, meglitinides (repaglinide, nateglinide), DPP4i's (Januvia, Tradjenta), GLP1RAs[1] (Trulicity, Ozempic, Mounjaro, Rybelsus, Bydureon), and SGLT2 inhibitors (Farxiga, Jardiance). If a sulfonylurea is used, choose shortacting agents (e.g., glipizide or glipizide er) over longacting agents (e.g., glyburide, glimepiride).
	megestrol acetate	Minimal effect on weight; increases risk of thrombotic events and possibly death in older adults.	Depressed patients - mirtazapine; treatment of cachexia associated with AIDS - oxandrolone[2] and dronabinol[1]
	Desiccated thyroid[2]	Concerns about cardiac effects; safer alternatives available.	levothyroxine, levoxyl, liothyronine, Synthroid, unithroid, Cytomel
Pain Medications	meperidine HCl[2]	Not an effective oral analgesic in dosages commonly used; may cause neurotoxicity; safer alternatives available.	Multiple formulary opioid analgesics available. Use the lowest effective dose of opioid and small quantity for the shortest duration possible. Avoid long-duration, sustained release opioids in opioid naïve individuals.
	indomethacin, ketorolac (includes oral and injectable routes only)	Increases risk of GI bleeding and peptic ulcer disease in high-risk groups.	Short term use of etodolac, meloxicam, nabumetone, ibuprofen, naproxen, sulindac. If these alternatives are used chronically, consider adding a PPI or misoprostol.
Skeletal Muscle Relaxants	carisoprodol, chlorzoxazone, cyclobenzaprine, metaxalone[2], methocarbamol, orphenadrine[2]	Most muscle relaxants are poorly tolerated by older adults because of anticholinergic adverse effects, sedation, risk of fracture; effectiveness at dosages tolerated by older adults is questionable.	**Spasticity**: baclofen (start with a low dose and titrate slowly up and down), tizanidine **Muscle spasm**: NSAID (use with PPI or misoprostol for long term use), massage therapy, physical therapy

[1] = Prior Authorization required, [2] = Non-Formulary, [3] = Quantity Limit. Refer to formulary for tier placement of all drugs.

*American Geriatrics Society. American Geriatrics Society 2023 Updated Beers Criteria for Potential Inappropriate Medication Use in Older Adults. J Am Geriatr Soc 2023.

** Conjugated estrogens, esterified estrogens, estradiol, estropipate (including combination products, oral and transdermal routes). Some estrogen products will require Prior Authorization.

Abbreviations : OTC- over the counter; ER- extended release; TCAs- tricyclic antidepressants; OCD- obsessive compulsive disorder; ChEI's- cholinesterase inhibitors; PPI- proton pump inhibitor; NSAID- nonsteroidal anti-inflammatory drug