of laboratory staff as measured by fall in errors, improvement in competency assessment scores, attendance in training programs and compliance with standard precautions, documentation and record keeping. A totally new parameter included in this study was the testing of Covid-19 positive patients for HIV, with a positivity of 2.08%.

Conclusion In conclusion, this study yielded some interesting revelations on various aspects of working in an HIV testing laboratory. It has clearly demonstrated that adversities can be used as opportunities for improvement in work ethics, documentation, service providing skills and practice of universal work precautions.

**P337 HIV PARTNER NOTIFICATION AMONG MSM LIVING WITH HIV IN GUANGDONG PROVINCE, CHINA: FINDINGS FROM A CROSS-SECTIONAL STUDY**

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**Background** HIV partner notification is critical in preventing HIV transmission, but not widely used in many low and middle-income countries, including China. We conducted a cross-sectional survey to investigate the usage of partner notification (PN) for MSM living with HIV in China, and to identify factors that could influence their PN decisions towards different types of sexual partners.

**Methods** The study recruited MSM who were diagnosed as HIV positive in the past two years in six cities of Guangdong province, China. All participants were ≥ 18 years old and informed consented. Descriptive analysis was used to report the partner notification rates among different types of sexual partners, along with the top facilitators and barriers for PN. Logistic regressions were used to examine correlates of PN.

**Results** Among 5799 MSM with HIV, 1376 clicked the link and 944 completed the survey. Mean age was 29 (SD:7.6) and 674 (70.8%) identified gay. Overall, 65.1% (300/461), 46.4% (194/416) and 54.5% (30/55) notified at least one of their stable, casual, and female partners, respectively. 26.7% (165/617) of the stable male partners tested as HIV positive, while 6.8% (74/1091) of the casual partners tested positive. 28.8% (300/1041) and 674 (70.8%) identified gay. Overall, 65.1% (300/461), 46.4% (194/416) and 54.5% (30/55) notified at least one of their stable, casual, and female partners, respectively. 26.7% (165/617) of the stable male partners tested as HIV positive, while 6.8% (74/1091) of the casual partners tested positive.

**Conclusions** This study presents the most updated HIV PN rates among MSM and contributes to the knowledge of PN in China by differentiating the partner types. It identifies important factors that could influence stable and casual PN decisions, which offers great implications for designing tailored partner services intervention in further research.

**P338 SYNERGISTIC ACTIVITY OF AZITHROMYCIN PLUS CEPHALOSPORIN DUAL THERAPY FOR MULTIDRUG-RESISTANT N. GONORRHOEAE IN INCREASING RESISTANCE ENDEMIC SETTING: A CHINA REGIONAL STUDY**

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**Background** The emergence of multidrug resistance (MDR) in Neisseria gonorrhoeae is concerning, especially the co-occurrence of azithromycin resistance (AZMR) and decreased ceftriaxone susceptibility (ECSD). We evaluated the feasibility of azithromycin and ceftriaxone dual therapy to provide a treatment solution for MDR N. gonorrhoeae strains in Guangdong, China.

**Methods** A total of 3,609 N. gonorrhoeae strains were collected, and the minimum inhibitory concentrations (MICs) of various antibiotics were assessed for each strain using the agar dilution method. Among the identified MDR strains, 45 isolates were selected and analyzed by N. gonorrhoeae sequence typing for antimicrobial resistance (NG-STAR), N. gonorrhoeae multi-antigen sequence typing (NG-MAST), multi-locus sequence typing (MLST), and phylogenetic tree. The effectiveness of dual therapy was scored by a combination of the MIC and the fractional inhibitory concentration (FIC) index.

**Results** Among the selected isolates, a high degree of antibiotic resistance was observed: 11.54% of strains were resistant to AZM; 9.25% of strains displayed decreased susceptibility to ceftriaxone (CROD); and 11.84% were less susceptible to cefixime (CFMD). The proportions of isolates with both AZMR and ECSD were once up to 2.11% for AZMR/CFMD and 1.79% for AZMR/CROD. NG-STAR, NG-MAST, and MLST categorized the 45 MDR isolates into 35, 35, and 23 major genogroups, respectively, which could be divided into different evolutionary branches due to genetic diversity. These isolates could be effectively killed with the coadministration of less than 1 mg/L AZM and 0.125 mg/L ECS, with a synergistic effect of FIC < 0.5.

**Conclusions** AZM plus ECS dual therapy remains effective against MDR N. gonorrhoeae.