

# Research news in clinical context

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## New fixed-dose combination is safe and effective in adolescents and children with HIV

Single-tablet regimens enhance adherence and are considered optimum for children and adolescents.<sup>1</sup> This open-label international single-arm trial enrolled 100 individuals aged 6–17 years with a body-weight  $\geq 25$  kg and normal renal function, who were receiving suppressive antiretroviral therapy, had a CD4 count  $\geq 200$  cells/mm<sup>3</sup> and no resistance to study drugs. After switching to fixed-dose bictegravir (50 mg)/emtricitabine (200 mg)/tenofovir alafenamide (25 mg) once daily, pharmacological parameters were within the range of exposures observed in adults. Over 48 weeks, 98% maintained virological suppression and the regimen was safe and well tolerated. The most common adverse event was transient grade 1 abdominal discomfort (3%); a single discontinuation occurred due to insomnia and anxiety. Adherence levels were high. Data support use in this age group and ongoing regimen development at lower doses for younger children.

Gaur AH, Cotton MF, Rodriguez CA, *et al.* Fixed-dose combination bictegravir, emtricitabine, and tenofovir alafenamide in adolescents and children with HIV: week 48 results of a single-arm, open-label, multicentre, phase 2/3 trial. *Lancet Child Adolesc Health* 2021;5:642–51.

## SCREENING WOMEN FOR PERINATAL DEPRESSION SHOULD BE A ROUTINE PART OF HIV CARE

This US multicentre longitudinal study (2002–2013) examined associations

between self-reported depressive symptoms, adherence, and virological suppression (VS) ( $<400$  copies/mL) among 1869 pregnant women with HIV who were assessed in the second-third trimester, at delivery and six months postpartum. Depressive symptoms were most common in the second-third trimester, followed by a slight decline. Adherence and VS were highest up to delivery and declined markedly postpartum; by 6 months, only 60% reported complete adherence and 53% had VS. In adjusted models, increasing depressive symptoms were associated with declining VS; at least 11% of the total effect of depressive symptoms on VS were attributed to the effect of depression on adherence. Findings highlight the importance of recognising and managing perinatal depression in pregnant women with HIV.

Momplaisir F, Hussein M, Kacanek D *et al.* 2. Perinatal depressive symptoms, HIV suppression, and the underlying role of antiretroviral therapy adherence: a longitudinal mediation analysis in the IMPAACT P1025 cohort. *Clin Infect Dis* 2021;73:1379–87.

## WHEN SHOULD CESSATION OF CERVICAL CANCER SCREENING BE CONSIDERED FOR WOMEN WITH HIV?

US guidelines on cervical cancer screening recommend women with a uterus, a history of multiple negative screening results, and no history of cervical precancer/cancer discontinue screening at age 65 years.<sup>2</sup> Women living with HIV (WLWH), however, are advised to continue screening throughout their lifetime. Investigators analysed 6-monthly Papanicolaou tests collected from 121 WLWH and 48 HIV-negative women after reaching 65 years. Among WLWH (88% on ART, 59% virologically suppressed, 56% CD4 count  $>500$  cells/mm<sup>3</sup>), 22% met discontinuation criteria; in this group, the rate of high-grade cytology was 2.3 per 100 person-years for WLWH and 1.8 for HIV-negative women. No cancer occurred. While data are limited, they suggest that high-grade cervical lesions are uncommon and cervical cancers are rare among selected WLWH aged  $\geq 65$  years.

Massad LS, Xie X, Minkoff HL, *et al.* Frequency of high-grade squamous cervical lesions among women over age 65 years living with HIV. *Am J Obstet Gynecol* 2021;225:411.e1–7.

## FURTHER CONFIRMATION THAT PEOPLE WITH HIV ARE AT INCREASED RISK OF SEVERE COVID-19

Several studies show that the risk of severe SARS-CoV-2 infection is elevated among people living with HIV (PLWH).<sup>3,4</sup> In this US cohort of 1.4 million COVID-19 cases recorded in 2020–2021, 13 170 PLWH were identified, of whom 18% required COVID-19 related hospitalisation and 1.8% died of COVID-19. After adjustment for sociodemographic factors, smoking and comorbidities (cardiac or pulmonary disease, cancer, diabetes, stroke), PLWH had lower odds of mild or moderate COVID-19 (OR 0.61; 95% CI 0.59 to 0.64), higher odds of hospitalisation (OR 1.20; 1.15 to 1.26) and death (1.29; 1.16 to 1.44) compared with people without recorded HIV. A CD4 count  $<200$  cells/mm<sup>3</sup> was associated with COVID-19 severity, hospitalisation and mortality, whereas a HIV-1 RNA load  $>200$  copies/mL was only associated with higher odds of hospitalisation. Persistent immunodeficiency in PLWH warrants stringent measures to prevent adverse COVID-19 outcomes.

Yang X, Sun J, Patel RC *et al.* Associations between HIV infection and clinical spectrum of COVID-19: a population level analysis based on US National COVID-19 Cohort Collaborative (N3C) data. *Lancet HIV* 2021; S2352-3018(21)00239-3.

## PUBLISHED IN STI — THE EDITOR'S CHOICE: ALTHOUGH RISK SCORES SHOW VARIABLE CONCORDANCE, LARGE PROPORTIONS OF MSM IN EUROPE ARE ELIGIBLE FOR PREP

Estimation of the proportion of men who have sex with men (MSM) eligible for HIV pre-exposure prophylaxis (PrEP) has relied on end-user perception of HIV risk, which may differ from clinically assessed risk. A cross-sectional survey (2013–2014) compared three widely used risk scores (using age, number and HIV-serostatus of sexual partners, condomless sex with HIV-diagnosed partners, recreational drug use, and bacterial STI diagnoses) to identify PrEP-eligible MSM in 13 European cities. Among 4219 HIV-negative MSM, 5%–74% were eligible for PrEP. The MSM Risk Index and Menza scores yielded similar eligibility estimates, while the San Diego Early Test index produced

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lower estimates. While local demographics and sexual behaviours are important in generating city-specific estimates of PrEP eligibility, PrEP roll-out should be considered broadly among MSM across Europe.

Cordioli M, Gios L, Huber JW, *et al.* Estimating the percentage of European MSM eligible for PrEP: insights from a bio-behavioural survey in thirteen cities. *Sex Trans Infect* 2021;**97**:534–40.

### ARE HIGH-INCOME COUNTRIES ON TARGET TO ACHIEVE HEPATITIS C ELIMINATION BY 2030?

The WHO targets elimination of hepatitis C virus (HCV) through increased diagnosis and treatment by 2030.<sup>5</sup> Modelling was used to predict HCV elimination trajectories in 45 high-income countries (including Australia, Chile, Europe, Japan, North America, Singapore, and South Korea) using published data and non-indexed reports on demographics, HCV prevalence, and incidence, HCV-related deaths, and antiviral treatment coverage. Overall, 24% of countries (eg, Australia, France, Japan) were predicted to eliminate HCV by 2030, 11% by 2040 and 4% by 2050. However, 60% were not expected

to eliminate HCVC before 2050. Reductions in HCV incidence and HCV-related mortality were the targets least likely to be achieved. While lifting fibrosis score-based treatment restrictions had the greatest favourable impact, along with treatment efforts, countries should focus on universal screening and linkage-to-care.

Gamkrelidze I, Pawlowsky J-M, Lazarus JV, *et al.* Progress towards hepatitis C virus elimination in high-income countries: an updated analysis. *Liver Int* 2021;**41**:456–63.

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#### REFERENCES

- 1 Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the use of antiretroviral agents in adults and adolescents with HIV. Department of health and human services. Available: <https://clinicalinfo.hiv.gov/sites/default/files/guidelines/documents/AdultandAdolescentGL.pdf> [Accessed Nov 2021].
- 2 US Preventive Services Task Force, Curry SJ, Krist AH, *et al.* Screening for cervical cancer: US preventive services Task force recommendation statement. *JAMA* 2018;**320**:674–86.
- 3 World Health Organization. *Clinical features and prognostic factors of COVID-19 in people living with HIV hospitalized with suspected or confirmed SARS-CoV-2 infection*, 2021.
- 4 Ssentongo P, Heilbrunn ES, Ssentongo AE, *et al.* Epidemiology and outcomes of COVID-19 in HIV-infected individuals: a systematic review and meta-analysis. *Sci Rep* 2021;**11**:6283.
- 5 WHO. *Global health sector strategy on viral hepatitis 2016–2021, towards ending viral hepatitis*. Geneva, Switzerland: World Health Organization, 2016.