• Although some two-drug combinations (2DC) are now recommended as alternative in guidelines for use in specific contexts, there is little data documenting how frequently and in which patients these regimens are used in clinical practice in people with a viral load (VL) ≤50 copies/mL.

• To identify factors associated with the probability of switching to each of the 2DC regimens, as opposed to a standard switch to triple cART.

STUDY DESIGN AND METHODS

The study includes data of HIV patients in the Icona Foundation Study cohort who switched to TT or to a DTG- or Pi-based 2DC. Index date for this cross-sectional analysis was the date of first undergoing a therapy switch with the specific regimens of interest after achieving VL≤50 copies/mL over the period Jan 2004-Jun 2018.

Only three types of switch were considered (first time ever occurring): i) a switch to another standard TT; ii) a switch to a DTG-based 2DC (including 3TC+DTG or RPV+DTG) and iii) a switch to a Pi-based 2DC (including 3TC+DRV+r or cobicistat, 3TC+LPV+r and 3TC+ATV+r).

Chi-square test was used to compare categorical factors and Kruskal-Wallis test to compare medians across the above three types of switches.

Multinomial logistic regression was used to identify factors associated with the probability of switching to DTG-, Pi-2DC vs. TT. For factors with global p ≤0.05 specific contrasts (DTG-2DC vs. TT and Pi-2DC vs. TT) were also calculated.

Framingham CHD score and D.A.D. KDQ scores were evaluated in the model. Therefore, all factors used to calculate such scores were not individually included.

• Potential confounding mechanisms were investigated.

CONCLUSIONS

In the unbiased analysis people with an history of ≥3 virological failures before baseline appeared to have greater chance of switching to Pi-based 2DC as opposed to TT (unadjusted odds ratio (OR)=1.76; p=0.01). However, this association was confounded by total duration of exposure to ART before baseline (adjusted (aOR)=0.61, p=0.06).

In the adjusted analysis (Table 2), compared to TT, switches to 2DC occurred more frequently in recent years, older participants, those with higher CD4 and still free from AIDS, those with less extensive history of virological failure before baseline and higher estimated risk of renal disease.

For all these factors, the strength of the association was similar regardless of the type of 2DC regimen (Table 2).