

**Geriatrics • Educational evidence summary**

Anticholinergic burden in older adults

This geriatric evidence summary examines anticholinergic burden in older adults.

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Review the person's situation as well as the medication list

Two older adults taking the same ingredient can have very different clinical circumstances. One may use it occasionally for a clearly defined indication; another may receive it regularly alongside several additional medicines. A source classification helps identify the exposure question, but the interpretation depends on actual use, treatment goals and the concerns being evaluated.

Anticholinergic burden is therefore most useful as part of a structured medication review. The review connects the published evidence with the person's cognition, daily function, symptoms and priorities. It should not be reduced to a rule that a birthday or a numerical threshold automatically determines treatment.

Evidence basis and scope

This is a narrative review of selected primary studies, the 2023 AGS criteria and the preserved UnifiedACB source representation. It is not a systematic review, and no pooled effect estimate was calculated. The studies are used to illustrate different evidence questions: inpatient cognitive effects, cumulative exposure and dementia, physical function, and an intervention intended to reduce burden.

The [prospective diphenhydramine study in hospitalized older patients](#), [Gray and colleagues' cumulative-exposure cohort](#), and [Health ABC functional analysis](#) examine different populations and endpoints. Their findings support attention to medication exposure while also showing why "older-adult evidence" is not one homogeneous body of results.

The time scale changes the question

A new symptom during acute illness raises a timing question: which medications were actually received before the change, and what else changed at the same time? A current medication list alone may not identify that sequence. Administration records and a clear baseline are more informative than a category detached from the episode.

A long-term question is different. Studies of cumulative exposure consider a period of medication use and later outcomes. A single dose, a prescription written but not taken, and years of repeated use cannot be treated as equivalent exposures. The [prospective dementia cohort](#) specifically studied



cumulative use; its interpretation should not be compressed into a prediction about one isolated administration.

Functional outcomes introduce another layer. Difficulty walking or managing daily tasks can reflect illness, pain, deconditioning, vision, mood and medication effects. A burden measure may help identify one potentially relevant domain without determining which mechanism explains the observed limitation.

Sources classify exposure differently

The medication-level source table should remain the starting point for what a scale actually reported. A classification from one instrument is not automatically equivalent to the same numeral from another. The source version, original label and available route information determine the meaning of the observation.

UnifiedACB's [public records](#) retain these distinctions and preserve explicit zero separately from missing values. This matters in older-adult review because an apparently low result can arise from incomplete medication coverage. The unscored portion of the list should remain visible rather than being treated as reassuring evidence.

A medication may also have relevant effects outside the construct measured by a particular scale. A source-specific zero cannot exclude sedation, blood-pressure effects or other medication concerns that the instrument was not designed to assess. The broader review must remain broader than the burden classification.

What geriatric criteria add

The [2023 AGS Beers Criteria](#) identify potentially inappropriate medication use in defined older-adult contexts. Some concerns depend on a diagnosis or syndrome; others have route, dose or indication qualifications. This contextual information can sharpen the review question, provided the actual criterion is explained.

A supplemental badge is not another ordinal scale value. It should not replace the source table or be converted into an additional burden point. The absence of a selected overlay entry likewise does not establish that a medicine is appropriate or free of geriatric concerns.

Reading the qualification can change the next question. For a dose-qualified criterion, total daily exposure may be necessary. For a syndrome-specific concern, the clinical condition matters. The aim is to identify the information that determines applicability, not to add every possible warning to every medication.

From a concern to a review plan

Begin by verifying the current regimen, including products obtained without a prescription and medicines taken only occasionally. Clarify the reason for each medicine and whether the intended benefit is still present. Connect any concern to a specific symptom or functional goal that can be assessed over time.



Then identify which source evidence is relevant and what remains uncertain. If a change is considered by the treating team, the plan needs to address treatment benefit, possible withdrawal or symptom recurrence, and follow-up. A lower numerical classification alone is not a complete outcome.

The [randomized trial of burden reduction in frail older people](#) underscores the distinction between modifying an exposure measure and demonstrating cognitive benefit. An intervention must be judged by what it actually tested and measured. Its results cannot be generalized into a promise that every reduction in a burden score improves health.

Limitations of the evidence

Older-adult studies differ in setting, medication measurement, follow-up and outcome definition. Hospitalized patients, community-dwelling adults and people in long-term care may have different baseline vulnerabilities and patterns of treatment. Observational findings can also be affected by the illnesses that led to prescribing.

The public directory does not calculate an individualized probability of delirium, falls or dementia. It does not adjudicate whether a medicine caused a particular event. Those limitations should remain explicit even when several sources identify a medication as an important contributor.

Clinical interpretation

Use source classifications to make medication review more focused and reproducible. The meaningful questions are which exposures are present, which concern is being assessed, what benefit the treatment provides and what evidence would guide a monitored decision. The number is a starting point for that work, not its conclusion.

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Explore the evidence

[Ask UnifiedACB](#) about a medication or source, browse the [Medication Library](#), or read the [methodology](#).

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