

**Pediatrics · Educational evidence summary**

Anticholinergic burden in children with neurodevelopmental conditions

This pediatric review addresses anticholinergic burden in children with neurodevelopmental conditions.

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Begin with the child's usual way of functioning

A medication concern in a child with a neurodevelopmental condition should be interpreted against the child's own baseline. How the child communicates discomfort, participates in activities, sleeps, eats, or engages with others may be more informative than a generic symptom label. An anticholinergic category cannot supply that baseline or explain a change by itself.

This article focuses on evidence interpretation and documentation. It does not group all neurodevelopmental diagnoses into one pharmacologic risk profile. The aim is to make the medication history useful while respecting differences in communication, clinical needs, and treatment goals.

Diagnostic categories are not interchangeable study populations

Autism, intellectual disability, developmental delay, and severe neurological impairment do not describe identical populations. A study conducted in one group should retain that scope. Feinstein and colleagues' symptom study concerned children with severe neurological impairment; it should not be presented as a validation of an adult burden threshold for every neurodevelopmental condition. [Feinstein et al., 2023](#)

The same distinction applies within a diagnosis. Age, functional abilities, coexisting conditions, and treatment patterns can differ. A broad label may be useful for locating relevant literature, but the specific population and outcome determine how far the findings can be applied.

Describe change without assuming its cause

A new behavior or reduced participation can have several explanations. NICE's autism guidance emphasizes assessing physical, mental-health, communication, and environmental contributors to behavior that challenges. [NICE CG170](#) A medication review can be part of that assessment rather than replace it.



Record what changed, who observed it, when it began, and whether it differs across settings. Avoid translating an observation directly into “anticholinergic toxicity” or another diagnosis without clinical assessment. The medication evidence can identify a relevant question while the cause remains uncertain.

Make the treatment purpose explicit

Some medicines may be used to address a symptom important to daily comfort or care. Others may treat a separate condition. The review should preserve those purposes and any documented benefit, because a burden classification does not measure what would happen if the medicine were changed.

If the purpose is unclear, identify that as an unresolved issue. Do not assume that an old adjunct is unnecessary merely because the initiating event is no longer obvious in the record. A clinician familiar with the treatment history may be needed to determine whether the indication continues.

Adapt the symptom record to communication needs

Use the child’s report where possible and caregiver observations where appropriate, distinguishing the two. A caregiver may identify a change in routine or comfort that the child cannot describe verbally. That observation is valuable, but it remains different from a direct measure of a particular mechanism or a standardized cognitive outcome.

Describe the behavior or experience concretely rather than using a broad label. This helps another reviewer understand what was actually observed and whether follow-up uses the same outcome. It also reduces the risk that a nonspecific change becomes attributed to medication simply because a classified contributor appears in the list.

Reconcile products and actual administration

Keep the exact ingredient, preparation, concentration, route, and use pattern. If medicines are administered by several caregivers or across home and school, the history should distinguish prescribed instructions from what was actually given during the relevant period. Uncertainty should remain explicit until reconciled.

An ingredient-level scale entry does not resolve product-specific administration questions or validate a dose conversion. If a source is less specific than the current preparation, show that limitation. A missing source observation remains missing even when the medicine is clinically important.

Keep outcome types separate

A study of cognition does not establish the absence of peripheral symptoms. A report of constipation does not establish a cognitive effect. A change in behavior does not necessarily identify either. Separating these outcomes helps the family and clinical team focus on the evidence relevant to the actual concern.



If treatment changes, assess the intended benefit and the concern separately. A lower category is not itself evidence that the child is more comfortable or functioning better. The clinical outcome must be observed in terms meaningful to the child and caregivers.

A shared observation plan can reduce ambiguity across home, school, and clinical visits. Each observer can describe the same concrete behavior in their setting and note whether the opportunity to observe it occurred. Absence of a report is different from an observed absence of the behavior. The purpose is to build a coherent history that the treating team can interpret; it is not to turn caregiver observations into a diagnostic test or to add an unvalidated symptom total to the burden score.

Limits and practical takeaway

The available studies do not justify a universal neurodevelopmental burden threshold or a group-wide medication rule. Geriatric criteria retain their older-adult scope. The most useful evidence summary combines an accurate source record with a child-specific baseline, a concrete account of change, and a clearly stated uncertainty about cause.

References

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Explore the evidence

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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.