suitable for high-throughput use. To decide what is the best algorithm for HAT post-elimination monitoring, data on costs for all possible algorithms including serological and parasitological diagnostics need to be considered, according to the epidemiological context.

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OA-770 TREATMENT OUTCOMES OF LOW-LEVEL VIREMIA AMONG ADULTS LIVING WITH HIV ON DOLUTEGRAVIR-BASED FIRST LINE ANTIRETROVIRAL THERAPY IN BOTSWANA

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Background We evaluated the treatment outcomes of individuals experiencing low-level viremia (LLV) on dolutegravir (DTG) based first-line antiretroviral therapy (ART) in Botswana by determining the trends of LLV over a period of 6 years.

Methods We used a large national observational cohort of individuals (aged≥18yrs) who initiated on DTG-based first-line ART for at least 3 months from June 2016 to December 2022. The prevalence of viral suppression (VL ≤50copies/mL), low-level viremia (VL:51-999copies/mL) and virologic failure (VF) (any VL>1000copies/mL) were estimated among PLWH. The prevalence of LLV was further classified into LLV ranges (low-LLV:VL:51-200copies/mL, medium-LLV:201-400copies/mL and high-LLV:VL:401-999copies/mL). Univariate and multivariable Cox proportional hazards regression determined whether LLV (exposure) is associated with VF (outcome).

Results Among 50,742 PLWH who have at least one VL measurement during the follow-up, the overall prevalence of LLV by duration strata was 2.2%, 1.8%, 1.7%, 2.3%, 3.1%, 3.7% and 3.9% at 0.25-<0.5, 0.5-≤1, 2, 3, 4, 5, 6+ years respectively. By LLV ranges, ≥90% had low-LLV in each duration strata. A total of 539 had reported LLV at year 0.25-<0.5 whereby 529(98.1%) had single instance of LLV, 9(1.7%) with 2-consecutive-LLV (confirmed) and 1 (0.2%) had at-least-3-LLV(persistent) measurements. The prevalence of PLWH with confirmed-LLV was 9.1%, 9.0%, 7.3%, 6.4%, 9.1% and 8.4% at 0.5-≤1, 2, 3, 4, 5, 6+ years of the follow-up period, respectively. The prevalence of persistent-LLV increased from 0.2% to 7.0% from year 0.25-<0.5 to 6+. PLWH with LLV had an increased risk of VF (adjusted-Hazards-Ratio [aHR] 2.65; 95%CI 2.16–3.26) at a later visit compared to suppressed VL group. High-LLV and persistent-LLV were the main LLV factors associated with VF.

Conclusion The prevalence of LLV ranging from 1.7–3.9% was found in this cohort. Having a high or persistent-LLV is associated with a high risk of subsequent VF. Intensified clinical monitoring strategies are warranted for individuals with LLV.

OA-779 BENEFICIAL NON-SPECIFIC EFFECTS OF ORAL POLIO VACCINATIONS CAMPAIGNS – DID ONE DROP SAVE MORE LIVES THAN ANYONE COULD HAVE IMAGINED?

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Background In the last three decades, more than 2,500 national vaccination Campaigns with Oral Polio Vaccine (C-OPV) have distributed more than ten billion doses of OPV to children in the effort to eliminate wild poliovirus. C-OPVs have been demonstrated in several studies to reduce all-cause under-3-year mortality by ~25–35%, suggesting that C-OPV has beneficial non-specific effects (NSEs). We triangulated the evidence with different data sources and analytic approaches.

Methods We used Health and Demographic Surveillance System data from several countries to compare all-cause and cause-specific under-3-year mortality after and before C-OPVs in Cox proportional hazards model adjusted for other campaign interventions and calendar year. We modelled the counterfactual number of deaths averted by C-OPVs. We distinguished between C-OPV administered alone and other campaign interventions.

Results In urban Bissau, Guinea-Bissau, between 2002–2014 C-OPVs reduced all-cause mortality by 25% (95% CI: 15–33%). In Chakaria, Bangladesh, between 2004–2019, the estimate was 31% (10–48%). In rural Burkina Faso between 2012–2016, C-OPV reduced mortality and hospitalisations (composite outcome) by 36% (6–56%). Limited effect was observed on all-cause mortality (5% (95% CI: -4–13%) reduction) in Navrongo, rural Ghana, between 1996–2015. However, C-OPVs were more frequent than in previous analyses and effects differed by routine vaccinations and age groups. In all studies, apart from Bangladesh, the effect of C-OPV was more beneficial in males than females. Based on the Guinea-Bissau results, OPV averted 10% (5–15%) of all childhood deaths during the analysis period. No similar effects were found for other campaign interventions.

Conclusion There is now compelling evidence that C-OPVs have beneficial NSEs. OPV is planned to be stopped in 2026. Based on the existing evidence, this may paradoxically increase child mortality. It is urgent that we find ways to mitigate the potential negative impact. One drop may have saved more lives than anyone could have imagined.

OA-801 SURVEILLANCE OF RESPIRATORY VIRUSES IN GABON DURING THE COVID-19 PANDEMIC

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Background Acute respiratory infections are a major global burden, with pneumonia being the leading cause of death. However, very little information has been available on their causative agents in Africa. In Gabon, Central Africa, although COVID-19 has been extensively studied since the pandemic