

testing using Abbott CT/NG. When unpooling the samples, one discordant result was solved. Three CT infections (1 in each samplingsite) and four NG infections (2A and 2P) were missed; one CT (P) and three NG (A) infection were found to be false positive (one in each sampling site). This converts into a respective sensitivity and specificity of 91.2% (95%CI: 76.3–98.1%) and 99.8% (95%CI: 99.0–100.0%) for CT and 88.6% (95%CI: 73.3–96.8%) and 99.4% (95%: 98.3–99.9%) for NG of the pooling strategy. Cohen's Kappa agreement was 0.94 for CT and 0.89 for NG which is an almost perfect agreement.

**Conclusion** We showed that this pooling strategy performs well using the FDA approved point-of-care assay GeneXpert. This may be a very cost-effective strategy and also feasible, as the assay is widespread throughout the African continent for tuberculosis testing.

**Disclosure** No significant relationships.

P542 **PREVALENCE OF STIS AMONG MSM INITIATING PREP IN WEST-AFRICA (COHMSM-PREP ANRS 12369 – EXPERTISE FRANCE)**

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**Background** Men who have sex with men (MSM) coming forward for Pre-Exposure Prophylaxis (PrEP) are at high risk for HIV and other Sexually Transmitted Infections (STIs). However, little is known about the prevalence of STIs among MSM in West-Africa. Yet, understanding the STI epidemic among MSM will improve STI management. In the framework of a PrEP demonstration study in West-Africa (CohMSM-PrEP), we tested all participants for STIs at enrollment.

**Methods** The study was conducted in Abidjan-Côte d'Ivoire, Bamako-Mali, Lomé-Togo and Ouagadougou-Burkina Faso. Participants (n=507) were tested for the following STIs using the GeneXpert instrument: *Chlamydia trachomatis* (CT)/*Neisseria gonorrhoeae* (NG) in Anorectum (A), Urine (U) and Pharynx (P), and *Trichomonas vaginalis* (TV) in urine. *Mycoplasma genitalium* (MG) was tested using the S-DiagMGTV multiplex assay in A-U-P samples.

**Results** The overall prevalence of CT was 17.9% (19.4%, 22.0% 16.4%, and 13.6% in Lomé, Abidjan, Bamako and Ouagadougou, respectively). Most CT infections were anorectal (12.3%), followed by urethral (5.7%). In Bamako, the second most infected sample type was pharyngeal (6.0%) instead of urine (5.0%). Overall prevalence of NG was 15.8% (9.7%; 25.0%; 6.0%, 22.3% in Lomé, Abidjan, Bamako and Burkina, respectively). Most NG infections were found in the anorectum (10.7%), followed by the pharynx (5.7%). In Mali, no pharyngeal NG infections were detected. MG infection was 26.0% for Lomé and 27.6% for Ouagadougou (results for other sites not yet available). The majority of MG infections

were found in the anorectum (15.4%). Among all participants, only one urine sample with TV has been found in Bamako.

**Conclusion** We showed a very high prevalence of extra-genital STIs among PrEP users in West-Africa. We also detected infections which would not have been treated if a syndromic management approach would have been applied (87.9%). In order to limit transmission of infections we recommend to test also extra-genital sites for STIs in this population.

**Disclosure** No significant relationships.

P543 **COST-EFFECTIVENESS OF PRE-EXPOSURE PROPHYLAXIS IN MSM WITH EVENT-DRIVEN AND DAILY REGIMENS**

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**Background** Pre-exposure prophylaxis (PrEP) is highly effective in reducing HIV transmission among men who have sex with men (MSM). We investigated the impact of daily and event-driven PrEP on the transmission of HIV and *N. gonorrhoeae* (NG) and its cost-effectiveness in the Netherlands.

**Methods** We developed a stochastic agent-based transmission model of HIV and NG among MSM. We simulated three scenarios: (1) No PrEP; (2) Offering daily and event-driven PrEP; (3) Offering only daily PrEP. Three-monthly PrEP monitoring included testing for HIV, gonorrhoea, and other infections. From the Amsterdam PrEP Demonstration Project (AMPrEP) data, it was estimated that 27% of PrEP users prefer event-driven PrEP and they use half the amount of PrEP pills used by daily users. We assumed PrEP effectiveness was 86% regardless of regimen. Simulated outcomes of the transmission model were used in an economic model to calculate costs, quality-adjusted life-years (QALY), and incremental cost-effectiveness ratios (ICER), over 2018–2027, taking a health-care payer perspective. An ICER less than € 20,000 per QALY gained was considered cost-effective.

**Results** PrEP resulted in 3,486 HIV infections averted and 1,482 QALYs gained over 2018–2027. Gonorrhoea prevalence dropped from 0.782% in 2017 to 0.023% in 2027. When offering both daily and event-driven PrEP, the costs for PrEP medication were € 19 million over 2018–2027. This resulted in less total costs than when no PrEP is offered, making this programme cost-saving. With only daily PrEP, the costs for PrEP medication were € 22 million over 2018–2027, making this programme cost-effective with a mean ICER of € 217.40 per QALY gained.

**Conclusion** The PrEP programme (including STI monitoring) can be effective in reducing HIV incidence and gonorrhoea prevalence among MSM and can be cost-effective, even if all PrEP users prefer the daily regime. Monitoring of PrEP users can result in reductions in prevalence of STIs being monitored. Acknowledgements: AIDSfonds (2014037), ZonMw (522002003).

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