

# Duloxetine moderately cost-effective for treating back pain

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Duloxetine is a moderately cost-effective treatment for chronic low back pain compared with other post-first-line oral medications, according to research published in the May 15 issue of *Spine*.

(HealthDay)—Duloxetine is a moderately cost-effective treatment for chronic low back pain (CLBP) compared with other post-first-line oral medications, according to research published in the May 15 issue of *Spine*.

Ronald Wielage, M.P.H., from Medical Decision Modeling in Indianapolis, and colleagues created a model based on the 2008 osteoarthritis clinical guidelines of the National Institute for Health and Clinical Excellence (NICE). Meta-analysis estimated treatment-specific utilities, and a transfer-to-utility regression was estimated from [duloxetine](#) CLBP trial data. The NICE model and meta-analysis estimated adverse event rates of comparator treatments. Published

literature and Quebec and Ontario public sources were used to derive costs.

The researchers found that naproxen, celecoxib, and duloxetine were the most cost-effective in the base case, with naproxen the least expensive medication. Celecoxib had an incremental cost-effectiveness ratio of \$19,881, and duloxetine's was \$43,437. Other comparators were dominated. Rates of cardiovascular and gastrointestinal adverse events and [proton pump inhibitor](#) usage drove up costs. For a population 65 years or older, the incremental cost-effectiveness ratio for duloxetine fell to \$21,567, while for a population at higher risk of cardiovascular and gastrointestinal adverse events, it fell to \$18,726.

"The model estimates that duloxetine is a moderately cost-effective treatment for CLBP, becoming more cost-effective for populations older than 65 years or at greater risk of cardiovascular and gastrointestinal events," the authors write.

The study was funded in part by Eli Lilly, the manufacturer of duloxetine.

**More information:** [Abstract](#)  
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