Research news in clinical context

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FREQUENT CLEARANCE OF ORAL HUMAN PAPILLOMAVIRUS (HPV) INFECTION IN MEN WHO HAVE SEX WITH MEN (MSM) WITH AND WITHOUT HIV

Oral HPV infection, usually acquired through oral sex, may play a role in oropharyngeal cancer.[1] This study prospectively collected 856 oral rinse-and-gargle samples from 244 MSM, including 103 (42%) with HIV who were mostly on virologically suppressive antiretroviral therapy. Over a median of 13 months, incidence of HPV DNA positivity (×1000 person-months) among MSM with HIV was 21.2 for any HPV type (vs 15.0 in MSM without HIV) and 10.7 for high-risk types (vs 6.5). Clearance rates were 82.8 (vs 92.8) and 121.1 (vs 82.7), respectively; both older age and a low nadir CD4 count predicted reduced clearance of high-risk HPV types among MSM with HIV. Thus, oral HPV infections occur among MSM but are less common and show higher spontaneous clearance rates than previously reported for anal infections.[2] HPV vaccination is important for this population.

Giuliani M, Rollo F, Vescio MF, *et al*. Oral human papillomavirus infection in HIV-infected and HIV-uninfected MSM: the OHMAR prospective cohort study. *Sex Transm Infect* 2020;96:528-536. doi: 10.1136/sextrans-2019-054301.

ARE EMERGENCY DEPARTMENTS (EDS) COST-EFFECTIVE VENUES FOR STI SCREENING IN YOUNG ADULTS?

The highest rates of STI diagnoses are observed in young adults,[3 4] and tailored screening strategies are needed. ED-based screening can be feasible and acceptable for young adults.[5] This study used literature-based estimates to model three testing strategies for chlamydia and gonorrhoea (by urinary nucleic acid amplification) in women and men aged 15–21 years attending paediatric EDs: symptom-driven testing, targeted screening based on risk stratification and universal screening. At an STI prevalence of 3.6%, the predicted STI detection and treatment rate of each strategy was 21.1%, 26.4% and 31.1%, respectively. Both targeted and universal screening were deemed cost-effective. To be successful, ED-based screening must rely on compliance with risk assessment, testing and referral to sexual health services for treatment.

Eckman MH, Reed JL, Trent M, *et al*. Cost-effectiveness of sexually transmitted infection screening for adolescents and young adults in the pediatric emergency department. *JAMA Pediatr* 2020:e203571. doi:10.1001/jamapediatrics.2020.3571

ISOLATION, FEAR AND REJECTION: THE BURDEN OF A LIFE WITH HIV

A study conducted in the Netherlands explored the present-day psychosocial burden of HIV infection among MSM, using the results from 18 in-depth interviews to design an online quantitative survey conducted on social platforms. In April–July 2019, 438 MSM completed the questionnaire. One in every three participants experienced HIV infection as generally burdensome. Issues of disclosure were especially significant, resulting in difficulties initiating sex and establishing relationships. Shame and stress were described by 26% and 18% of respondents, respectively. Participants recognised that the good tolerability and efficacy of antiretrovirals, including effective prevention of HIV transmission, significantly contribute to normalising HIV infection. Yet, the study highlights the continued need for measures to reduce stigma and to support mental well-being in MSM living with HIV.

van Bilsen WPH, Zimmermann HML, Boyd A, *et al*. Burden of living with HIV among men who have sex with men: a mixed-methods study. *Lancet HIV* 2020;7:e835-e843. doi:10.1016/S2352-3018(20)30197-1

HIV INFECTION IS ASSOCIATED WITH AN INCREASED RISK OF 28-DAY MORTALITY IN PATIENTS HOSPITALISED FOR COVID-19 IN THE UK

This prospective observational study analysed patients hospitalised with COVID-19 in January–June 2020, comparing people with (n=122, 0.26%) and without (n=47 470) HIV. HIV infection increased the risk of mortality with an age-adjusted HR ($_{adj}$HR) of 1.47 (95% CI 1.01 to 2.14). Although mortality was higher among people with HIV who had diabetes or obesity, the effect of HIV persisted after adjusting for sex, ethnicity and individual comorbidities including diabetes and obesity. Among people aged <60 years, mortality rates were 21.3% versus 9.6% (p<0.001) in the two groups and HIV infection more than doubled the risk in adjusted analyses ($_{adj}$HR 2.87; 95% CI 1.70 to 4.84). Further studies are needed to identify the HIV-related (eg, nadir and current CD4 count, viral load) and other factors (eg, comorbidities and socioeconomic status) that may contribute to the observed effect of HIV.

Geretti AM, Stockdale AJ, Kelly SH, *et al*. Outcomes of COVID-19 related hospitalization among people with HIV in the ISARIC WHO Clinical Characterization Protocol (UK): a prospective observational study. *Clin Infect Dis* 2020;ciaa1605. doi: 10.1093/cid/ciaa1605.

MICROBIOME THERAPY FOR RECURRENT BACTERIAL VAGINOSIS (BV)

BV frequently recurs after antibiotic treatment, impacting physical and psychological well-being.[6] A randomised, double-blinded, placebo-controlled phase IIb trial investigated an 11-week course of vaginally delivered Lactin-V, a biotherapeutic agent containing *Lactobacillus crispatus* (CTV-05 strain), in women with BV who had completed a treatment course of vaginal metronidazole gel. Lactin-V was well tolerated and adherence was high. Recurrence rates by week 12 (primary outcome) were 30% among 152 women given Lactin-V versus 45% among 76 women given placebo (relative risk (RR) 0.66; 95% CI 0.44 to 0.87). The effect was maintained at 24 weeks (RR 0.73; 95% CI 0.54 to 0.92). *L. crispatus* was detected in ~80% of participants at week 12 and in ~50% at week 24. Lactin-V is a promising intervention to reduce recurrence of BV. Longer term data are needed.

Cohen CR, Wierzbicki MR, French AL, *et al*. Randomised trial of Lactin-V to prevent recurrence of bacterial vaginosis. *N Engl J Med* 2020;382:1906–1915.doi:10.1056/NEJMoa1915254

A GENETIC RISK SCORE CAN HELP PREDICT THE RISK OF HEPATOCELLULAR CARCINOMA (HCC) AFTER CURATIVE TREATMENT FOR HEPATITIS C

Despite curative treatment with directly acting antivirals (DAAs), patients with cirrhosis remain at risk of HCC[7] and are recommended to undergo lifelong surveillance.[8] A single-centre study investigated a

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composite genetic risk score (GRS) based on four genes associated with hepatic fat accumulation (PNPLA3, MBOAT7, TM6SF2 and GCKR) as a predictor of HCC in 509 cirrhotic patients with hepatitis C who started DAA therapy. In combination with clinical risk factors (male gender, diabetes and albumin), the GRS was highly predictive of *de novo* HCC: the 4-year cumulative incidence was 80% with ≥3 risk factors versus 8% in those with fewer risk factors. The GRS was not predictive of recurrent HCC. A combination of genetic and clinical risk factors may allow HCC risk stratification and reduce the healthcare burden of universal surveillance.

Degasperi E, Galmozzi E, Pelusi S, *et al*. Hepatic fat—genetic risk score predicts hepatocellular carcinoma in patients with cirrhotic HCV treated with DAAs. *Hepatology* 2020;0:1–12.doi:10.1002/hep.31500.

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