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High prevalence of sexually transmitted infections in patients attending STI clinics in Tanzania

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Background: Sexually Transmitted Infections (STIs) are among the major public health problems, these infections receive less or no international global attention despite of their continuing impact on reproductive, pregnancy, maternal and child health outcomes in developing countries. Lack of diagnostic methods to determine specific pathogens contributes in increase of infections.

Objectives: We determined prevalence of STIs and assessed risk factors associated with these infections among patients attending STI clinics.

Methods: Patients presenting with genital symptoms/signs were consecutively recruited in a health centre STI clinic or a referral hospital between 2014 and 2016. Questionnaire was administered and clinical samples were collected for detection of *N. gonorrhoeae*, *C. trachomatis*, *M. genitalium* and *T. vaginalis* by multiplex real time PCR.

Results: A total of 1230 patients were tested for all four STIs, mean age was 27.8 ± 8.4 yrs, women accounted for the majority (86.3%). The overall prevalence of all STIs was 55.8% (95% CI 47.0, 68.5%). The etiological specific prevalence of 39.9%, 25.7%, 13.4% and 5.1% for *T. vaginalis*, *N. gonorrhoeae*, *C. trachomatis* and *M. genitalium*, respectively. High prevalence of 68.6%, 57.9%, and 47.9% of all STIs were observed in Dodoma, Mwanza, and Dar Es Salaam respectively. Patients reported in urban health facilities (Dodoma, Mwanza, and Dar Es Salaam) were more often likely to be infected with STIs than those reported in rural health centres in Tanga and Mbeya regions OR=4.2(95%CI3.2,5.8) P<0.00. The risk of acquiring STIs among these patients was found significantly increasing between 2014 and 2016 (OR =2.3 (95% CI 2.0, 5.5) and 20 (95% CI 8.0, 52.5) P<0.00) respectively. For all infected, women had the majority of cases, 452 (42.7%), but men had significantly the highest proportion 101 (59.4%) of all infections (p=0.00). High proportions of *N. gonorrhoeae* (53.9%), *C. trachomatis* (24.5%) and *M. genitalium* (7.6%) were observed both in Dodoma and Mwanza regions respectively, and a prevalence of 9.7% of multiple infections was also highlighted.

Conclusion: Our study has reported high prevalence of STIs and these infections are common and more prevalent in urban areas among patients attending STI clinics in Tanzania. *T. vaginalis*, *N. gonorrhoeae* and *C. trachomatis* were more common and prevalent and were found infecting more young adults both men and women.

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