Department of Health and Human Services
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Food and Drug Administration
Center for Drug Evaluation and Research
Office of Surveillance and Epidemiology
Office of Pharmacovigilance and Epidemiology

Pediatric Postmarketing Pharmacovigilance Review

Date:	March 11, 2025
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Product Name:	Viibryd (vilazodone hydrochloride)
Pediatric Labeling Approval Date:	January 31, 2020
Application Type/Number:	NDA 022567
Applicant:	AbbVie, Inc
TTT Record ID:	2025-12979

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EXECUTIVE SUMMARY

This review evaluates FDA Adverse Event Reporting System (FAERS) reports for Viibryd (vilazodone hydrochloride) in pediatric patients less than 18 years of age. The Division of Pharmacovigilance (DPV) conducted this review in accordance with the Best Pharmaceuticals for Children Act (BPCA) and the Pediatric Research Equity Act (PREA). This review focuses on United States (U.S.) serious unlabeled adverse events associated with vilazodone in pediatric patients.

Viibryd (vilazodone hydrochloride) was initially approved in the U.S. on January 21, 2011, and is currently indicated for the treatment of major depressive disorder in adults.

Vilazodone is not indicated for use in pediatrics.

This pediatric postmarketing safety review was stimulated by pediatric labeling on January 31, 2020, which included information on clinical studies that failed to establish safety and effectiveness for vilazodone in pediatric patients.

DPV reviewed all U.S. serious FAERS reports with vilazodone, in pediatric patients less than 18 years of age, from January 21, 2011, through January 29, 2025, and identified 44 reports; however, all reports were excluded from further discussion.

There were no new safety signals identified and no increased severity of any labeled adverse events in pediatric patients less than 18 years of age.

DPV did not identify any new pediatric safety concerns for vilazodone at this time and will continue routine pharmacovigilance monitoring for vilazodone.

1 INTRODUCTION

This review evaluates FDA Adverse Event Reporting System (FAERS) reports for Viibryd (vilazodone hydrochloride) in pediatric patients less than 18 years of age. The Division of Pharmacovigilance (DPV) conducted this review in accordance with the Best Pharmaceuticals for Children Act (BPCA) and the Pediatric Research Equity Act (PREA). This review focuses on United States (U.S.) serious unlabeled adverse events associated with vilazodone in pediatric patients.

1.1 PEDIATRIC REGULATORY HISTORY[1]

Viibryd (vilazodone hydrochloride) was initially approved in the U.S. on January 21, 2011, and is currently indicated for the treatment of major depressive disorder in adults. Vilazodone is not indicated for use in pediatrics.

This pediatric postmarketing safety review was stimulated by pediatric labeling on January 31, 2020, which included information on clinical studies that failed to establish safety and effectiveness for vilazodone in pediatric patients.

Vilazodone has not previously been presented to the Pediatric Advisory Committee.

1.2 RELEVANT LABELED SAFETY INFORMATION[1]

The Viibryd labeling contains the following safety information excerpted from the Highlights of Prescribing Information and the *Pediatric Use* subsection. For additional Viibryd labeling information, please refer to the full prescribing information.

WARNING: SUICIDAL THOUGHTS AND BEHAVIORS
See full prescribing information for complete boxed warning.

- **Antidepressants increase the risk of suicidal thoughts and behaviors in pediatric and young adult patients.**
- **Closely monitor all antidepressant-treated patients for clinical worsening and emergence of suicidal thoughts and behaviors.**
- **Viibryd is not approved for use in pediatric patients.**

----------CONTRAINDICATIONS----------

- Concomitant use of monoamine oxidase inhibitors (MAOIs), or use within 14 days of stopping MAOIs

----------WARNINGS AND PRECAUTIONS----------

- Serotonin Syndrome: Increased risk when co-administered with other serotonergic agents, but also when taken alone. If it occurs, discontinue VIIBRYD and serotonergic agents and initiate supportive treatment.
- Increased Risk of Bleeding: Concomitant use of aspirin, nonsteroidal anti-inflammatory drugs (NSAIDs), other antiplatelet drugs, warfarin, and other anticoagulants may increase this risk.
- Activation of Mania/Hypomania: Screen patients for bipolar disorder
- Seizures: Can occur with treatment. Use with caution in patients with a seizure disorder.

- Angle Closure Glaucoma: Avoid use of antidepressants, including VIIBRYD, in patients with untreated anatomically narrow angles.
- Sexual Dysfunction: VIIBRYD may cause symptoms of sexual dysfunction.

----------ADVERSE REACTIONS----------

- Most common adverse reactions (incidence ≥ 5% and at least twice the rate of placebo): diarrhea, nausea, vomiting, and insomnia.

----------USE IN SPECIFIC POPULATIONS----------

8.4 Pediatric Use

The safety and effectiveness of VIIBRYD have not been established in pediatric patients for the treatment of MDD.

Efficacy was not demonstrated in two adequate and well controlled, 8-week studies including a total of 1002 pediatric patients ages 7 years to 17 years of age with MDD. The following adverse reactions were reported in at least 5% of pediatric patients treated with VIIBRYD and occurred at a rate at least twice that for pediatric patients receiving placebo: nausea, vomiting, diarrhea, abdominal pain/discomfort, and dizziness.

Antidepressants increased the risk of suicidal thoughts and behaviors in pediatric patients.

Juvenile Animal Toxicity Data
In a juvenile animal study, male and female rats were treated with vilazodone (10, 50, and 200 mg/kg/day) starting on postnatal day (PND) 21 through 90. A delay in the age of attainment of vaginal patency (i.e. sexual maturation) was observed in females starting at 50 mg/kg/day with a No Observed Adverse Effect Level (NOAEL) of 10 mg/kg/day. This NOAEL was associated with AUC levels similar to those measured at a maximum dose tested in pediatrics (30 mg). Adverse behavioral effects (lack of habituation in an acoustic startle test) were observed in males at 200 mg/kg and females starting at 50 mg/kg both during drug treatment and the recovery periods. The NOAEL for this finding was 50 mg/kg for males and 10 mg/kg for females, which was associated with AUC levels greater than (males) or similar (females), to those observed with the maximum dose tested in pediatric patients. An 8% decrease in femur mineral density was observed in female rats at 200 mg/kg, compared to the control group. The NOAEL for this finding was 50 mg/kg, which was associated with an AUC level greater than those measured at the maximum dose tested in pediatrics.

2 METHODS AND MATERIALS

2.1 FAERS SEARCH STRATEGY

DPV searched the FAERS database with the strategy described in Table 1.

Table 1. FAERS Search Strategy[*]	
Date of search	January 30, 2025
Time period of search	January 21, 2011[†] - January 29, 2025
Search type	RxLogix Pediatric Focused Review Alert
Product terms	Product Active Ingredient: vilazodone hydrochloride; vilazodone
MedDRA search terms (Version 27.1)	All Preferred Terms
Other search terms[‡]	Case Seriousness: Serious Country Derived: USA

Table 1. FAERS Search Strategy*
* See Appendix A for a description of the FAERS database. † U.S. approval date for Viibryd (vilazodone) ‡ For the purposes of this review, the following outcomes qualify as serious: death, life-threatening, hospitalization (initial or prolonged), disability, congenital anomaly, required intervention, or other serious important medical events. Abbreviation: MedDRA=Medical Dictionary for Regulatory Activities; USA=United States of America

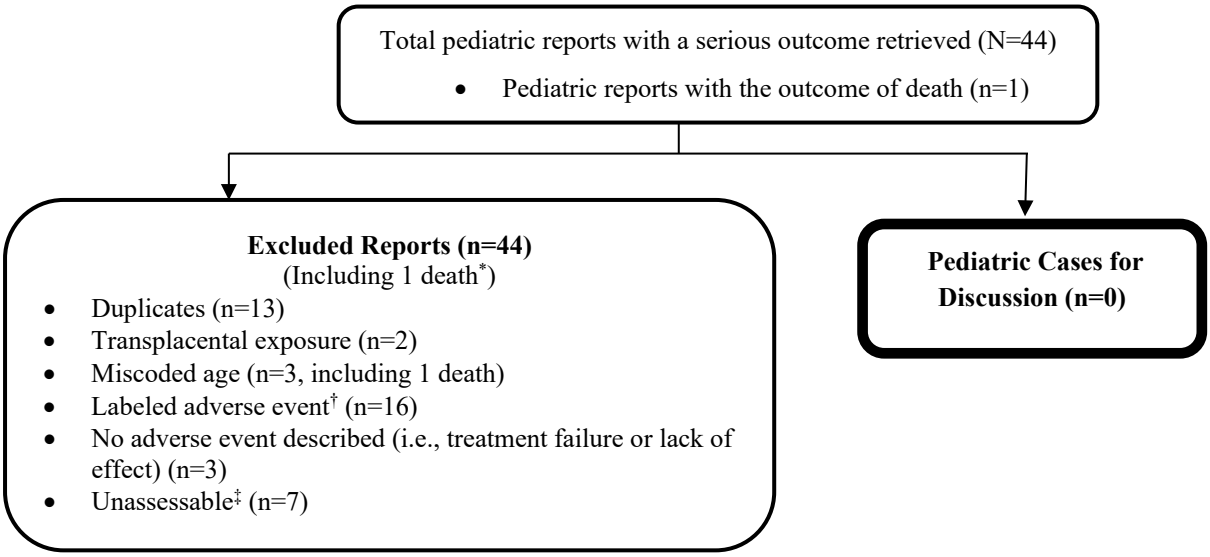
3 RESULTS

3.1 FAERS

3.1.1 Selection of U.S. Serious Pediatric Cases in FAERS

Our FAERS search retrieved 44 U.S. serious pediatric reports for patients less than 18 years old from January 21, 2011, through January 29, 2025. We reviewed all U.S. FAERS pediatric reports with a serious outcome. We excluded all 44 reports for the reasons listed in Figure 1.

Figure 1. Selection of U.S. Serious Pediatric Cases with Vilazodone



* One U.S. FAERS death report described an adult patient.
† Labeled adverse event does not represent increased severity.
‡ Unassessable: The report cannot be assessed for causality because there is insufficient information reported (i.e., unknown time to event, concomitant medications and comorbidities, clinical course and outcome), the information is contradictory, or information provided in the report cannot be supplemented or verified.

3.1.2 Summary of U.S. Fatal Pediatric Cases (N=0)

There are no fatal pediatric adverse event cases for discussion.

3.1.3 Summary of U.S. Serious Non-Fatal Pediatric Cases (N=0)

There are no non-fatal pediatric adverse event cases for discussion.

4 DISCUSSION

DPV reviewed all U.S. serious FAERS reports with vilazodone in pediatric patients less than 18 years of age from January 21, 2011, through January 29, 2025, and identified 44 reports; however, all reports were excluded from further discussion.

There were no new safety signals identified and no increased severity of any labeled adverse events in pediatric patients less than 18 years of age.

5 CONCLUSION

DPV did not identify any new pediatric safety concerns for vilazodone at this time and will continue routine pharmacovigilance monitoring for vilazodone.

6 REFERENCES

1. Viibryd (vilazodone) [package insert]. North Chicago, IL. AbbVie, Inc. Revised 2024.

7 APPENDICES

7.1 APPENDIX A. FDA ADVERSE EVENT REPORTING SYSTEM (FAERS)

The FDA Adverse Event Reporting System (FAERS) is a database that contains information on adverse event and medication error reports submitted to FDA. The database is designed to support FDA's postmarketing safety surveillance program for drug and therapeutic biological products. The informatic structure of the database adheres to the international safety reporting guidance issued by the International Council on Harmonisation. Adverse events and medication errors are coded to terms in the Medical Dictionary for Regulatory Activities terminology. The suspect products are coded to valid tradenames or active ingredients in the FAERS Product Dictionary.

FAERS data have limitations. First, there is no certainty that the reported event was actually due to the product. FDA does not require that a causal relationship between a product and event be proven, and reports do not always contain enough detail to properly evaluate an event. Further, FDA does not receive reports for every adverse event or medication error that occurs with a product. Many factors can influence whether an event will be reported, such as the time a product has been marketed and publicity about an event. Therefore, FAERS data cannot be used to calculate the incidence of an adverse event or medication error in the U.S. population.