prolongation (7%), and nosocomial infection (4%). Two patients were pregnant at the time of presentation; one suffered severe malaria and fetal loss. Only 3% of patients reported being prescribed a prophylactic regimen and completing it; 20% reported taking an incomplete course, and the majority took no prophylaxis at all. Of 27 patients who had presented to another United States-based medical provider prior to hospitalization, 11 were initially misdiagnosed and treated for conditions other than malaria, including two who underwent extensive hematologic investigations. Inadequate experience and resources in treating malaria were the primary reasons cited for transfer to the tertiary hospital from community-based providers.

Conclusion. Malaria poses a substantial health risk to US travelers, particularly in light of under-utilization of prophylaxis, lack of familiarity with the disease by local providers, and delays to diagnosis.

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

303. Cotrimoxazole Prophylaxis Associated With Reduced Anemia Hazard in HIV-Exposed Infants in a Malaria-Endemic Setting

Alexander Ewing, MPH[1]; Caroline King, PhD[1]; Jeffrey Wiener, PhD[1]; Charles Chasela, PhD[2]; Gerald Tegha, MSc[3]; Mina Hosseinipour, MD, MPH[4] and Athena Kourtis, MD, PhD, MPH, FIDSA[1]; [1]Centers for Disease Control and Prevention, Atlanta, Georgia, [2]University of Witwatersrand, Johannesburg, South Africa, [3]UNC Project Malawi, Lilongwe, Malawi, [4]UNC Project, University of North Carolina, Lilongwe, Malawi

Session: 50. Global Infections

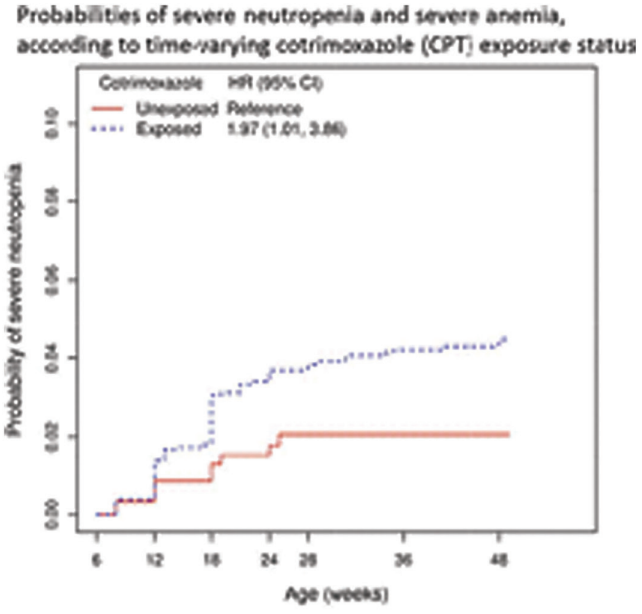
Thursday, October 5, 2017: 12:30 PM

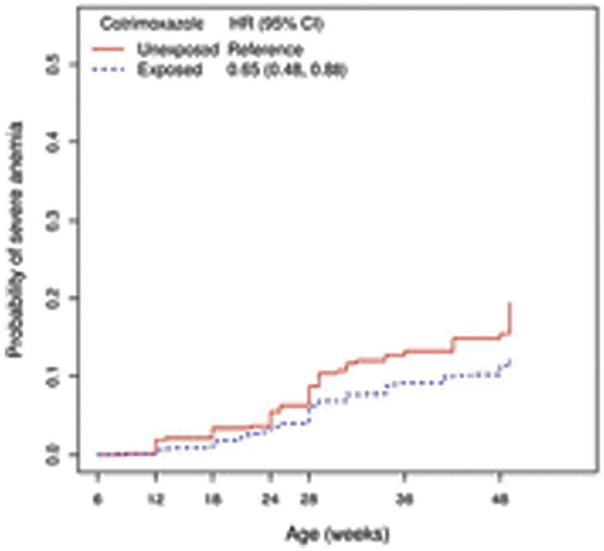
Background. In settings where pneumonia, diarrhea, and malnutrition are significant causes of infant mortality, breastfeeding for 12 months combined with antiretroviral and cotrimoxazole preventive therapy (CPT) offers infants of HIV-infected mothers the greatest chance for HIV-free survival. Both maternal and infant antiretroviral (ARV) prophylaxis and CPT have been independently associated with reports of neutropenia and anemia, so it is important to evaluate the impact of their concurrent use.

Methods. We used data from the breastfeeding, antiretrovirals, and nutrition study (conducted 2004–2010) to evaluate the impact of CPT and ARV treatment on hematologic outcomes from 6 to 48 weeks of age for 2,006 HIV-exposed, uninfected infants in Lilongwe, Malawi. Using Cox proportional hazards models, we compared the hazard of severe (grade 3 and higher) anemia and neutropenia (as defined by the NIAID Division of AIDS, 2014) according to time-varying CPT, implemented midway through the study, and antiretroviral treatment arm exposure (maternal zidovudine/lamivudine/lopinavir-ritonavir, daily infant nevirapine, or none during 6 months of breastfeeding) and checked for statistical interaction between the two.

Results. CPT was associated with an increase in severe neutropenia (hazard ratio [95% CI]: 1.97 [1.01, 3.86]) (Figure 1a) and a decrease in severe anemia hazard (HR: 0.65 [0.48, 0.88]) (Figure 1b). The hazard of severe anemia is significantly lower in the infant nevirapine arm compared with the control arm (HR: 0.68 [0.48, 0.96]). The interaction between CPT and ARV treatment arm was not significant for either severe neutropenia ($P = 0.22$) or severe anemia ($P = 0.32$).

Conclusion. In addition to an expected association with increased hazard of severe neutropenia, CPT was associated with a reduced hazard of severe anemia, possibly due to the drug's antimalarial effect. This provides further support for CPT use in HIV-exposed, uninfected infants in malaria-endemic resource-limited settings.





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

304. Preventing Polio Post-eradication: Revertant Proportion Patterns of OPV Serotypes

Jonathan Altamirano, MS[1]; Clea Sarnquist, DrPh, MPH[1]; Lourdes Garcia-Garcia, MD[2]; Leticia Ferreyra Reyes, MD[2]; Rogelio Montero-Campos, MS[2]; Luis Pablo Cruz-Hervert, MSc[2]; Marisa Holubar, MD, MS[3]; Aisha Talib, MPP[1]; Natasha Purington, MS[1]; Meira Halpern, PhD[1]; Rasika Behl, MPH[1]; Elizabeth Ferreira, MD[2]; Guadalupe Delgado, MPH[2]; Sergio Canizales Quintero, BA[2]; Manisha Desai, PhD[1] and Yvonne Maldonado, MD, FIDSA, FPIDS[1]; [1]Pediatrics, Stanford University School of Medicine, Stanford, California, [2]Instituto Nacional de Salud Pública, Cuernavaca, Mexico, [3]Division of Infectious Diseases and Geographic Medicine, Stanford University School of Medicine, Stanford, California

Session: 50. Global Infections

Thursday, October 5, 2017: 12:30 PM

Background. As wild poliovirus is eradicated and countries switch from oral polio vaccine (OPV) to inactivated polio vaccine (IPV), preventing circulating vaccine-derived poliovirus is a top priority. However, the stability of Sabin vaccine serotypes remains a concern in undervaccinated communities. We sought to measure the canonical point mutation rates associated with OPV serotype neuroreversion and vaccine-associated paralytic polio (VAPP) as possible markers of serotype fitness. Mexico provides a natural environment to study these patterns as it provides routine IPV immunization and bi-annual OPV campaigns.

Methods. We enrolled 450 households with children eligible for OPV before the February 2015 national immunization week from three communities near Orizaba, Mexico. In each community, a different proportion of eligible children received OPV (10, 30, and 70%). Transmission was measured by PCR detection of OPV in samples collected serially from vaccinated children, their households, and other families in the community. Positive samples were reanalyzed to quantify revertant proportion (RP), the percent of OPV VAPP mutants found in positive samples.

Results. 15,109 samples were collected and analyzed from 1,828 participants. 554 (3.7%) were OPV positive, and 194 have been reanalyzed for RP to date.

The majority of OPV 1 positive samples showed <25% revertance as late as 71 days post-vaccination (Figure 1). By contrast, OPV 2 and OPV 3 positive samples quickly revert to VAPP OPV. The majority of OPV 2 positive samples were >75% revertant by Day 7 (Figure 2), while the majority of OPV 3 positive samples were >75% revertant by Day 4 (Figure 3).

Conclusion. OPV 1 appears to be more stable than OPV 2 and OPV 3, remaining <25% revertant 71 days post-vaccination. OPV 2 reverts quickly, with most samples reverting to VAPP by Day 7, while OPV 3 reverts the fastest, with most samples reverting to VAPP by Day 4. Understanding the stability of OPV and VAPP mutants may shed some light on the ability of OPV serotypes to persist in community circulation. Analyses regarding potential covariates for VAPP and RP are currently underway.