using intention-to-treat and per-protocol analyses. The study was discontinued at a pre-specified futility analysis.

**Results.** Of 94 evaluable participants, 48 were randomized to ELT and 46 to placebo; groups were similar at baseline for all measured variables. Forty-one (43.6%) participants had treatment failure (11 early failure, 9 relapse, and 21 reinfection). There was no difference between patients receiving ELT or placebo for risk of treatment failure (43.8% vs. 43.5%; \( P = 0.9 \)) or for cumulative incidence of treatment failure in intention to treat (Figure 1) and per-protocol analyses (Figure 2). Catheter occlusion was significantly more common in participants receiving ethanol (58.3% vs. 32.6%; \( P = 0.01 \)) but other adverse events, including LFT elevations (14.6% vs. 26.1%) and infusion reactions (18.8% vs. 8.7%), were not significantly different between groups.

![Figure 1: Cumulative Incidence of Treatment Failure, Intention to Treat Cohort (n = 94)](image1)

**Conclusion.** Although observational studies suggested ELT might be effective for treatment of CLABSI in pediatric oncology, we found no benefit in treatment outcome and an increase in adverse effects. These results may not apply to patients receiving dialysis or with fungal CLABSI as these were not well-represented. Routine use of ELT for CLABSI in children with oncologic or hematologic disorders is not recommended.

![Figure 2: Cumulative Incidence of Treatment Failure, Per-Protocol Cohort (n = 80)](image2)

**Disclosures.** All authors No reported disclosures.

**LB-7. Prevention of Recurrent Acute Uncomplicated Cystitis by Increasing Daily Water Intake in Premenopausal Women: A Prospective, Randomized, Controlled Study**

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**Background.** Increased hydration is commonly recommended as a preventive measure for women with recurrent acute uncomplicated cystitis (rAUC), but supportive data are sparse. The aim of this study was to assess the efficacy of increased daily water intake on the frequency of rAUC in premenopausal women.

**Methods.** 140 healthy premenopausal asymptomatic women drinking less than 1.5 L of total fluid daily (24 hours) and suffering from rAUC (3 episodes in the past year) were randomized to receive, in addition to their usual daily fluid intake, either 1.5 L water daily (water group) or no additional fluids (control group), for 12 months. Assessments of daily water and total fluid intake, urine volume and osmolality, number of urine voids, and occurrence of AUC symptoms and a reminder to notify investigators of any such symptoms were performed at baseline, 6- and 12-month clinic visits in addition to monthly telephone calls. The primary outcome was frequency of rAUC episodes (1 AUC symptom and $10^5$ CFU/mL of a uropathogen in voided urine) over 12 months.

**Results.** Between baseline and 12 month’s follow-up, the water group, compared with the control group, had statistically significant increases in mean daily water intake (1.15 L vs. 1.65 L; total fluid intake 1.80 L vs. 2.03 L), urine volume (1.40 L vs. 0.04 L), and number of urine voids (2.2 vs. 0.2), and a decrease in urine osmolality (−408 vs. −35 mOsm/kg). The mean number of rAUC episodes in the water group was significantly less than in the control group (1.6 vs. 3.1; odds ratio 0.52, 95% CI 0.46–0.69, \( P < 0.0001 \)) (figure shows cumulative sum of AUC episodes over 12 months in both study groups). The mean number of antimicrobial regimens used to treat AUC episodes was 1.8 in the water group vs. 3.5 in the control group (\( P < 0.0001 \)). In addition, the mean number of days to first rAUC and the mean number of days between rAUC episodes was longer in the water group compared with the control group (148 vs. 93, \( P = 0.0005 \) and 143 vs. 85, \( P < 0.0001 \), respectively).

**Conclusions.** Our results provide strong evidence that increased water intake is an effective antimicrobial-sparing preventive strategy for women with rAUC. Increasing daily water intake by approximately 1.5 L reduced rAUC episodes by 48% and antimicrobial regimens by 47% over 12 months.

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**LB-8. Sorting the Wheat from the Chaff: Vaccine-Associated Rash Illness Occurring amidst a Large Measles Outbreak—Minnesota, 2017**

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**Background.** During April–June 2017, Minnesota experienced the state’s largest measles outbreak in 27 years. A vaccination campaign was implemented. Numerous vaccine-associated rash illnesses (VARI) were detected. VARI is non-contagious, but difficult to distinguish from measles clinically. Often, public health control measures need to be implemented before wild-type measles can be differentiated from VARI by viral genotyping. We compared clinical characteristics of VARI and confirmed measles cases to inform testing practices.

**Methods.** We defined measles cases per the Council of State and Territorial Epidemiologists. VARI was defined as a rash occurring in a person within 21 days after receipt of measles, mumps, and rubella (MMR) vaccine, and in whom a measles vaccine strain (genotype A) was detected in nas/o/oro/pharyngeal swab or urine samples. Minnesota’s immunization information system monitored MMR doses administered. We collected clinical information through routine case investigation.

**Results.** Over 42,000 MMR doses above expected were administered during the outbreak. We identified 71 measles cases and 30 VARI. The median age of VARI patients was 1.2 years (range 10 months–48 years) and for measles cases 2.8 years (range 3 months–57 years). VARI diagnosis increased with rising MMR administration (figure); rash onset occurred a median of 11 days (range 7–18 days) after MMR receipt. Most VARI (97%) occurred following first MMR dose. The presence of fever was similar among VARI and measles cases (97% of VARI vs. 100% of measles cases; \( P = 0.12 \)), but differences were seen in the proportion with cough (30% vs. 96%; \( P < 0.001 \)), conjunctivitis (23% vs. 68%; \( P < 0.001 \), and exposure to infectious measles cases (0% vs. 96%).
Conclusions. Surges in MMR administration and heightened community awareness during a measles outbreak can result in a large increase in the number of cases, leading to outbreaks in health care settings. Collecting appropriate specimens for timely viral genotyping can inform appropriate public health action.

Disclosures. No authors: No reported disclosures.

LB-9. Broad-spectrum investigational agent GS-5734 for the treatment of Ebola, MERS Coronavirus and other pathogenic viral infections with high outbreak potential

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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 developed that can be administered to humans via a 30-minutes 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.

Methods. EBOV is a filovirus that belongs to the family Filoviridae and is highly lethal. A single lethal dose (LD50) of EBOV has been shown to be ~30-40 mg/kg. GS-5734, a broad-spectrum investigational agent developed by Gilead Sciences, Inc, has shown efficacy in preclinical models of filoviral infections. This study evaluated the efficacy and safety of switching from boosted protease inhibitors (bPI) Plus Emtricitabine/Tenofovir Disoproxil 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.

Results. 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).

Conclusion. 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.

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-DR VF virologic failure (VF). Virologic rebound through Week 48 was non-inferior for D/C/F/TAF (2.5% vs. 11% vs. control [2.1%]; n = 8) (Δ0.4%, 95% CI: –1.5%; 2.2%; P < 0.001). Most rebounders (12/19 [63%] vs. 47/83 [56%]) resuppressed by Week 48 without change in therapy. Week 48 virologic suppression rates (VL < 50 c/mL; DVA Snapshot) were 94.9% vs. 93.7% (Δ1.2%, 95% CI: 0%–2.4%) and VF rates (VL ≥ 50 c/mL; Snapshot) were 0.8% vs. 5.4% (Δ0.3%, 95% CI: 0.2%–0.6%) with no discontinuations for VE. No resistance-associated mutations related to any study drug were observed.

Conclusions. 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 between arms (Table 1). D/C/F/TAF maintains the high genotypic barrier to resistance against darunavir with the safety advantages of TAF even in patients with a history of non-DVF VE.

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

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