

**Geriatrics · Educational evidence summary**

Polypharmacy and anticholinergic burden

This geriatric evidence summary examines polypharmacy and anticholinergic burden.

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Counting medicines and characterizing medicines are different tasks

A medication count describes how many medicines are included under a stated counting rule. Anticholinergic burden describes an exposure construct defined by a particular instrument. The two can be related, but they are not interchangeable. A long list does not automatically imply that every medicine contributes anticholinergic activity, and a short list can still contain a relevant exposure.

The [WHO polypharmacy report](#) frames medication safety as a question of the regimen and the person's needs. A count can identify complexity worth reviewing, but it does not determine whether the treatments are appropriate. The same caution applies to a burden category.

Why the counting rule matters

Even the apparently simple task of counting requires a definition. A combination product may contain more than one ingredient. An as-needed medicine may be prescribed but not used during the period of interest. A topical preparation may be included in one analysis and excluded in another.

These choices should be explicit. A count of products, a count of active ingredients and a count of medicines actually used are different measures. Without the definition, two reports can disagree even when they describe the same person's treatment.

An anticholinergic method adds another layer: it must identify which of the reconciled medications are covered by the selected source and how that source classifies them. Missing entries cannot be treated as zero merely to make the count-based and scale-based views align.

Equal counts do not imply equal exposure

As a conceptual example, two medication lists can contain the same number of products while containing very different ingredients and indications. A count alone cannot tell which list includes a strongly classified anticholinergic medication. It also cannot establish the actual dose or timing of any contributor.

The [UnifiedACB observation table](#) provides the ingredient-specific source evidence that a simple count lacks. Each observation remains attached to a named source and version. This permits a more informative description of the regimen without creating a new universal score.



The reverse is also true: similar source classifications do not mean that two lists have the same practical complexity. One regimen may have a simple schedule while another requires several administration times, different product forms or close monitoring. Those demands are not measured by an ordinal anticholinergic category.

More treatment can reflect more illness

People with several conditions may receive several appropriate treatments. The same conditions can influence cognition, function or hospitalization risk. An observational association between medication count, burden and an outcome therefore needs careful interpretation. The medicines may be part of the explanation, but the underlying illness can also contribute.

The [primary study of high-risk prescribing and frailty](#) examined medication-count measures and the Drug Burden Index as distinct exposures. Keeping those definitions separate avoids attributing a result from one construct to another. It also shows why an association with a composite measure should not be interpreted as an effect of every individual medication.

The clinical question is appropriateness, benefit and burden

A medication review asks whether each treatment has a current purpose, whether it is helping, whether the person can use it as intended and whether relevant harms or interactions need attention. A numerical count does not answer those questions, and a low anticholinergic category does not eliminate them.

For a medicine with a clear exposure concern, the review should still identify the benefit being preserved. An automatic effort to minimize the count can remove useful treatment. Conversely, a medicine should not escape review merely because it is one item on a short list.

The [AGS geriatric criteria](#) can add condition- or interaction-specific questions. They remain a separate framework from both medication count and source-scale evidence. Their role is to sharpen the review rather than supply a new combined total.

A three-part description is more useful than one number

First describe the reconciled regimen and counting rule. Second describe the available source-specific anticholinergic findings, including unscored medicines. Third describe the clinical concern or goal that prompted review. This keeps the exposure evidence connected to the person's actual situation.

For example, a review can distinguish an incomplete medication history from a complete history with limited source coverage. Those are different problems with different solutions. Combining them into a low score would hide both.

A regimen can also become easier to manage without changing the number of active ingredients. Clearer instructions or an appropriately reviewed administration plan may address a practical problem that a count misses. Such a change should be described by what improved rather than credited to an anticholinergic score that did not measure it.

How to judge progress

Progress may involve clearer instructions, resolution of duplicate entries, improved symptom control or a monitored treatment adjustment. A lower count or burden measure can be one recorded



change, but it is not a complete clinical outcome. The benefit and feasibility of the regimen remain essential.

Polypharmacy and anticholinergic burden are most informative when used as complementary descriptions. Count what is actually being used, characterize the relevant evidence, and let the clinical review determine which questions matter.

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