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UNIVERSITY OF LIVERPOOL

Interaction Report

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Antiretroviral Treatment	Co-medications
Efavirenz (EFV) Emtricitabine (FTC) Tenofovir-DF (TDF)	Tramadol

This report lists the summaries of potential interactions (i.e. "red", "amber" and “yellow” classifications) for the drugs in the table above.

Interactions with a "green" or "grey" classification (i.e. no clinically significant interaction or no clear data) have been checked and are listed at the end of this report, but summaries are not shown.

For full details of all interactions, see www.hiv-druginteractions.org .

Description of the interactions

Potential weak interaction - additional action/monitoring or dosage adjustment is unlikely to be required (YELLOW)

Efavirenz (EFV) + Tramadol
Coadministration has not been studied. Tramadol is metabolized by N-demethylation (CYP3A4 and CYP2B6) and to an active metabolite which is more potent than the parent compound by O-demethylation (CYP2D6). Efavirenz could potentially reduce tramadol exposure but may not affect the metabolic pathway leading to the more potent active metabolite. No a priori dosage adjustment is recommended, but the analgesic effect should be monitored.
Tramadol has a possible risk of QT prolongation and/or TdP on the CredibleMeds.org website. Efavirenz was shown to prolong the QT interval above the regulatory threshold of concern in homozygous carriers of the CYP2B6*6/*6 allele (i.e. 516T variant in the gene encoding CYP2B6). The European product label for efavirenz contraindicates coadministration with a drug with a known risk of Torsade de Pointes whereas the American product label for efavirenz recommends that alternatives should be considered. As the potential risk of a QT interval prolongation relates specifically to homozygous carriers of CYP2B6*6/*6 and given the accumulated years of safety data with efavirenz and such drugs, the contraindication is not reflected in the colour coding of this interaction summary.

No clinically significant interaction expected (GREEN)

Efavirenz (EFV) + Tenofovir-DF (TDF)

Efavirenz (EFV) + Emtricitabine (FTC)

Emtricitabine (FTC) + Tenofovir-DF (TDF)

Emtricitabine (FTC) + Tramadol

Tenofovir-DF (TDF) + Tramadol

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