1. Abstract

Title

A Post-Marketing Surveillance of the Abuse of Eluxadoline using Poison Centre Data in Canada and the United States

Keywords

Poison center, exposure, eluxadoline, abuse, Viberzi

Marketing Authorisation Holder(s)

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Rationale and background

Eluxadoline (Viberzi®) is approved for the treatment of irritable bowel syndrome with diarrhea (IBS-D) in adults. The use of opioid agonists is associated with potential for abuse or misuse. An overdose of eluxadoline may result in symptoms resulting from an exaggeration of the known pharmacodynamic effects of the medicinal product. Health Canada has requested that Allergan monitor the drug abuse/overdose potential of eluxadoline in the post-marketing setting. Using data from calls made to poison centers in the United States and Canada, this study describes a) the level of abuse and serious adverse events of eluxadoline since approval in the United States and Canada and b) the characteristics of exposures involving eluxadoline in the United States and Canada.

Primary Objectives

a) To quantify the rate of abuse and serious adverse events for eluxadoline during a 3-year post approval period

Secondary Objectives

a) To describe characteristics in terms of exposures and patient demographics of eluxadoline exposures reported to United States and Canadian poison centers

b) To describe the medical outcomes associated with eluxadoline exposures reported to United States and Canadian poison centers

Study design

Retrospective observational surveillance study using data from the National Poison Data System in the United States and the Canadian Poison Centre Network Program in Canada.

Setting

Telephone calls received from the general public and healthcare professionals to poison centers for the reporting and management of poison related exposures or injuries.

Subjects and study size, including dropouts

All cases of human exposure to eluxadoline recorded in the National Poison Data System as originating in the United States during a 2-year period (January 2017 to December 2018) were identified and included in the analysis. All cases of human exposure to eluxadoline recorded in the Canadian Poison Centre Network Program during a 1-year period (January 2018 to December 2018) were identified and included in the analysis. All cases of human exposure to eluxadoline recorded in the National Poison Data System as originating in the United States and in the Canadian Poison Centre Network Program during a 1-year period (January 2019 to December 2019) will be identified and included in the final report of study results.

Variables and data sources

Secondary data collected by the National Poison Data System were used. They include:

- Patient demographics (age, gender)
- Number of substances involved in exposure
- Reason for exposure (intentional, unintentional, intentional abuse, intentional misuse, pediatric unintentional general)
- Route of exposure (ingestion, inhalation/nasal, parenteral, other, unknown) for single substance exposures (eluxadoline exposures only)
- Major medical outcome, hospitalization, or death (serious adverse event)
- Medical outcomes (no effect/minor effect/moderate effect/major effect/death/no follow-up)

Results

- In total there were 92 exposures involving eluxadoline reported to poison centers in the United States in 2017 and 2018.
- Of the 92 exposures involving eluxadoline reported to poison centers in the United States, no intentional abuse exposures were reported, and 11 exposures categorized as a serious adverse event were reported;

    - the majority of serious adverse event exposures involved multiple substances (N=8, 72.7%).
- The majority of exposures (N=63, 68%) were unintentional.
- There were ten (10.9%) unintentional pediatric exposures.
- All exposures were via the ingestion route of administration.
- There were 0 exposures involving eluxadoline reported in the Canadian Poison Centre Network in 2018.

Discussion

There were no intentional abuse exposures mentioning eluxadoline in Canada or the United States. Eleven exposures resulting in serious adverse events were reported and all were located in the United States; the majority involved more than one substance. The majority of eluxadoline exposures were unintentional; ten involved pediatric patients. There were no exposures regardless of motivation reported in Canada.