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Center for Drug Evaluation and Research
Office of Surveillance and Epidemiology
Office of Pharmacovigilance and Epidemiology

Pediatric Postmarketing Pharmacovigilance Review

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Product Name:	Zegalogue (dasiglucagon)
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EXECUTIVE SUMMARY

This review evaluates FDA Adverse Event Reporting System (FAERS) reports for Zegalogue (dasiglucagon) injection in pediatric patients less than 18 years of age. The Division of Pharmacovigilance (DPV) conducted this review in accordance with Pediatric Research Equity Act (PREA). This review focuses on United States (U.S.) serious unlabeled adverse events associated with dasiglucagon in pediatric patients.

Zegalogue (dasiglucagon) is an antihypoglycemic agent initially approved in the U.S. on March 22, 2021. It is currently indicated for the treatment of severe hypoglycemia in patients with diabetes aged 6 years and above.[1]

This pediatric postmarketing safety review was prompted by pediatric labeling at the time of approval on March 22, 2021, that included an indication for pediatric patients.

DPV has not previously performed a pediatric postmarketing pharmacovigilance review for dasiglucagon for the Pediatric Advisory Committee.

DPV searched FAERS for all U.S. serious reports with dasiglucagone in pediatric patients less than 18 years of age through January 29, 2025, and did not identify any reports.

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

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

1 INTRODUCTION

This review evaluates FDA Adverse Event Reporting System (FAERS) reports for Zegalogue (dasiglucagon) injection in pediatric patients less than 18 years of age. The Division of Pharmacovigilance (DPV) conducted this review in accordance with Pediatric Research Equity Act (PREA). This review focuses on United States (U.S.) serious unlabeled adverse events associated with dasiglucagon in pediatric patients.

1.1 PEDIATRIC REGULATORY HISTORY

Zegalogue (dasiglucagon) is an antihypoglycemic agent initially approved in the U.S. on March 22, 2021. It is currently indicated for the treatment of severe hypoglycemia in patients with diabetes aged 6 years and above.[1]

This pediatric postmarketing safety review was prompted by pediatric labeling at the time of approval on March 22, 2021, that included an indication for pediatric patients.

DPV has not previously performed a pediatric postmarketing pharmacovigilance review for dasiglucagon for the Pediatric Advisory Committee.

1.2 RELEVANT LABELED SAFETY INFORMATION

The Zegalogue labeling contains the following safety information excerpted from the Highlights of Prescribing Information and the *Pediatric Use* subsection. For additional Zegalogue labeling information, please refer to the full prescribing information.[1]

----------CONTRAINDICATIONS----------
Pheochromocytoma (4)
Insulinoma (4)

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

- Substantial Increase in Blood Pressure in Patients with Pheochromocytoma: Contraindicated in patients with pheochromocytoma because ZEGALOGUE may stimulate the release of catecholamines from the tumor. (4, 5.1)
- Hypoglycemia in Patients with Insulinoma: In patients with insulinoma, administration may produce an initial increase in blood glucose, but ZEGALOGUE may stimulate exaggerated insulin release from an insulinoma and cause subsequent hypoglycemia. If a patient develops symptoms of hypoglycemia after a dose of ZEGALOGUE, give glucose orally or intravenously. (4, 5.2)
- Hypersensitivity and Allergic Reactions: Allergic reactions have been reported with glucagon products and may include generalized rash, and in some cases anaphylactic shock with breathing difficulties and hypotension. (5.3)
- Lack of Efficacy in Patients with Decreased Hepatic Glycogen: ZEGALOGUE is effective in treating hypoglycemia only if sufficient hepatic glycogen is present. Patients in states of starvation, with adrenal insufficiency or chronic hypoglycemia may not have adequate levels of hepatic glycogen for ZEGALOGUE to be effective. Patients with these conditions should be treated with glucose. (5.4)

----------ADVERSE REACTIONS----------
Most common adverse reactions (≥2%) associated with ZEGALOGUE are: Adults: nausea, vomiting, headache, diarrhea, and injection site pain Pediatrics: nausea, vomiting, headache, and injection site pain (6.1)

8.4 Pediatric Use

The safety and effectiveness of ZEGALOGUE for the treatment of severe hypoglycemia in patients with diabetes have been established in pediatric patients aged 6 years and above. Use of ZEGALOGUE for this indication is supported by evidence from a study in 42 pediatric patients with type 1 diabetes [see Clinical Studies (14.2)].

The safety and effectiveness of ZEGALOGUE have not been established in pediatric patients younger than 6 years of age.

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	All dates through January 29, 2025
Search type	RxLogix Pediatric Focused Review Alert – DPV
Product terms	Product active ingredient: dasiglucagon
MedDRA search terms (Version 27.1)	All Preferred Terms
Other search terms†	Case Seriousness: Serious Country Derived: USA
* See Appendix A for a description of the FAERS database. † 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. Abbreviations: 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 zero U.S. serious pediatric reports for patients less than 18 years old through January 29, 2025.

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 searched FAERS for all U.S. serious reports with dasiglucagone in pediatric patients less than 18 years of age through January 29, 2025, and did not identify any reports.

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

5 CONCLUSION

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

6 REFERENCES

1. Zegalogue (dasiglucagon) injection. [Prescribing information]. Søborg, Denmark; Zealand Pharma A/S: March 2021.

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.