



Geriatrics • Educational evidence summary

Anticholinergic burden and delirium in older adults

This geriatric evidence summary examines anticholinergic burden and delirium in older adults.

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The urgent question is the acute change

Delirium concerns an acute disturbance in attention and cognition, often with fluctuation. A medication burden classification is not a diagnostic test for that syndrome. When an older person develops a new change in mental status, the clinical assessment must establish the change and investigate its context rather than waiting for a medication score to explain it.

Anticholinergic exposure can contribute a focused review question: was a relevant medication started, administered more often, combined with another exposure or otherwise changed before the episode? The question is useful because it directs attention to a possible contributor. It remains a question until the broader clinical evidence is assessed.

Evidence basis

This narrative review draws on the [prospective study of diphenhydramine in hospitalized older patients](#), the [2023 AGS delirium-related criteria](#) and the structure of the public UnifiedACB medication evidence. It does not report a new cohort, systematic search or pooled estimate. The original reference list also provides wider review literature for readers who wish to examine study heterogeneity.

The diphenhydramine study illustrates the importance of a medication-specific clinical investigation in an inpatient setting. Its observational design and setting should remain attached to the interpretation. A finding in that context is not a universal probability of delirium for every formulation, exposure pattern or population.

Establish the sequence before assigning a cause

The sequence should distinguish baseline status, onset of symptoms and medication administration. An admission medication list can contain medicines that were not given during the episode. A discharge list can include treatment added after the symptoms began. Neither list, by itself, establishes which exposures preceded delirium.



Actual administration records are particularly relevant for as-needed medicines. A medication ordered for occasional use may have been given repeatedly, once or not at all. The source classification does not change across those situations, but the exposure being evaluated does. A causal interpretation that ignores the timing can easily reverse cause and response.

The reason for a new medicine also matters. A drug may have been prescribed because sleep, nausea, agitation or another symptom had already changed. Without a clear timeline, the medication can appear to predict the syndrome when it was actually a response to an early manifestation or to the same underlying illness.

Keep the competing contributors visible

Delirium evaluation is broader than anticholinergic exposure. Acute illness, pain, changes in the care environment and other medication effects can coexist. Identifying a plausible medication contributor does not justify excluding the rest of the assessment. Similarly, finding another contributor does not mean medication review is unnecessary.

This is why documentation should distinguish “exposure present,” “possible contributor” and a stronger causal conclusion. The burden table can establish the first statement when the medication and source are correctly identified. It cannot independently establish the latter two.

The [AGS delirium criterion](#) supplies a clinical context for reviewing relevant medicines in older adults with or at risk of delirium. That criterion should be read with its source and scope. It does not transform an ordinal scale into a diagnostic or causal test.

What the source table can and cannot add

The [UnifiedACB record](#) can identify the medication’s source-specific classifications and whether sources disagree. It can also reveal that a requested scale has no verified public row. These findings help explain the evidence basis for considering the medication, but they do not measure the person’s current exposure or delirium severity.

An explicit zero from one source does not rule out medication-related mental-status effects through other mechanisms. A high category does not prove that the drug caused the episode. A missing entry is not evidence that the medication is irrelevant. These boundaries should remain visible in an Ask response as well as in the table.

Prevention evidence is a separate question

Recognizing an association between exposure and delirium does not automatically establish that a particular intervention prevents delirium. A prevention study must define the intervention, comparison, population and outcome assessment. The effectiveness of a broader care program also cannot be attributed entirely to one medication component without evidence.

For clinical review, this means that a proposed medication plan should be justified by the whole situation and monitored according to meaningful outcomes. A score reduction alone does not



demonstrate that delirium has resolved or that recurrence has been prevented. The clinical syndrome must be assessed directly.

When the earlier cognitive baseline is unavailable, document that limitation. An absent baseline assessment is not evidence that cognition was previously normal, just as an absent medication entry is not evidence of zero exposure. Both uncertainties affect how confidently the sequence can be interpreted.

A useful review note

A clear note identifies the acute change, the relevant exposure and its timing, the source evidence, and the remaining uncertainty. For example, the structure can state that a named medication was administered before the change and is classified by specified sources, while other contributors are being evaluated. This is an educational documentation pattern, not a patient case or a causal finding generated by the website.

The note should also separate actions from outcomes. A treating team may decide to review or modify therapy, but improvement afterward must be documented rather than presumed. If several aspects of care change simultaneously, attributing the outcome to one score change becomes more difficult.

Limits and clinical interpretation

Study populations, delirium definitions, medication windows and adjustment methods differ. A single article or source-scale category cannot resolve all of that uncertainty for an individual. The practical contribution of UnifiedACB is a traceable exposure explanation that supports the clinical assessment. An acute change in mental status still requires prompt clinical evaluation regardless of whether a medication score is available.

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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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Educational evidence summary. This content does not provide patient-specific medical advice and does not replace clinical judgment, medication reconciliation, or prescribing guidance.