SFDA SAFETY SIGNAL

"A signal is defined by the SFDA as reported information on a possible causal relationship between an adverse event and a drug, the relationship being unknown or incompletely documented previously. Usually more than a single report is required to generate a signal, depending upon the seriousness of the event and the quality of the information. A signal is a hypothesis together with data and arguments and it is important to note that a signal is not only uncertain but also preliminary in nature"

28-10-2024

Saudi Food and Drug Authority (SFDA) – Safety Signal of Semaglutide and the Risk of Suicidal ideation

*The Saudi Food and Drug Authority (SFDA) recommends all health care professionals to be aware of the safety signal of **Suicidal ideation** associated with the use of **Semaglutide**. The signal has been originated as a result of routine pharmacovigilance monitoring activities.*

Introduction

Semaglutide is a type 2 diabetes medication that acts as a glucagon-like peptide-1 (GLP-1) receptor agonist.It is indicated as an adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes mellitus. Also to reduce the risk of major adverse cardiovascular events (cardiovascular death, non-fatal myocardial infarction or non-fatal stroke) in adults with type 2 diabetes mellitus and established cardiovascular disease. [1] Suicidal ideations (SI), often-called suicidal thoughts or ideas, is a broad term used to describe a range of contemplations, wishes, and preoccupations with death and suicide. There is no universally accepted consistent definition of SI, which leads to ongoing challenges for clinicians, researchers, and educators. [2] The aim of this review is to evaluate the risk of Suicidal ideation associated with the use of Semaglutide and to suggest regulatory recommendations if required.

Methodology

Signal Detection team at SFDA performed a signal review using National Pharmacovigilance Center (NPC) database, and World Health Organization (WHO) database, VigiBase, with literature screening to retrieve all related information to assess the causality between Suicidal ideation and Semaglutide use. The search conducted on July 2024.

Results

Case Review: Signal detection team at SFDA have searched Saudi national database and WHO database to find individual case safety reports (ICSRs). The WHO database resulted in 315 global case-reports while no local cases found. The authors used signal detection tool (Vigilyze) to retrieve all reported global cases. [3] Authors also applied WHO-UMC causality assessment criteria on 31 extracted ICSRs with completeness score of 0.8 and above. [4] Among them, 21 cases were probably and possibly linked to Semaglutide, and 8 cases assessed as not assessable due to lack of valuable information, while the remaining 2 case assessed as unlikely.

Datamining: The disproportionality of the observed and the expected reporting rate for drug/adverse drug reaction pair is estimated using information component (IC), a tool developed by WHO-UMC to measure the reporting ratio. Positive IC reflects higher statistical association while negative values indicates less statistical association. The IC result is (1.6) for this drug/ADR combination which reflects positive statistical association. [4]

Additional evidence: This signal been detected and evaluated by international regulatory authorities. [5,6]

Conclusion

The weighted cumulative evidence identified from assessed cases and disproportionality analysis are suggestive for causal association between Semaglutide and Suicidal ideation. Health care professionals and health regulators must be aware of the potential risk in drug recipients.

Report Adverse Drug Events (ADRs) to the SFDA

The SFDA urges both healthcare professionals and patients to continue reporting adverse drug reactions (ADRs) resulted from using any medications to the SFDA either online, by regular mail or by fax, using the following contact information:

National Pharmacovigilance Center (NPC)
Saudi Food and Drug Authority-Drug sector
4904 northern ring branch rd
Hittin District
Riyadh 13513 – 7148
Kingdom of Saudi Arabia
Toll free number: 19999
Email: NPC.Drug@sfda.gov.sa

References:

1- DailyMed - OZEMPIC- semaglutide injection, solution (no date) U.S. National Library of Medicine. Available at: https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=adec4fd2-6858-4c99-91d4-531f5f2a2d79 [Accessed: 10/07/2024].

2- Harmer B, Lee S, Duong TvH, et al. Suicidal Ideation. [Updated 2024 Jan 14]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK565877/ [Accessed: 17/07/2024].

3- Vigilyze.who-umc.org. 2024. [online] Available at: https://vigilyze.who-umc.org/ [Accessed: 17/07/2024].

4- World Health Organization WHO (2013). WHO-UMC system for standardised case causality assessment. Available at https://www.who.int/publications/m/item/WHO-causality-assessment [Accessed: 18/07/2024].

5- Center for Drug Evaluation and Research (no date) July - September 2023: Potential signals of serious risks/new safety, U.S. Food and Drug Administration. Available at: https://www.fda.gov/drugs/questions-and-answers-fdas-adverse-event-reporting-system-faers/july-september-2023-potential-signals-serious-risksnew-safety-information-identified-fda-adverse [Accessed: 11/07/2024].

6- EMA statement on ongoing review of GLP-1 receptor agonists (2023) EMA statement on ongoing review of GLP-1 receptor agonists | European Medicines Agency. Available at: https://www.ema.europa.eu/en/news/ema-statement-ongoing-review-glp-1-receptor-agonists [Accessed: 14/07/2024].