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1897. Letermovir Salvage for Complicated Cases of Resistant CMV
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Background. Limited treatment options exist for ganciclovir-resistant CMV disease. Foscarnet can cause renal insufficiency, and maribavir has poor ocular penetration. Letermovir is approved for primary CMV prophylaxis in hematopoietic stem cell transplantation, but efficacy in treatment of CMV disease or secondary prophylaxis is not known.

Methods. We analyzed data from all adult patients at a single center who initiated letermovir for treatment of CMV disease or secondary prophylaxis of CMV retinitis from November 2017 through April 2018. We described patient characteristics, extent of CMV disease, prior antiviral therapies, kinetics of CMV DNAemia, and clinical outcomes.

Results. Four patients received letermovir for treatment, and one for secondary suppression, of CMV DNAemia and CMV retinitis (Table). All patients had proven genotypic resistance with complications and/or clinical failure on prior antivirals. Letermovirdoses ranged from 480 mg to 720 mg daily. Three patients received concomitant CMV immune globulin and intravitreal therapy with foscarnet and/or ganciclovir. No patients developed side effects attributable to letermovir, and expected increases in tacrolimus levels occurred. All five patients demonstrated clinical and retinoscopic improvement (Figure 1), but two patients did not achieve complete resolution of DNAemia (Figure 2).

Conclusion. Use of letermovir, often in combination with intravitreal therapy, was associated with sustained clinical improvement in five patients with CMV retinitis. Treatment doses of up to 720 mg were well tolerated. Despite marked improvement of ocular disease, two patients did not achieve sustained suppression of DNAemia.

| Table: Patient Characteristics |
|-------------------------------|
| A. 66-Year-Old Male | B. 50-Year-Old Male | C. 46-Year-Old Male | D. 66-Year-Old Male | E. 43-Year-Old Female |
| CMV risk factor(s) | Lung txp | Retinitis | Heart txp | Heart txp | Susac syndrome |
| Disease burden | CMV | CMV | CMV | CMV | Retinitis |
| Previous antivirals | C, G/V, M, F | G/V, F, M | G/V, F | G, F |
| CMV mutations | M460V | Q578H | M460I | H520Q, C603W, T593I | A594V |
| Current letermovir duration (weeks) | 9.5 | 9.5 | 7 | 26 |

*Secondary prophylaxis only.
C, CMV Immune globulin; F, foscarnet; G, ganciclovir; M, maribavir; txp, transplant; V, valganciclovir.

1898. Clinical Characteristics of Patients With Solid-Organ Transplantation (SOT) and Norovirus (NV) Infections
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Background. NV infections in immunocompromised patients could cause chronic gastroenteritis (GE) with devastating consequences. A successful reduction of the medical immunosuppression in patients with NV GE and SOT have been reported repeatedly, but the optimal approach in these patients is less well defined.

Methods. We identified patients with PCR-confirmed NV GE and SOT from a laboratory database and patients with other underlying conditions from a clinical database. Clinical data were retrieved from pt files and by telephone interviews. The severity of GE was assessed by the Vesikari score (VS). Subgroups were dichotomised at their medians. Continuous variables were compared by Kruskal–Wallis test and time-dependant variables were compared by Kaplan–Meier analysis and log-rank test.

Results. Overall, 101 patients (age: 1–90 years, median 60) with SOT (36), hematopoietic stem cell transplantation (HSCT, 23), hematological malignancies (HM, 20), solid tumor (ST, 8), and other nonimmunocompromising conditions (14) were identified. Patients with SOT had received kidney (30), combined kidney/pancreas (4), liver/pancreas/stomach/small bowel (1), or liver/small bowel (1) transplantation. The median duration of symptoms was significantly longer in patients with SOT compared with those with other conditions (SOT 26, HSCT 12, HM 5, ST 4, other 3 days; Figure 1, P < 0.001), but the disease severity (VS, 74 patients with sufficient data; Figure 2) was not significantly different across the risk groups.
were not predictive for a prolonged duration of NV GE in SOT patients. Interestingly, a reduction of the immunosuppression (IS) in SOT patients (dose reduction or drug termination) was associated with a prolonged duration of symptoms (median 47 vs. 14 days; Figure 3, \( P = 0.0007 \)).

**Conclusion.** In this series of patients, SOT was associated with a prolonged duration of NV GE. A reduction of the immunosuppression was associated with a prolonged disease duration in SOT patients. It remains unclear whether this observation is due to a selection bias, or aggravation of symptoms were caused by immune reconstitution with reduced immunosuppressive therapy.

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1899. The Cellular Kinase Inhibitor OSU-03012 Inhibits Enterovirus 71 In Vitro

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**Background.** Enterovirus 71 (EV-71) is a nonenveloped, single-stranded positive-sense RNA virus belonging to genus Enterovirus, family Picornaviridae. EV-71 has caused recurrent outbreaks of hand, foot, and mouth disease especially among children in Asia. Some patients develop severe complications, such as meningitis, encephalitis, poliomylitis-like paralysis, myocarditis, and pulmonary edema. There are currently limited treatment options for EV-71 infection. OSU-03012 is a celecoxib derivative cellular kinase inhibitor with no inhibiting activity on cyclooxygenase that has antiviral activities against a broad spectrum of viruses, including flaviviruses, filoviruses, and arenaviruses.

**Methods.** Two clinical isolates of EV-71 obtained from patients with laboratory-confirmed EV-71 infections were included in the study. We evaluated the in vitro anti-EV-71 activity of OSU-03012, using virus yield reduction assays (by quantitative reverse transcription-polymerase chain reaction), cell protection assay; and plaque reduction assay in multiple cell lines.

**Results.** OSU-03012 inhibited both EV-71 strains in U251 (neuronal) and RD (rhabdomyosarcoma) cells. The half maximal inhibitory concentration (IC50) of OSU-03012 against EV-71 was consistently <2 µM in these cell lines in the virus yield reduction assay. At 2 µM of OSU-03012, there was a nearly 2-log reduction in viral load in both U251 and RD cells. There was a dose-dependent increase in the percentage of viable cells after the addition of 0 to 2 µM of OSU-03012 in EV-71-infected U251 and RD cells in the cell protection assay. In the plaque reduction assay, there was >70% reduction in plaque numbers with the addition of 2 µM of OSU-03012.

**Conclusion.** OSU-03012 exhibits anti-EV-71 activity in vitro. The treatment effects of OSU-03012 should be further evaluated in representative animal models of severe EV-71 infection to provide further data for potential clinical evaluation in the future.

**Disclosures.** J. Chan, Pfizer Corporation Hong Kong: Travel grant recipient, Grant recipient. Astellas Pharma Hong Kong Corporation Limited: Travel grant recipient, Grant recipient. Gilead Sciences Hong Kong Limited: Invited speaker, Speaker honorarium. Lumines Corporation: Invited speaker, Speaker honorarium.

1900. Low Prevalence of Protective Antibodies to Measles Among Young Adults in Argentina

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**Methods.** We included 2,663 patients with determinations for measles performed in the mentioned period. Of those, 348 were HIV+ (with mean ±SD age: 34.7±6.2 years, 85% male [86% MSM], mean ±SD nadir CD4 [cells/mm3]: 369.6±219.5); 89% YL< 50 copies/mL, and 2,315 were HIV(−), with mean age(±SD): 31(±5.9) years, 85% male (86% MSM), mean (±SD) nadir CD4 (cells/mm3): 369.6±219.5), with mean age(±SD): 31(±5.9) years, 85% male (86% MSM), mean (±SD) nadir CD4 (cells/mm3): 369.6±219.5), with mean age(±SD): 31(±5.9) years, 85% male (86% MSM), mean (±SD) nadir CD4 (cells/mm3): 369.6±219.5), with mean age(±SD): 31(±5.9) years, 85% male (86% MSM), mean (±SD) nadir CD4 (cells/mm3): 369.6±219.5), with mean age(±SD): 31(±5.9) years, 85% male (86% MSM), mean (±SD) nadir CD4 (cells/mm3): 369.6±219.5). The half maximal inhibitory concentration (IC50) of OSU-03012 against EV-71 was consistently <2 µM in these cell lines in the virus yield reduction assay. At 2 µM of OSU-03012, there was a nearly 2-log reduction in viral load in both U251 and RD cells. There was a dose-dependent increase in the percentage of viable cells after the addition of 0 to 2 µM of OSU-03012 in EV-71-infected U251 and RD cells in the cell protection assay. In the plaque reduction assay, there was >70% reduction in plaque numbers with the addition of 2 µM of OSU-03012.

**Conclusion.** We found a very high proportion of subjects without protective antibodies to measles in both groups, analyzed according to HIV status.

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