Background. From the arrival of Zika to America in 2015, and the increase in cases of Guillian sweeetin in South America apparently associated with acute viral infection, Mexico had its first contact in 2016, with an increase in the incidence of cases of the syndrome, initiating a protocol study to look for the causal association of the Zika virus syndrome.

Methods. We conducted a descriptive, prospective, and longitudinal study in Veracruz, Mexico, where follow-up of cases of Guillain Barre Syndrome (GBS) occurred during 2016 to 2018. The central point of the study is to look for the etiological association of GBS with the presence of acute zika infection. Secondarily, other known neuropatic agents, both viral and bacterial were searched. The diagnosis techniques used were PCR-RT (blood and urine) and IgM/IgG for Zika; serum PCR-RT and IgM/IgG for Dengue and Chikungunya; IgM/IgG for TORCH; PCR-RT in CSF for Herpes and Enterovirus; serological panel of Hepatitis B and C; PCR-RT in rectal swab for Campylobacter.

Results. A cohort of 39 patients has been formed over 3 years of study. 38 patients met the operational definition of a suspected case of Zika, of which only 2 cases were identified by PCR-RT in urine; During the search protocol for infectious agents, others were identified such as: Dengue, Chikungunya, Enterovirus, Herpes and Hepatitis B; however, the identification of Campylobacter was even more remarkable, also highlighting that only four patients had diarrhea.

Regarding the treatment, 37 patients received IVIG, 1 patient received plasmapheresis and 1 patient received both. The incidence of Zika as a cause of GBS is relatively low (5%), so the association of GBS with the presence of acute zika infection is possible in the development of effective interventions. This study aims to define the epidemiology of these cases in children with leukemia in the Dominican Republic.

Methods. A retrospective cohort was assembled of children newly diagnosed with leukemia between July 1, 2015 and June 30, 2017 at Hospital Infantil Dr. Robert Reid Cabral in Santo Domingo. Patients were identified from the Pediatric Oncology Network Database and hospital admissions from the Oncology admissions logbook. Medical records and microbiology results were evaluated to identify all inpatient invasive infections. From a distance from the home to the hospital was determined using ArcGIS 10.5.1. Infection rates were described in discrete time periods after diagnosis and risk factors for invasive infection were explored using Poisson regression.

Results. The cohort included 68 patients; 54 (79.4%) with acute lymphoblastic leukemia and 14 (20.6%) with acute myeloblastic leukemia. The cohort was 48.5% female, had a median age at diagnosis of 7.3 years (range 1.1–16.6), and a median weight–for–age percentile of 45.5 percentile (range 0–99.9). There were 1.2 invasive infections per 100 days at risk in the first 60 days after diagnosis, 0.8 from 60 to 100 days, and 0.4 from 100+ days. Gastroenteritis, skin–soft–tissue infection, and pneumonia were most frequent, with bacteremia most common in the first 60 days. In a multivariate Poisson regression model, age 20 years (IRR 0.49, 95% CI 0.28–0.85) and distance from the hospital >100 km (IRR 0.34, 95% CI 0.14–0.81) were identified as risk factors for invasive infection. Between the 2-year period, 8 of 22 (36%) patient deaths were related to infection.

Conclusion. Invasive infections were common and a prominent source of death in this cohort. Interventions aimed at reducing infection should target the first 60 days after diagnosis. Decreased infection incidence among children of older age and farther distance from the hospital were unexpected and warrant further investigation.

Disclosure. All authors: No reported disclosures.

1680. Guillain Barre Syndrome in Arbovirus Outbreak in Veracruz, Mexico: The Follow-up to 3 Years of the Pandemic

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1681. Assessment of the Impact of Infectious Events in a Cohort of Pediatric Leukemia Patients in the Dominican Republic

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Background. Infections are a leading cause of morbidity and mortality in children with cancer. Although data are limited, the impact of infection in this population appears to be amplified in low- and middle-income countries. Defining the epidemiologic association of GBS in a specific region is paramount to developing effective interventions. This study aims to define the epidemiology of these cases in children with leukemia in the Dominican Republic.

Methods. A retrospective cohort was assembled of children newly diagnosed with leukemia between July 1, 2015 and June 30, 2017 at Hospital Infantil Dr. Robert Reid Cabral in Santo Domingo. Patients were identified from the Pediatric Oncology Network Database and hospital admissions from the Oncology admissions logbook. Medical records and microbiology results were evaluated to identify all inpatient invasive infections. From a distance from the home to the hospital was determined using ArcGIS 10.5.1. Infection rates were described in discrete time periods after diagnosis and risk factors for invasive infection were explored using Poisson regression.

Results. The cohort included 68 patients; 54 (79.4%) with acute lymphoblastic leukemia and 14 (20.6%) with acute myeloblastic leukemia. The cohort was 48.5% female, had a median age at diagnosis of 7.3 years (range 1.1–16.6), and a median weight–for–age percentile of 45.5 percentile (range 0–99.9). There were 1.2 invasive infections per 100 days at risk in the first 60 days after diagnosis, 0.8 from 60 to 100 days, and 0.4 from 100+ days. Gastroenteritis, skin–soft–tissue infection, and pneumonia were most frequent, with bacteremia most common in the first 60 days. In a multivariate Poisson regression model, age 20 years (IRR 0.49, 95% CI 0.28–0.85) and distance from the hospital >100 km (IRR 0.34, 95% CI 0.14–0.81) were identified as risk factors for invasive infection. Between the 2-year period, 8 of 22 (36%) patient deaths were related to infection.

Conclusion. Invasive infections were common and a prominent source of death in this cohort. Interventions aimed at reducing infection should target the first 60 days after diagnosis. Decreased infection incidence among children of older age and farther distance from the hospital were unexpected and warrant further investigation.

Table 1. Invasive infections by time period after diagnosis

| Invasive infection | 0-60 days | >60-100 days | >100-180 days |
|-------------------|-----------|-------------|--------------|
| Total patients at risk | 68 | 48 | 43 |
| Total days at risk | 3344 | 1971 | 297 |

Table 2. Risk factors for invasive infection in the first 180 days after diagnosis

| Leukemia Type | Univariate | Multivariate* |
|---------------|------------|--------------|
| Acute lymphoblastic leukemia | 1 (ref) | 1.06 | 1.06 |
| Acute myeloblastic leukemia | 1 (ref) | 1.04 | 1.04 |
| Sex | | | |
| Male | 1.26 | 0.78 | 2.03 |
| Female | 1.06 | 0.34 | 2.08 |
| Age (years) | | | |
| <= 1.9 | 1.03 | 0.43 | 2.15 |
| > 1.9 | 1.03 | 0.27 | 0.81 |
| Distance from hospital (km) | | | |
| <= 10 | 1.01 | 0.84 | 2.37 |
| > 10 | 1.01 | 0.38 | 2.81 |
| Purchasing power index | | | |
| <= 80 | 1.01 | 0.53 | 1.90 |
| > 80 | 1.01 | 0.58 | 1.85 |
| Weight-for-age percentile | | | |
| <= 5 | 1.01 | 0.70 | 2.74 |
| > 5 | 1.01 | 0.94 | 2.12 |

*Only variables that were significant in univariate analyses were retained in the multivariate model.
1683. Empathy Scale Validation Among Expectant Seroconcordant Couples Enrolled in HIV Care and Treatment in Zambezia Province, Mozambique

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Background. Among patients enrolled in HIV care and treatment in rural Mozambique, 30% abandon treatment within a year. A cluster randomized controlled trial assessing the impact of couple-based vs. individual treatment for concordant couples on viral suppression (the HoPS+ trial) hypothesizes that family support will improve patient outcomes. Individuals with high levels of empathy will likely provide greater social support for treatment retention and adherence. This study validates a locally tailored version of the interpersonal reactive index (IRI)—cognitive empathy (CE) and affective empathy (AE)—among expectant parents living with HIV in Zambezia province, Mozambique.

Methods. Using baseline data from 558 participants from the HOPS+ trial, we used a maximum likelihood exploratory factor analysis with a promax oblique rotation to assess the culturally relevant questions from the IRI. We examined discriminant and construct validity through analysis of subscale relationships by sex, age, education, and depression and intra-person reliability over time with an interclass correlation model (n = 119).

Results. Our participants live in 6 districts and receive health care at 24 health facilities. The median age was 25 (IQR: 22 to 30), 50% were female, and 64% were single. Participants had a median of 5 years of formal education (IQR: 2–7). Half of them report their occupation as “farmer” and 17% screened positive for depression. On a scale of 0–4, the median baseline CE score was 2.6 (IQR: 1.9–3.2) and the median baseline AE score was 1.9 (IQR: 1.2–2.6). Males (2.6 vs. 2.4, P = 0.01), participants who finished primary school (2.7 vs. 2.5, P = 0.01), and older participants (2.6 vs. 2.5, P = 0.01) had higher CE scores, while depressed participants had higher AE scores (2.3 vs. 1.8, P < 0.01). We found moderate stability over time (CE ICC: 0.63, AE ICC: 0.54) in a subset of 119 study participants.

Conclusion. While depression is associated with 12.5% higher AE scores, older participants, males, and those with higher levels of education had higher scores on the CS scale. This preliminary work will inform future work on the HoPS+ trial and guide future interventions aimed at increasing retention in and adherence to treatment in people living with HIV.

Disclosures. All authors: No reported disclosures.

1684. Clinical Profile and Outcome of Scrub Typhus-Related Acute Respiratory Distress Syndrome in Adults Presenting to a Tertiary Care Hospital in North India

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Background. To study the clinical profile and outcome of adult patients presenting with scrub typhus ARDS in emergency at our institute.

Methods. Prospective observational study which included 126 adult patients presenting to emergency department at, PGIMER Chandigarh, a tertiary care referral institute in northwestern India with acute febrile illness with ARDS (acute onset respiratory distress syndrome). We have detailed clinical evaluation and investigated for the etiology as per standard protocol followed at our institute with special emphasis to rule out tropical illnesses like scrub typhus, malaria, leptospirosis, dengue and H1N1 influenza.

Results. Out of 126 patients eligible for the study, 45.2% were males and 54.8% were females. 47.6% were admitted in the monsoon/post-monsoon period. In addition to fever and dyspnea, cough (75.8%), hepatomegaly (56%), myalgia (63%), splenomegaly (31.3%), pedal edema (34.2%), pallor (40.4%), and vomiting (48.4%) were the common symptoms observed. Scrub typhus in 33.3%, followed by H1N1 influenza in 15.8%, co-infections in 12.6%, leptospirosis in 4.76%, dengue in 3.96% and malaria in 3.17% of the patients, were the most common etiologies encountered. In 26.9% patients, no definite infective etiology could be found. Among the scrub typhus patients, 16 required ventilation. SOFA score of more than 6 was noted in 24 (57.4%) patients with scrub typhus as compared 9 (47.3%) patients with H1N1 infection. 2.1% of patients with scrub typhus succumbed to their illness when compared with 36.8% of patients with H1N1 infection. At admission in emergency female sex (P = 0.048), age less than 45 years, (P = 0.02), abdominal pain (P = 0.01), presence of hepatosplenomegaly (P = 0.001), thrombocytopenia (<50,000, P = 0.001), transaminis (P = 0.00) were significant predictors of a diagnosis of scrub typhus when compared with a non-scrub typhus etiology of patients with fever and ARDS.

Disclosures. All authors: No reported disclosures.