**Research News in Clinical Context**

Heather L. Armstrong1\*, Rebecca Thomson Glover2, & Giovanni Villa3

1. University of Southampton, Southampton, United Kingdom

2. St Helens & Knowsley Hospitals NHS Trust, St Helens, United Kingdom

3. Brighton & Sussex Medical School, Brighton, United Kingdom

\*Corresponding author

**Covid-19 pandemic in Britain: Creating a backlog of need for young people and those reporting sexual risk behaviours**

Sexual and reproductive health (SRH) services rapidly adjusted to meet restrictions during the COVID-19 pandemic. A British cross-sectional web questionnaire surveyed 6654 participants about accessing SRH services in the lockdown period March-July 2020. Among 3108 sexually experienced participants aged 18-44 years, 21% reported using SRH services but nearly 10% described being unable to access services at least once. Compared to participants aged 35-44 years, men and women aged 18-24 years described greater difficulty accessing services (adjusted OR 2.93 and 5.34 for men and women, respectively). Reporting condomless sex also increased the odds of not being able to access services, as in the case of men reporting condomless sex with new partners (adjusted OR 13.3 vs. men not reporting condomless sex). Access to SRH services continued during lockdown, but there was unmet need among younger people and those with sexual risk behaviours such as condomless sex.

Dema E, Gibbs J, Clifton S, *et al.* Initial impacts of the COVID-19 pandemic on sexual and reproductive health service use and unmet need in Britain: Findings from a quasi-representative survey (Natsal-COVID). *Lancet Public Health* 2022;7(1):e36-47.

**What are we missing? Selective versus universal testing for oropharyngeal *Neisseria gonorrhoeae* in women**

Oropharyngeal infection with *Neisseria gonorrhoeae* is often asymptomatic. Guidelines advocate that testing for oropharyngeal gonorrhoea in women should be guided by sexual behaviour and risk group.[1] Based on surveillance data collected from all STI clinics in the Netherlands in 2008-2017 (n=545,750 consultations), prevalence of oropharyngeal gonorrhoeaamong women was 1.4% both at clinics that offered routine universal testing and those that offered selective testing; prevalence of oropharyngeal-only infections was 48% and 43% respectively. Selective testing would potentially miss 70% of all oropharyngeal infections, of which half would occur without concurrent ano-genital infections. Considering the diverse risk profile of women accessing STI clinics in different settings and the relatively low prevalence, further studies are needed to define the optimal strategies for detecting oropharyngeal gonorrhoeae in women.

van Liere GAFS, Dukers-Muijrers NHTM, Kuizenga-Wessel S, *et al.* Routine universal testing versus selective or incidental testing for oropharyngeal Neisseria gonorrhoeae in women in the Netherlands: a retrospective cohort study [published correction appears in *Lancet Infect Dis* 2021;21(9):e258]. *Lancet Infect Di*. 2021;21(6):858-67.

**Editor’s Choice: The impact of PrEP programs on the profile of people newly diagnosed with HIV**

In July 2017, Scotland implemented a HIV PrEP program to be delivered through sexual health clinics. Using surveillance data, investigators compared the characteristics of people newly diagnosed with HIV in the two years prior to July 2017 (n=418) with those newly diagnosed in the year following implementation (n=197). Those diagnosed prior to implementation were more likely to be male (82% vs. 72%) and white British (78% vs. 64%), to report sex between men (52% vs. 41%), and to have acquired HIV locally (72% vs. 58%). Those diagnosed after implementation were more likely to have acquired HIV through mixed-gender sex (39% vs. 27%). The sexual health clinic-based PrEP program appears to favour white British men who have sex with men. Alternative, supplemental delivery models may be needed to reach more diverse populations at risk for HIV.

Grimshaw C, Estcourt CS, Nandwani R, *et al.* Implementation of a national HIV pre-exposure prophylaxis service is associated with changes in characteristics of people with newly diagnosed HIV: A retrospective cohort study. *Sex Transm Infect* 2022;98(1):53-7.

**Resistance-guided combination therapy for *Mycoplasma genitalium* reveals the predictive value of single nucleotide polymorphisms in the *par*C gene**

Treating MG infections is challenging because of rising antimicrobial resistance and limited treatment options. In a prospective clinical study in Melbourne, 347 patients diagnosed with MG received doxycycline for 7 days, followed by combination treatment based on the macrolide resistance profile. Macrolide-susceptible infections (n=100) received doxycycline + azithromycin for 4 days; macrolide-resistant infections (n=247) received doxycycline + moxifloxacin for 7 days. Cure rates after 14-28 days were 93% and 85% for macrolide-susceptible and macrolide-resistant infections, respectively. *par*C gene sequencing (n=164 macrolide-resistant infections) showed that absence of SNPs at parC S83/D87 was associated with >98% cure following doxycycline + moxifloxacin, whereas presence of the parC mutation S83I was associated with failure in 63%. Side effects occurred in 40-46% and were predominantly mild and gastrointestinal. The data support resistance testing to guide clinical care.

 Vodstrcil LA, Plummer EL, Doyle M, *et al.* Combination therapy for Mycoplasma genitalium, and new insights into the utility of parC mutant detection to improve cure. *Clin Infect Dis* 2022 Jan. Epub ahead of print.

**Food insecurity is associated with inflammation in people living with HIV**

Investigators in Miami analysed the relationship between inflammatory markers (soluble CD14, CD163, and CD27) and food security among 325 participants with treated HIV infection (61% male, 64% black, mean age 56 years, 86% viral load <200 copies/mL, mean CD4 count 602 cells/µL). A validated questionnaire was used to class households into full, marginal, low, and very low food security. A multivariable model adjusted for sociodemographic variables, lifestyle, anthropometric and metabolic parameters, HIV RNA, CD4 cell count, and C-reactive protein levels. Food insecurity was independently associated with higher sCD14 and sCD27 levels; very low food security predicted higher sCD163 levels among those with lower CD4 cell counts. Interventions to improve financial security, access to high-quality foods, and nutrition knowledge could bring significant health benefits to people living with HIV.

Tamargo JA, Hernandez-Boyer J, Teeman C, *et al.* Immune activation: A link between food insecurity and chronic disease in people living with human immunodeficiency virus. *J Infect Dis* 2021;224(12):2043-52.

**Evolution of anti-hepatitis B surface antibodies (anti-HBs) in people living with HIV (PLWH) who received neonatal HBV vaccination**

Taiwan implemented universal neonatal HBV vaccination in July 1986 (estimated coverage rate 97.7%). Investigators retrospectively studied 492 people who were born after July 1986, diagnosed with HIV in 2004-2020, and tested for hepatitis B surface antigen (HBsAg)/anti-hepatitis B core antibodies (anti-HBc)/anti-HBs at HIV diagnosis (baseline) and yearly thereafter. Overall, 265 (54%) were triple negative at baseline and of these 4 experienced incident HBV infection prior to revaccination. Among 165 (34%) with anti-HBs alone at baseline, 38 (23%) became triple negative during median 4 years of follow-up; 4 (baseline anti-HBs 10-90 mIU/mL) acquired incident HBV infection. Tenofovir coverage was ≤60% in the 8 people with incident HBV infection, and 6 also had incident STIs. PLWH, particularly those with CD4 counts <500 cells/µL, show reduced durability of HBV seroprotection after neonatal vaccination. Monitoring of HBV serologic markers and timely administration of booster vaccination should be emphasised.

Huang YC, Sun HY, Sheng WH, *et al.* Evolution of hepatitis B virus (HBV) serologic markers among antiretroviral-naïve, young people living with HIV who had undergone neonatal HBV vaccination and initiated antiretroviral therapy. *Clin Infect Dis* 2021 Dec. Epub ahead of print.

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1. Fifer H, Saunders J, Soni S, *et al.* *British Association for Sexual Health and HIV national guideline for the management of infection with Neisseria gonorrhoeae (2019).* Macclesfield: British Association for Sexual Health and HIV. Available from https://www.bashhguidelines.org/media/1208/gc-2019.pdf [Accessed 22 Feb, 2022].

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