Background: Treatment simplification in HIV suppressed patient is an accepted strategy that can reduce drug exposition, treatment side effect and costs. Published trials demonstrate safety even in the long-term period [1–3]. However little is known on its impact, especially in very experienced patients with archived HIV resistances. In this study we enrolled HIV suppressed patients exploring their genotypic resistance test at diagnosis, during past HIV breakthrough or before switching to dual.

Materials and methods: We retrospectively evaluated patients having HIV VL <20 copies/ml for at least 6 months while on ART. Patients were assigned to simplified treatment irrespectively of previous ART and previous treatment failures or archived genotypic mutations. In some patients (38) we performed PBMC (peripheral blood mononuclear cells) genotypic resistance test before switch to dual therapy with lamivudine (3TC) 300 mg/daily + dolutegravir (DTG) 50 mg/daily. All subjects were prospectively followed up to Week 24 and all remained on dual therapy during the whole period.

Results: Sixty-one individuals were included, and 71% were men. The median time from HIV diagnosis at switching to dual was 12 years. More than a half patients had a CD4+ cells nadir of less than 200 cells/ml and 16 patients (26%) experienced AIDS event. Nineteen patients (31%), during the past HAART history, experienced drug failure and performed a genotypic resistance test during viral breakthrough: seven of them had 184V (archived) mutation. None of the 184V patients experienced treatment failure during dual therapy. During the study period, two out of 61 patients had virological failure (from undetectability before dual to VL more than 20 copies/ml) due to lack of adherence. Treatment was well tolerated with no significant side effects.

Conclusions: Switching to a dual ART regimen based on 3TC-DTG maintained virological efficacy up to Week 24, even in patients with history of AIDS events, treatment failures and an archived 184V mutation. A dolutegravir-based dual therapy in combination with lamivudine shows promising results. The very thing that is determinant to start dual therapy, rather than previous history, is, in our opinion, adherence.

References:
1. Li JZ, Sax PE, Marconi VC, Fajnzylber J, Berzins B, Nyaku AN, et al. No significant changes to residual viremia after switch to dolutegravir and lamivudine in a randomized trial. Open Forum Infect Dis. 2019;6:ofz056