

Table 1: EVs detecten in AFM cases in 2016 in Argentina

Virus	ST	NPA	CSF
EV D68 (13)	1	11	1
EV A 19 (1)	1	0	0
EV B (3)	0	2	1
EV C (3)	3	0	0
Coxsackie A 13 (1)	1	0	0
Echovirus 6 (2)	2	0	0
Echovirus 9 (1)	1	0	0
Echovirus 13 (1)	1	0	0
NPEV (3)	3	0	0
Total (28)	13	13	2

EV: Enterovirus. NPEV: Non-Polio Enterovirus

Disclosures. All authors: No reported disclosures.

2327. 2018–2019 Seasonal Epidemiology of Infections Caused by Influenza Viruses and RSV in Ecuadorean Children Less than 5 Years of Age Residing at Opposite Extremes of Elevation

Marie Jose Moubarak, MD¹; Cynthia A. Bonville, MS²; Joseph B. Domachowske, MD²; Manika Suryadevara, MD²; Gloria M. Salazar-Gomez, BS³; Mercy J. Borbor-Cordova, PhD⁴; Rachel Sippy, PhD⁵; Cinthya Cueva-Aponte, BS⁵; Esteban Ortiz-Prado, MD, MPH, PhD⁶; Ivan Hidalgo, MD⁷; Guillermo Victoriano-Aguilar, MD⁸; Freddy Pizarro-Fajardo, MD³; ¹SUNY Upstate Medical University Department of Pediatrics, Syracuse, New York; ²SUNY Upstate Medical University, Wampsville, New York; ³SUNY-Upstate Machala, Machala, El Oro, Ecuador; ⁴Escuela Superior Politecnica Del Litoral, ESPOL, Guayaquil, Guayas, Ecuador; ⁵SUNY-Upstate, Syracuse, New York; ⁶Universidad de las Américas, Quito, Pichincha, Ecuador; ⁷Ivan Hidalgo Pediatría, Quito, Pichincha, Ecuador; ⁸Ministerio de Salud, Machala, El Oro, Ecuador

Session: 247. Clinical Virology/Viral Epidemiology
Saturday, October 5, 2019: 12:15 PM

Background. The epidemiology of ambulatory acute respiratory tract infections (ARTI) caused by influenza viruses and respiratory syncytial virus (RSV) in young children is not well described in Ecuador. The seasonality of these infections vary across and within tropical countries experiencing different climates. Understanding trends that differ from one region to the next is needed to optimize implementation of effective preventive measures.

Methods. This 5-year prospective study compares the epidemiology of ARTI caused by influenza and RSV in children from Machala (6 m) and Quito (2,832 m), Ecuador. Children < 5 years presenting with ARTI for ≤7 days are eligible. Demographic and clinical data are gathered and a nasopharyngeal sample is collected for diagnostic testing using the Biofire FilmArray[®] respiratory panel platform that allows for the detection of 17 viruses.

Results. Between July 2018 and March 2019, we enrolled 446 subjects; 322 from Machala and 124 from Quito. Eighteen percent of the samples from Quito and 9% from Machala were positive for influenza viruses, while RSV accounted for 4% of the samples from Quito and 5% of those from Machala. The influenza B season at both elevations lasted 14 weeks, but started 5 weeks earlier in Machala (weeks 29–42 vs. weeks 34–47). Influenza B seasonal activity preceded influenza A at both sites. In Machala, the influenza A season began 6 weeks after the influenza B season (weeks 48–4), but overlapped with the influenza B season in Quito (weeks 45–2). In Machala, RSV was detected during the first week of surveillance (2018, week 29) but did not re-emerge to cause sustained activity until 2019, week 6. The RSV season began in Quito in 2018 during week 47, with sustained activity through the time of this report, 2019, week 12.

Conclusion. The 2018–2019 seasonal epidemiology of ARTI caused by influenza viruses and RSV differed between Ecuadorean children living close to sea level and those living at high elevation. Patterns of seasonal activity observed throughout the 5-year study period will facilitate decision-making regarding the optimal timing and duration for implementing existing and emerging prevention measures.

Disclosures. All authors: No reported disclosures.

2328. Human Respiratory Syncytial Virus Subgroups among Hospitalized Infants in the United States, 2015–2016

Brian Rha, MD, MSPH¹; Teresa C. T. Peret, PhD¹; Lijuan Wang, PhD²; Joana Y. Lively, MPH¹; Aaron Curns, MPH²; Angela P. Campbell, MD, MPH¹; Julie A. Boom, MD³; Parvin H. Azimi, MD⁴; Geoffrey A. Weinberg, MD⁵; Mary A. Staat, MD, MPH⁶; Rangaraj Selvarangan, BVSc, PhD⁷; Natasha B. Halasa, MD, MPH⁸; Janet A. Englund, MD⁹; Eileen J. Klein, MD, MPH¹⁰; Christopher J. Harrison, MD¹¹; Laura S. Stewart, PhD⁸; Peter G. Szilagyi, MD, MPH¹²; Monica Nayakwadi. Singer, MD MPH¹³; Vasanthi Avadhanula, PhD¹⁴; Monica McNeal, MS¹⁵; Daniella Figueroa-Downing, MPH¹; Mila M. Prill, MSPH¹⁶; Brett L. Whitaker, MS¹;

Daniel C. Payne, PhD, MSPH¹⁷; Stephen Lindstrom, PhD¹; Natalie J. Thornburg, PhD¹; Susan I. Gerber, MD¹; Gayle Langley, MD, MPH¹⁸; Gayle Langley, MD, MPH¹⁸; ¹Centers for Disease Control and Prevention, Atlanta, Georgia; ²Division of Viral Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia; ³Baylor College of Medicine, Texas Children's Hospital, Houston, Texas; ⁴UCSF, Berkeley, California; ⁵University of Rochester School of Medicine and Dentistry, Rochester, New York; ⁶Cincinnati Children's Hospital Medical Center, University of Cincinnati College of Medicine, Cincinnati, Ohio; ⁷Children's Mercy, Kansas City, Missouri; ⁸Vanderbilt University Medical Center, Nashville, Tennessee; ⁹Seattle Children's Hospital/University of Washington, Seattle, Washington; ¹⁰Seattle Children's Hospital, Seattle, Washington; ¹¹Children's Mercy Hospital - Kansas City, Kansas City, Missouri; ¹²University of California, Los Angeles, Los Angeles, California; ¹³UCSF Benioff Children's Hospital Oakland, Lafayette, California; ¹⁴Baylor college of medicine, Houston, Texas; ¹⁵Cincinnati Children's Hospital Medical Center Oak Campus, Cincinnati, Ohio; ¹⁶Centers for Disease Control & Prevention, Atlanta, Georgia; ¹⁷Centers for Disease Control and Prevention, Atlanta, Georgia, Atlanta, Georgia; ¹⁸CDC, Atlanta, Georgia

Session: 247. Clinical Virology/Viral Epidemiology
Saturday, October 5, 2019: 12:15 PM

Background. Respiratory syncytial virus (RSV) is a major cause of severe acute respiratory illnesses (ARI) in young children. Circulation of RSV subgroups A and B can vary by season and geographic location, and may have implications for disease susceptibility, outcomes, and prevention measures. We investigated RSV subgroup distribution among samples collected in the New Vaccine Surveillance Network.

Methods. Prospective active surveillance for hospitalized ARI was conducted from November 1, 2015 to June 30, 2016 among children < 12 months of age at seven pediatric hospital sites. Mid-turbinate nasal and throat flocked swabs (combined when both available) and/or tracheal aspirates were collected and tested for RSV at each site using real-time reverse transcription polymerase chain reaction (rRT-PCR) assays; RSV A/B subgroup results were available from four sites that did their own subgroup testing (Cincinnati, Kansas City, Houston, and Oakland). At three sites (Rochester, Nashville, Seattle), approximately 50 RSV-positive specimens were sampled based on the monthly distribution for each site and 1:1 distribution by gender, and then assayed for subgroup at CDC. Patient information was obtained from medical records; chi-square tests were used to compare the distribution of A and B subgroups by site.

Results. Of 704 RSV-positive hospitalized infants, subgroup data from 586 were analyzed; 340 (58%) were RSV A and 246 (42%) were RSV B. The median age for both RSV A and RSV B patients was 2 months. Subgroup distribution varied by geographic location, with the overall proportion of RSV A ranging from 18–83% across sites ($P < 0.01$). Peak RSV A and B detections by month varied by site, occurring from November–February (figure).

Conclusion. During the 2015–2016 season, RSV A and B subgroups co-circulated among hospitalized infants enrolled at seven US sites. The predominance of RSV subgroup varied by geographic location. Continued surveillance and additional subgroup testing over multiple seasons should improve understanding of the epidemiologic significance of RSV infections by subgroup.

Figure. Number of RSV subtype detections by enrollment site location and month



Disclosures. All authors: No reported disclosures.