UNAIDS 90-90-90 Objectives in 2016 in a Third Level Hospital in Spain: knowing the proportion of HIV+ patients on follow-up, on treatment, and with undetectable viral load can help to design

measures

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## INTRODUCTION

In 2014 UNAIDS proclaimed the objective 90-90-90 for 2020. The purpose of this strategy is: achieving by 2020 that 90% of the patiens living with Human Inmunodeficiency Virus (HIV) in the world will be aware of their status, 90% of them will be on antiretroviral treatment (ART) and 90% of them will mantain an undetectable viral load (VL). If accomplishing this objective, more than 73% of all HIV+ patients in the world would be on treatment and virologically supressed at 2020 and the HIV epidemy could be reduced to a low level endemic disease at 2030.

One of the most important strategies to reach these objetives is the universalization of ART. Since 2014 GESIDA and the Spanish National AIDS Strategy recommend Antiretroviral treatment for all HIV-infected patients, regardless CD4 count.

#### **OBJECTIVES**

Knowing the number of HIV-infected patients on regular follow-up at the Miguel Servet Hospital HIV Outpatient Clinic of Zaragoza (Spain), how many of them are on treatment and how many have the HIV viral load (VL) under the detectability limits during 2016. For those with detectable viral load (>50 cp/ml), stratification was made depending on viremia and the cause was investigate.

#### PATIENTS AND METHODS

Retrospective observational study of 1310 HIV positive patients on follow up at the Miguel Servet Hospital Outpatient HIV Clinic in Zaragoza (Spain) during 2016. The following variables were analized: sex, age, lost of follow up, proportion of patients on ART, and proportion of them who mantained undetectectable VL.

Patients were considered on follow up were if they attended the clinic, performed blood test and picked up ART from the Pharmacy at least once during 2016. Virological failure was defined as VL>50 cp/ml after 6 months of treatment, low level viremia was considered if VL was 50-500 cp/ml and blip was defined when a patient with previous undetectable VL had a unique determination 50-200 cp/ml followed by VL<50cp/ml.

A descriptive analysis was used calculating proportion for cualitative variables and standart deviation with the cuantitatives ones.

### **RESULTS**

914 out of 1310 patients included in the study were male (70%). The mean age was 49 years (SD 0.8). 521 patients were older than 50 years (31.7%), 76 were older than 65 years (5.8%) and 10 were in their eighties. Most of them were Spaniards (79.9%).

98% of the patients attended regularly the clinic (Figure 1) and 96% of them were on ART. The information about the loss of the follow-up could be retrevied in 14 out of 26 lost patients. 5 of them died and 9 were patients moving to another hospitals. Treatment was offered to all HIV + patients but 22 of them did not pick it up from the pharmacy (after beeing indicated so) and postponed the beginning, 7 refused it and 1 non progressor patient also postponed it.

More than 88% of patients on ART mantained undetectable HIV viral load through 2016 and almost 95% of them did so considering UNAIDS objectives HIV VL<200 cp/mL (Table 1)

Figure 1. Patients distribution at the Out Clinic throught 2016

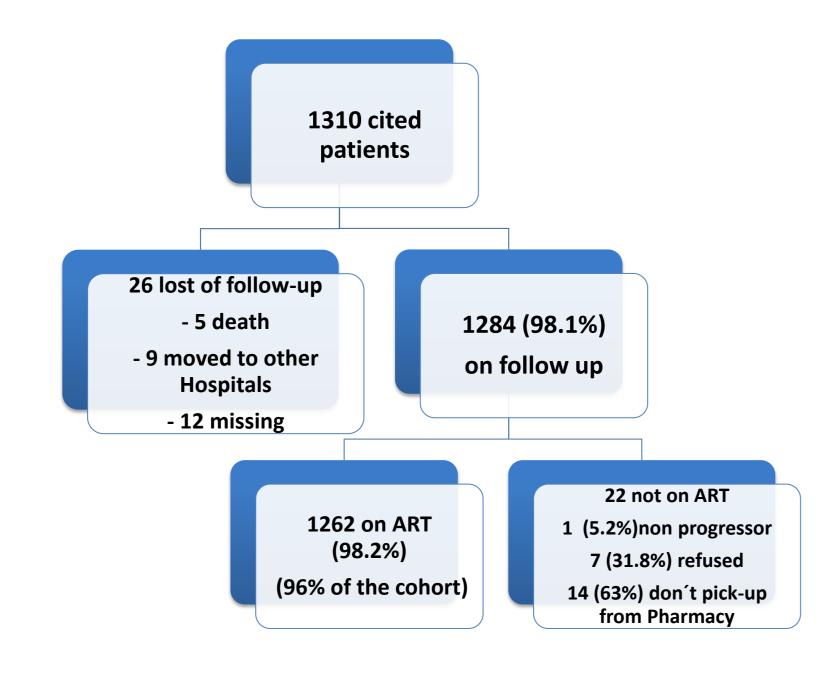


Table 1. Patient classification considering ART response

	Number of patients	Total of patients (1310)	Patients on ART (1262)
VL<20 cp/ml	1054	80,4%	83,5%
VL<50 cp/ml	1112	84,8%	88,1%
VL<200 cp/ml	1192	91%	94,4%
VL>200 cp/ml - 200-100.000 cp/ml ->100.000 cp/ml	104 14	7,9% 0,6%	8,2 % 1,1%

Virological failure was observed in 150 patients, 12% of HIV population on ART (Table 2).

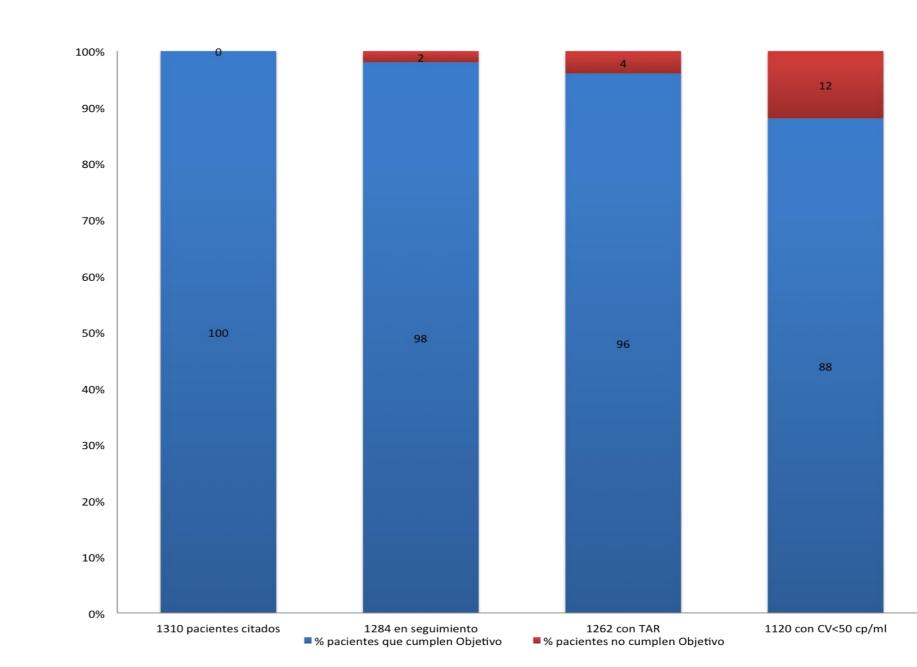
78 HIV naïve patients started ART during 2016. 36 (46%) achieved undetectable VL at the end of the year. The rest of them (42) did not reach at 48 week to consider ART response.

If naïve patients were not considered in the analysis, 108 patients were on virological failure by the end of the year, about 8.5% of the HIV+ on treatment population. Out of those, only 38 subjects were true virological failures. Most of these patients had a previous history of bad adherence to ART treatment and only in 5 patients resistence mutations emerged.

Table 2. Patients with virological failure at week 48

VL	Number of patients	
50-500	90	12 Naïve patients <6 months on treatment 10 patients on retreatment 10 patients with low level viremia 58 patients with blips(next VL<50 cp/ml)
500-100.000	46	<ul><li>26 Naïve patients&lt;6 months on ART</li><li>18 poor adherent patients</li><li>2 travellers</li></ul>
>100.000	14	4 Naïve patients with recent onset of ART 10 Poor adherent patients

Figura 2. (90)-90-90 Objetive in 2016 Miguel Servet, Zaragoza



# CONCLUSIONS

Most of HIV+ patients on follow-up in our Clinic are on ART and almost 90% have HIV VL<50 copies/mL. Virological falilure is rare. Starting ART earlier and identifing and retaining bad adherent patients could be objectives to improve.

# **BIBLIOGRAPHY**

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