**THE INDEX CASE’S PARTNERSHIP STATUS IS IMPORTANT IN PREDICTING THE LIKELIHOOD OF PERSISTENCE OF INTRODUCED XDR NG AMONG MSM**

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Background Extensively drug resistant (XDR) Neisseria gonorrhoeae (NG) strains have recently been isolated in the UK and Australia. We use a mathematical model to assess the importance of the index cases’ partnership status in predicting the probability that an introduced XDR NG strain will persist in a population of men who have sex with men (MSM).

Methods We developed an individual-based, anatomical site-specific model of NG transmission in an urban MSM population in Australia. We assume an XDR NG strain is introduced into a population where treatment-sensitive NG is already endemic. We define the index case as the individual initially infected with an introduced XDR NG strain, and their partnership preferences as seeking regular partnerships only, seeking casual partnerships only, or unrestricted. We ran around 1000 simulations for each preference in relation to the index case and recorded the length of time XDR NG persists in the population.

Results In simulations where index cases only have regular partners, XDR NG persists for more than 0.5 years in 37% of simulations. In simulations where index cases only have casual partners, XDR NG persists for more than 0.5 years in 33% of simulations, and in 95% of these the index cases had 5+ casual partners in the past 6 months. In simulations where the index cases have both regular and casual partners, XDR NG persists for more than 0.5 years in 50% of simulations, and in 86% of these the index cases had 5+ casual partners in the past 6 months.

Conclusion Our modelling suggests that an introduced XDR NG is more likely to persist if the index case has a regular partner and is likely to have frequent casual partnerships. These results emphasise the need to identify and treat such individuals and their partners to prevent the initial spread of XDR NG.

Disclosure No significant relationships.

**PRE-EXPOSURE PROPHYLAXIS IN BRAZIL: OPPORTUNITIES AND CHALLENGES FOR MEN WHO HAVE SEX WITH MEN**

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Background In Brazil Pre-exposure prophylaxis (PrEP) free-of-charge at the public health system has gained a central role in combination prevention of HIV infection. PrEP is recommended for HIV prevention for most at-risk MSM by the Public Health System (SUS). The aim of this study is to report the profile and characteristics of MSM using PrEP.

Methods Programmatic PrEP data from three forms for PrEP monitoring were analyzed for this study: First Service Record, First Return Record, and Clinical Monitoring Record, as well as the sociodemographic data collected from PrEP user...
registration from the Medicine Logistic Control System (Siclom), collected from January 1st to October 31st, 2018. 

Results Out of the 5,559 PrEP users in October 2018, 82% (4,535) were MSM. A similar distribution pattern is noted in most all cities of Brazil where PrEP is implemented, having MSM as the majority of users. 19% were between 18 to 29 yo and 37% were 30 to 39 yo. Approximately 59% self declared themselves as white and 41% as black. Considering education, 84% of the MSM have at least 12 years of study. Regarding sexual practices, 47% reported a decrease in the number of partnerships and 24% reported an increase in condom use. 

Conclusion Free-of-charge PrEP in public health system can reach a large number of MSM, but access also needs to be equitable considering intersectional risk factors. Our analyses suggest the need to invest for community-based leded strategies to increase the reach of PrEP among younger, black and less educated MSM. 

Disclosure No significant relationships.

Background There is currently considerable interest the complex relationship between PrEP and STI incidence. Our Challenges and Opportunities of PrEP (CHOP) study uses qualitative and quantitative methods to ascertain the changes in behaviour and STI rates in high risk men/transgender/nonbinary persons who have sex with men (MSM/TPSM) before and after commencement of the PrEP Impact trial (‘Impact’) in our clinic (01/12/2017).

Methods We performed retrospective data analysis of clinic and laboratory records for MSM/TPSM attendees who attended a British sexual health clinic in a large urban area between 01/12/2016 and 28/02/2019. 

We used logistic regression to compare STI diagnoses (chlamydia, gonorrhoea and syphilis at any site) and sexual risk score in two time periods (1: 01/12/2016 – 31/11/17 and 2: 01/12/2017 to 28/02/2019).

Results Of 72,667 attendances, 10,918 were MSM/TPSM and, excluding duplicate entries (164) and those who were already HIV positive (236), this left 3,407 individuals with 10,518 attendances: 4,378 (period 1) and 6,140 (period 2).

Mean HIV acquisition risk score at first visit in period 1 was 5.8 and 5.4 in period 2.

In period 1 at first visit 13.5% (266/1,975) had one or more STI compared with 20.2% (289/1,143) in period 2, a rise of 6.7%. Logistic regression showed OR 1.6 (p<0.001, 95%CI 1.35–1.95). 

STI diagnoses for subsequent visits in period 1, 6.3% (151/2,403) attendances had one or more STIs diagnosed, and in period 2 10.9% (513/4,708). This is a rise of 4.6% (OR 1.8 (p<0.001 95%CI 1.51–2.20).

Conclusion Although risk score was similar during both time periods, STI rates were significantly higher both at first visit and at subsequent visits. The qualitative aspect of this study will explore whether this reflects attracting more high risk MSM/TPSM into the service or whether use of PrEP increases risk-taking behaviour.

Disclosure No significant relationships.