Background. Syndrome-based absenteeism monitoring is proposed as an approach for early identification of influenza outbreaks in schools and surrounding communities, utilizing routinely collected attendance data. The availability of a simple, valid definition of ILI-related absence (a-ILI) is a prerequisite for monitoring.

Methods. We conducted a prospective study in children aged 4-19 years, between January 5, 2015 and April 11, 2017, which enrolled students with acute respiratory illness (ARI). Via home visits, the study team assessed participating students for symptoms (fever, cough, sore throat, nasal congestion, runny nose), collected nasal swabs for multiplex PCR testing, and ascertained school absence status. For analysis, ILI was defined as the presence of fever and a respiratory tract symptom (cough, sore throat, nasal congestion, or runny nose). We used multivariate binary logistic regression to assess the relationships between pathogens, absence status, and illness category.

Results. Of the total 661 participating students, 622 with ARI onset during school semesters remained in the analysis. Having an ILI was associated with absenteeism ($\chi^2=87.70; P < 0.001$), and with PCR detection of influenza A (FluA) and B (FluB), adenovirus (AD), and rhinovirus/enterovirus (R/E) (Table). While FluA, FluB, and AD were associated with positive likelihoods of a-ILI, the presence of R/E was associated with a negative likelihood of a-ILI. PCR detection of either FluA or Flu B was strongly associated with a-ILI (OR=4.84; 95% CI: 2.80–8.34; $P < 0.001$).

Conclusion. A simple definition for a-ILI (absent with fever and a respiratory symptom) is strongly associated with laboratory-confirmed influenza. Accordingly, a-ILI may serve as a proxy for influenza-specific absenteeism, thus allowing school-based absenteeism monitoring for influenza outbreaks.

Disclosures. All authors: No reported disclosures.

2303. Post-Exposure Prophylaxis for Animal Bites: A Low Cost Model for Enhancing Reach and Affordability of Biologicals in High Burden Countries
Yajaman Belludi, MD; Share India, NA, AZ, India
Session: 251. Pediatric Potpourri
Saturday, October 7, 2017: 12:30 PM

Background. Rabies is a preventable fatal zoonotic disease of considerable high burden in low and middle income countries of Asia and Africa. Bites from rabid animals are the cause of human rabies. WHO post-exposure prophylaxis (PEP) guidelines recommends taking both vaccine and rabies immunoglobulin for category-III bites. Strict adherence to complete recommended PEP guidelines is the single most important factor in preventing human deaths. Need to calculate the required dose / quantity of rabies immunoglobulin, a key biological, needed for adherence to WHO PEP guidelines leads to prohibitively high cost of PEP and one key reason for bite victims taking incomplete PEP. An alternate published method to inject bite sites only with rabies immunoglobulin to enhance affordability was evaluated for cost-reduction and affordability.

Methods. 25 bite victims requiring rabies immunoglobulin according to category-III of WHO guidelines were part of the study. All the animal bite sites were injected with adequate quantity of rabies immunoglobulin to cover only the animal bite sites completely as per published alternate method. This is in contrast to WHO PEP guidelines where calculation of immunoglobulin is done as per body weight and, after injecting all the animal bite sites, the remaining quantity of immunoglobulin is injected intra-muscularly. All victims were vaccinated by intra-muscular route only. There was diversity in the profile of the 25 victims in terms of age, sex, number of wounds, and body weight. Analysis was done to determine the cost reduction due to reduced quantity of immunoglobulin required in following an alternate approach to the recommended WHO PEP regimen.

Results. Cost of rabies immunoglobulin was reduced on an average between (50–70%) if the quantity used was enough to cover the wound sites comprehensively instead of the recommended quantity based on body weight. Follow-up was done for 9 months and none showed clinical signs and symptoms of rabies.

Conclusion. An evaluation to check the extent of cost reduction that could make rabies immunoglobulin, a key PEP biological, more affordable was done. The significant cost reduction could be adapted for further studies so as to bring about changes in WHO PEP guidelines which would lead to more affordability for PEP and less deaths due to rabies.

Disclosures. All authors: No reported disclosures.

2304. Validation of a Definition for K-12 Student Absenteeism Due to Influenza-like Illness (ILI) for School-based Influenza Activity Monitoring in Oregon School District, Wisconsin—ORCHARDS (Oregon Child Absenteeism and Respiratory Disease Study)
Jonathan Temte, MD, PhD, 1 Shari Barlow, BA, 1 Amber Schemmel, BS, 2 Emily Temte, BA, 1 Maureen Landsverk, BS, 1 Brad Maerz, MS, 1 Venikl Zhetyeva, MD, MPH 1 Anra Uzicanin, MD, MPH 1 Family Medicine, University of Wisconsin School of Medicine and Public Health, Madison, Wisconsin, 2 Centers for Disease Control and Prevention, Atlanta, Georgia, 3 CDC, Atlanta, Georgia
Session: 251. Pediatric Potpourri
Saturday, October 7, 2017: 12:30 PM

Background. Influenza is a major cause of absenteeism in K-12 school districts. However, a-ILI is not a well-defined term and accurate definition is critical for monitoring. A simple definition for a-ILI (absent with fever and a respiratory symptom) is strongly associated with laboratory-confirmed influenza. Accordingly, a-ILI may serve as a proxy for influenza-specific absenteeism, thus allowing school-based absenteeism monitoring for influenza outbreaks.

Methods. We conducted a prospective study in children aged 4-19 years, between January 5, 2015 and April 11, 2017, which enrolled students with acute respiratory illness (ARI). Via home visits, the study team assessed participating students for symptoms (fever, cough, sore throat, nasal congestion, runny nose), collected nasal swabs for multiplex PCR testing, and ascertained school absence status. For analysis, ILI was defined as the presence of fever and a respiratory tract symptom (cough, sore throat, nasal congestion, or runny nose). We used multivariate binary logistic regression to assess the relationships between pathogens, absence status, and illness category.

Results. Of the total 661 participating students, 622 with ARI onset during school semesters remained in the analysis. Having an ILI was associated with absenteeism ($\chi^2=87.70; P < 0.001$), and with PCR detection of influenza A (FluA) and B (FluB), adenovirus (AD), and rhinovirus/enterovirus (R/E) (Table). While FluA, FluB, and AD were associated with positive likelihoods of a-ILI, the presence of R/E was associated with a negative likelihood of a-ILI. PCR detection of either FluA or Flu B was strongly associated with a-ILI (OR=4.84; 95% CI: 2.80–8.34; $P < 0.001$).

Conclusion. A simple definition for a-ILI (absent with fever and a respiratory symptom) is strongly associated with laboratory-confirmed influenza. Accordingly, a-ILI may serve as a proxy for influenza-specific absenteeism, thus allowing school-based absenteeism monitoring for influenza outbreaks.

Disclosures. All authors: No reported disclosures.

2305. Unbiased Screening of Kawasaki Disease Sera for Viral Antigen Exposure
Daniel Quiat, MD, PhD, 1 Tomasz Kula, PhD, 2 Chihiro Shimizu, MD, 3 John T. Kanegeye, MD, 4 Adriana H. Tremoulet, MD, MAS, 5 Zachary Pittowsky, BA 1 MaryBeth Son, MD, 6 Jane Newburger, MD, MPH, 7 Stephen Elledge, PhD 8 and Jane C. Burns, MD, FIDSA 9 Cardiology, Boston Children's Hospital, Boston, Massachusetts, 1 Genetics, Harvard Medical School, Boston, Massachusetts, 2 UCSD School of Medicine, La Jolla, California, 3 Rady Children's Hospital San Diego, San Diego, California, 4 University of California, San Diego, La Jolla, California, 5 Pediatrics / Rheumatology, Boston Children's Hospital, Boston, Massachusetts
Session: 251. Pediatric Potpourri
Saturday, October 7, 2017: 12:30 PM

Table: Association of Viral Pathogens with a-ILI

<table>
<thead>
<tr>
<th>Pathogen</th>
<th>Odds Ratio (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FluA</td>
<td>4.84 (2.80–8.34)</td>
</tr>
<tr>
<td>FluB</td>
<td>4.68 (2.66–8.18)</td>
</tr>
<tr>
<td>AD</td>
<td>3.27 (1.32–8.00)</td>
</tr>
<tr>
<td>R/E</td>
<td>2.77 (1.15–6.64)</td>
</tr>
</tbody>
</table>

Conclusion. We found a strong association between the presence of influenza A, B, adenovirus, and rhinovirus/enterovirus with a-ILI, thus validating a simple definition for a-ILI.
Background. Kawasaki disease (KD) is a medium-vessel vasculitis with a predilection for coronary arteries and is of unknown etiology. KD is responsible for the majority of acquired pediatric cardiovascular disease in the industrialized world, and is associated with development of coronary artery aneurysms in approximately 25% of untreated patients. Epidemiologic, pathologic, and clinical characteristics of KD display notable overlap with common pediatric viral illnesses, leading some to hypothesize that a viral infection is the inciting agent for KD.

Methods. We investigated viral exposure history in KD patients by utilizing a recently developed technique to profile sera against the known human virome in an unbiased manner. Sera were collected from 258 KD subjects, 1101 at Site 1 and 1824 at Site 2; 2571 (88%) had surveillance for at least 1 ARO. There were 226 positive surveillance cultures in 204 infants (8%); 94 (5.7%) for MRSA, 78 (3%) for VRE and 54 (2%) for MDR-GNR. In the final models, transfer DOL remained a highly significant (OR per day = 1.018, CI 1.014, 1.022, P < 0.001) predictor of colonization with any ARO. There was no significant increase in the incidence of transferred infants colonized with AROs over time in either NICU; this remained true in infants who were <7 days of life at Site 1.

Conclusion. These data continue to support the rationale for our change in surveillance policy, and thus was used as a control.

Results. From 2007 to 2016, 2925 infants were transferred to the NYP NICUs, 1101 at Site 1 and 1824 at Site 2; 2571 (88%) had surveillance for at least 1 ARO. There were 226 positive surveillance cultures in 204 infants (8%); 94 (5.7%) for MRSA, 78 (3%) for VRE and 54 (2%) for MDR-GNR. In the final models, transfer DOL remained a highly significant (OR per day = 1.018, CI 1.014, 1.022, P < 0.001) predictor of colonization with any ARO. There was no significant increase in the incidence of transferred infants colonized with AROs over time in either NICU; this remained true in infants who were <7 days of life at Site 1.

Conclusion. These data continue to support the rationale for our change in surveillance policy, and thus was used as a control.

Results. From 2007 to 2016, 2925 infants were transferred to the NYP NICUs, 1101 at Site 1 and 1824 at Site 2; 2571 (88%) had surveillance for at least 1 ARO. There were 226 positive surveillance cultures in 204 infants (8%); 94 (5.7%) for MRSA, 78 (3%) for VRE and 54 (2%) for MDR-GNR. In the final models, transfer DOL remained a highly significant (OR per day = 1.018, CI 1.014, 1.022, P < 0.001) predictor of colonization with any ARO. There was no significant increase in the incidence of transferred infants colonized with AROs over time in either NICU; this remained true in infants who were <7 days of life at Site 1.

Conclusion. These data continue to support the rationale for our change in surveillance policy, and thus was used as a control.