POINT-OF-CARE TEST (POC) FOR SYPHILIS TARGETED TO MEN WHO HAVE SEX WITH MEN IN ROME, ITALY.

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Background

Recently, the incidence of syphilis has rapidly increased in Italy, boosting the HIV-1 spread in the MSM community. Rapid point-of-care tests (POC) are promising tools to improve large-scale screening and case finding for syphilis, particularly in hard-to-reach groups.

Results

From July 2016 to December 2017, 581 MSM were tested and 41 (7.0%) were found to be positive for IgG antibodies. An increasing trend by age was observed, the positivity rate being 2.6% among males aged 18-20 years and 10.9% in those aged ≥ 40 years (χ^2 for trend=3.80, $p=0.051$) (Table 1). Thirty-two of the 41 POC test-positive MSM (78.0%) referred to consult our STI center (the main in Rome) for confirmatory serologic tests. A syphilis diagnosis was confirmed for all of them. They were all treated as new syphilis cases. POCs have been considered easy to reach by 221/312 (71%) respondents to the acceptability questionnaire, the fingerprick blood taken as painless (79%), the setting as confidential (82%) and the blood result as very fast to be received (98%). TP-Ab positive MSM identified in the POCs differed significantly from those attending our STI Centre in terms of previous testing for syphilis (39.0% vs. 77.0%) and HIV-1 (64% vs. 83%).

Figure 1. Attitudes toward testing for syphilis and HIV-1 infection. TP-Ab positive MSM vs. attendees of the STI Centre of S. Gallicano Dermatologic Institute of Rome, Italy.

Methods

Six POCs equipped with fingerprick-rapid tests for IgG against *Treponema pallidum* (TP) (*Syphilis Ab Determine*®, Alere) were opened in weekly sessions in different gay-meeting sites (sauna, bars, gay village and MSM Agency) in Rome (Italy). Informed consent and clinical/behavioral/acceptability data were collected from all individuals without history of syphilis.

Age-group	Anti-TP Negative N.	Anti-TP POSITIVE N.	%	TOTAL
<18	20	0	-	20
18-20	73	2	2.6	75
21-25	167	12	6.7	179
26-39	223	20	8.2	243
≥ 40	57	7	10.9	64
TOTAL	540	41	7.0	581

Table 1. Distribution of the results of rapid test for syphilis by age-group.

Conclusions

POC-based rapid tests for syphilis allowed us to identify and treat a significant number of unaware infected individuals and to reach a subgroup of MSM different from those attending the STI Center. This POC-based strategy has been proven as effective in improving syphilis case-finding among urban MSM community. More effective referral strategies towards the STI Centers are needed to limit the drop-out of POC test-positive but unconfirmed cases.

Figure 2. Acceptability measures about rapid POC-based test for syphilis collected from MSM tested at six POCs.