Geriatric Optimization

Medications with Anticholinergic Properties

Benztropine (Cogentin®)	Diphenhydramine (Benadryl®)
Carbamazepine (Tegretol®)	Doxylamine (Unisom®)
Chlorpheniramine (Chlor-Trimeton®)	Hydroxyzine (Vistaril®)
Cyproheptadine (Periactin®)	Loperamide (Immodium®)
Dicyclomine (Bentyl®)	Meclizine (Antivert®)
Dimenhydrinate (Dramamine®)	Metoclopramide (Reglan®)
Scopolamine (Transderm Scop®)	Oxcarbazepine (Trileptal®)

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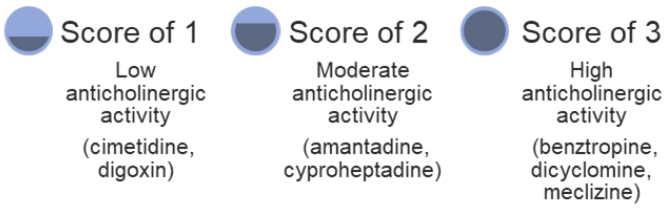
WHY ARE THESE MEDICATIONS INAPPROPRIATE?

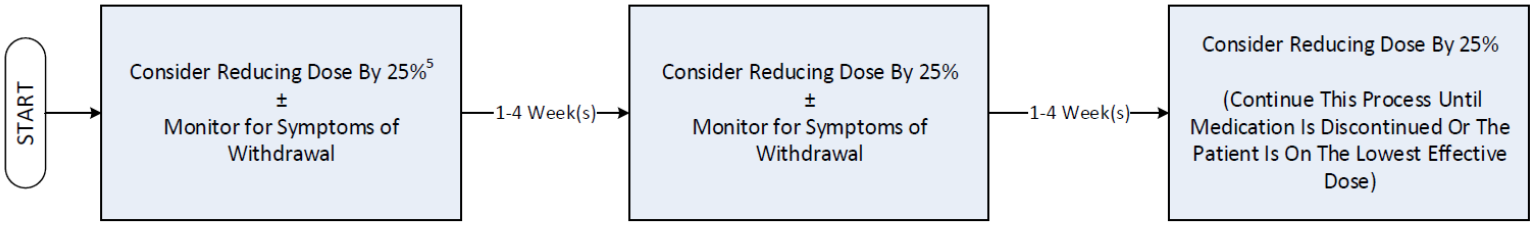
- As noted in the 2019 Beers Criteria, anticholinergic medications are associated with an increased risk of adverse effects impacting quality of life, including cognitive impairment/dementia, sedation, blurred vision, tachycardia, orthostatic hypotension and worsening of dyskinesia[1-5]
- Sensitivity to anticholinergic properties increases as age increases due to changes in metabolism, pharmacokinetics and pharmacodynamics[1]
- Currently, there are over 600 medicinal products known to have anticholinergic properties[1]
- Anticholinergic Cognitive Burden (ACB) Scale categorizes severity of anticholinergic effects for each individual agent[2]



- 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 agents[6]
- 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 medications[11]



- 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 effe cts.[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 properties[12-14]

INDICATION	BEST PRACTICES	MEDICATION TO AVOID
Nausea/Vomiting	• Hydration/dietary changes • Ondansetron	• Metoclopramide • Meclizine • Scopolamine
Insomnia	• Sleep hygiene • Cognitive behavioral therapy • Melatonin	• Diphenhydramine • Doxylamine
Allergies/Pruritus	• Avoidance of triggers • Intranasal corticosteroids (fluticasone, mometasone) • Second generation antihistamines (Cetirizine, loratadine, etc.) • For pruritis: topical corticosteroids	• Chlorpheniramine • Diphenhydramine • Hydroxyzine

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