### Research news in clinical context

Stefano Rusconi , <sup>1,2</sup> Sonia Raffe , <sup>3</sup> Drieda Zace<sup>4</sup>

### WHAT CAUSES PERSISTENT HEPATITIS B VIRUS (HBV) DNA DETECTION DESPITE TENOFOVIR-CONTAINING ANTIRETROVIRAL THERAPY (ART)?

Investigators analysed the occurrence of HBV DNA detection (≥20 IU/mL) among 222 people with HIV/HBV coinfection who started any tenofovir-containing ART, achieved HIV RNA suppression of <200 copies/mL and stayed in follow-up for a median of 8.4 years. After 2 years of ART, 61 (27%) of the 222 people with HIV/HBV had detectable HBV DNA, including 6 (10%) of 61 with HBV DNA of >2000 IU/ mL. In multivariable analysis, the odds of HBV DNA detection were reduced with low baseline HBV DNA levels, baseline CD4 counts of  $>350/\mu L$ , hepatitis D virus coinfection (reflecting the inhibitory effect of HDV on HBV) and good adherence. A prior AIDS diagnosis slightly increased the odds; age, sex, ethnicity and prior HBVactive ART had no effect. With ongoing follow-up, HBV DNA detection resolved in 47 (77%) of the 61 subjects. The data confirm that it can take longer to suppress HBV DNA than HIV RNA. The mechanisms of persistent HBV DNA detection over long-term treatment and the role of different tenofovir formulations remain to be determined.

Hofmann E, Surial B, Boillat-Blanco N, et al. Swiss HIV Cohort Study. Hepatitis B virus (HBV) replication during tenofovir therapy is frequent in HIV/HBV coinfection. *Clin Infect Dis* 2023;76:730–3.

# GLOBAL EDUCATORS RECOGNISE THE VALUE OF TEACHING SEXUAL AND REPRODUCTIVE HEALTH AND RIGHTS TO MEDICAL UNDERGRADUATES, BUT COMPLEX TOPICS ARE OFTEN OMITTED

A survey developed by the International Federation of Gynaecology and Obstetrics (2021) sought to determine whether sexual and reproductive health and rights are included in global medical education.<sup>1</sup>

<sup>1</sup>DIBIC Luigi Sacco, University of Milan, Milan, Italy <sup>2</sup>Infectious Diseases Unit, Legnano General Hospital, ASST Ovest Milanese, Legnano, Italy

<sup>3</sup>Lawson Unit, University Hospitals Sussex NHS Foundation Trust, Brighton, UK

<sup>4</sup>Section of Hygiene, Dept. of Life Sciences and Public Health, Università Cattolica del Sacro Cuore, Rome, Italy

Correspondence to Dr Stefano Rusconi, DIBIC Luigi Sacco, University of Milan, Milan 20122, Italy; stefano. rusconi@unimi.it

Responses were received from 219 individuals (mostly teachers) representing 143 universities in 54 countries (44% in Asia/ Oceania, 15% in South America, 12% in Europe, 11% in North America, 11% in Middle East and 7% in Africa). Over 90% of curricula included clinical topics such as the treatment of STIs, contraception and safe pregnancy and childbirth. Topics perceived as complex were covered less frequently, such as sexuality, sexual violence, vulnerability of adolescents and female genital mutilation. Most respondents perceived a need, but several identified barriers to delivery, including an already overburdened curriculum, lack of political will, cultural constraints, lack of qualified teachers, stigma and low prioritisation of women's rights. To ensure universal and equitable access to healthcare, medical educators should be supported to deliver comprehensive teaching on sexual and reproductive health and rights, recognising contextspecific barriers.

Endler M, Al-Haidari T, Benedetto C, *et al*. Are sexual and reproductive health and rights taught in medical school? Results from a global survey. *Int J Gynecol Obstet* 2022;159:735–42.

### CLINICAL AND DIAGNOSTIC FEATURES OF MPOX (MONKEYPOX) IN WOMEN AND NON-BINARY INDIVIDUALS

An international collaboration across 15 countries collated data from 69 cisgender women, 5 non-binary individuals and 62 transgender women diagnosed with mpox in May-October 2022. Median age was 34 years and 37 (27%) of 136 subjects were living with HIV; 121 (89%) reported sex with men. Sexual contact was the main suspected route of transmission among trans women (89%) but was less common among other individuals (61%). Household and close contact and healthcarerelated occupational exposure were other suspected routes. Most patients presented with a vesiculopustular rash and mucosal involvement, typically with vulvovaginal lesions in cis women and non-binary individuals and anorectal lesions in trans women. Seventeen (13%) individuals were hospitalised, mainly for bacterial superinfection of lesions and pain management; 33 (24%) received tecovirimat. No deaths were reported. The features of mpox in

women and non-binary individuals are similar to those described in men.

Thornhill JP, Palich R, Ghosn J, et al. Human monkeypox virus infection in women and non-binary individuals during the 2022 outbreaks: a global case series. *Lancet* 2022;400:1953–65.

## IMPORTANCE OF SCREENING FOR ANAL CANCER AMONG PEOPLE LIVING WITH HIV

The ATHENA (AIDS Therapy Evaluation in the Netherlands) cohort study observed 227 cases of primary anal squamous cell carcinoma among 28 175 people receiving HIV care between 1996 and 2020 in the Netherlands. Despite increasing age. crude incidence rates (per 100 000 personyears) declined slightly among men who have sex with men (MSM), from 107 (95% CI 76 to 147) in 1996-2005 to 94 (95% CI 75 to 115) in 2013-20020 (p=0.49). The age-adjusted incidence rate declined significantly between the two periods, reflecting less frequent smoking and improved viroimmunological status. Crude incidence rates were lower among other individuals but increased over time: from 51 (95% CI 21 to 105) to 68 (95% CI 41 to 106) in other men (p=0.52)and from 8 (95% CI 0.2 to 45) to 25 (95% CI 10 to 51) in women (p=0.29).From 2007 onwards, 3866 (23%) of 16 819 MSM participated in anal cancer screening at least once. Those diagnosed at screening had less advanced disease and lower related mortality. Participation in screening (HR 0.31) and cumulative exposure to CD4 counts of <200 cells/ μL (HR 1.11 per year) were independent predictors of anal cancer-related mortality. The results highlight the need to screen all those at risk of anal cancer.

van der Zee RP, Wit FWNM, Richel O, *et al*. Effect of the introduction of screening for cancer precursor lesions on anal cancer incidence over time in people living with HIV: a nationwide cohort study. *Lancet HIV* 2023;10:e97–e106.

### REPEAT RAPID PLASMA REAGIN (RPR) TESTING IS RECOMMENDED IF THE DAY OF SYPHILIS DIAGNOSIS IS DIFFERENT FROM THE DAY OF TREATMENT

Successful treatment for syphilis is defined as a ≥4-fold reduction in RPR titre within 12–24 months, depending on the infection stage.<sup>2</sup> A retrospective study in Melbourne analysed 766 individuals who underwent treatment within 14 days (median 6 days) of a syphilis diagnosis, comparing RPR



### **Perspectives**

titres on the day of presentation with those measured on the day of treatment. Overall, 113 (15%) of the 776 individuals had a ≥4-fold change (either increase or decrease) in RPR titre between the two time points, with an increase in 83% and a decrease in 17%. The proportion with a  $\geq$ 4-fold change was higher among those with a longer interval between time points. Neither syphilis stage nor HIV status appeared to make a difference. The data support repeat RPR testing if the day of the initial syphilis diagnosis differs from the day of treatment, even by just a few days.

Pandey K, Fairley CK, Chen MY, et al. Changes in the syphilis rapid plasma reagin titre between diagnosis and treatment. Clin Infect Dis 2023;76:795–9.

PUBLISHED IN SEXUALLY
TRANSMITTED INFECTIONS: SHIGELLA
IS FREQUENTLY DETECTED IN
MEN WHO HAVE SEX WITH MEN
(MSM) USING HIV PRE-EXPOSURE
PROPHYLAXIS (PREP) AND THE
INFECTION CAN BE ASYMPTOMATIC

Shigella is highly contagious and may cause dysentery, toxic megacolon and systemic complications. In March-June 2020, 13 (3.3%) of 389 MSM attending a sexual health centre in Amsterdam (including 75 living with HIV) had Shigella detected in anal swabs collected as part of a study. This was compared with a prevalence of 11 of 770 (1.4%) in routinely tested samples requested by general physicians or nursing home physicians (p=0.031). Prevalence of Shigella was 7 (4%) out of 177 in MSM with current or recent diarrhoea and 6 (3%) out of 212 among asymptomatic participants and was nearly fivefold higher (p=0.038) among those who had used HIV PrEP in the previous 3 months (10 (6.6%) of 151) relative to other participants who did not report PrEP use or had HIV (3 (1.4%) of 221). Shigella infections are relatively common in MSM using HIV PrEP and can occur in the absence of symptoms.

Braam JF, Bruisten SM, Hoogeland M et al. Shigella is common in symptomatic and asymptomatic men who have sex with men visiting a sexual health clinic in Amsterdam. Sex Transm Infect 2022;98:564–9.

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### ORCID iDs

Stefano Rusconi http://orcid.org/0000-0002-0375-9990

Sonia Raffe http://orcid.org/0000-0001-8899-7164

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