

# Variation of the HIV naïve patient profile and initial ART recommended regimens after implementation of the universal treatment recommendations in a University Hospital

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## Introduction

According to current guidelines, antiretroviral therapy (ART) is recommended for all HIV infected individuals, regardless the symptomatology and the CD4 T lymphocyte cell count.

In addition, initial combination regimens have been updated in the last years considering the combination of two NRTIs (Nucleoside analogue reverse-transcriptase inhibitors) with an INSTI (Integrase strand transfer inhibitor) the preferred therapy. These updates may have led to a change in the naïve-patient profile and the selection of initial ART regimens.

## Purpose

The aim of the study is to compare the naïve patient profile and the prescribed initial ART regimens before and after the implementation in our hospital of the universal treatment recommendations.

## Materiales and methods

Retrospective study performed in a third level university hospital with a cohort of approximately 1800 HIV infected patients on ART. We included HIV naïve patients who started ART from January 2014-August 2017.

**Collected data:** demographics; hepatitis C virus (HCV) and hepatitis B virus (HBV) coinfection; HIV-RNA (viral load) and CD4 cell count at the start of the ART; initial ART regimen.

Data were compared by classifying the patients into two groups: those who started ART before July-2015 (pre-recommendation) and subsequently (post-recommendation).

**Statistics:** categorical variables, n (%); quantitative variables, mean±SD. Comparison of variables:  $\chi^2$  test, t.-student test.

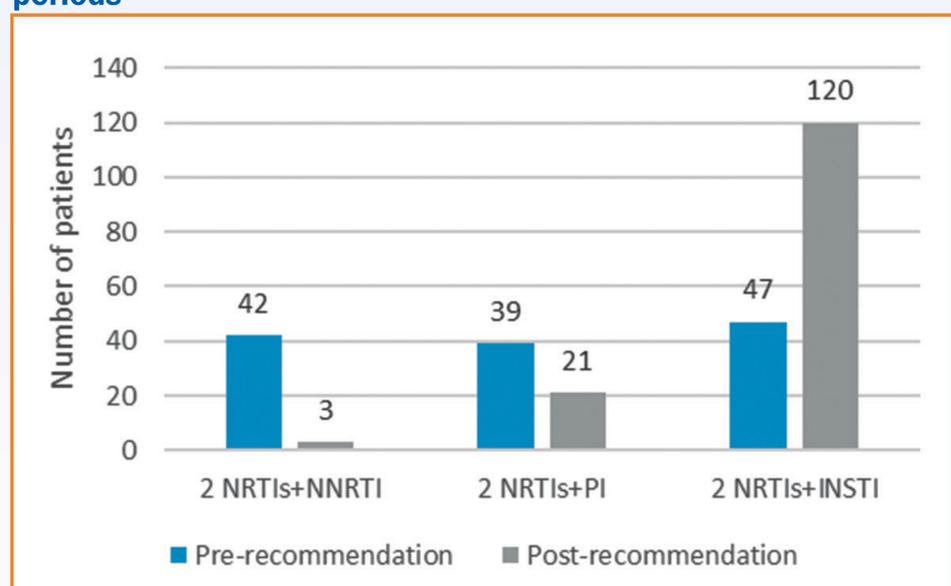
## Results

Patients who started ART: 273 (129 pre-recommendation and 144 post-recommendation).

**Table 1: Characteristics of patients at the start of the ART in the pre and post-recommendation periods.**

	Pre-recommendation n=129	Post-recommendation n=144	p-value
Male, n(%)	115 (89.1)	128 (88.9)	>0.999
Age, mean±SD	38.3 ± 9.9	37.3 ± 9.6	0.415
HBV, n(%)	17 (13.2)	21 (14.6)	0.861
HCV, n(%)	31 (24.0)	19 (13.2)	<b>0.028</b>
CD4 (cells/ml), mean±SD	350.5 ± 239.90	420.2 ± 314.4	<b>0.042</b>
Viral load (copies/ml), mean±SD	209407.1 ± 901569.6	383251.3 ± 1505390.8	0.243

**Figure 1: Initial ART regimen in the pre and post-recommendation periods\***



NNRTI: Non-nucleoside analogue reverse-transcriptase inhibitor.

PI: Protease inhibitors.

\*One patient started NNRTI+PI (excluded from the analysis) in the pre-recommendation period.

A statistically significant variation (p <0.001) was observed in the type of ART initiated.

## Conclusion

- Naïve patients who have started ART in the last 2 years have a higher CD4 cell count, which is in line with new guidelines for treatment initiation regardless of their immunological status.
- A lower percentage of HCV coinfection was observed among HIV naïve patients in the post-recommendation period.
- The initial ART regimen has varied considerably and nowadays the combination of two NRTIs plus an INSTI is the selected therapy in more than 80% of naïve patients.
- These results show a high adherence to the current guidelines in our center.