



Foundations • Educational evidence summary

Why anticholinergic burden scales disagree

This foundation article explains why anticholinergic burden scales disagree.

UnifiedACB • Published October 3, 2026 • Updated October 4, 2026

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First decide what kind of disagreement you are seeing

Two cells in a comparison can look different for several reasons. Both sources may publish different values for the same medication. One source may contain a value while the other has no verified row. Or the records may refer to different formulations, source versions or medication concepts. Calling all three situations “score disagreement” obscures the work needed to interpret them.

The first task is therefore descriptive. Establish what each source actually contains before deciding whether the difference reflects pharmacology, editorial judgment or a data issue. The [UnifiedACB public dataset](#) retains original source labels and evidence states precisely because the displayed medication name alone cannot answer that question.

Different starting questions produce different lists

Scale authors do not necessarily begin with the same purpose. A project may prioritize cognitive concern, observed adverse effects, laboratory activity, local prescribing or expert assessment. Those choices influence which evidence is emphasized and which medications are considered. A familiar scale name should be read as the name of a method, rather than a guarantee that every other scale is measuring an identical construct.

The [KABS development report](#) illustrates the role of scope: the authors adapted the candidate medication set to the Korean healthcare setting and used literature review and expert consensus for unresolved classifications. That process can reasonably produce a different list from an instrument constructed for another formulary. The difference does not, by itself, show that either source was transcribed incorrectly.

Laboratory work introduces a different kind of boundary. [Chew and colleagues](#) examined activity at specified concentrations. Translating experimental evidence into a medication category requires a judgment about its relevance to intended use. Two classification methods can make different judgments without having performed the same experiment and obtained contradictory results.

Coverage is not a lower rating

Suppose one source publishes a category and another source has no verified entry. There is only one rating to compare. The absence may reflect the source’s scope, publication history, an inaccessible



supplement or an unresolved identity match. None of these possibilities can be converted automatically into zero.

This matters when counting disagreements. If absent entries are coded as zero, the analysis creates artificial contrasts between a real rating and an invented value. The resulting apparent agreement or disagreement rate would then depend partly on the analyst's missing-data assumption. Keeping coverage separate makes that assumption unnecessary and the comparison more transparent.

An explicit zero is different. It is a positive statement about what the source printed. It can legitimately be compared with a nonzero value from another source when identity and version are aligned. The correct description is a source-specific zero-versus-nonzero disagreement, not a claim that one medicine simultaneously has and lacks every possible anticholinergic effect.

A concrete disagreement already present in UnifiedACB

The public cetirizine record offers an example that requires no new scoring. Its BAAS 2019 observation is 2; CALS 2022 Table 4 is 1; Yamada ABS 2023 is an explicit 0. These are retained [source observations](#), not three estimates generated by this article. Naming the sources makes the difference inspectable.

There is no scientifically justified shortcut from these entries to a universal average. The categories come from different methods, and the source choices have not been calibrated onto a common interval scale. Reporting a midpoint would hide the central information: the medication has been classified differently by identifiable publications.

Agreement also deserves a careful reading. Several sources can share earlier evidence or development inputs. Counting matching entries does not establish that the medicine has been tested independently that many times. Agreement describes the classifications available; it does not quantify the certainty of a patient-level outcome prediction.

When the issue is inside a source family

Not every conflict lies between independent scales. The preserved KABS anomaly for levodopa/decarboxylase inhibitor records a difference between a medication-list supplement and the validation article's main-text table. The [anomaly note](#) keeps both document-specific findings visible and preserves the public supplement row. This is a provenance problem requiring document-level interpretation.

Likewise, a missing medication in a supplement cannot be recreated from a category header count. The public notes for doxepin and chlorpromazine retain this limitation. A plausible expectation about what the author intended is weaker than a verifiable row and should not silently replace it.

A practical way to investigate a mismatch

Start by confirming that both entries refer to the same ingredient or explicitly defined combination. Read any route or formulation wording. Identify the exact publication or supplement that supplied each value. Then distinguish a true numerical difference from an absent, blocked or unresolved entry. Only after these steps should the source methods be compared.

If an apparent error remains, document the evidence needed to adjudicate it: the original row, document version, locator and proposed explanation. This creates a reviewable correction request.



Replacing a value because it looks surprising does not provide that trail and can erase a genuine source disagreement.

A disagreement report should also say which records were eligible for comparison. Two sources can agree on their shared medications while differing substantially in coverage. Reporting both findings prevents a narrow overlap analysis from being mistaken for agreement across the entire medication library.

What the comparison can support

Visible disagreement is a reason to explain uncertainty and consult the sources, not a mandate to choose the largest, smallest or most frequent category. The clinical question may also require information that neither scale includes, such as actual use, indication or a condition-specific concern. Cross-scale comparison is strongest when it makes those boundaries clearer and leaves the original evidence intact.

References

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Explore the evidence

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

Disclosure

Funding: None. Conflict of interest: None declared for the UnifiedACB educational project.

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