40-WEEK, RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED, MULTICENTER, EFFICACY AND SAFETY STUDY OF METHYLPHENIDATE HYDROCHLORIDE MODIFIED RELEASE (MPH-LA) IN ADULTS WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD)

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Introduction: Recent epidemiology studies have reported the prevalence of adult ADHD to be approximately 4%, however approved treatments are limited.
Objectives: Primary objectives were to confirm the clinically-effective and safe dosage range of MPH-LA in adults with ADHD and evaluate the 6-month maintenance of effect.
Methods: Treatment Period (*TP*) 1: Patients were randomized to double-blind placebo, MPH-LA 40, 60, or 80 mg/day for 9-weeks (3-week titration, 6-week fixed-dose) to evaluate change in DSM-IV ADHD-RS and Sheehan Disability Scale (SDS) total score in *TP1*. *TP2*: 5-week titration to individual optimal dose. *TP3*: Patients were randomized to their optimal dose or placebo for 6-months double-blind withdrawal period to evaluate percentage of treatment failures during *TP3*.
Results: Improvement from baseline in total score on the DSM-IV ADHD-RS and SDS was significantly greater than placebo for all MPH-LA dose levels (table)**.** Patients treated with MPH-LA had significantly lower treatment failure rates (21.34%) compared to placebo in *TP3* (49.6%; odds-ratio (95%CI=0.3 (0.2, 0.4); p< 0.0001). The safety results were consistent with the established safety profile for MPH-LA.

N=Full Analysis Set for TP1 (All randomized patients receiving one dose of study drug in TP1)	MPH-LA (40mg) (N=174)	MPH-LA (60mg) (N=175)	MPH-LA (80mg) (N=179)	Placebo (N=172)
Attention-Deficit/Hyperactivity Disorder Rating scale (DSM-IV ADHD-RS) (n)	160	155	156	161
LS Mean	15.45	14.71	16.36	9.35
LS mean difference from placebo (95% CI)	6.10 (3.68, 8.53)	36 (2.92, 7.79)	7.01 (4.59, 9.42)	
p value	p<0.0001	p<0.0001	p<0.0001	
Sheehan Disability Scale (n)	151	146	148	152
LS Mean	5.89	4.90	6.47	3.03
LS mean difference from placebo (95% CI)	2.86 (1.33, 4.39)	1.87 (0.33, 3.41)	3.44 (1.91, 4.97)	
p value	0.0003	0.0176	<0.0001	
Significance level (gatekeeping procedure)	0.0167	0.0208	0.0313	

[Improvement by week 9: DSM-IV ADHD-RS and SDS]

Conclusions: MPH-LA administered at 40-80mg/day demonstrated superior ADHD symptom control and reduction in functional impairment compared to placebo and demonstrated maintenance of effect over 6 months. No unexpected adverse

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