Kigali on, 28th May 2020
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RWANDA FDA
Rwanda Food and Drugs Authority
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MEDICINE SAFETY COMMUNICATION

Medicine: Levodopa

Re: Rwanda FDA warns on the risk of dopamine dysregulation syndrome associated with Levodopa

Referring to the new safety information published in the WHO Pharmaceuticals NEWSLETTER NO 1/2020, further reference is also made to a safety communication from Pharmaceuticals and medical devices agency in Japan about risk of dopamine dysregulation syndrome associated with Levodopa.

Levodopa is a precursor to dopamine mostly used by clinicians as a dopamine replacement agent for the treatment of Parkinson's disease symptoms such as tremor, rigidity, etc. Levodopa converts to dopamine in both the Central Nervous System (CNS) and periphery. Levodopa is commonly administered with carbidopa, a dopamine decarboxylase inhibitor, to decrease the amount of levodopa that converts to dopamine in the periphery, allowing for more levodopa to cross the Blood Brain barrier (BBB). Once converted to dopamine, it activates postsynaptic dopaminergic receptors and compensates for the decrease in endogenous dopamine.

Dopamine dysregulation syndrome (DDS) is a relatively recently described iatrogenic disturbance that may complicate long-term symptomatic therapy of Parkinson's disease. Dopamine dysregulation syndrome is an uncommon complication of the treatment of Parkinson's disease, characterized by addictive behaviour and excessive use of dopaminergic medication such as Levodopa. Patients with dopamine dysregulation syndrome develop an impulsive control disorder, compulsive gangling as well as compulsive sexual, buying and

eating behaviors. In addition, people with dopamine dysregulation syndrome may feel grandiose or euphoric, and without the medication, they may feel depressed or fatigued.

Information to healthcare professionals

- Prescribers should be aware of the occurrence of Dopamine dysregulation syndrome (DDS) for patient taking combinations of levodopa and dopamine receptors agonists.
- Reducing the dose or discontinuing the medicine, or other appropriate measures should be taken if symptoms like Impulsive control disorder, compulsive sexual, buying and eating behaviors are developed when using Levodopa.
- Advise patients to seek immediate medication advice if they experience symptoms of dopamine dysregulation syndrome during levodopa treatment.

Information to patients or their caregivers

- Patients, their families, or other caregivers should be informed of the symptoms of dopamine dysregulation syndrome and contact their clinicians once developed.
- Do not stop taking levodopa without talking to your healthcare professional first as doing so can cause serious problems.

Information to Marketing authorization holders

- Rwanda FDA is requiring changes in the section of warning and precautions of the medicine levodopa and its brands to include dopamine dysregulation syndrome.

Rwanda FDA urges patients and healthcare professionals to report adverse events involving Levodopa or other drugs to Rwanda FDA by completing the Adverse drug events reporting form accessible on the Rwanda FDA website on the link http://w.w.w.rwandafda.gov.rw/web/fileadmin/adr-aefi reporting form .pdf and the filled form should be sent to the email: pv_sm@rwandafda.gov.rw and copy to info@rwandafda.gov.rw

Sincerely,

Dr. Charles KARANGWA
Ag. Director General

References

1. WHO Pharmaceuticals NEWSLETTER No 1/2020 accessible on http://www.who.int/medicines

2. Revision of Precautions , Pharmaceuticals and Medical Devise Agency in Japan, January 21st , 2020 accessible on www.pmda.go.jp/english/

3. Australian adverse drug reactions bulletin; Vol 24, NO 4, 2005 accessible on https://www.tga.gov.au/publication-issue/australian-adverse-drug-reactions-bulletin-vol-24-no-4

4. Sean S.O. Sullivan, Andrew H. Evans al. Dopamine dysregulation syndrome; CNS Drugs 23, 157-170(2009)
5. Kavita R. Gandhi; Seyed Alireza Hosseini; Abdolreza Saadabadi. Levodopa, 2020, accessible on https://www.ncbi.nlm.nih.gov/books/NBK482140/

6. O'Sullivan SS, Evans AH, Lees AJ. Dopamine dysregulation syndrome: an overview of its epidemiology, mechanisms and management accessible on https://www.ncbi.nlm.nih.gov/pubmed/19173374