

were found, with phenotypes QRNG and PPNG being more frequent.

Conclusion Although *N. gonorrhoeae* isolates with resistance to gentamicin were not observed, a high percentage of strains were resistant to other antimicrobial agents, particularly ciprofloxacin. This study suggests that gentamicin may be considered a future treatment option for gonorrhoea in Argentina. However, the high prevalence of isolates with MIC 8 µg/ml (intermediate susceptibility) suggests a continuous surveillance of gentamicin in our country.

P3.86 **COMPARATIVE EVALUATION OF DISK DIFFUSION AND AGAR DILUTION METHODS FOR GENTAMICIN SUSCEPTIBILITY TESTING OF NEISSERIA GONORRHOEA**

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Introduction At present, gentamicin is a promising antibiotic for the treatment of multidrug resistant *N. gonorrhoeae* isolates. Therefore, the knowledge of *N. gonorrhoeae* susceptibility to gentamicin is required. The CLSI guidelines do not list breakpoints for gentamicin. However, MIC interpretive criteria have been proposed. Moreover, a recent report comparing the disk diffusion with Etest has established tentative gentamicin zone breakpoints for the CLSI method. The proposed breakpoints are ≥ 16 mm for susceptible, 13–15 mm for intermediate and ≤ 12 mm for resistant. The aim of this study was to compare the disk diffusion method with the agar dilution test, and to analyse the suitability and reliability of disk diffusion to monitor the susceptibility to gentamicin.

Methods We studied 237 *n. gonorrhoeae* isolates obtained in 2013 and 2015 from the GASSP-AR. The MIC determination and disk diffusion tests to gentamicin were performed according to CLSI, and tentative breakpoints previously reported were used. The 2008 WHO and ATCC 49226 reference strains were used as control. The inhibition diameters by disk diffusion were tested by correlation with the MIC value.

Results Gentamicin MICs ranged from 2 to 16 µg/ml, and the MIC_{50/90} were both 8 µg/ml. The Pearson correlation between disk diffusion and agar dilution was -0.67 ($p < 0.001$). No very major or major discrepancies were detected with disk diffusion as compared to agar dilution. However, a high percentage of minor discrepancies (39.9%) was observed. By adjusting the susceptible breakpoint for disk diffusion to $S \geq 17$ mm, the minor discrepancies rate was reduced from 39.9% to 18.4%.

Conclusion: *N. gonorrhoeae* isolates with resistance to gentamicin were not observed. The disk diffusion had good correlation when compared with the agar dilution method. Although a high percentage of minor discrepancies was observed, the error rate was reduced adjusting the breakpoint. Until it becomes standardised, the disk diffusion can be a screening method in clinical laboratories to detect the gentamicin susceptibility of *N. gonorrhoeae*.

P3.87 **ASYMPTOMATIC URETHRITIS PREVALENCE AND ASSOCIATED RISK FACTORS AMONG MALES LIVING WITH HIV-1**

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Introduction It is estimated that symptomatic carriers of *N. gonorrhoeae* and *C. trachomatis* have a relative risk of 4.8 fold and 3.6 fold, respectively, for the sexual acquisition of HIV. This type of evaluation for asymptomatic urethritis is necessary to reinforce strategies to combat HIV transmission.

Methods We enrolled a total of 115 male patients aged 18 years or older who have been diagnosed with an HIV infection and have no symptoms of urethritis or other sexually transmitted infections. Urine was collected and tested by real-time PCR for the detection of *C. trachomatis* and *N. gonorrhoeae* (Abbott RealTime CT/NG test[®]). Simultaneous clinical data and blood collection was performed to obtain HIV viral load values and CD4⁺T lymphocyte counts.

Results Four patients had asymptomatic carrier status of urethritis and were positive for *C. trachomatis*. The prevalence was 3.47%. Patients who were positive for *C. trachomatis* urethritis had a lower mean age ($p=0.015$). After statistical analysis, we observe that age is associated with the time of use of ART ($\beta =$ positive, $R^2=0.082$, $p < 0.01$) and that the mean age of patients who do not use condoms is higher than those who use condoms in more than or equal to 50% of the relationships ($p=0.03$). Likewise, the mean age in patients who use condoms in less than 50% of relationships is higher than that of patients who use condoms in more than or equal to 50% of relationships ($p=0.04$). The status of single men is associated with sexual intercourse with other men or men and women and condom use in more than 50% of relationships ($p < 0.01$). Uncircumcised men are associated with the highest plasma HIV viral load among patients with detectable HIV load when compared to circumcised men ($p < 0.01$).

Conclusion We recommend that, in outpatient practice, the habit of inquiring about history of sexual behaviour to obtain more information about risks and associations with asymptomatic sexually transmitted infection, a routine physical examination and complementary tests for the agents should be discarded.

P3.88 **FREQUENCY OF SYPHILIS TESTING AMONG MEN WHO HAVE HAD RECTAL TESTS FOR CHLAMYDIA AND GONORRHOEA, UNITED STATES**

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Introduction CDC recommends syphilis screening at least annually for sexually active MSM and screening every 3–6 months for MSM with risks such as multiple partners.

Methods In collaboration with a large U.S. commercial laboratory, we identified men aged 15–60 years who had rectal chlamydia (CT) or gonorrhoea (GC) testing during September, 2013–August, 2015 as presumed MSM. We estimated: the frequency of testing (counting only tests ≥ 3 months after a previous test); reactivity of nontreponemal tests (NTT) and treponemal tests (TT); and the association between CT/GC and the reactivity of syphilis NTT and TT. We also identified

the number of the men with documented as primary, secondary, or early latent syphilis (PSELS) by ICD₉ codes.

Results Of 52,771 MSM, 33.8% were aged 15–29 years, 89.6% had private insurance, 51.0% resided in South, and 74.8% had tests ordered by infectious disease specialists. 14.5% had no syphilis tests, 4.8% had TT only (38.2% were reactive), 63.0% had NTT only (2.0% were reactive), and 17.7% had both NTT and TT (8.3% neither were reactive and 86.4% both were reactive). Of 45,108 MSM who had syphilis tests, 1.1% had PSELS. Of 2,547 MSM who had TT only, the number of tests in the two years was one (57.1%), two (22.3%), and three (13.3%). Of 33,238 MSM who had NTT only, the number of tests was one (53.5%), two (23.3%), and three (11.1%). Of 9323 MSM who had both NTT and TT, the number of tests was one (30.4%), two (24.7%), three (17.8%), and four (12.8%). Of 11 870 men who had reactive TT, 51.8% had \geq two reactive TT. CT and GC were significantly higher in men with reactive vs. nonreactive NTT and TT: rectal CT (24.4% vs. 12.6%) or GC (19.8% vs. 9.9%); pharyngeal CT (5.4% vs. 2.9%) or GC (14.7% vs. 10.6%); urethral CT (7.6% vs. 5.7%) or GC (8.0% vs. 5.3%).

Conclusion Syphilis testing was common among men who were tested for rectal CT or GC, but most were tested only once. Men with reactive syphilis tests were more likely to have GC or CT vs. men with nonreactive tests. Routine and timely syphilis testing should be prioritised.

P3.89 PREVALENCE, TREND, OUTCOMES AND RISK FACTORS FOR LATE PRESENTATION FOR HIV CARE IN ETHIOPIA, 2003–2015

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Introduction Late presentation for HIV care (LP) delays the achievements of the 90-90-90 UNAIDS target, a program in which Ethiopia has subscribed for. However, the prevalence, trend, outcomes and risk factors of LP among children and adults were not assessed very well in the nation.

Methods 12 years retrospective cohort study was conducted using data extracted from an antiretroviral therapy (ART) clinic in Southwest Ethiopia. LP for children and adults was measured using CD4 lymphocyte counts and WHO clinical stages. We described the percentage of LP by mortality, discontinuation from ART and immunological failure to show outcomes of LP. The analysis of descriptive and inferential statistics (logistic regression) was undertaken. Missing data were handled using multiple imputations assuming missing at random (MAR) pattern.

Results Of the 8172 patients enrolled for HIV care between June 2003 and March 2015, 5299 (64.8%) patients were on ART: 4900 (92.5%) were adults and 399 (7.5%) were children. The prevalence of LP was 57% in children and 66.7% in adults with an overall prevalence of 65.5%, and the 11 years analysis of LP showed upwards trends. 74% of died children, 50% of discontinued children, 57% of transferred out children and 45% of children with immunological failure

were delayed presenters for HIV care. Similarly, 64.7% of died adults, 65.3% of discontinued adults, 68.1% of transferred out adults and 78.7% of adults who had immunological failure presented late for the care. Factors for LP among adults were: being female, being married, having IF, having Tb/HIV co-infection and having no history of HIV testing. No statistically significant predictor was found for LP among children.

Conclusions The prevalence LP was significant and majority HIV infected children and adults who presented late for HIV care had discontinued, transferred out and immunological failure. To address this, strategies such as unmanned aerial systems for transporting laboratory specimens, programs such as home and community-based HIV testing, ‘opt out’ and self-testing are compulsory.

P3.90 HIV CARE CONTINUUM OUTCOMES IN ETHIOPIA: SURROGATES FOR UNAIDS 90–90–90 TARGETS FOR ENDING HIV/AIDS

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Introduction How the UNAIDS 90-90-90 targets for ending HIV/AIDS by 2030 progressing have not yet been assessed in many countries including Ethiopia. We assessed HIV care continuum outcomes as a complex surrogate markers for the 90-90-90 targets.

Methods Data were collected from 12 years anti-retroviral therapy (ART) records. For UNAIDS diagnosis target, early HIV diagnosis was considered as a surrogate marker. For treatment target, number of people on ART, number of people who discontinued from ART or transferred out, and number of people who had fair or poor adherence were used as surrogates. For viral suppression target, number of people with treatment success (combination of immunological and clinical) was used as a surrogate marker.

Results 8172 patients were enrolled for HIV cares in the period between 2003–2015. For the diagnosis target, 34.5% patients knew their status early (43%-children, 33%-adults). For the treatment target, 65% patients received ART, 1154 (21.9%) patients discontinued from ART, 1015 (19.3%) patients on ART transferred out to other sites, 916 (17%) of patients on ART had fair or good adherence. For the virological suppression target, 80.7, 80.3% and 65.8% of patients had immunological, clinical and treatment success displaying an estimated 66% of patients achieved the target.

Conclusion The finding reflects that an estimated 35% of patients knew their status timely, 65% of diagnosed patients received treatment and 66% of patients on ART achieved viral suppression. This is very far from the UNAIDS 90-90-90 targets underscoring the need for rigorous innovative methods such as unmanned aerial systems (or drones) for transporting laboratory specimens, immediate or same day ART initiation, community distribution of ART, runaway packs during conflict, and use of GenXpert for HIV viral load testing would significantly help to hit the target. **Question:** How resource constraint countries attain the 90-90-90 targets?