

Health utility scores in children and adolescents with attention-deficit/hyperactivity disorder: response to stimulant treatment

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Introduction

The Health Utilities Index-Mark 2 (HUI2), a generic instrument for assessing health status, is an important effectiveness input for pharmacoeconomic modelling. It has not previously been used in patients with attention deficit/hyperactivity disorder (ADHD).

Objective

To use HUI2 to assess health utility in patients aged 6–17 years with ADHD receiving the prodrug stimulant lisdexamfetamine dimesylate (LDX).

Methods

SPD489-325 was a 7-week, randomized, double-blind, placebo-controlled trial of LDX, with osmotic-release oral system methylphenidate (OROS-MPH) as a reference treatment. Patients' parents or guardians completed HUI2 questionnaires at baseline and weeks 4 and 7. Utilities were estimated for treatment responders and non-responders, with response defined as a Clinical Global Impressions-Improvement (CGI-I) score of 1 or 2, or a $\geq 25\%$ or $\geq 30\%$ reduction in ADHD Rating Scale IV (ADHD-RS-IV) total score.

Results

Of 336 patients randomized, 317 were included in the full analysis set (LDX, n=104; OROS-MPH, n=107; placebo, n=106) and 196 completed the study. At endpoint, mean HUI2 utility scores across all treatment groups were higher for responders than non-responders when response was based on CGI-I score (responders: 0.896 [SD, 0.0990]; non-responders: 0.838 [0.1421]), on a $\geq 25\%$ reduction in ADHD-RS-IV score from baseline (responders, 0.899 [0.0969]; non-responders, 0.809 [0.1474]), or on a $\geq 30\%$ reduction in ADHD-RS-IV score from baseline (responders, 0.902 [0.0938]; non-responders 0.814 [0.1477]).

Conclusions

The HUI2 instrument is sensitive to treatment response in the child and adolescent ADHD patient population. Health utilities generated using HUI2 are therefore suitable for cost effectiveness evaluations of ADHD medications.

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