underway. The current study is a descriptive analysis of various therapeutics in clinical trials against COVID-19 on the CURE ID platform.

Methods. Using clinicaltrials.gov we selected those trials addressing therapeutics for COVID-19 and reviewed the drugs used, the current status of the trials, and the phases of development.

Results. As of May 2021, we identified 2,154 clinical trials and 933 drugs from clinicaltrials.gov that met the inclusion criteria. Hydroxychloroquine (n=251) was the most commonly investigated agent, followed by convalescent plasma (n=147), azithromycin (n=98), ivermectin (n=68), mesenchymal Stem Cells (n=63), tocilizumab (n=58), remdesivir (n=53) and favipiravir (n=51). At the time of our analysis, the majority (45%) of the clinical trials were in the recruiting phase, 12% were in the active phase, and 13% of the studies were completed. The majority (31%) of trials were in phase two, followed by phase three (21%) and phase one (10%). The vast majority of the agents were repurposed (92%), while only 8% of the agents were new molecular entities. Remdesivir was the only drug approved for marketing for treatment of certain patients with COVID-19 at the time of our analysis.

Conclusion. Several repurposed and novel drugs are being investigated to treat COVID-19 in clinical trials. CURE ID provides a broad view of the various drugs being researched and serves to keep the scientific community informed. Such a platform may help prevent duplication of efforts and help the scientific community with more coordinated research efforts and larger platform trials that can robustly answer scientific questions during a pandemic.

Disclosures. **All Authors**: No reported disclosures

628. Pharmacokinetics, Safety and Tolerability of Co-administration of Nacubactam and β-lactams after Multiple Doses in Japanese Healthy Subjects

Hiroki Sato, BS; Jun Morita, PhD; Tatsuo Miura, MS; Masayo Sumiya, BS; Risako Takaya, BS; Kenichiro Kondo, PhD; Meiji Seika Pharma Co., Ltd., Tokyo, Tokyo, Japan

Meiji Seika Pharma Co., Ltd.

Session: P-28. Clinical Trials

Background. Increase of carbapenem-resistant Enterobacterales (CRE) is a serious problem in the clinical setting and drugs which can treat patients with CRE are still limited. Nacubactam (OP0595) is a novel diazabicyclooctane-type β-lactamase inhibitor and being developed as a standalone drug to be co-administered with cefepime or aztreonam.

Methods. A randomized, double-blind multiple dose study of nacubactam in co-administration with cefepime (Cohort 1) or aztreonam (Cohort 2) in Japanese healthy subjects was performed to assess pharmacokinetics, safety, and tolerability of co-administrations of nacubactam and cefepime or aztreonam. In each cohort, 6 subjects received 2 g of nacubactam and 2 g of concomitant drug (cefepime or aztreonam) and 2 subjects received placebo (saline) intravenously over 60 minutes, three times daily every 8 hours for 7 days. Plasma samples were collected and concentrations of each drug were analyzed by liquid chromatography-mass spectrometry (LC-MS/MS). Safety and tolerability assessments included treatment-emergent adverse events (TEAEs) and the evaluation of changes from baseline in safety laboratory test results, 12-lead electrocardiograms (ECGs), vital signs, and physical examinations.

Results. Profiles of C_{max}, t_{max}, AUC_{0-8}, $AUC_{0-\infty}$ and $t_{1/2}$ for nacubactam, cefepime and aztreonam are summarized in Table 1. Summary of C_{trough} for nacubactam, cefepime and aztreonam are summarized in Table 2. Plasma concentrations of nacubactam, cefepime and aztreonam reached the steady-state by Day 4, and the mean accumulation ratios of C_{max} and AUC_{0-8} on Day 7 to those of Day 1 were in the range of 0.91 to 1.10. As for the safety, no serious adverse event was observed in this study. There was 1 TEAE (seborrhoeic dermatitis) leading to the discontinuation in 1 subject in nacubactam/cefepime group, but it was judged as "Not related to study drug".

Table 1. PK profiles of nacubactam and concomitant drugs on Day 1 and Day 7

Cohort	Drug	Measurement	Day	C_{max} (μg/mL)	t_{max} (hr)	AUC_{0-8} (μg·hr/mL)	$AUC_{0-\infty}$ (μg·hr/mL)	$t_{1/2}$ (hr)
1	Nacubactam : 2 g with Cefepime : 2 g	Nacubactam	1	107.0 ± 3.847	1.000 ± 0.000	253.9 ± 8.388	263.8 ± 10.70	1.669 ± 0.135
			7	115.4 ± 7.503	1.000 ± 0.000	255.0 ± 13.80	269.9 ± 15.69	2.788 ± 0.162
		Cefepime	1	116.5 ± 4.231	1.000 ± 0.000	291.4 ± 20.11	309.6 ± 24.97	1.941 ± 0.206
			7	126.4 ± 8.204	1.000 ± 0.000	296.2 ± 11.46	321.2 ± 14.12	2.859 ± 0.166
2	Nacubactam : 2 g with Aztreonam : 2 g	Nacubactam	1	118.4 ± 18.87	1.000 ± 0.000	263.4 ± 25.91	270.2 ± 26.84	1.459 ± 0.103
			7	121.0 ± 15.85	1.000 ± 0.000	263.2 ± 38.55	274.2 ± 40.97	2.819 ± 0.133
		Aztreonam	1	165.5 ± 23.75	1.000 ± 0.000	398.6 ± 36.41	421.4 ± 40.37	1.870 ± 0.226
			7	152.2 ± 14.12	1.000 ± 0.000	363.1 ± 36.97	385.8 ± 42.78	2.324 ± 0.099

Table 2. Summary of Ctrough of nacubactam and concomitant drugs

Cohort	Drug	Measurement	Descriptive Statistics	C_{trough} (μg/mL) Day 1 (8 hr)	Day 4 (Pre-dose)	Day 7 (Pre-dose)
1	Nacubactam : 2 g with Cefepime : 2 g	Nacubactam	Mean	4.083	7.568	7.054
			SD	0.945	1.311	1.450
		Cefepime	Mean	6.383	11.01	10.59
			SD	1.374	1.867	1.844
2	Nacubactam : 2 g with Aztreonam : 2 g	Nacubactam	Mean	3.173	6.808	4.520
			SD	0.812	1.825	1.158
		Aztreonam	Mean	8.257	13.92	8.685
			SD	1.953	3.330	2.539

SD : Standard Deviation

Conclusion. In conclusion, no remarkable change in pharmacokinetics was observed in each drug with multiple concomitant administration for 7 days and safety and tolerability of co-administrations of nacubactam and cefepime or aztreonam were confirmed. Based on these results, nacubactam is currently under further development.

Disclosures. **All Authors**: No reported disclosures

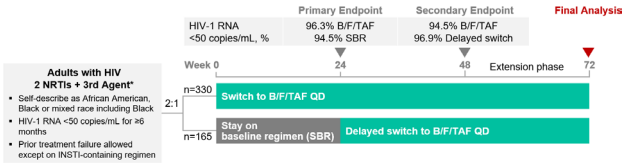
629. High Efficacy of Bictegravir/Emtricitabine/Tenofovir Alafenamide (B/F/TAF) in African American Adults with HIV Including Those with Preexisting Resistance, Viral Blips, and Suboptimal Adherence

Kristen Andreatta, MSc[1]; Michelle L. D'Antoni, PhD[1]; Silvia Chang, Masters[1]; Aiyappa Parvangada, MS Computational Biology[2]; Ross Martin, PhD[1]; Christiana Blair, MS[1]; Sean E. Collins, MD, MS[1]; Kirsten L. White, PhD[1]; [1]Gilead Sciences, Inc, Foster City, CA; [2]Employee, San Mateo, CA

Session: P-28. Clinical Trials

Background. BRAAVE 2020 demonstrated the efficacy of switching to bictegravir/emtricitabine/tenofovir alafenamide (B/F/TAF) among African American adults with suppressed HIV through Week (W) 48 (Figure 1). We present resistance, viral blips, adherence, and virologic outcomes through W72.

Figure 1. BRAAVE 2020 study design (phase 3, randomized, open-label, multicenter [USA], active-controlled study) and virologic suppression at weeks 24 and 48

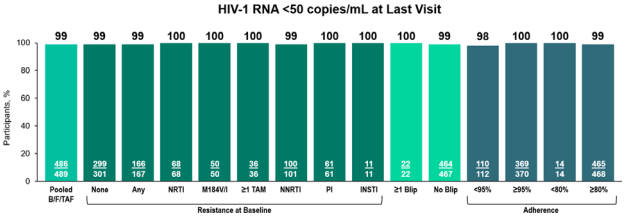


*Allowed 3rd agents: any FDA-approved protease inhibitor, nonnucleoside reverse transcriptase inhibitor (except etravirine), integrase strand transfer inhibitor (except bictegravir), or maraviroc.

Methods. Enrollment criteria permitted NNRTI resistance (-R), PI-R, and certain NRTI-R (M184V/I allowed; K65R/E/N, ≥3 thymidine analog mutations [TAMs], or T69-insertions excluded) and excluded known primary INSTI-R. Preexisting drug resistance was assessed with historical genotypes and retrospective baseline proviral DNA genotyping. Adherence was calculated by pill count. Viral blips (transient HIV-1 RNA ≥50 copies/mL) and outcomes based on last available on-treatment HIV-1 RNA were assessed.

Results. 489 participants received B/F/TAF and had ≥1 post-switch HIV-1 RNA measurement. Baseline genotypic data from cumulative historical and/or proviral genotypes were available for 96% (468/489) in protease/reverse transcriptase and 93% (453/489) in integrase. Preexisting NRTI-R, M184V/I, ≥1 TAMs, NNRTI-R, and PI-R were observed in 15% (68/468), 11% (50/468), 8% (36/468), 22% (101/468), and 13% (61/468), respectively. Primary INSTI-R was detected post-randomization in 2% (11/453); all remained in the study and were included in efficacy analyses. Through W72, 99% (486/489) of participants had HIV-1 RNA < 50 copies/mL at their last study visit, including all with baseline NRTI-R or INSTI-R (Figure 2). Mean frequency of viral blips was 1% per timepoint, and blips were not associated with virologic failure. 112 participants (23%) had < 95% adherence by pill count, 98% (110/112) of whom had HIV-1 RNA < 50 copies/mL at last visit, including 14 of 14 (100%) with < 80% adherence. No participant discontinued due to lack of efficacy or had treatment emergent resistance to study drugs.

Figure 2. Virologic suppression by preexisting resistance, viral blips, and adherence



Conclusion. Virologic suppression was maintained through W72 of B/F/TAF treatment, including those with preexisting resistance, viral blips, and suboptimal adherence. Continued HIV suppression and absence of treatment-emergent resistance demonstrate the efficacy of B/F/TAF in African Americans regardless of adherence or preexisting resistance to NNRTIs, PIs, or non-tenofovir NRTIs.

Disclosures. **Kristen Andreatta, MSc**, **Gilead Sciences, Inc** (Employee, Shareholder) **Michelle L. D'Antoni, PhD**, **Gilead Sciences** (Employee, Shareholder)**Gilead Sciences, Inc** (Employee, Shareholder) **Silvia Chang, Masters**, **Gilead Sciences, Inc** (Employee, Shareholder) **Aiyappa Parvangada, MS Computational Biology**, **Gilead Sciences, Inc** (Employee, Shareholder) **Ross Martin, PhD**, **Gilead Sciences, Inc** (Employee, Shareholder) **Christiana Blair, MS**, **Gilead Sciences, Inc** (Employee, Shareholder) **Sean E. Collins, MD, MS**, **Gilead Sciences, Inc** (Employee, Shareholder) **Kirsten L. White, PhD**, **Gilead Sciences, Inc** (Employee, Shareholder)

630. Emergence of Colistin Resistance in the OVERCOME Trial: Impact of Combination Therapy with Meropenem

Jason M Pogue, PharmD, BCPS, BCIDP[1]; Michael J. Rybak, PharmD, MPH, PhD[2]; Kyle Stamper, BS[3]; Dror Marchaim, MD[4]; Visanu Thamlikitkul, M.D.[5];