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IMMEDIATE-RELEASE AND EXTENDED-RELEASE FORMULATIONS OF SECOND-GENERATION ANTIDEPRESSANTS FOR THE TREATMENT OF MAJOR DEPRESSIVE DISORDER IN ADULTS

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Introduction: Extended-release formulations of antidepressants have been marketed as a strategy to increase patient adherence. Changes in the formulation of drugs, however, could be related to changes in efficacy and tolerability. Among second-generation antidepressants, bupropion, fluoxetine, mirtazapine, paroxetine, and venlafaxine are available in immediate- and extended-release formulations.

Objectives: To compare the efficacy, tolerability, and adherence of immediate- versus extended-release formulations of second-generation antidepressants for the treatment of major depressive disorder (MDD) in adults.

Aim: To provide an evidence base for clinicians when choosing immediate- or extended-release formulations of antidepressants for the treatment of MDD.

Methods: We conducted a comparative effectiveness review for the U.S. Agency for Healthcare Research and Quality searching PubMed, EMBASE, The Cochrane Library, and the International Pharmaceutical Abstracts up to May 2010. Two people independently reviewed the literature, abstracted data, and rated the risk of bias.

Results: Six RCTs and one observational study provided evidence about the comparative efficacy, tolerability, and adherence of bupropion SR (sustained release) versus bupropion XL (extended release), fluoxetine daily vs. fluoxetine weekly, paroxetine IR (immediate release) versus paroxetine CR (continuous release), and venlafaxine IR versus venlafaxine XR (extended release). Overall, no substantial differences in efficacy and safety could be detected. Open-label and observational evidence indicated better adherence for bupropion XL and fluoxetine weekly than for immediate-release medications. No differences in adherence could be detected between paroxetine IR and paroxetine CR.

Conclusions: Our findings indicate similar efficacy and tolerability between immediate- and extended-release formulations. Whether extended-release formulations lead to better adherence remains unclear.