

RATIONALE FOR PRIORITIZING STI-SCREENING AMONG ASYMPTOMATIC FEMALE SEX WORKERS IN SWITZERLAND

Karoline Aebi-Popp^{1,4*}, Axel J. Schmidt^{2,8*}, Manuela Rasi², Thomas Lung³, Christoph Hauser⁴, Cate Esson⁵, Ferah Dost⁶, Katharina Lange¹, Torsten Konrad⁴, Milena Stoffel⁶, Benedikt Zahno⁷, Steven Derendinger⁸, Lorenz Risch³, Pietro Vernazza²



1. Aids-Hilfe beider Basel, Switzerland; 2. Division of Infectious Diseases and Infection Control, Cantonal Hospital St.Gallen, Switzerland; 3. Laboratory Risch, Buchs, Switzerland; 4. Department of Infectious Diseases, Bern University Hospital, University of Bern, Switzerland; 5. Profa, Consultations in Sexual Health, Renens, Switzerland; 6. Walk-in Clinic Kanonengasse, Gynaecology, Städtische Gesundheitsdienste Zürich, Switzerland; 7. Isla Victoria, Zürcher Stadtmission, Zürich, Switzerland; 8. Communicable Diseases Division, Swiss Federal Office of Public Health, Bern, Switzerland; *equal contributions;

IUSTI17-47

Background

In Switzerland routine STI-testing is not paid by health insurance companies, even in high-risk individuals. Further, multi-site swabbing, including pharyngeal and anal, is rarely performed. We compared prevalences of bacterial STIs in women with/without transactional sex (TA) and evaluated associated risk factors.



Methods

Across Switzerland, between January 2016 and June 2017, we offered free STI-testing to women 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, vagina, anus), and antibody tests for HIV and *T. pallidum* (IgG/M, plus RPR if positive). None of the women undergoing baseline diagnostics in the STAR trial presented because of STI symptoms. Most women were recruited in voluntary counselling and testing (VCT) centres, and some female sex workers (FSW) were approached through outreach work. In Switzerland, TA is legal and regulated, and FSW can get health insurance.

	FSW	Other women
Age		
<25	20%	15%
25-39	56%	77%
40+	24%	8%
Nationality		
Swiss	4%	89%
USA, Canada	0%	0%
Latin America	20%	0%
Spain, Portugal	12%	0%
Western Europe	6%	8%
Eastern Europe	49%	3%
Africa	7%	0%
Asia	2%	0%
Swiss Health Insurance	23%	97%
Relationship status		
Single	48%	47%
Not yet clear	3%	24%
Long-term relationship	49%	29%
Sexually unhappy / no private sex life	36%	8%
Number of sex partners		
3-5	3%	73%
>5	4%	19%
>10	6%	5%
>20	13%	1%
>50	74%	2%
Non-condom use in anal/vaginal sex	P3M	45%
N	505	91

Table 1 Baseline characteristics of female 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 recruited 505 female sex workers (FSW), including 24 transgender women, and 91 other women (who did not report TA).

HIV antibodies were found in 0.4% vs. 0.0%; *T. pallidum* antibodies in 6.1% vs. 0.0%. Bacterial STIs requiring antibiotic treatment (bSTIs) were: Active Lues 1.2% vs. 0.0%; *N. gonorrhoeae* 4.8% vs. 0.0%; *C. trachomatis* 6.5% vs. 5.5%; *T. vaginalis* 9.5% vs. 0.0%; *M. genitalium* 6.3% vs. 6.6%. One in four FSW vs. one in nine other women had bSTIs.

When only considering infections with *N. gonorrhoeae*, *C. trachomatis*, and *T. pallidum* as mandatory for treatment, the number needed to test among FSW was one in nine.

Confronted with a detailed questionnaire including questions on a variety of possible symptoms, 20.4% of FSW and 20.0% of other women reported currently having some.

In multivariable regression analysis, further controlling for age, TA-status, nationality, health insurance, means of partner acquisition, years of engaging in TA, proportion of income earned with TA, and relevant interaction terms, neither non-condom-use (in the last three months) for anal/vaginal sex, nor having Swiss health insurance, nor reporting STI symptoms were associated with bSTIs. Instead, TA at young age (<25y; aOR=2.5; 95%-CI:1.5–4.0), and group sex (aOR=1.6; 1.1–2.1) were independently associated with bSTIs.

When using alternative composite outcomes by excluding *M. genitalium*; or by excluding *M. genitalium* and *T. vaginalis*, these findings remained broadly unchallenged.

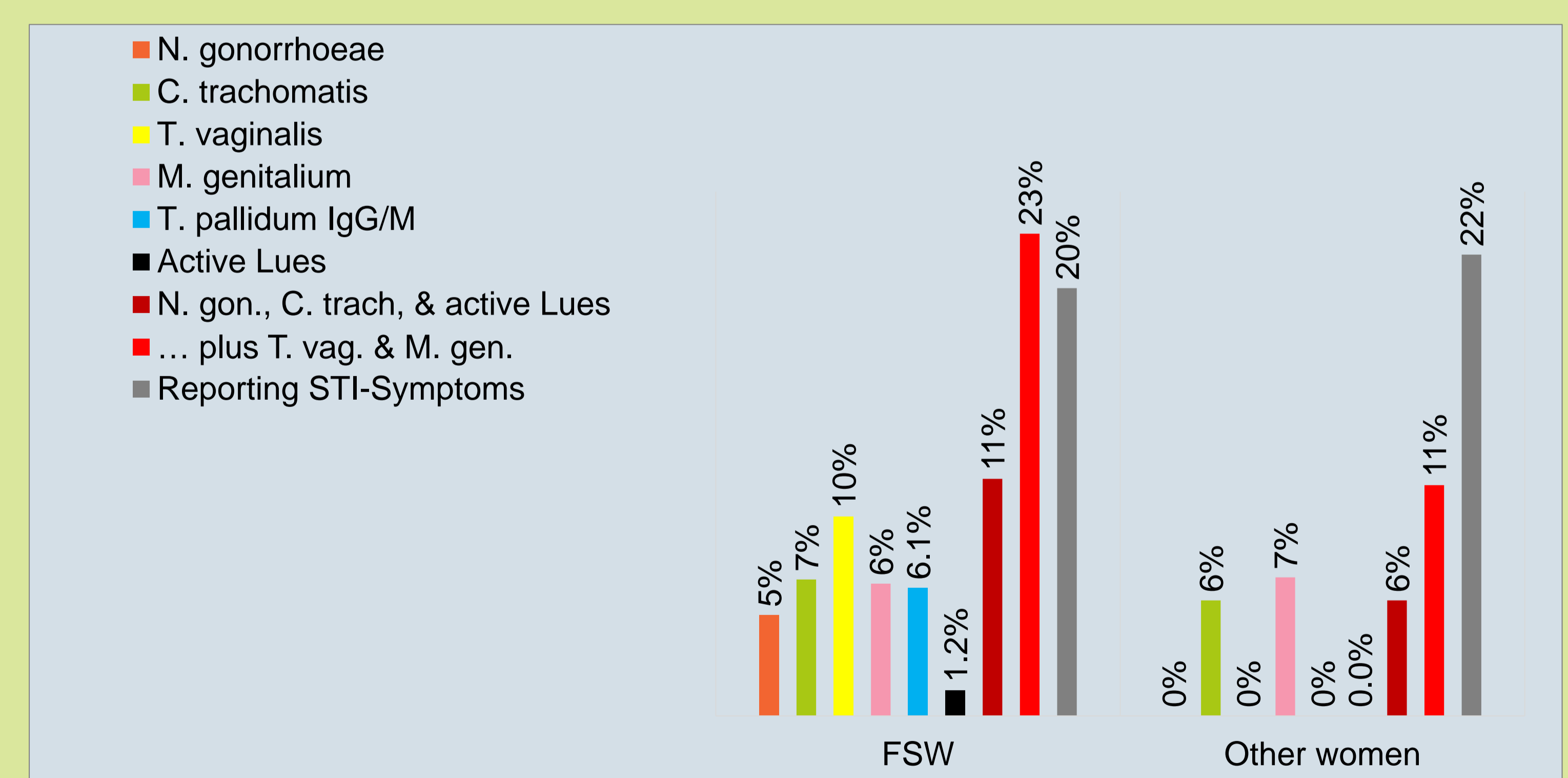


Figure 1 Bacterial STIs and reported symptoms at STAR trial baseline examination among women.

Conclusions

FSW showed high rates of bacterial STIs requiring immediate treatment to reduce transmission to clients and/or steady partners. FSW should be offered low-cost or free routine screening for STIs as an important public health priority.