Clinical Pharmacology Review

NDA:	200603
Generic Name:	Lurasidone HCL
Trade Name:	LATUDA
Strength and Dosage Form:	Oral Tablets; 20 mg, 40 mg, 60 mg, 80 mg and 120 mg
Route of administration	Oral
Indication:	Schizophrenia
Mechanism of action:	Atypical antipsychotic
Sponsor:	Sunovion
Submission Type/SDN#:	Efficacy Supp.# 29, Depressive episodes associated with Bipolar 1 in pediatric patients (children and adolescents 10 to 17 years)- SDN # 1213
Relevant IND:	IND 61292
Priority Classification:	Standard
Submission Date:	5/5/2017
PDUFA date:	3/5/2018
OCP Division:	DCP1
OND Division:	DPP
Reviewer:	Praveen Balimane, Ph.D.
Team Leader:	Hao Zhu, Ph.D.

Executive Summary

Latuda (Lurasidone HCL) was originally approved for the treatment of schizophrenia in adults in October 2010. Subsequently, an efficacy supplement was approved for depressive episodes associated with Bipolar 1 as monotherapy and adjunctive therapy in adults in June 2013.

The current efficacy supplement (S#29) is for depressive episodes associated with Bipolar 1 in pediatric patients (children and adolescents 10 to 17 years). This submission includes the following:

- Study D1050300: A pediatric PK study to satisfy PMR (1701-1). The complete study report (including all the PK results) for Study D1050300 had been reviewed earlier by the agency and found to be acceptable (OCP review for NDA 200603/ Supp. # 26 and 27; Darrts 12/23/2016 by Balimane and Hao). The PK results had been included in the label.

- Study D1050326: A pediatric efficacy and safety study to satisfy a PREA requirement (2058-1). This is randomized, 6-week, double-blind, placebo-controlled, flexible-dose, parallel group study to evaluate the efficacy and safety of Lurasidone in children and adolescent subjects with bipolar depression. The doses were selected by matching the exposure with adults as well as tolerability in study D1050300. Lurasidone (20 to 80 mg/day, flexibly-dosed) demonstrated statistically significant improvements compared with placebo across primary (CDRS-R), key secondary (CGI-BP-S), and other secondary efficacy endpoints (PARS, PQ-LES-Q, and CGAS) in children and adolescent subjects with major depressive episode associated with bipolar I disorder (bipolar depression). It

was also found to be safe and well tolerated with its safety profile in children and adolescents similar to the safety profile previously observed in adult subjects with bipolar depression. The medical review will provide all the additional details regarding this efficacy and safety study.

The Office of Clinical Pharmacology finds that the efficacy supplement # 29 is acceptable from the clinical pharmacology's point of view. There are no additionally identified PMR studies at this time.

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/s/

PRAVEEN BALIMANE
02/16/2018

HAO ZHU
02/16/2018