



POSTER PRESENTATION

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# Recent HIV infection among newly diagnosed with HIV cases in Turin, Italy

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## Background

Knowledge of the proportion of recent HIV infections (RHI) is important for epidemiologic purposes to assess HIV transmission patterns and evaluate the impact of prevention interventions. The aim of this study was to analyze the characteristics of persons with RHI and to monitor the trend of RHI over time.

## Methods

In the period 2003-2004 and in 2007-2008, serum samples from individuals newly diagnosed with HIV infection were collected in the Infectious Diseases Hospital in Turin. All serum samples were tested for the HIV antibody avidity index (AI); samples with an AI  $\leq$  0.80 were defined as RHI ( $\leq$  6 months from seroconversion).

## Results

In the study period, 432 serum samples were collected from newly diagnosed HIV individuals. The number of persons with RHI was 113 (26.2%), and the proportion of RHI significantly increased from 22.1% in 2003-2004 to 30.8% in 2007-2008 ( $p$ -value  $<$  0.05). The proportion of RHI was higher among MSM compared to heterosexual individuals (33.0% vs. 21.0%,  $p$ -value = 0.06). The median age of persons with RHI was similar between MSM (35 years) and heterosexual persons (34 years), as well as between 2003-2004 and 2007-2008 (35 years). A significantly higher proportion of persons who underwent a previous HIV test was observed among RHI (51.3%) compared to those with an established infection (28.5%) ( $p$   $<$  0.001). The proportion of RHI among MSM increased from 25.5% in 2003-2004 to 40.7% in 2007-2008, whereas remained almost stable among heterosexual persons and

injecting drug users. Disaggregating by reasons of HIV testing, different proportions of RHI were found: 34.8% among those exposed to unprotected sexual intercourse, 24.5% among injecting drug users, and 11.5% among those screened during pregnancy or blood donation.

## Discussion

RHI have increased over time in Turin, especially among MSM. However, no changes were observed in the age of HIV acquisition by sexual orientation and time period. The identification of RHI can be affected by the frequency of HIV testing and this bias should be considered in estimating HIV incidence.

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