

**Methods/Research · Educational evidence summary**

UnifiedACB methodology: provenance, missingness, identity, and version control

This methods article addresses unifiedACB methodology: provenance, missingness, identity, and version control.

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

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<https://unifiedacb.com/articles/093-unifiedacb-methodology-provenance-missingness-identity-and-version-control/>

Abstract

UnifiedACB's evidence model is designed to preserve what each source reported while making medication records discoverable. This article describes that structure using a read-only inspection of the current public dataset. The inspection counted searchable items, concepts with public observations, source records, observation-bearing source versions, and preserved anomalies; it did not re-extract publications or alter data. The inspected file contains 743 searchable items, 742 concepts with public rows, and 2,140 observations from seven public source versions, alongside 12 source metadata records. These counts describe the released evidence representation, not clinical validation or unique pharmacologic effects. The methods distinguish literal source labels from normalized identities, published zeroes from absent observations, and source visibility from redistribution rights. The principal implication is that an evidence result must retain its version and provenance to remain reproducible. No synthetic score, averaging of ordinal categories, or new medication value is introduced.

Introduction

A medication value without its source, identity, and version is difficult to interpret. The same label may be used differently across publications, a later source may revise coverage, and a missing row may be mistaken for a negative finding. An evidence directory must preserve these distinctions while remaining usable for search and comparison.

The objective of this article is descriptive: explain the current public data structure and report a limited reproducibility check that can be repeated from the released file. It is not a claim that the clinical performance of every scale or the tool itself has been validated.



Methods

The source for the inspection was the existing public_dataset.json file, labeled v3.0 RC12 final. The audit read the file without modification. It counted the items array, the subset of items with nonempty observation arrays, all nested observations, source metadata entries, source-version identifiers represented in observations, and preserved anomaly records. These are file-structure counts, not new clinical analyses. [UnifiedACB public evidence dataset, v3.0 RC12 final](#)

Medication identity was interpreted at the concept level used by the released dataset. Each concept retains a preferred label, aliases, and notes on route and formulation. Each observation retains its own literal source label. The inspection did not merge, split, rename, or adjudicate any concept and did not infer products beyond the recorded source labels.

The observation structure was examined for the fields that make a value traceable: observation identifier, concept identifier, source-version identifier, literal source label, source score, rating state, source locator, source URL, verification scope, and identity status. The existence of a field was treated as a structural property, not proof that every underlying source decision had been independently re-reviewed in this editorial pass.

Missingness was interpreted from the record structure and explicit states. A published zero is an observation with that source value and state. Absence of an observation from a source is not an additional row with zero. Unresolved identity and source availability are separate reasons a lookup may not yield a public value.

The registry's source metadata and public-reuse notes were inspected separately from the observation arrays. A source can be documented for provenance without contributing redistributable public rows. The audit therefore reported metadata count and observation-bearing source count separately rather than treating all registry entries as equivalent public data coverage.

Results

The inspected dataset contains 743 searchable items. Of these, 742 have public observations. There are 2,140 nested observations, 12 source metadata records, seven source versions represented by public rows, and four preserved source-anomaly records. These counts agree with the corresponding summary fields in the released dataset. [UnifiedACB public evidence dataset, v3.0 RC12 final](#)

The difference between searchable items and concepts with public rows is intentional in the representation: a provenance-only item can remain discoverable without inventing a scale-list observation. Likewise, the difference between registry count and public source-version count reflects source scope and public-reuse boundaries, not a calculation error.

The observation fields preserve the relationship between a normalized medication concept and the original source statement. Source anomalies remain separate records rather than silently overwriting an observation. The inspection did not calculate agreement statistics, estimate patient outcomes, or assign additional ratings. It also did not test all possible source-document identity decisions.



Discussion

The separation of concept and observation allows one medication to be discoverable under aliases while preserving the exact label printed by each source. This is valuable because normalization improves search but can conceal clinically important distinctions if applied too aggressively. Retaining the literal label makes that transformation inspectable.

Missingness requires equally careful treatment. A published zero is useful evidence about what a source reported. An absent row cannot supply the same evidence. A comparison that replaces absence with zero would change both the meaning of the data and the apparent coverage. The public structure avoids requiring every concept to have a value in every source.

Versioning protects historical interpretation. A source family name alone may not identify the table or correction used. The source-version identifier makes it possible to retain different representations without claiming they are interchangeable. A later editorial explanation can be improved while the original observations remain unchanged.

Provenance also includes rights and verification scope. A registry entry can tell the user that a source exists and explain why its rows are not publicly reproduced. That is more transparent than either hiding the source or filling the gap from another publication under the same label. Scientific visibility and redistribution authorization are related but distinct questions.

Counts should be interpreted with their units. A concept count is not an observation count; a source-table row is not necessarily a unique medication concept; and the number of public source versions is not the number of scales ever published. Reporting these denominators explicitly prevents a larger number from being mistaken for broader clinical validation.

What the structural counts can establish

The reported counts are an audit of the inspected public snapshot, not estimates of how many medicines have anticholinergic effects worldwide. They also use different units. A searchable item, a public medication concept with observations, and a source observation are not interchangeable counts. The same concept can contribute several observations because different sources classify it independently. Summing those observations does not create additional medicines or independent patient outcomes.

These distinctions matter when assessing a later release. An alias improvement may change search behavior without adding a source observation. A new source version may add observations without adding concepts. An identity correction may change concept organization while retaining every original row. A release comparison should explain which unit changed and why, rather than treating any larger count as proof that the resource became scientifically more complete.

Limitations

This was a limited, read-only structural inspection of one released file. It did not independently re-extract every primary publication, verify every alias clinically, audit all private records, or evaluate patient outcomes. Agreement with summary fields demonstrates internal count consistency, not source completeness or external validity.



The public dataset remains bounded by source heterogeneity, coverage, identity uncertainty, and redistribution limits. Some clinical questions require route-, formulation-, dose-, or population-specific evidence beyond the original category. Preserving provenance makes those limits visible but does not eliminate them.

Conclusion

The current structure links searchable medication identities to immutable source observations and explicit provenance. Its counts describe the released representation, while missingness, source scope, and anomalies remain distinct. That architecture supports reproducible evidence lookup without creating a synthetic UnifiedACB score or claiming clinical validation from data fidelity alone.

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.

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