clinical cases DDIs

Date of report 22 Jun 2020

Reported case interaction between **Ritonavir** and **Quetiapine**

Drugs suspected to be involved in the DDI

Perpetrator
Ritonavir

Daily Dose
100 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
June 2, 2009

End date
Ongoing

Victim
Quetiapine

Daily Dose
500 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Nov. 15, 2009

End date
Ongoing

Complete list of drugs taken by the patient

Antiretroviral treatment

Darunavir/Cobicistat/Emtricitabine/Tenofovir-AF

Complete list of all comedications taken by the patient, included that involved in the DDI

Lormetazepam 1mg/day, Mirtazapine 30mg/12h, Clonazepam 0.5mg 2 tablets/day, Venlafaxine retard 300mg/day, Quetiapine 300mg/day, Quetiapine 200mg/day

Clinical case description

Gender

Male

Age

52

eGFR (mL/min)

>60

Liver function impairment

No

Description

HIV-infected patient who started treatment with quetiapine 500mg after hospital admission due to major depression and psychotic episode, while he was receiving TDF/FTC + Darunavir/ritonavir 800/100 mg QD for his HIV infection at that moment. Psychiatric treatment was adjusted several times due to decompensation, but the quetiapine dose was never changed. The patient remains stable from a psychiatric point of view, and boosted-PI has been maintained not to alter quetiapine levels. In 2016, ritonavir was changed to cobicistat without consequences. Finally, in 2019 the regimen was switched to TAF/FTC/DRV/cobi. Several ECG have been performed to monitor the QT interval, and they have always been within normal range.

Clinical Outcome

No unwanted outcome

Editorial Comment

It is important to note that in the European SPC both ritonavir and cobicistat-containing regimens are contraindicated with quetiapine due to the known inhibition of CYP3A4 metabolism and therefore potential increase in quetiapine exposure. In the US prescribing information the recommendation is to dose reduce the quetiapine to 1/6th of the dose. Individualization of dosing to manage a drug interaction is an important principle of patient management. Despite this particular case, it is important to be very cautious about this interaction. Note that quetiapine can be administered over a range of doses and the greatest concern will be at higher doses when the implications of increasing the exposure is greatest.

University of Liverpool Recommendation

- These drugs should not be coadministered

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