



Hospital admissions due to medical conditions in a public Health care system with free access to antiretroviral treatment

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Background:

There is a limited information of causes of hospital admissions of HIV-infected subjects due to medical (non-surgical) conditions in countries with public health care systems and universal free access to antiretroviral treatment (ART).

Methods:

We retrospectively identified all HIV-infected subjects admitted to Internal Medicine and Infectious Diseases services in a University Hospital in Catalonia, from October 2016 to December 2017. Surgical and Gynecological conditions were excluded. All medical discharge reports were thoroughly reviewed to identify, demographic characteristics, diagnostics, ART, hospital stay length and complications, and patient baseline characteristics. The overall cost was also evaluated.

Results:

We identified 139 hospital admissions from 102 patients. The median length of hospitalization was 8.0 days (IQR 12 days). Of these, 77 (75,4%) were men with a mean age of 49.3 years. 14 (13 %) patients were active intravenous drug users (IVDUs), 52 (50%) were prior intravenous users and 12 (11.7%) were MSM. The mean number of admissions per patient was 1.35 (range 1-5) and 21 patients were admitted more than once. In only 9 (8.8%) subjects the HIV infection was newly diagnosed during the admission. The mean CD4 cell count at admission among those subjects with known HIV infection was 399 cells/mL and 82 cells/mL for newly diagnosed. At admission, 67 (48%) patients had RNA HIV <50 copies/mL. The previous ART remained unchanged in most subjects at hospital discharge. Among those who changed their ART, 75% started an integrase inhibitor (INI) and 25% a protease inhibitor-based regimen. All treatment-naïves started an INI-based regimen.

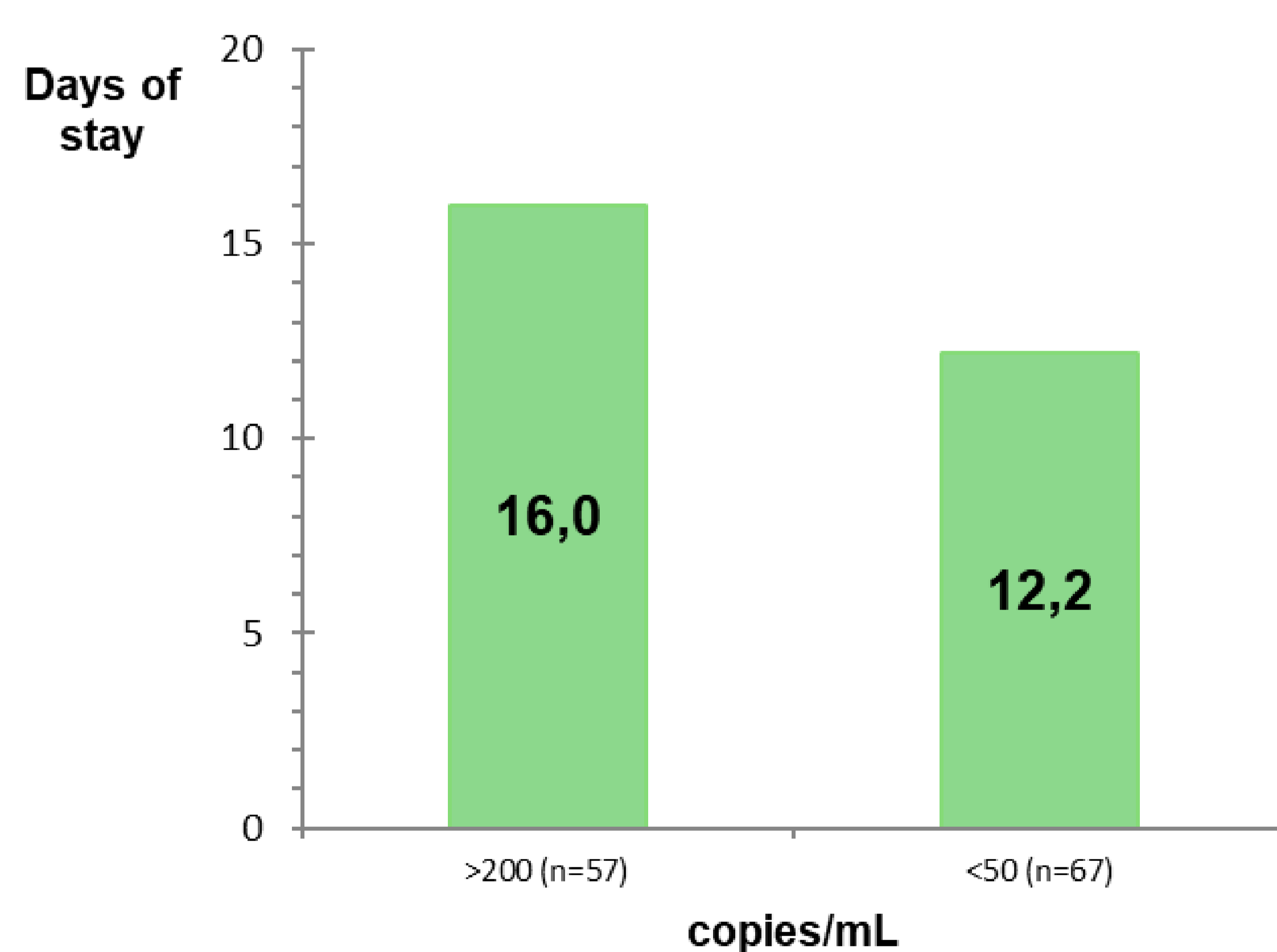


Figure 2. Correlation between HIV plasma suppression and hospital stay length ($p=0,18$).

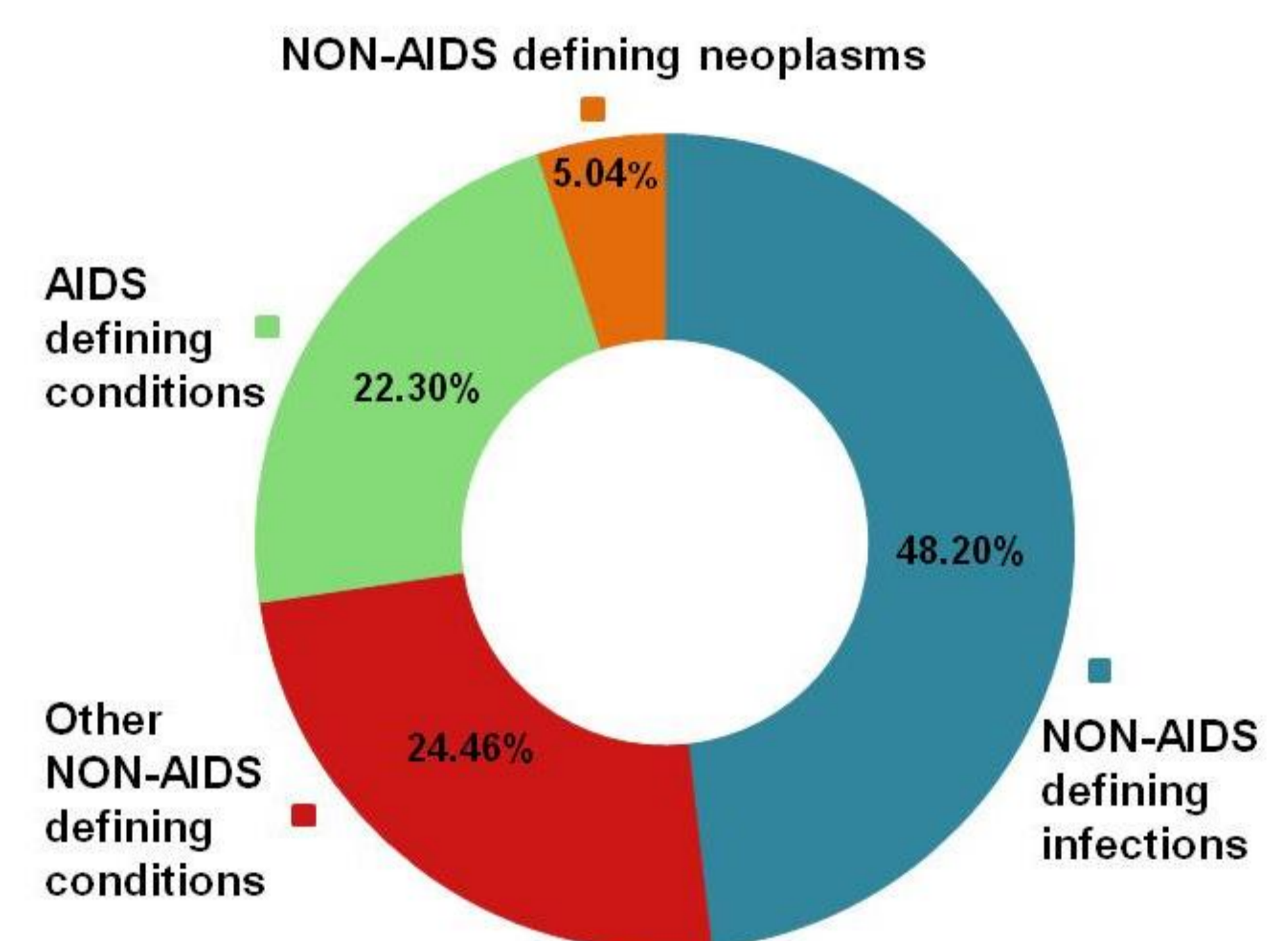


Figure 1. Causes of admission

The most common causes of hospital admissions were non AIDS-defining infectious conditions ($n=67$, 48.2%) and AIDS-defining conditions ($n=31$, 22.3%). Only 7 (5.04%) subjects were admitted due to non AIDS-defining neoplasias. Other non AIDS-defining conditions (non infectious, non neoplasia) were seen in 34 (24.46%) subjects. 6 patients (4.3%) died during their hospital admission: 4 non-AIDS defining infections, 1 AIDS-defining neoplasia (linfoma) and 1 non-AIDS defining neoplasia. We did not observe a correlation between HIV RNA plasma suppression and hospital stay length: 12.2 and 16.0 days for those with HIV RNA <50 or >200 copies/mL at admission, respectively ($p=0,18$).

We observed that the mean time of medication collection at the hospital pharmacy was longer in patients with a viral load >200 (131,47 days) than in patients with a viral load <50 (24,21 says), suggesting a higher frequency of irregular adherence among subjects with viral load >200 copies/mL. This difference was statistically significant ($p<0,05$).

According to current hospital fares in Spain, the hospital stays generated a whole cost of 880.402€.

Conclusions:

- The main reason for admission due to medical conditions was non-AIDS defining infectious diseases.
- There was an over-representation of IVDUs among HIV-infected subjects with hospital admissions due to medical conditions.
- Most subjects initiating or changing ART during the hospital stay were placed on an INI-based regimen.
- Despite having universal access to Healthcare and free ART, some subjects fail to regularly collect their drugs from the hospital pharmacy. These subjects have increased risks of virological non-suppression (or failure) and hospital admissions.