

# MEN WHO HAVE SEX WITH MEN PRIMARY HIV INFECTION DETECTION AT CHECKPOINTLX, LISBON, PORTUGAL



**Authors:** L. M. Carvalho Rocha<sup>1</sup>, A. S. Cabrita Martins<sup>2</sup>, R. Guerreiro<sup>1</sup>, J. Rojas<sup>1</sup>, F. Ferreira<sup>1</sup>, L. Veríssimo<sup>1</sup>, J. Brito<sup>1</sup>, N. Pinto<sup>1</sup>, M. L. G. P. Varandas Costa<sup>3</sup>, D. Medina<sup>1</sup>  
**Institutions:** <sup>1</sup>GAT Portugal, CheckpointLX, Lisbon, Portugal. <sup>2</sup>Northern Lisbon Hospital Center, Lisbon, Portugal. <sup>3</sup>Lisbon Nursing School, Community Health Nursing, Lisbon, Portugal

## BACKGROUND

Lisbon MSM Cohort (Meireles et al, 2015) at CheckpointLX - peer-led community-based HIV testing site tailored for MSM in Lisbon, Portugal - followed 804 men who have sex with men (MSM) for a total of 893.37 person-years between April 2011 and February 2014: overall incidence of 2.80 per 100 person-years [95% CI: 1.89-4.14]. The median time between participant visits was 0.57 years (=7 months) and among those who seroconvert 0.79 years (=9 months); showing the existence of primary HIV infections (<6 months) and the opportunity to target for primary acute HIV infections (AHI) detection. This study aims to assess the impact of two testing algorithms for AHI detection at CheckpointLX.

## METHODS

Between November 2016 and November 2019, MSM seeking for HIV screening are routinely tested with Alere™ HIV Combo (algorithm 1, combined rapid antigen/Ag and antibody/Ab test) and those with AHI symptoms and non-reactive HIV rapid test are tested with Alere™ q HIV-1/2 Detect (algorithm 2, point-of-care PCR HIV-RNA test). Primary HIV infection case definition according with EACS guidelines 8.1: primary **acute** HIV infection if presence of HIV-RNA or Ag in the absence of Ab and primary **recent** HIV infection if evolving HIV Ab reactivity up to 6 months after infection. Those with AHI are linked to care in 48 hours. All positive Ag/Ab and/or HIV-RNA confirmed cases are assessed with Alere™ Pima for CD4 cells count and stratified: early diagnosis if >350 CD4 cells count and late diagnosis if ≤350 CD4 cells count. Study protocol was approved by both Ethics Committee of the Lisbon Medical Academic Centre and National Commission for Data Protection.

## RESULTS\*

### ALGORITHM 1 (ROUTINE RAPID AG/AB TEST FOR MSM SEEKING HIV TESTING)

- 2123 adult MSM were tested
  - 70 reactive tests
    - 5 confirmatory testing refusals
    - 58 for Ab
      - 55 confirmed positive for HIV
        - 36 (65.5%) early diagnosis
        - 19 (34.5%) late diagnosis
      - 3 confirmed negative for HIV
    - 6 for Ag
      - All confirmed negative for HIV
    - 1 for both Ab and Ag
      - Confirmed positive for HIV
        - Early diagnosis

### ALGORITHM 2 (TARGETED PCR HIV-RNA TEST FOR MSM WITH AHI SYMPTOMS AND NON-REACTIVE RAPID AG/AB TEST)

- 8 adult MSM were tested
  - All confirmed negative for HIV

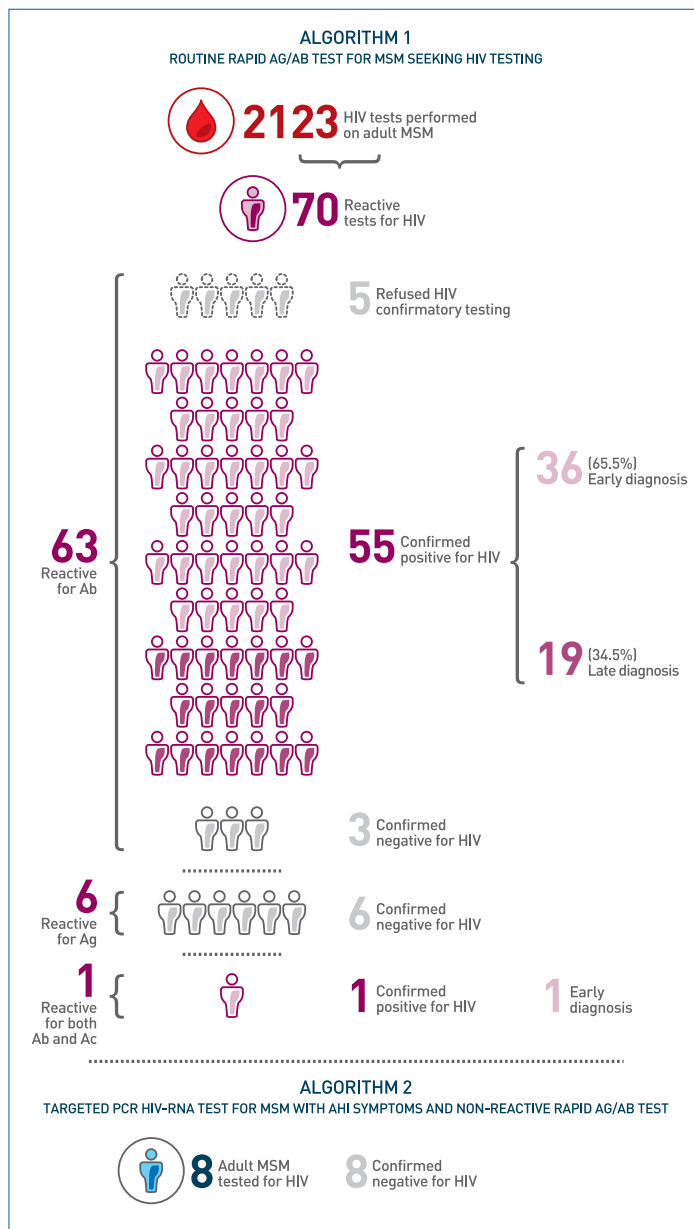
\* from November 1st [2016] to June 19th [2017]

## CONCLUSIONS

Preliminary data from the study's first 6 months show that primary recent HIV infection is very frequent at CheckpointLX. Antibody assays seem to be enough to detect primary **recent** HIV infection. Antigen assays lack specificity for primary **acute** HIV infection detection. Recruitment for algorithm 2 is low, MSM AHI signs and symptoms knowledge may be lacking for timely self selection for AHI screening.

## REFERENCES

- Meireles P, Lucas R, Carvalho C, Furtado R, Brito J, Campos MJ, Mendão L, Barros H, Incident risk factors as predictors of HIV seroconversion in the Lisbon cohort of men who have sex with men: first results, 2011-2014, Euro Surveill. 2015;20(14):pii=21091. Available online: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=21091>
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## REFERENCES

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Promoters

**GAT** Grupo de Ativistas em Tratamentos  
Avenida Paris, 4 - 1º direito  
1000-228 Lisboa, Portugal  
www.gatportugal.org  
geral@gatportugal.org

**CHECKPOINT LX**  
Travessa do Monte do Carmo, 2,  
1200-277 Lisboa, Portugal  
www.checkpointlx.com  
geral@checkpointlx.com

**Alere**

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