Real-life management of drug-drug interactions between antiretrovirals and statins

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PIs cause drug-drug interactions (DDIs) with most statins due to inhibition of drug-metabolizing enzymes and/or the hepatic uptake transporter OATP1B1, which may alter the pharmacodynamic (PD) effect of statins.; To assess the management of DDIs between antiretrovirals (ARVs) and statins in people living with HIV (PLWH) considering statin plasma concentrations, compliance with dosing recommendations and achievement of lipid targets.; PLWH of the Swiss HIV Cohort Study were eligible if they received a statin concomitantly with ARVs. HDL, total cholesterol (TC) and statin plasma concentration were measured during follow-up visits. Individual non-HDL and TC target values were set using the Framingham score and the 2018 European AIDS Clinical Society recommendations.; Data were analysed for rosuvastatin (n = 99), atorvastatin (n = 92), pravastatin (n = 46) and pitavastatin (n = 21). Rosuvastatin and atorvastatin underdosing frequently led to suboptimal PD response. Insufficient lipid control was observed with PIs despite high atorvastatin concentrations, likely explained by inhibition of OATP1B1 resulting in less statin uptake in the liver. Target lipid values were more often achieved with unboosted integrase inhibitors due to both their favourable DDI profiles and neutral effect on lipids. Insufficient lipid control was common with pravastatin and pitavastatin regardless of co-administered ARVs and despite using maximal recommended statin doses. The latter suggests lower efficacy compared with rosuvastatin or atorvastatin.; Suboptimal management of DDIs with statin underdosing was observed in 29% of prescriptions. Integrase inhibitor-based regimens and/or treatment with rosuvastatin or atorvastatin should be favoured in patients with refractory dyslipidaemia.
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