

9). Nasal specimens were used to detect clinical and colonizing pathogens using the Diatherix TEM-PCR Respiratory Panel.

**Results.** A total of 90 recruits were enrolled in the study. Twelve recruits were lost due to training attrition in the first week of the study. The participants were male and the mean age was 23 yo (SD 4.9). There were 10 (13%) cases of ILI reported among the 78 remaining participants, 6 in week 1, 3 in week 2 and 1 in week 9. The most frequently detected pathogens in the 10 symptomatic cases were coronavirus (5, 50%), rhinovirus (4, 40%), other enterovirus (3, 30%), and influenza A (2, 20%). Pathogen co-detections were common, 8 out of 10 cases were associated with 2 pathogens, representing 7 unique combinations. While rhinovirus and coronavirus were most common among asymptomatic trainees, 10% had detectable influenza A. Detection of multiple pathogens was common in the first two weeks of training (50% among those who had viral detection). The study is still in progress.

**Conclusion.** Symptomatic ILI was associated with coronavirus, rhinovirus, and enterovirus, in addition to influenza in the early weeks of training. Coronavirus and rhinovirus also circulated widely among healthy recruits, along with influenza. The findings will inform ILI control strategies for congregated military trainees.

**Disclosures.** E. Grigorenko, Diatherix Laboratories: Employee, Salary. L. Malone, Diatherix Laboratories: Employee, Salary.

### 1028. Pharmacokinetics (PK) and Safety of Intravenous (IV) Brincidofovir (BCV) in Healthy Adult Subjects

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**Background.** BCV is a lipid conjugate nucleotide that has shown rapid viral clearance in patients with adenovirus infection and improved survival in animal models of smallpox. In preclinical studies in rats, IV BCV dosed twice weekly for up to 29 days was not associated with gastrointestinal (GI), hematopoietic, hepatic, or renal toxicity. This study evaluated the safety and PK of IV BCV in healthy subjects.

**Methods.** In this double-blind study, subjects were randomized 3:1 to receive IV BCV or placebo in sequential single ascending dose cohorts (Table 1). Plasma PK samples were collected over 7 days and assayed by HPLC-MS. Plasma BCV PK parameters were determined by non-compartmental analysis and dose proportionality was assessed. Safety assessments were collected over 14 days.

**Results.** Forty healthy male subjects (18–46 years, 83% White) were enrolled and completed the study. Plasma BCV Cmax and AUC<sub>∞</sub> increased in proportion to dose (Table 1). AEs and alanine aminotransferase (ALT) elevations were dose- and infusion duration-related (Table 1). GI AEs were mild. All AEs and ALT elevations were transient and no serious AEs occurred.

Table 1. IV BCV PK and Safety

|   | BCV 10 mg<br>2 h Infusion<br>(n = 6) | BCV 25 mg<br>2 h Infusion<br>(n = 6) | BCV 50 mg<br>2 h Infusion<br>(n = 9) | BCV 50 mg<br>4 h Infusion<br>(n = 9) | Pooled<br>Placebo<br>(n = 10) |
|---|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|-------------------------------|
| Plasma BCV PK                                     |                                      |                                      |                                      |                                      |                               |
| Cmax (ng/<br>mL)                                  | 613 (25%)                            | 1412 (27%)                           | 2952 (19%)                           | 1586 (14%)                           | NA                            |
| AUC <sub>∞</sub> (ng h/<br>mL)                    | 1312 (26%)                           | 2889 (37%)                           | 5948 (19%)                           | 6570 (15%)                           | NA                            |
| Drug-related AEs                                  |                                      |                                      |                                      |                                      |                               |
| Diarrhea  | 0                                    | 0                                    | 1 (11%)                              | 3 (33%)                              | 0                             |
| Nausea  | 0                                    | 0                                    | 0                                    | 2 (22%)                              | 0                             |
| Decreased<br>appetite                             | 0                                    | 0                                    | 0                                    | 1 (11%)                              | 0                             |
| Headache  | 0                                    | 0                                    | 2 (22%)                              | 2 (22%)                              | 0                             |
| Pain, phlebitis<br>at infusion<br>site            | 0                                    | 0                                    | 1 (11%)                              | 0                                    | 0                             |
| Elevated liver<br>transami-<br>nases <sup>a</sup> | 0                                    | 0                                    | 0                                    | 1 (11%)                              | 0                             |

Cmax and AUC<sub>∞</sub> presented as geometric mean (% CVb).

<sup>a</sup>ALT >2x ULN in 2 BCV 50 mg 4h infusion and 1 placebo subjects; 1 ALT elevation considered an AE.

**Conclusion.** Single doses of BCV 10–50 mg administered as a 2h IV infusion were well tolerated and not associated with significant clinical or laboratory abnormalities. BCV IV 10 mg and BCV IV 50 mg achieved geometric mean plasma BCV AUC<sub>∞</sub> similar to and 4.5-fold, respectively, values achieved with BCV oral 100 mg tablets (Cmax = 251 ng/mL and AUC<sub>∞</sub> = 1394 ng hours/mL). These data support evaluation of repeat dose administration in healthy subjects and virally-infected patients.

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### 1029. A Mortality Analysis of the Cytomegalovirus (CMV) Infection Letemovir Prophylaxis Trial in CMV-Seropositive Recipients of Allogeneic Hematopoietic Cell Transplantation (HCT)

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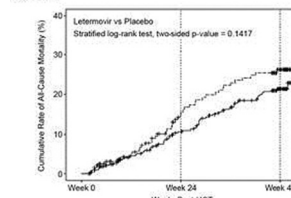
**Background.** In a Phase III randomized, double-blind, placebo-controlled study of CMV-seropositive HCT recipients, letemovir prophylaxis significantly reduced the incidence of clinically significant CMV infections (CS-CMVi) through 24 weeks post-HCT. We investigated the impact of letemovir prophylaxis on mortality through Week 48 post-HCT.

**Methods.** Adult CMV-seropositive allogeneic HCT recipients with undetectable plasma CMV DNA at screening who could initiate treatment by Week 4 post-HCT were eligible. Subjects stratified by high or low CMV disease risk were randomized 2:1 to letemovir dosed at 480 mg/d (240 mg/d if on cyclosporine) or placebo PO or IV through Week 14 post-HCT. Time to all-cause mortality and non-relapse mortality (defined as death due to any reason other than the indication for HCT) through Week 48 post-HCT are presented using Kaplan–Meier (KM) plots censored at study discontinuation for reasons other than death/non-relapse death or upon study completion. Distribution of time to mortality endpoints was tested by stratified log-rank tests using two-sided P-values.

**Results.** This analysis included all 565 patients randomized and treated with ≥1 dose of study drug. Subjects began study drug a median of 9 days post-HCT; 36.5% started post-engraftment. The observed KM event rate for all-cause mortality was lower in the letemovir group (10.6%) than the placebo group (15.5%) at Week 24 post-HCT, and remained lower through Week 48 post-HCT (21.4% vs. 26.2%) (Figure 1). The observed K–M event rate for all-cause mortality in subjects who developed CS-CMVi was also lower in the letemovir group (4.6%) than the placebo group (17.1%) at Week 48 post-HCT. The observed KM event rate for non-relapse mortality was lower in the letemovir group (6.9%) vs. the placebo group (11.2%) at Week 24 post-HCT, and remained lower in the letemovir group (13.9%) than the placebo group (17.5%) through Week 48 post-HCT (Figure 2).

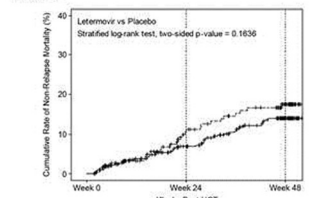
**Conclusion.** All-cause and non-relapse mortality were reduced in the letemovir group compared with the placebo group through Week 48 post-HCT (relative risk reduction ~18% and ~21%, respectively). These results are consistent with a clinically meaningful survival benefit for letemovir prophylaxis.

Figure 1.



No. at risk: KM estimates % (95% CI)  
— Letemovir 373 206 16.6 (7.4, 13.9) 159 21.4 (17.0, 25.9)  
--- Placebo 192 138 15.5 (10.1, 20.9) 77 26.2 (19.5, 32.9)

Figure 2.



No. at risk: KM estimates % (95% CI)  
— Letemovir 373 206 6.9 (4.2, 9.6) 159 13.9 (10.1, 17.7)  
--- Placebo 192 138 11.2 (6.5, 16.0) 77 17.5 (11.5, 23.4)

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### 1030. Human Coronavirus Circulation in the USA, 2014–2017

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