Describing the Cascade of Care for Neurosyphilis in People With HIV: Finding the Gaps

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BACKGROUND

Incidence of syphilis has increased over the last 20 years. 5 million new cases yearly are estimated worldwide. This increase is likely accompanied by a growth in neurosyphilis as well. Surveillance for neurosyphilis is heterogeneous and thus the real incidence is not well known. We aim to describe a cascade of care and evaluate the missed opportunities of screening and diagnosis and the time between steps.

METHODS

- We retrospectively evaluated all active adults living with HIV (defined as those with at least one Clinic visit/year) from 2021 to 2023 in a tertiary care Hospital.
- At our center, people with a VDRL title ≥1:32 should undergo Lumbar Puncture (LP) and/or ophthalmologic evaluation (OE) in the absence of neurological symptoms.
- We assessed the 1st event registered per patient.
- To describe the Cascade of care, the following steps were reviewed: active patients eligible to be screened with VDRL, those screened, asymptomatic patients with VDRL ≥1:32, and of these, those who went through OE and/or LP, whether there was an indication for treatment with intravenous treatment, and serologic follow-up (defined as a VDRL between 6 and 12 months).
- Time between each step of the cascade was registered and described.

From the total of active PWH, missed opportunities of syphilis screening occurred in **almost 40%**

Neurosyphilis and/or ocular syphilis was confirmed in **38% of those with VDRL ≥1:32**

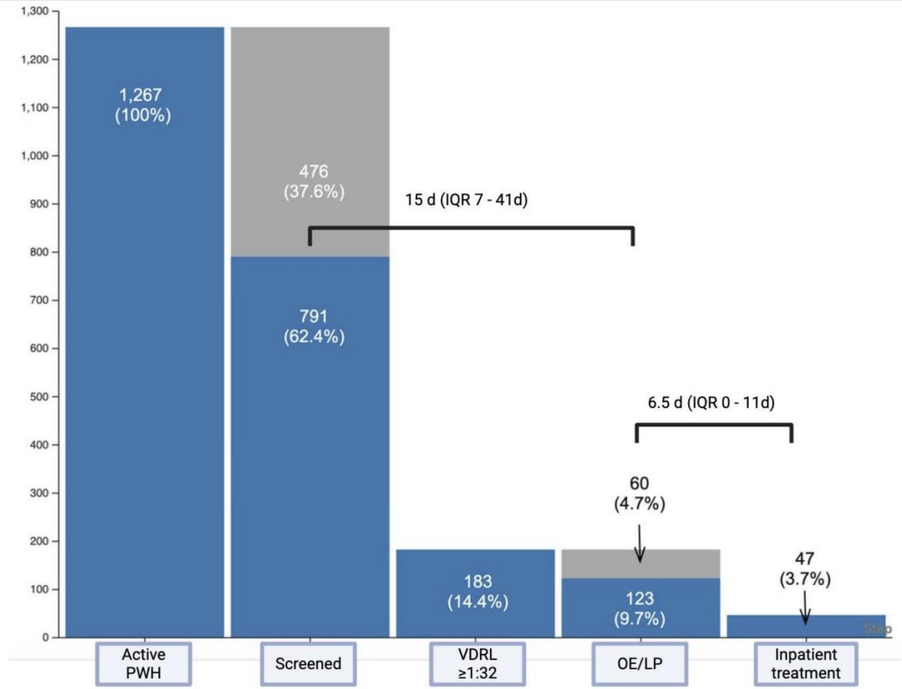


Figure 1. Syphilis Cascade of Care. Porcentajes (%) are shown with respect to the total of active people at our HIV Clinic. PWH: people with HIV; OE: ophtalmologic evaluation; LP: lumbar puncture

RESULTS

- During the study period, a total of 1,267 active people with HIV were registered.
- 791 (62.4%) were screened for syphilis.
- 183 (14.4%) had VDRL title ≥1:32 and 123 (66.8%) went through OE and/or LP.
- 47 had ocular syphilis and/or NS confirmed by fundoscopy and a positive VDRL test in CSF, respectively (38.2% of positivity). All of them received treatment as inpatients.
- Median time from a positive VDRL ≥1:32 and OE/LP was 15 days (IQR 7 – 41 days).
- Time from positive evaluation to treatment was 6.5 days (IQR 0 - 11days). (Figure 1).
- The proportion of those treated with a serological follow-up was 89.3%.

CONCLUSIONS

In this Neurosyhpilis cascade of care, we found important gaps and missed opportunities of diagnosis with almost 40% not screened. Of all screened, two thirds had potential neurosyphilis with a frequency found of 40%. The times to establish diagnosis and treatment were considerably large, especially during the years of COVID-19 pandemic.
With the increase of syphilis locally and globally, more efforts for effective screening programs are urgently needed.

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