

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 (Equagesic, Equanil, Miltown)	Highly addictive and sedating anxiolytic	Buspar, Buspirone HCl (buspirone)
Antiemetic	Trimethobenzamide (Tigan)	Can cause extrapyramidal side effects. Low effectiveness as an antiemetic	Antivert (meclizine), Compazine (prochlorperazine), Zofran (ondansetron)
Antidepressant	amitriptyline (Elavil)	Long half-life of drug and risk of producing excessive CNS stimulation, sleep disturbances, and increasing agitation	Celexa (citalopram), Remeron (mirtazapine), Zoloft (sertraline)
	doxepin (Sinequan, zonalon)		
	fluoxetine (Prozac, Sarafem, symbyax)		
Analgesic/Non-narcotic/NSAIDs	Indomethacin (Indocin) ketorolac (Toradol) naproxen (naprosyn)	Avoid all use in older patients since many have asymptomatic GI pathology	Short-term use: Short acting NSAID, Cox II
Antihistamines	cyproheptadine (Periactin)	May have potent anticholinergic properties. Can cause sedation, weakness, blood pressure changes, dry mouth, problems with urination and can lead to falls	Allegra (fexofenadine), Astelin (azelastine)
	dexchlorpheniramine (Polaramine)		
	diphenhydramine (Benadryl)		
	ephedrine		
	hydroxyzine (Vistaril, Atarax)		
	promethazine (Phenergan)		
	tripelennamine		
Antipsychotics, typical	Mesoridazine Besylate (Serentil) thioridazine (Mellaril)	Greater potential for CNS and extrapyramidal side effects	Abilify (aripiprazole), Geodon (ziprasidone), Orap (pimozide), trifluoperazine, Zyprexa (olanzapine (non-injection))
Amphetamines	amphetamine mixtures (Adderall)	Potential for dependence, angina, hypertension and myocardial infarction	No preferred agents exist within the drug class
	Benzphetamine (Didrex)		
	dextroamphetamine (Dexedrine)		
	dexmethylphenidate		
	diethylpropion (Tenuate)		
	methamphetamine (Desoxyn)		
	methylphenidate (Ritalin, Methylin, Concerta)		
	pemoline (Cylert)		
	phendimetrazine (Prelu-2, Bontril)		
	phentermine (Ionamin, Adipex)		
Barbiturates (except for phenobarbital when used to control seizure activity)	amobarbital / Secobarbital (Tuinal)	Highly addictive and causes more adverse effects than most sedatives or hypnotic drugs in the elderly	Barbiturates are not a covered benefit under Medicare Part D. Evaluate indication for use and potential for patient ability to self-pay for medication if benefits outweigh risks.
	Amytal		
	butabarbital (Butisol)		
	butalbital combinations, Fiorinal, Fiorcet, esgic		
	mephobarbital (Mebaral)		
	Pentobarbital (Nembutal)		
	Phenobarbital		
	secobarbital (Seconal)		
Long-acting benzodiazepines	chlordiazepoxide (Librium)	Long half-life in elderly patients (often several days), producing prolonged sedation and increasing the risk of falls and fractures	Benzodiazepines are not a covered benefit under Medicare Part D. Evaluate indication for use and potential for patient ability to self-pay for medication. Potential alternative of buspirone (Buspar, buspirone HCl) for anxiety indications.
	chlordiazepoxide/amitriptyline (Limbitrol)		
	diazepam (Valium, Diastat)		
	flurazepam (Dalmane)		
Calcium channel blockers	nifedipine (Procardia, Adalat) – short-acting only	Potential for hypotension. Side effect avoided by use of long-acting	nifedipine – long-acting (Adalat CC, Afeditab CR, Nifediac CC, Nifedical XL, Nifedipine SR, Procardia XL).
Gastrointestinal antispasmodics	dicyclomine (Bentyl)	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 side effects.
	propantheline (Pro-Banthine)		
H2 antagonist	cimetidine (Tagamet)	CNS adverse effects including confusion	Axid (nizatadine), Pepcid (famotidine), Zantac (ranitidine)
Belladonna alkaloids (including combination drugs)	atropine sulfate	All have uncertain effectiveness and are strongly anticholinergic. Avoid all use -particularly long-term use	
	belladonna		
	hyoscyamine (Anaspaz, Cystospaz, Levsin, Levsinex)		
	In combination (Barbidonna, Bellerгал-S, Butibel, Donnatal)		
	scopolamine (Scopace, Transderm-Scope)		

Drug Class	Drugs to Avoid	Concerns	Formulary Alternatives
Skeletal muscle relaxants	carisoprodol (Soma)	Most muscle relaxants and antispasmodic drugs are poorly tolerated by elderly patients. They cause anticholinergic adverse effects, sedation, and weakness	Baclofen, Dantrium (dantrolene)
	chlorzoxazone (Paraflex)		
	cyclobenzaprine (Flexeril)		
	metaxalone (Skelaxin)		
	methocarbamol (Robaxin)		
	orphenadrine (Norflex)		
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 (Diabinese)	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	meperidine (Demerol)	CNS adverse effects, may cause confusion	Codeine phosphate, fentanyl transdermal patch, morphine, OxyContin
	pentazocine (Talacen, Talwin, Talwin compound, Talwin NX)		
	propoxyphene combinations (Darvon compound, Darvon N, Darvocet-N)		
	propoxyphene (Darvon)		
Vasodilators	dipyridamole (Persantine) Short acting only	May cause orthostatic hypotension	hydralazine, minoxidil
	cyclandelate (Cyclospasmol)	Lack of efficacy	
	Isoxsuprine (Vasodilan)		
Other	desiccated thyroid	Concerns about cardiac effect	Synthroid (levothyroxin)
	nitrofurantoin (Macrochantin)	May cause renal impairment	Methenamine mandelate, trimethoprim
	methyltestosterone (Android, Virilon, Testred)	Potential for prostatic hypertrophy and cardiac problems	Danazol
Other - injectables	atropine injectable		
	diazepam injectable		
	dicyclomine injectable		
	diphenhydramine injectable		
	dipyridamole injectable		
	hydroxyzine injectable		
	ketorolac injectable		
	meperidine injectable		
	mesoridazine injectable (serentil)		Oral dosage forms of: Abilify (aripiprazole), Prolixin (fluphenazine), Geodon (ziprasidone), Orap (pimozide), trifluoperazine, Zyprexa (olanzapine (non-injection))
	methocarbamol injectable		
	orphenadrine injectable		
	pentazocine (Talwin)		
	pentobarbital		
	promethazine		
	Premarin injectable		No preferred agent exists within the class. Perform risk-benefit determination prior to use.
	scopolamine injectable, patches		
trimethobenzamide (Tigan)			
Other - methyltestosterones	Nandrolone		Danazol
	Oxandrolone		
	Stanozolol		
	Testosterone		



This document serves as a guide and may not apply to all patients and all clinical situations. Information presented is not intended to override clinicians' judgment.

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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