

**Title:** Targeted screening and immediate start of treatment for acute HIV infection decreases time between HIV diagnosis and viral suppression among MSM at a Sexual Health Clinic in Amsterdam

**Authors:** M. Dijkstra<sup>1,2</sup>, M.S. van Rooijen<sup>1</sup>, M.M. Hillebregt<sup>3</sup>, A.I. van Sighem<sup>3</sup>, C. Smit<sup>3</sup>, A. Hogewoning<sup>1,2</sup>, T. Heijman<sup>1</sup>, E. Hoornenborg<sup>1</sup>, M. Prins<sup>1,2</sup>, J.M. Prins<sup>2</sup>, M.F. Schim van der Loeff<sup>1,2</sup>, G.J. de Bree<sup>2,4</sup>, on behalf of the H-TEAM initiative

**Affiliations:** 1. Public Health Service, Amsterdam, the Netherlands; 2. Amsterdam University Medical Center, location Academic Medical Center, Department of Infectious Diseases, Amsterdam, the Netherlands; 3. Stichting HIV Monitoring, Amsterdam, the Netherlands; 4. Amsterdam Institute of Global Health and Development, Amsterdam, the Netherlands.

**Track B:** Clinical science

**Abstract:** WEAB0101, 10<sup>th</sup> IAS Conference on HIV Science 2019, Mexico City, Mexico

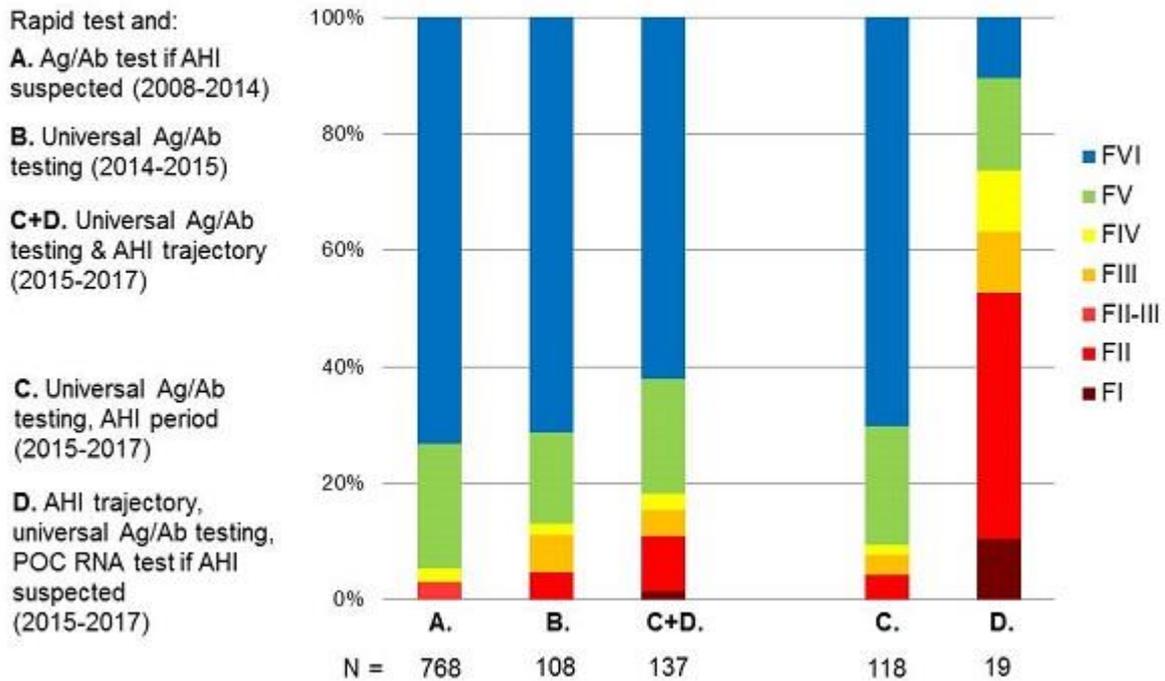
**Background:** Immediate start of antiretroviral therapy (cART) during acute HIV infection (AHI) is beneficial for patients and reduces onward transmission. An AHI trajectory among men who have sex with men (MSM) was implemented in Amsterdam in 2015; MSM diagnosed with AHI were referred to start cART within 24 hours. We evaluated the AHI trajectory by comparing MSM diagnosed through the AHI trajectory and through routine strategies regarding the proportion of AHI (Fiebig I-II) among HIV diagnoses and the time between diagnosis and viral suppression.

**Methods:** Data from 1,013 MSM (2008-2017) newly diagnosed at the Sexual Health Clinic were linked with data from HIV treatment centres by a Trusted Third Party. We compared time between HIV diagnosis and viral suppression using the log-rank test for four cART-initiation policies: (1) start cART at CD4<500 cells/mm<sup>3</sup> (2008-2011); (2) start cART at CD4<500 cells/mm<sup>3</sup> and in patients with AHI (2012-2015); (3) universal start of cART (2015-2017); and (4) immediate start of cART, AHI trajectory (2015-2017).

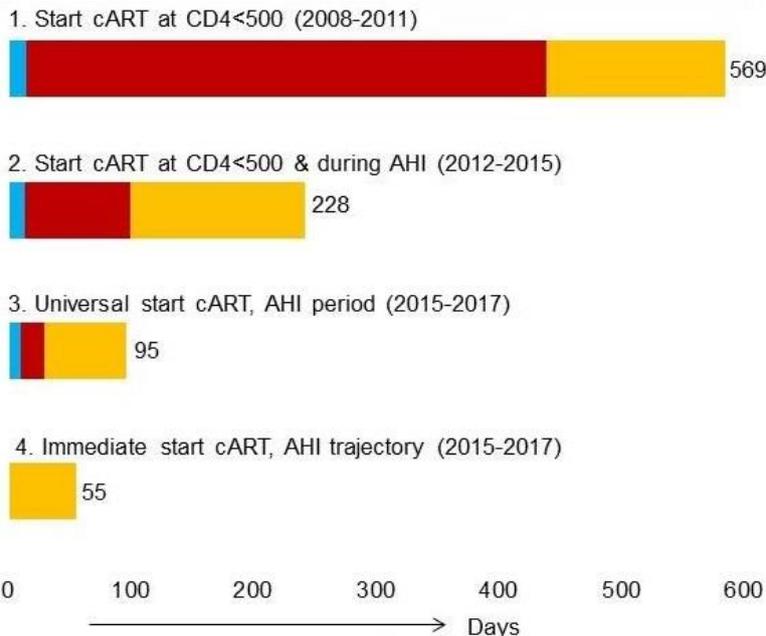
**Results:** In 2015-2017, the proportion of AHI among HIV diagnoses was 52.6% (10/19) in the AHI trajectory and 4.2% (5/118) using routine diagnostic procedures (Figure 1). The median time between diagnosis and viral suppression for cART-initiation policy 1, 2, 3, and 4 was 569 (IQR 259-1031), 228 (IQR 129-435), 95 (IQR 63-136), 55 (IQR 31-72) days respectively, p<0.001 (Figure 2).

**Conclusions:** Implementation of the AHI trajectory, along with changes in treatment guidelines, resulted in a higher proportion of AHI diagnoses and a decreased time between HIV diagnosis and viral suppression.

**Figure 1. Fiebig stage for 1,013 newly diagnosed MSM stratified by diagnostic strategy at a Sexual Health Clinic in Amsterdam, 2008-2017**



**Figure 2. Median time from HIV diagnosis to viral suppression stratified by cART-initiation policy among newly diagnosed MSM at a Sexual Health Clinic in Amsterdam, 2008-2017**



Median time from HIV diagnosis to: ■ Intake HIV treatment centre

■ Start cART ■ Viral suppression

Initial cART-regimen included integrase inhibitor:

(1.) 5.4%; (2.) 22.9%; (3.) 58.3%; (4.) 86.7%.