

Health Alliance Medicare Quality Initiative—High-Risk Medications in the Elderly

Drug Class	Anticholinergics— First Generation Antihistamines	Anti-infective	Cardiovascular	Tricyclic Antidepressants	Nonbenzodiazepine Hypnotics	Estrogen	Sulfonylureas, Long-Duration	Non-COX- selective NSAIDS	Skeletal Muscle Relaxants
High-Risk Medications to Avoid	<ul style="list-style-type: none"> Hydroxyzine Promethazine 	Nitrofurantoin	Digoxin >0.125mg/day	<ul style="list-style-type: none"> Amitriptyline Clomipramine Doxepin Imipramine Trimipramine Nortriptyline 	<ul style="list-style-type: none"> Lunesta Zaleplon Zolpidem 	Estrogen	Glyburide	<ul style="list-style-type: none"> Indomethacin Ketorolac 	<ul style="list-style-type: none"> Carisoprodol Chlorzoxazone Cyclobenzaprine Metaxalone Methocarbamol Orphenadrine
Possible Alternatives	<p>Nausea:</p> <ul style="list-style-type: none"> Ondansetron Prochlorperazine <p>Miscellaneous:</p> <ul style="list-style-type: none"> OTC non-sedating antihistamines Desloratidine 	<ul style="list-style-type: none"> Cephalexin Ciprofloxacin Trimethoprim/sulfamethoxazole 	Lower dose of digoxin and monitor level	<p>Depression:</p> <p>Venlafaxine</p> <p>Neuropathic pain:</p> <p>Gabapentin</p>	<ul style="list-style-type: none"> Belsomra Melatonin Rozerem Silenor 	<ul style="list-style-type: none"> Alendronate Calcium Estrace cream Femring Premarin cream Vitamin D 	<ul style="list-style-type: none"> Glimepiride Glipizide 	<ul style="list-style-type: none"> Ibuprofen Meloxicam Naproxen 	<ul style="list-style-type: none"> Baclofen Tizanidine tabs

RATIONALE

Anticholinergics—1st Generation Antihistamines: Anticholinergic side effects: worsened cognition and behavioral problems; urinary retention OR incontinence; confusion; enhanced sedation, blurred vision, constipation.

Anti-infective: Potential for pulmonary toxicity, lack of efficacy if CrCl <30ml/min.

Cardiovascular: Digoxin dosages >0.125 mg/day have been associated with no additional benefit and may have increased toxic effects.

Tricyclic Antidepressants: Highly anticholinergic (dry mouth, blurred vision, constipation), sedating, and causes orthostatic hypotension.

Nonbenzodiazepine Hypnotics: Adverse events similar to those of benzodiazepines in older adults (e.g., delirium, falls, fractures); minimal improvement in sleep latency and duration.

Estrogen: Increased risk of breast and/or endometrial cancer; NOT cardioprotective or cognitive protective in older women.

Sulfonylureas, Long-Duration: Prolonged hypoglycemia; risk of SIADH.

Non-COX-selective NSAIDs: Increases risk of GI bleeding/peptic ulcer disease in high-risk groups. Of all the NSAIDs, indomethacin has most adverse effects.

Skeletal Muscle Relaxants: Most muscle relaxants poorly tolerated by older adults because of anticholinergic adverse effects, sedation, increased risk of fractures; effectiveness at dosages tolerated by older adults is questionable.

The Centers for Medicare & Medicaid Services (CMS) has developed a list of high-risk medications (HRMs) that should be avoided in the elderly population. These HRMs are considered by medical experts to have a high risk of side effects when used in the elderly and can increase morbidity and mortality, decrease quality of life and increase healthcare costs. HRM use is a CMS patient safety measure that contributes to the Health Alliance Medicare Part D Star Rating. The list provided above is not all inclusive. For a complete list, go to the Forms and Resources page of YourHealthAlliance.org, then choose Pharmacy.

For more information about HRMs, please visit CMS.gov.