Conclusions. Surges in MMR administration and heightened community awareness during a measles outbreak can result in a large number of VARI, consuming considerable public health resources. When evaluating the need to suspect measles among patients with febrile rash, clinicians should consider time since MMR administration, clinical presentation, and history of measles exposure. Collecting appropriate specimens for timely virus genotyping could inform appropriate public health action.

Disclosures. R. Jordan, Gilead: Employee, Salary; J. Feng, Gilead: Employee, Salary; L. Trancheva, Gilead: Employee, Salary; D. Babuska, Gilead: Employee, Salary; D. Porter-Poulin, Gilead: Employee, Salary; R. Bannister, Gilead: Employee, Salary; R. Mackman, Gilead: Employee, Salary; D. Siegel, Gilead: Employee, Salary; A. Ray, Gilead: Employee, Salary; T. Cihlar, Gilead: Employee, Salary.

1689b. Week 48 Results of EMERALD: A Phase 3, Randomized, Non-inferiority Study Evaluating the Efficacy and Safety of Switching from Boosted protease Inhibitors (bPI) Plus Emtricitabine (FTC)/Tenofivir Disoprophyl Fumarate (TDF) Regimens to the Once Daily (QD), Single-tablet Regimen (STR) of Darunavir/ Cobicistat/Emtricitabine/Tenofovir Alafenamide (D/C/F/TAF) in Virologically Suppressed, HIV-1-infected Adults

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Session: 188. HIV: Modern ART
Friday, October 6, 2017: 2:00 PM

Background. EMERALD is evaluating the efficacy and safety of switching from bPI + FTC/TDF regimens (control) to D/C/F/TAF 800/150/200/10 mg in virologically suppressed, HIV-1-infected adults. We present Week 48 primary results.

Method. EMERALD (NCT02269917) is a randomized, active-controlled, open-label, international, multicenter, parallel group, non-inferiority trial. Virologically suppressed (viral load [VL] ≤ 50 c/mL for 24 months), HIV-1-infected adults were randomized (2:1) to switch to D/C/F/TAF or continue control. The FDA-stipulated primary endpoint was non-inferiority of D/C/F/TAF vs. control regarding % virologic rebound (confirmed VL ≥ 50 c/mL) or premature discontinuations with last VL ≥ 50 c/mL cumulative through Week 48 (4% margin).

Result. 1141 patients were randomized and treated (N = 763 D/C/F/TAF; N = 378 control); median age 46; 18% women; 76% white; 58% on ≥2 previous ARVs (prior to screening regimen); 15% with previous non-D/DRV virologic failure (VF). Virologic rebound through Week 48 was non-inferior for D/C/F/TAF (2.5%; n = 19) vs. control (2.1%; n = 8) (Δ0.4%, 95% CI: −1.5% to 1.2%; P = 0.001). Most rebounders (12/19 [63%] vs. 4/8 [50%]) re-suppressed by Week 48 without change in therapy. Week 48 virologic suppression rates (VL ≤ 50 c/mL; FDA Snapshot) were 94.9% vs. 93.7% (Δ1.2%, 95% CI: −1.7% to 1.4%) and VF rates (VL ≥ 50 c/mL; Snapshot) were 0.8% vs. 4.0% (Δ3.2%, 95% CI: −7.0% to 1.4%), with no discontinuations for VE. No resistance-associated mutations related to any study drug were observed.

Adverse events (AEs) were similar between arms: AE-related discontinuations (1.4% vs. 1.3%), grade 3–4 AEs (6.8% vs. 8.2%); serious AEs (4.6% vs. 4.8%); and no deaths. Renal and bone parameters favored D/C/F/TAF vs. control. TC and LDL-C slightly favored control vs. D/C/F/TAF, with no clinically significant difference in TC/ HDL-C ratio between arms (Table 1).

Conclusion. Percentage of virologic rebound after switching to D/C/F/TAF was non-inferior to control cumulative through Week 48, with high suppression rates (94.9%), no resistance development, better bone and renal safety parameters and similar TC/HDL-C ratio. D/C/F/TAF maintains the high genetic barrier to resistance of darunavir with the safety advantages of TAF, even in patients with a history of non-D/DRV VE.

Table 1: Changes from baseline at Week 48 in renal, lipid, and bone parameters

| Parameter | Control | D/C/F/TAF | p Value |
|-----------|---------|-----------|---------|
| Renal parameters | | | |
| Creatinine | | | |
| Glomerular filtration rate (GFR) | | | |
| Lipid parameters | | | |
| Total cholesterol (TC) | | | |
| High-density lipoprotein cholesterol (HDL-C) | | | |
| Bone parameters | | | |
| Bone mineral density (BMD) | | | |

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Late Breaker Abstract • OFID 2017:4 (Suppl 1) • S737

LB-9. Broad-spectrum Investigation Agent GS-5734 for the Treatment of Ebola, MERS Coronavirus and Other Pathogenic Viral Infections with High Outbreak Potential

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Session: 228. Late Breaker Oral Abstracts
Saturday, October 7, 2017: 10:30 AM

Background. Recent viral outbreaks with significant mortality such as Ebola virus (EBOV), SARS-coronavirus (CoV), and MERS-CoV reinforced the need for effective antiviral therapeutics to control future epidemics. GS-5734 is a novel nucleoside analog prodrug in the development for treatment of EBOV.

Method. Antiviral activity of GS-5734 has been established in vitro against a wide range of pathogenic RNA virus families, including filoviruses, coronaviruses, and pararnoviruses. Once-daily IV administration of 5 mg/kg GS-5734 initiated 4 days prior to MERS-CoV infection reduced lung viral load, improved clinical disease signs, and ameliorated severe lung pathology. Finally, in African green monkeys infected with a lethal dose of Nipah virus therapeutic once-daily IV administration of 10 mg/kg GS-5734, starting 1 day p.i. resulted in 100% survival to at least day 35 without any major respiratory or CNS symptoms.

Conclusion. GS-5734 is currently being tested in a phase 2 study in male Ebola survivors with persistent viral RNA in semen. Lopinavir drug formulation has been developed that can be administered to humans via a 30-minute IV infusion and does not require cold chain storage. Together, these results support further development of GS-5734 as a broad-spectrum antiviral to treat viral infections with high mortality and significant outbreak potential.

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