Nevirapine in HIV maintenance therapy - can "old drugs" survive in current HIV management?

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AIMS OF THE STUDY
Nevirapine has an exceptional record for long-term tolerability with few side effects in human immunodeficiency virus (HIV) combined antiretroviral therapy (cART). Owing to relatively frequent hypersensitivity reactions (HSR) (15–25%) in the first 3 months after treatment initiation (especially in patients with a high CD4 count (>250/µl in women, >400/µl in men)), it is being used less and less. However, the rate of adverse events is lower when patients are already under suppressive cART. We present the results of a single centre strategy to offer the switch to a nevirapine-containing regimen and evaluate the potential role nevirapine could play in current antiretroviral treatment.

METHODS
All adult HIV-positive patients starting nevirapine at our centre since 2010 were evaluated in this retrospective analysis. We examined the proportion of patients on cART containing nevirapine, as well as the number of starts and stops every 6 months. Nevirapine discontinuation rates were analysed by sex, age, hepatitis C virus (HCV) status, time on nevirapine, ethnicity, CD4 nadir as well as CD4 count, HIV-RNA and ART backbone at nevirapine start.

RESULTS
Since 2014, more than a third of our treated HIV patients have been on nevirapine-containing therapy, with a stable percentage in the following years; 277 patients starting nevirapine for the first time were analysed. Thirty-three percent (92/277) of these first nevirapine therapies were discontinued, with 16 cases (17%) resuming nevirapine later during follow-up. Of the patients who continued nevirapine for more than 90 days (n = 221), 80% maintained nevirapine until their last follow-up. The nevirapine stop rate after the first 90 days was 15-fold lower (5.4 per 100 patient years, 95% confidence interval [CI] 4.0–7.2) than in the first 90 days. Overall, nevirapine was used for a median of 2.9 years (interquartile range [IQR] 0.5–5.6). In HCV co-infected patients, the treatment stop rate was 4-fold higher than in HIV mono-infected patients, but this difference was mainly due to treatment interruptions caused by drug-drug interactions with intermittent HCV therapy. Six out of seven Asian patients experienced HSR (hepatotoxicity / skin rash). In a population with 74% 3TC/ABC backbone, 81% fully suppressed, median CD4 nadir 240/µl (IQR
120–360) and median CD4 count at nevirapine start 590/µl (IQR 400–840), both high CD4 nadir and high CD4 count at nevirapine start were associated with lower rather than higher discontinuation rates. In fully suppressed patients with high CD4 count at nevirapine start, high CD4 nadir was not a risk factor for HSR. Major reasons for the discontinuation of nevirapine were HSR (liver, skin rash) in 38 cases (41% of all discontinuations) followed by other adverse drug reactions (n = 17) and non-adherence (n = 14). In patients who stopped nevirapine after more than 90 days, the major cause was non-adherence or other adverse drug reaction (both n = 12).

CONCLUSIONS
In this study, two thirds of the patients continued nevirapine with favourable long-term tolerability and efficacy. Thus, this low-cost “old drug” may still represent a valid treatment switch option for maintenance therapy in selected patients with a fully suppressed viral load. However, further evaluation is needed.