

# STI-TESTING IN ASYMPTOMATIC MEN: IS MORE THAN TWO PARTNERS PER YEAR SUFFICIENTLY SELECTIVE?

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IUSTI17-53

## Background

In Switzerland routine STI-testing is not covered by health insurance, even in individuals at high risk. This leads to under-diagnosis and non-treatment of notifiable infections. It is further aggravated by lack of multi-site, particularly anal, swabbing. We compared prevalences of bacterial STIs in men with/without sex with other men.



## Methods

Across Switzerland, between January 2016 and June 2017, we offered free STI-testing to men with multiple (three or more in the last 12 months) sexual partners. We used Seegene®STI-7 multiplex PCR for the detection of *N. gonorrhoeae*, *C. trachomatis*, *T. vaginalis*, *M. genitalium* for pooled swabs (pharynx, urethra, anus), and antibody tests for HIV and *T. pallidum* (IgG/M, plus RPR if positive). None of the men undergoing baseline diagnostics in the STAR trial presented because of STI symptoms. Most men were recruited in voluntary counselling and testing (VCT) centres, or were approached during HIV/STI-testing campaigns in gay saunas.

|  |                        | MSM | Other men |
|--|------------------------|-----|-----------|
| Age                                    | <25                    | 19% | 15%       |
|  | 25-39                  | 50% | 59%       |
|  | 40+                    | 31% | 25%       |
| Nationality                            | Swiss                  | 70% | 93%       |
|  | USA, Canada            | 1%  | 0%        |
|  | Latin America          | 3%  | 0%        |
|  | Spain, Portugal        | 3%  | 0%        |
|  | Western Europe         | 17% | 2%        |
|  | Eastern Europe         | 2%  | 3%        |
|  | Africa                 | 1%  | 1%        |
|  | Asia                   | 2%  | 0%        |
|  | Swiss Health Insurance |     | 94%       |
| Relationship status                    | Single                 | 47% | 36%       |
|  | Not yet clear          | 13% | 19%       |
|  | Long-term relationship | 40% | 45%       |
| Sexually unhappy / no private sex life |                        | 12% | 4%        |
| Number of sex partners                 | 3-5                    | 26% | 62%       |
|  | >5                     | 31% | 27%       |
|  | >10                    | 24% | 9%        |
|  | >20                    | 14% | 2%        |
|  | >50                    | 5%  | 0%        |
| Non-condom use in anal/vaginal sex     | P3M                    | 45% | 47%       |
| N                                      |                        | 752 | 91        |

Table 1 Baseline characteristics of male STAR trial participants. P3M, past three months.

## Results

The data presented here is not final, as data entry was still ongoing when preparing this poster. As of 7 July 2017, we screened 752 men-who-have-sex-with-men (MSM, including 27 escorts) and 91 other multi-partner men (who reported sex exclusively with women).

Previously undiagnosed HIV was found in 0.5% vs. 0.0%; TP-antibodies in 13.8% vs. 1.1%. Bacterial STIs requiring antibiotic treatment (bSTIs): Active Lues 1.4% vs. 0.0%; *N. gonorrhoeae* 9.9% vs. 0.0%; *C. trachomatis* 8.8% vs. 1.1%; *T. vaginalis* 3.3% vs. 1.1%; *M. genitalium* 5.0% vs. 1.1%. One in four MSM versus 1 in 30 male controls had bSTIs.

When only considering infections with *N. gonorrhoeae*, *C. trachomatis*, and *T. pallidum* as mandatory for treatment, the number needed to test among MSM was still low (one in five).

Confronted with a detailed questionnaire including questions on a variety of possible symptoms, 15.1% of MSM and 12.1% of other men reported currently having some.

In multivariable regression analysis, further controlling for age, HIV-status, group sex, anal sex, means of partner acquisition, and relevant interaction terms, non-condom-use (in the last three months) for anal/vaginal sex was not associated with bSTIs. Independent risk factors were sex with men (aOR=7.8; 95%-CI:2.4-25.1), the number of sexual partners (aOR=2.3 for >20; 95%-CI:1.4-3.9), and reporting STI symptoms (aOR=2.0; 95%-CI:1.3-3.0).

When, in a sensitivity analysis, excluding men who reported symptoms, sex with men remained the only independent predictor for bSTIs (aOR=11.9; 95%-CI:2.9-48.7). Using alternative composite outcomes by excluding *M. genitalium*, or by excluding *M. genitalium* and *T. vaginalis*, did not challenge these findings.

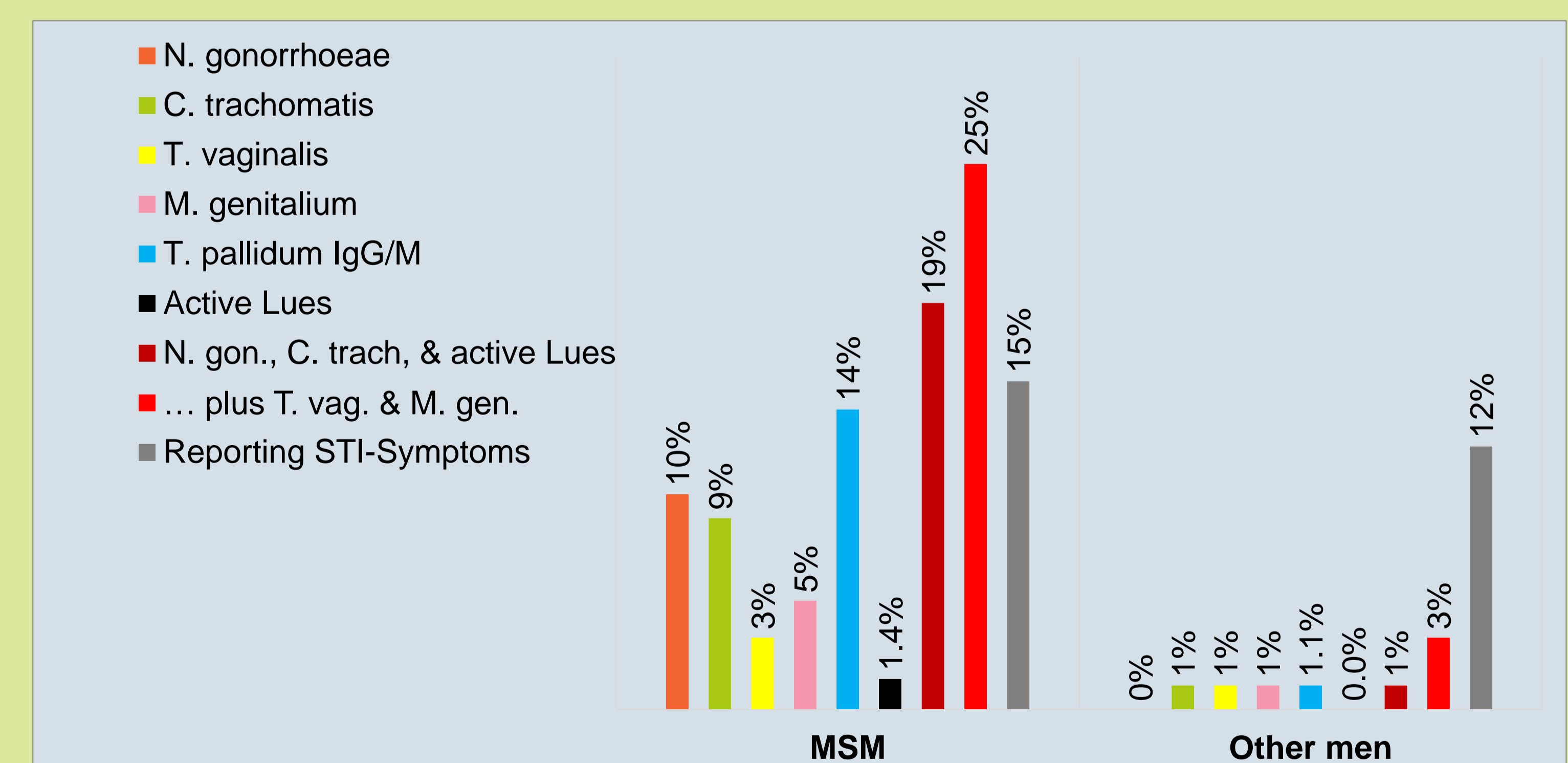


Figure 1 Bacterial STIs and reported symptoms at STAR trial baseline examination among men.

## Conclusions

Among MSM, but not among other multi-partner men, bacterial STIs, mostly asymptomatic, are common. Given the high risk of onward transmission, low-cost or free routine screening of MSM is a public health priority.