Eligibility for Pre-Exposure Prophylaxis in a cohort of HIV negative men who have Sex with Men in Lisbon, Portugal

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Aim

We aimed to estimate subjects eligibility for pre-exposure prophylaxis (PrEP) and its association with seroconversion, using a cohort of HIV-negative men who have sex with men (MSM). Eligibility for PrEP was defined according to the guidelines from the World Health Organization (WHO), the United States Public Health Service and Centers for Disease Control and Prevention (CDC) and the European AIDS Clinical Society (EACS).

Methods

We used data from the Portuguese Lisbon Cohort of MSM. From April 2011 to June 2017, 5447 participants were enrolled of whom 2392 had at least one follow-up visit by October 2017. To compute eligibility we used information collected in the structured questionnaires administered at entry and at each follow-up.

We computed incidence rates (IR) and respective 95% confidence intervals (CI) for eligible and non-eligible participants for each guideline at baseline and at most recent visit. Incident rate ratios (IRR) and 95% CI were computed using the Poisson generalized linear regression to test the association between being eligible for PrEP and HIV seroconversion.

Results

The proportion of MSM eligible for PrEP was higher according to the CDC guidelines. At baseline, eligibility for PrEP was similar for those with at least one follow-up visit and those not followed-up. However, followed participants presented a significantly lower proportion of eligibility at the most recent visit than at baseline.

Table 1: Proportion of eligible MSM for PrEP among those enrolled in the cohort (n=5447) and those with at least one follow-up visit (n=2392) according to the WHO (2012, 2017), CDC (2014) and EACS (2015, 2017) guidelines

<table>
<thead>
<tr>
<th>Guideline</th>
<th>Baseline (n=5447)</th>
<th>Follow-Up (n=2392)</th>
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</thead>
<tbody>
<tr>
<td>WHO (2012)</td>
<td>1317 (55.1)</td>
<td>573 (24.0)</td>
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<tr>
<td>WHO (2017)</td>
<td>2761 (65.3)</td>
<td>979 (41.1)</td>
</tr>
<tr>
<td>CDC (2014)</td>
<td>1580 (66.1)</td>
<td>582 (24.3)</td>
</tr>
<tr>
<td>EACS (2015)</td>
<td>2485 (45.6)</td>
<td>637 (26.7)</td>
</tr>
</tbody>
</table>

Individually of the guideline, being eligible for PrEP at baseline was associated to increased risk of seroconversion, and the CDC guidelines showed the strongest association. This association was even stronger if measured at the most recent visit, particularly for the European guidelines.

Conclusions

We found that a large proportion of MSM would be eligible for PrEP based on current international recommendations, although this proportion varied according to the recommendations used. The European guidelines were the most strongly associated with seroconversion, particularly when assessed at the most recent visit.

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