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Drugs To Avoid In The Elderly

Appropriately caring for older patients, who often have multiple co-morbid conditions, is a challenge for physicians. Properly managed pharmacotherapy can help your older adult patient live longer and better. While many medications are safe and effective, this age group is at higher risk for adverse drug events and drug interactions due to altered pharmacokinetics and polypharmacy.

Highmark Health Insurance Company (HHIC) has been working with primary care physicians to decrease the number of older members who are prescribed medications that are included on a list of "Drugs to be Avoided in the Elderly" (DAE). This list includes drugs based on the National Committee for Quality Assurance HEDIS® specifications and several additional Beer's List drugs .

A review of drug claims data for HHIC FreedomBlue members revealed that 32 percent of members were prescribed at least one DAE medication in the course of one year. Since approximately one third of these medications were prescribed by specialists, we are extending our communication on DAE to the specialty of rheumatology, gastroenterology and orthopedics and asking for your assistance in the effort to reduce this rate.

Medication Alternatives for the Elderly

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The following table details the drugs to avoid and the recommended agents to be considered as alternatives.*

Drug Class	Drugs to Avoid	Concerns	Formulary Alternatives
Antianxiety	meprobamate	Highly addictive and sedating anxiolytic	Buspirone
Antiemetic	trimethobenzamide	Can cause extrapyramidal adverse effects. Low effectiveness as an antiemetic	dolasetron (Anzemet®), ondansetron, metoclopramide†
Antidepressant	amitriptyline chlordiazepoxide-amitriptyline perphenazine-amitriptyline doxepin	Due to strong anticholinergic and sedative properties, amitriptyline and doxepin are rarely the antidepressant of choice in the elderly	Depending on condition treated alternatives include: citalopram, escitalopram (Lexapro®), paroxetine, sertraline, lidocaine, mirtazapine, trazodone
Analgesic/Non-narcotic/NSAIDs	indomethacin ketorolac naproxen	Long-term use of full dose has the potential of producing GI bleeding, renal failure, high blood pressure, and heart failure	Short acting NSAIDS, COX-II for short-term use
Antihistamines	chlorpheniramine cyproheptadine dexchlorpheniramine diphenhydramine hydroxyzine promethazine	Potent anticholinergic properties can cause sedation, weakness, blood pressure changes, dry mouth, and urinary retention	fexofenadine, azelastine (Astelin®)
Antipsychotics, typical	mesoridazine (Serentil®) thioridazine	Greater potential for CNS and extrapyramidal adverse effects	olanzapine (Zyprexa®), quetiapine (Seroquel®), risperidone (Risperdal®), pimozide (Orap®), trifluoperazine
Amphetamines	amphetamine mixtures dextroamphetamine dexmethylphenidate methamphetamine	Potential for dependence, angina, hypertension, and myocardial infarction	No preferred agents exist within the drug class. Perform risk-benefit determination prior to use.
Long-acting benzodiazepines	chlordiazepoxide chlordiazepoxide/amitriptyline diazepam flurazepam	Long half-life in elderly patients, producing prolonged sedation and increasing the risk of falls and fractures	Benzodiazepines are typically excluded from Medicare Part D benefits. Short- and intermediate-acting are preferred if a benzodiazepine is required.
Calcium channel blockers	Nifedipine – short-acting only	Potential for hypotension. Adverse effect avoided by use of long-acting	Nifedipine- long-acting (Adalat CC® Afeditab® CR, Procardia XL®)
Gastrointestinal antispasmodics	belladonna alkaloids clidinium-chlordiazepoxide dicyclomine hyoscyamine propantheline	GI antispasmodic drugs are highly anticholinergic and have uncertain effectiveness	No preferred agents exist within the drug class. Perform risk-benefit determination prior to use. Lower doses should be used and patients should be monitored due to the increased potential for adverse effects.
H2 antagonist	cimetidine	CNS adverse effects including confusion	famotidine, nizatidine, ranitidine
Skeletal muscle relaxants	carisoprodol chlorzoxazone cyclobenzaprine metaxalone (Skelaxin®) methocarbamol orphenadrine	Most muscle relaxants are poorly tolerated by elderly patients by causing anticholinergic adverse effects, sedation, and weakness	baclofen, tizanidine
Oral Estrogen	Oral estrogen (Premarin, Ogen, Menest)	No cardioprotective effect. Significant risk of carcinogenic effects (breast and endometrial cancer)	No preferred agents exist within the drug class. Perform risk-benefit determination prior to use.
Oral hypoglycemics	chlorpropamide	Has a prolonged half-life in elderly patients and could cause prolonged hypoglycemia. It is the only oral hypoglycemic that can cause syndrome of inappropriate antidiuretic hormone secretion	glipizide
Narcotics	pentazocine	More CNS adverse events than other narcotic analgesics including hallucinations and confusion.	hydrocodone, morphine, oxycodone, fentanyl transdermal patch
	propoxyphene and combination products	Offers few analgesic advantages over acetaminophen, while adverse effects are similar to other narcotic drugs.	

Drug Class	Drugs to Avoid	Concerns	Formulary Alternatives
Vasodilators	dipyridamole	May cause orthostatic hypotension	hydralazine, minoxidil
Other	nitrofurantoin (Macrodantin)	May cause renal impairment	Methenamine mandelate, trimethoprim
	methyltestosterone (Android, Virilon, Testred)	Potential for prostatic hypertrophy and cardiac problems	Danazol
Disease or Condition	**Drugs to Avoid**	**Concerns**	**Formulary Alternatives**
Falls	Sedative hypnotics, tricyclic antidepressants, and antipsychotics	Adverse events such as cognitive impairment sedation and confusion, increases risk of falls.	Reassess need for medication and eliminate or reduce dose. Mirtazapine or trazodone for insomnia, or selective serotonin reuptake inhibitors for depression.
Cognitive Impairment	Tricyclic antidepressants and sedating antihistamines, antispasmodics, antivertigo/antiemetic, skeletal muscle relaxants, and antiparkinson (benztropine, trihexyphenidyl)	Anticholinergic medications are strongly associated with causing drug-induced delirium. The elderly adults with dementia are more likely to develop drug-induced cognitive impairment than healthy adults.	Depending on condition treated alternatives include: nonsedating antihistamines (fexofenadine, azelastine), selective serotonin reuptake inhibitors, dopamine agonists, mirtazapine, or trazodone.
Chronic Renal Failure	NSAIDS and COX-II inhibitors	The inhibition of renal prostaglandin production could lead to acute and chronic nephrotoxic effects.	Acetaminophen, salsalate, lidocaine, low dose corticosteroids (inflammatory conditions) hydrocodone, morphine, oxycodone, fentanyl/transdermal.

*The Guide is being provided to you by Highmark Health Insurance Company as a courtesy and is based on information from the following sources:

1. Beers MH. Explicit criteria for determining potentially inappropriate medication use by the elderly: an update. Arch Intern Med. 1997; 157: 1531-6
2. HEDIS® 2007

The Guide was prepared by Highmark Health Insurance Company and West Virginia Medical Institute, the Medicare Quality Improvement Organization for West Virginia, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The contents presented do not necessarily reflect CMS policy and the list of medications may not be current or definitive and is not intended to be complete or exhaustive.

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