Background and importance In June 2018, our regional HIV working group, in a programme to improve the efficiency and safety of antiretroviral therapy, recommended changing emtricitabine/tenofovir disoproxil fumarate/rilpivirine (E/TDF/R) to emtricitabine/tenofovir alafenamide/rilpivirine (E/TAF/R). Different studies evaluated TDF versus TAF, where TDF was associated with more nephrotoxicity and bone alteration, but effectiveness was similar.

Aim and objectives To evaluate the efficiency and safety of implementation of this strategy.

Material and methods This was a retrospective observational study (June 2018 to March 2019), including all patients treated with E/TDF/R. Collected data were gender, age, duration of treatment and last available analyticals before the change and at least 3 months later: viral load (VL), HIV RNA, CD4+ cell to assess effectiveness; glomerular filtration rate (GFR) and phosphataemia to assess nephrotoxicity; and alkaline phosphatase (AF) to analyse bone alteration. The cost per patient was calculated based on agreed regional prices.

Results Sixty patients were treated with E/TDF/R, 21 women and 39 men, median age 48 years (range 22–82), and all changed to E/TAF/R.

Median duration of treatment was 35 months (range 9–62) with E/TDF/R and 6 months (range 3–8) with E/TAF/R. At the end of the study, 97% of patients continued treatment with E/TAF/R. In all patients VL was undetectable and negative for HIV RNA. Before starting E/TAF/R, median CD4 cell/mL was 851 ± 392.3, and 856 ± 392.3 in the last evaluation. Three patients (5%) had GFR < 50 mL/min and with the change to E/TAF/R, GFR improved to > 50 mL/min. Phosphataemia was adequate in all patients. AF was elevated in three patients (5%) but this improved after changing treatment.

Cost saving with the change was € 40 per patient/month, and total saving for the study period was € 24 000.

Conclusion and relevance Effectiveness was similar with the change. Safety was slightly favourable for E/TAF/R. However, it would have been interesting to evaluate longer use of E/TAF/R to obtain more conclusive results on the improvement in renal function and to carry out an analysis of bone metabolism with markers of greater sensitivity and specificity. E/TAF/R could be a more cost-effective alternative as it could mean annual savings of up to € 28 800.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.