

Geriatric Optimization

Medications with Anticholinergic Properties

Benzotropine (Cogentin®)

Carbamazepine (Tegretol®)

Chlorpheniramine (Chlor-Trimeton®)

Cyproheptadine (Periactin®)

Dicyclomine (Bentyl®)

Dimenhydrinate (Dramamine®)

Scopolamine (Transderm Scop®)

Diphenhydramine (Benadryl®)

Doxylamine (Unisom®)

Hydroxyzine (Vistaril®)

Loperamide (Immodium®)

Meclizine (Antivert®)

Metoclopramide (Reglan®)

Oxcarbazepine (Trileptal®)

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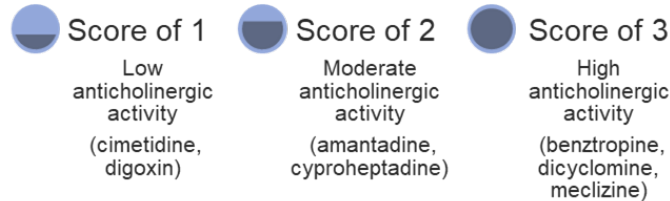
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WHY ARE THESE MEDICATIONS INAPPROPRIATE?

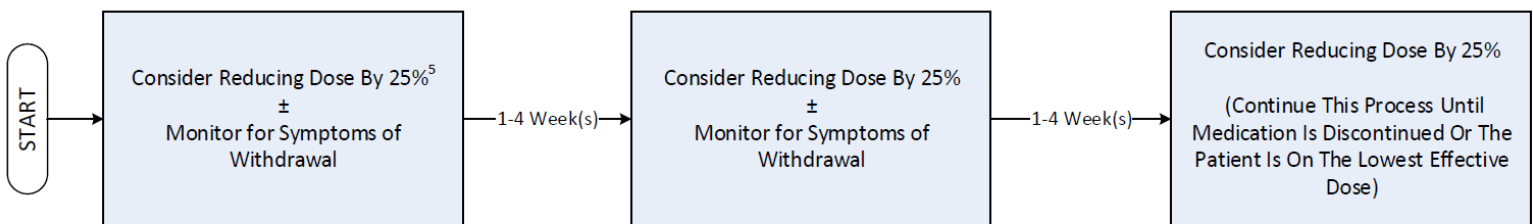
- As noted in the 2019 Beers Criteria, anticholinergic medications are associated with an increased risk of adverse effects impacting quality of life, including cognitive impairment/dementia, sedation, blurred vision, tachycardia, orthostatic hypotension and worsening of dyskinesia¹⁻⁵
- Sensitivity to anticholinergic properties increases as age increases due to changes in metabolism, pharmacokinetics and pharmacodynamics¹
- Currently, there are over 600 medicinal products known to have anticholinergic properties¹
- Anticholinergic Cognitive Burden (ACB) Scale categorizes severity of anticholinergic effects for each individual agent²



- Evidence suggests that **30-day and 1-year mortality rates are significantly increased** in patients taking anticholinergic medications compared to individuals not prescribed any of these agents⁶
- A recently performed meta-analysis revealed the use of anticholinergics for three or more months **increased the risk of dementia by 46%**⁷
- Studies have demonstrated anticholinergic medication use resulted in an **increased risk for recurrent falls** in postmenopausal women and older adults^{8,9}
- In a study evaluating involving veterans 65 years and older, **antihistamine use approximately doubles the risk of mortality, emergency department visits and hospitalizations**¹⁰

APPROACH TO OPTIMIZATION

- Studies show significant improvements in memory impairment and quality of life upon discontinuation of anticholinergic medications¹¹



- Consider available tablet sizes when decreasing doses for ease of patient administration.
- Abrupt discontinuation of medications with anticholinergic properties is not recommended due to risk of significant side effects.⁵
 - Dizziness, anxiety, headache, insomnia, urinary urgency, neuroleptic malignant syndrome.

GOAL: Full discontinuation

ADDITIONAL BEST PRACTICES

- Ensure alternative therapies are optimized before considering medications with anticholinergic properties¹²⁻¹⁴

INDICATION	BEST PRACTICES	MEDICATION TO AVOID
Nausea/Vomiting	<ul style="list-style-type: none"> • Hydration/dietary changes • Ondansetron 	<ul style="list-style-type: none"> • Metoclopramide • Meclizine • Scopolamine
Insomnia	<ul style="list-style-type: none"> • Sleep hygiene • Cognitive behavioral therapy • Melatonin 	<ul style="list-style-type: none"> • Diphenhydramine • Doxylamine
Allergies/Pruritus	<ul style="list-style-type: none"> • Avoidance of triggers • Intranasal corticosteroids (fluticasone, mometasone) • Second generation antihistamines (Cetirizine, loratadine, etc.) • For pruritus: topical corticosteroids 	<ul style="list-style-type: none"> • Chlorpheniramine • Diphenhydramine • Hydroxyzine

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