

Ritalin's Effectiveness Challenged



By Josh Bloom — December 4, 2015

Ritalin, a staple for the treatment of ADHD in children, is the subject of a new Cochrane Report questioning its effectiveness. The review, which also contains caveats that somewhat undercut its primary finding, indicates that the widely-used drug may have a better reputation than it deserves.



[1]There are few medical topics more controversial than the

use of stimulant drugs to treat children with attention deficit hyperactivity disorder, or ADHD. Depending on whom you ask, they are either over prescribed, under prescribed -- or both. And let's not forget to include all the anecdotal claims of successes and failures, running the gamut from "my kid can now concentrate in class and is doing much better," to "those drugs turned my kid into a zombie."

But now, there's new evidence from a well-respected medical source suggesting that one common ADHD medication, Ritalin, isn't as useful as was previously thought.

Ritalin (methylphenidate) is in one of the two principal classes of ADHD medications. Adderall (amphetamine) is in the other. Both are stimulants, which can have a paradoxically calming effect in children.

- Ritalin class: Metadate, Concerta, Methylin, and Quillivant are simply other brand names for Ritalin.
- Adderall class: Mixture of amphetamine and dexamphetamine (very similar). Vyvanse is a "pro-drug" of amphetamine. It has no activity until it is metabolized in the body, where it then breaks down to amphetamine.

(There are newer, lesser-used drugs that I'll leave out of this review.)

Ritalin is now getting considerable attention, after a [review](#) [2] just issued by the [Cochrane](#) [3] organization. This attention, however, is not the type that makers of the drug want to see.

The Cochrane Review, described as the "first comprehensive systematic review of [Ritalin's] benefits and harms," concludes that there is no strong evidence to support the beliefs of physicians who use it, and it simply doesn't work as well as doctors think. So much so that, according to lead author Ole Jakob Storeo, PhD, a clinical psychologist at the Region Zealand, Child and Adolescent Psychiatric Department in Denmark, that "[i]n general, our findings raise concerns about how much we should expect of this medicine, and there needs to be more caution when prescribing methylphenidate. I think it probably calls for a change of mindset more than a change in practice."

This conclusion was based on the study of 185 randomized controlled trials that included more than 12,00 children ranging in age from three to 18. Although an improvement in ADHD symptoms was noted, as rated by teachers, the effect was small. A similar effect was noted by children in a questionnaire.

Additionally, Cochrane concluded that the quality of the evidence was low, and there was a high potential for bias, partly because 40 percent of the trials were funded by industry, (although this does not necessarily mean that all drug trials that are funded by industry are biased. They are not.)

When coupled with the adverse effects that the drug can produce, it is likely that Ritalin will no longer automatically be given to children who are having trouble in school. This would represent a big change in practice.

Although Adderall is also commonly used for ADHD, it was not studied in this review. It cannot be taken for granted that the findings for Adderall would be the same.

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