

**Geriatrics · Educational evidence summary**

Anticholinergic burden and frailty

This geriatric evidence summary examines anticholinergic burden and frailty.

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A vulnerable person and a medication list are different subjects

Frailty concerns reduced reserve and vulnerability to stressors. Anticholinergic burden concerns a defined way of describing medication exposure. A person can have one without the other, and neither concept should be used as a shortcut for measuring the other.

The distinction is clinically useful. Frailty may change the importance of a symptom, functional loss or treatment burden, while the medication evidence helps identify potentially relevant exposures. The review still needs the person's goals, baseline function and actual regimen. A numerical medication classification does not summarize those features.

Define frailty before studying its relationship with prescribing

Different frailty approaches can emphasize physical features, accumulated deficits or a clinical assessment. A study's definition affects which people are classified as frail and what a change in the outcome means. The definition should be retained when results are summarized.

Medication count is not a frailty assessment. A long list may reflect multiple appropriate treatments, and a short list can occur in a person with considerable vulnerability. Similarly, a high burden category does not establish that a person meets a frailty definition. Using one as a proxy for the other can make both the exposure and outcome difficult to interpret.

A primary study illustrates the measurement issue

The [Gnjidic study of high-risk prescribing and incident frailty in older community-dwelling men](#) considered medication count and the Drug Burden Index as different prescribing measures. The DBI includes anticholinergic and sedative exposure. Its results therefore concern a defined measure in a defined cohort, rather than a universal effect of every anticholinergic medication.

That study provides a reason to examine prescribing in relation to frailty, while leaving generalizability as a separate question. A cohort of community-dwelling men does not automatically establish the same association in women, hospitalized people or residents of long-term care. The setting and participant characteristics remain part of the finding.



The relationship can run through several pathways

Illness can increase vulnerability and lead to additional treatment. Medication effects may influence symptoms or function. A change in function can in turn alter which medicines are prescribed or how they are taken. These relationships make a simple causal sentence difficult to justify from an observational association alone.

For example, a study may find that a medication-exposure measure and later frailty are related after adjustment for measured characteristics. That does not prove that the measure itself caused frailty or identify which ingredient produced the association. The result can still be clinically relevant without being deterministic.

The timing of assessment matters too. Exposure recorded after a decline may differ from exposure before it. A study or clinical review should distinguish the baseline regimen, subsequent changes and the period in which the outcome was assessed.

Review burden in relation to a meaningful goal

In a person with frailty, the practical question may concern alertness, comfort, transfers, continence or the ability to remain in a preferred care setting. These goals can make a medication review more specific than simply trying to reduce a total.

For each medicine being considered, clarify its indication, actual use and observed benefit. Identify the symptom or functional concern that might be related to exposure. Where a [geriatric criterion](#) applies, preserve its qualification and connect it to the relevant clinical context rather than assuming that frailty activates every criterion.

The treating team also needs to consider the consequences of changing therapy. A medicine with an exposure concern may be providing important relief. A review that ignores that benefit can exchange one problem for another without improving the person's priorities.

What the UnifiedACB evidence can show

The [public medication observations](#) can identify source classifications, explicit zeros, missing entries and disagreements. They do not contain a person's frailty assessment, physical performance or goals of care. The directory therefore supports the exposure side of the discussion while leaving the clinical assessment to the treating team.

When several sources differ, the uncertainty should be explained. When a medication has no public row in a requested scale, the gap should remain visible. Neither a low result nor missing coverage can be translated into a claim that the regimen is appropriate for a vulnerable person.

If frailty is reassessed over time, retain the assessment approach and timing. A change in the definition or information available can change the recorded classification without demonstrating a comparable change in the person's reserve.



Why follow-up needs more than a new number

If care changes after review, the follow-up should examine the outcome that matters to the person. A lower burden measure is not proof of improved reserve, fewer symptoms or better daily function. The [randomized burden-reduction trial in frail older people](#) illustrates that changing an exposure measure and establishing a clinical benefit are separate tasks.

Frailty makes thoughtful review valuable because small changes may matter greatly to a person's daily life. It does not remove the need for evidence about timing, benefit and uncertainty. Keep the medication construct and the vulnerability assessment distinct, then use them together to formulate a focused clinical question.

References

1. Fox C, et al. Effect of medications with anti-cholinergic properties on cognitive function, delirium, physical function and mortality: a systematic review. *Age Ageing*. 2014;43:604-615. [Source](#)
2. Vennard O, Stewart C, Tolia M, Soiza RL, Myint PK. Anticholinergic Medication Burden Scales: A Systematic Review. *J Am Geriatr Soc*. 2026;74(6):1771-1784. [Source](#)
3. American Geriatrics Society 2023 Updated AGS Beers Criteria for Potentially Inappropriate Medication Use in Older Adults. *J Am Geriatr Soc*. 2023;71:2052-2081. [Source](#)
4. American Geriatrics Society Beers Criteria Alternatives Panel. Alternative Treatments to Selected Medications in the 2023 AGS Beers Criteria. *J Am Geriatr Soc*. 2025;73:2657-2677. [Source](#)
5. Ruxton K, Woodman RJ, Mangoni AA. Drugs with anticholinergic effects and cognitive impairment, falls and all-cause mortality in older adults: a systematic review and meta-analysis. *Br J Clin Pharmacol*. 2015;80(2):209-220. doi:10.1111/bcp.12617. [Source](#)
6. Egberts A, et al. Anticholinergic Drug Burden and Delirium: A Systematic Review. *J Am Med Dir Assoc*. 2021;22:65-73.e4. [Source](#)
7. Gnjdic D, et al. High-risk prescribing and incidence of frailty among older community-dwelling men. *Clin Pharmacol Ther*. 2012. doi:10.1038/clpt.2011.258. [Source](#)
8. UnifiedACB. Preserved public source-observation dataset, v3.0 RC12 final; inspected for this editorial revision. [Source](#)
9. Kersten H, et al. Cognitive effects of reducing anticholinergic drug burden in a frail elderly population: a randomized controlled trial. *J Gerontol A Biol Sci Med Sci*. 2013;68:271-278. doi:10.1093/gerona/gls176. [Source](#)

Explore the evidence

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

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