

## Extended-Release Methylphenidate (Ritalin<sup>®</sup> LA<sup>1</sup>) A Viewpoint by Daniel J. Safer

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Extended-release methylphenidate compounds have been a recent and welcome addition for the treatment of attention deficit/hyperactivity disorder (ADHD); they simplify drug administration and allow for a smoother effect compared with repeated doses of immediate-release tablets. In the USA, Ritalin<sup>®</sup> LA has recently been added to Metadate<sup>®</sup> CD and Concerta<sup>™</sup> as approved extended-release methylphenidate products. Ritalin<sup>®</sup> LA comes in three dosage strengths (20, 30 and 40mg) compared with one for Metadate<sup>®</sup> CD (20 mg) and four for Concerta<sup>™</sup> (18, 27, 36 and 54 mg). Like Metadate<sup>®</sup> CD, Ritalin<sup>®</sup> LA has both immediate- and delayed-release beads in its capsules. The capsules may be opened and the contents administered in apple sauce without loss of effectiveness.

The methylphenidate plasma levels of Metadate<sup>®</sup> CD peak at 1.5 and 4.5 hours. For Ritalin<sup>®</sup>

LA, these peaks occur at 2 and approximately 6 hours. The duration of action of Ritalin<sup>®</sup> LA or Metadate<sup>®</sup> CD is 7 to 9 hours, which is less than the reported 12-hour duration of action of Concerta<sup>™</sup>.

As yet, there are no published studies of Ritalin<sup>®</sup> LA. Although it is too early to know, there are probable differences between the three marketed extended-release methylphenidate compounds. Ritalin<sup>®</sup> LA may have a somewhat longer duration of action than Metadate<sup>®</sup> CD; Metadate<sup>®</sup> CD and Ritalin<sup>®</sup> LA may have a more predictable time course than Concerta<sup>™</sup>. Both Ritalin<sup>®</sup> LA and Metadate<sup>®</sup> CD appear to have a more rapid onset of action than Concerta<sup>™</sup>; [1] sleep impairment adverse effects appear to be greatest with Concerta<sup>™</sup> and least with Metadate<sup>®</sup> CD. [2] ▲

## References

1. González MA, Pentikis HS, Anderli N, et al. Methylphenidate bioavailability from two extended-release formulations. *Int J Clin Pharmacol Ther* 2002 Apr; 40 (4): 175-84
2. Sarampote CS, Kissel A, Efron L, et al. Tolerability and side effects of OROS methylphenidate (MPH): dose response? [poster]. 48th Annual Meeting of the American Academy of Child and Adolescent Psychiatry; 2001 Oct 23-28; Honolulu (HI)

<sup>1</sup> Use of a tradename is for product identification purposes only, and does not imply endorsement.