Review of: "Analysis of antiretroviral therapy switch rate and switching pattern for people living with HIV from a national database in Japan"

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The observation taken from the Japan national database represents the scenario that has gradually emerged in many national realities of industrialized countries[1][2].

Two main considerations emerge from this study. The first is that tenofovir disoproxil fumarate (TDF) can no longer be considered the preferred nucleoside reverse transcriptase inhibitor (NRTI)[3]. The presumed advantage over tenofovir alafenamide (TAF) on metabolic parameters such as blood lipids control and weight gain[4] [5] has currently no data proving improved clinical outcomes, while the renal and bone issues that may be associated with TDF use remain to be considered[6][7]. At the same time, data of the Japan national database also shows how the use of abacavir (ABC) based regimen reduced progressively over time, likely reflecting the increasing awareness of increased cardiovascular risk in course of ABC and the current availability of modern ABC sparing combinations with high efficacy and tollerability[8], such as TAF-based three-drug or dolutegravir based two-drug regimens.

The second important point to consider is the durability of the regimens based on integrase inhibitors (INSTIs). Non-nucleoside reverse transcriptase inhibitors (NNRTIs) and protease inhibitors (PIs) find today few situations of exclusivity of use[3]. Just as the increase in blood lipids might not justify a return to TDF, the same concept might apply in most cases of weight gain attributed to INSTIs, where a switch to other drug classes might be unnecessary or even disadvantageous. The pathogenetic mechanism of weight gain during INSTI treatment is still the subject of research, but it is clear that not only drugs, but also genetics, diet and lifestyle habits can be powerful detonators[9]. Moreover, it should be stressed that , at present, there are no completed studies on the transition from INSTIs to NNRTIs or PIs which support this strategy.

The intraclass switch between raltegravir, elvitegravir, dolutegravir and bictegravir has specific causes: for raltegravir the substitution is probably due to the reduction of pill burden , for elvitegravir to the possibility of simplification to cobicistat-free combinations. Dolutegravir, in its different uses (dolutegravir/rilpivirine, dolutegravir/lamivudine or dolutegravir plus PIs) and bictegravir in the single tablet regimen combination with TAF/emtricitabine represent, instead, regimens from which it is difficult to move in the expectation of gaining any real advantage from the switch, unless in the rare case of virological failure or toxicity. In the future, the class of INSTIs will be enriched by the long acting cabotegravir, that will open to a new way of therapy[10][11], and which is likely to further consolidate the role of INSTIs as preferred antiretrovirals in modern antiretroviral therapy (ART).

The success of ART today, considering the achievement of HIV-RNA <50 copies/mL in most patients, should also be measured by the durability of regimens[12].

To reach the goal of a long durability it remains key to choose the right drugs for the right patient. This always depends on the doctor's experience, but also and above all on listening to the needs and requirements of the patients in order to guarantee long-term virological success combined with the best quality of life.

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