each successive time point. 1 (5%) was positive at enrollment, 9 (17%) were positive at midyear and 47 (96%) were positive in May.

Table 1. Key characteristics of TOSCANA participants

| Condition | Subjects N=121 | Subjects N=27 | Subjects N=92 |
|-----------|---------------|---------------|---------------|
| Gender    |               |               |               |
| Male      | 130 (69%)    | 25 (93%)     | 65 (71%)      |
| Female    | 31 (16%)     | 2 (7%)       | 27 (30%)      |
| Ethnicity |              |              |               |
| Hispanic  | 25 (16%)     | 4 (15%)      | 21 (23%)      |
| Non-Hispanic | 156 (93%) | 23 (85%)    | 71 (77%)      |
| Race      |              |              |               |
| White     | 136 (72%)    | 20 (74%)     | 116 (62%)     |
| Black     | 7 (4%)       | 1 (4%)       | 6 (3%)        |
| Asian     | 5 (3%)       | 1 (4%)       | 4 (2%)        |
| American Indian or Alaska Native | 0 (0%) | 0 (0%) | 0 (0%) |
| Native Hawaiian or other Pacific Islander | 3 (2%) | 1 (4%) | 2 (1%) |
| Multiracial | 25 (14%)   | 4 (15%)      | 21 (23%)      |
| Other     | 3 (2%)       | 0 (0%)       | 3 (3%)        |
| Year of Infection | | | |
| 2020      | 55 (19%)     | 4 (15%)      | 51 (17%)      |
| 2021      | 60 (55%)     | 16 (60%)     | 44 (48%)      |
| 2022      | 22 (17%)     | 2 (8%)       | 20 (22%)      |
| 2023      | 64 (53%)     | 15 (50%)     | 49 (53%)      |
| Prior to arrival of the Novel Acute, exposed to suspected or confirmed COVID-19 infection? | | | |
| Yes       | 17 (16%)     | 3 (11%)      | 14 (15%)      |
| No        | 109 (94%)    | 24 (89%)     | 98 (85%)      |
| Prior to arrival of the Novel Acute, tested for / diagnosed with COVID-19 infection? | | | |
| Yes       | 16 (9%)      | 4 (24%)      | 12 (13%)      |
| No        | 105 (91%)    | 23 (76%)     | 80 (87%)      |

Table 2. Key characteristics of TOSCANA participants

Conclusion. SAR-CoV-2 prevalence in a sample of USNAXA cadets was <20% at enrollment. A small proportion of subjects seroconverted between the September and December visits. SAR-CoV-2 positivity rose in May, following a COVID-19 outbreak in May.

Disclosures. Jitu Modi, MD, GSK (Speaker’s Bureau)

1343. Viral and Bacterial Pneumonia Hospitalizations — New York City, 2001–2016

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Session: P-74. Respiratory Infections - Viral

Background. This study was to investigate the burden and trend of viral and bacterial pneumonia hospitalization in New York City (NYC) from 2001 to 2016.

Methods. We analyzed hospital discharge data for NYC residents during 2001–2016 using data from the New York State Planning and Research Cooperative System. Annual crude hospitalization rate and percentage of in-hospital death were calculated, using the NYC population as denominator. Poisson regression was performed to assess temporal trends of pneumonia hospitalization rate and percentage of in-hospital death from 2001 to 2016.

Results. During 2001–2016, there were 122,324 pneumonia hospitalizations with identified viral or bacterial pathogen in NYC, of which 7,826 (6.4%) were influenza, 13,059 (10.7%) were other viruses, 11,847 (9.7%) were pneumococcus, and 89,592 (73.2%) were identified viral or bacterial pathogen in NYC, of which 7,826 (6.4%) were influenza, 13,059 (10.7%) were other viruses, 11,847 (9.7%) were pneumococcus, and 89,592 (73.2%) were other bacteria. From 2001 to 2016, there was significantly increased viral and bacterial pneumonia hospitalization in New York City (NYC) from 2001 to 2016.

Conclusion. Machine learning approaches outperformed logistic regression by maximizing sensitivity to predict counties with measles cases, an important criterion to consider to prevent or prepare for future outbreaks. XGBoost or logistic regression could be considered to maximize specificity. Prioritizing sensitivity vs. specificity may depend on county resources, priorities, and measles risk. Different modeling approaches could be considered to optimize surveillance efforts and develop effective interventions for timely response.

Disclosures. Stephanie Korowski, PhD MPH, Merck & Co., Inc. (Employee, Shareholder) Boshu Ru, Ph.D., Merck & Co. Kenilworth, NJ; NYC (Employee, Shareholder) Amar K. Das, MD, PhD (Employee) richard baumgartner, PhD; Merck (Employee) Shuang Lu, MBA, MS, Merck (Employee) Matthew Pilsbury, PhD, Merck & Co. (Employee, Shareholder) Joseph Lewnard, PhD (Consultant, Grant/Research Support) James H. Conway, MD, FAAP, GSK (Advisor or Review Panel member) Merc (Advisor or Review Panel member) Moderna (Advisor or Review Panel member) Pfizer (Advisor or Review Panel member) Sanofi Pasteur (Research Grant or Support) Manjiri D. Pawaskar, PhD, Merck & Co., Inc. (Employee, Shareholder)

1345. Patient Perspectives and Journey with Influenza and Seeking Care from US National Survey

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Session: P-74. Respiratory Infections - Viral

Background. In the 2017-2018 influenza season, 49 million people in the US presented with influenza symptoms, resulting in substantial morbidity, mortality, and a significant humanistic and economic burden. Although there are currently four FDA-approved antivirals for influenza, such medications have to be widely underutilized. The aim of this study was to better understand the patients’ perspective and experience with a flu episode and seeking care during the 2019-2020 influenza season.

Methods. Data were obtained from an online quantitative survey of influenza patients. From our data sources: A pool of respondents who previously completed the National Health and Wellness Survey (NHWS) (N=74,977) or from Lightspeed M3 Global online “General Panel” (N=500,000+) in the US from January 2020 through May 2020. The sample included patients >18 years of age and having a self-reported diagnosis of influenza by a healthcare professional within the last 90 days. Outcomes related to patient demographics, health-related characteristics and perspectives on the influenza episode were collected.

Results. 1,005 patients were included. Of those, 30.2% visited their primary health care professional (HCPC) in person, 20.2% visited urgent care walk-in facilities and 19.2% called their HCP. Antiviral treatment included: feeling better quickly (69.5%), not transmitting to others (51.5%), and ease of administration (40.7%). 375 patients were treated with an antiviral. Of those, it took ~4.6 days to feel better generally and ~8.8 days to feeling totally better. About 73% of patients took all their medications, 9% took some of them, 43.9% of respondents considered themselves to be more likely to get serious flu-related complications, 52.5% reported that they were told by an HCP that they belong to a high-risk group that may be more likely...

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1346. The Risk of Readmission after RSV Hospitalization Among Children Younger than 5 Years

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Session: P-74. Respiratory Infections - Viral

Background. Respiratory Syncytial Virus (RSV) is one of the most common causes of childhood lower respiratory tract infection (LRTI) leading to hospitalization worldwide. Readmissions following viral LRTI hospitalization are common, however, rates, timing, and causes of readmission following RSV LRTI hospitalization are understudied. We evaluated readmissions occurring during 1-year post-discharge of RSV hospitalization.

Methods. We prospectively identified children <5 years of age hospitalized with laboratory-confirmed RSV LRTI at Primary Children’s and Riverton hospitals in Salt Lake City, Utah during the 2019-2020 RSV season. An electronic alert system identified all-care readmission between November 2019 and April 2021. Discharge diagnoses of readmissions were reviewed by two pediatricians. We calculated the incidence rate of all-cause and respiratory-related readmission.

Results. A total of 297 children had laboratory-confirmed RSV LRTI hospitalizations during the 2019-2020 RSV season, with 24% admitted to the intensive care unit (ICU) during index RSV hospitalization and 24% having a chronic medical condition. During the 1-year follow-up period, 59 readmissions occurred among 47 patients (Table 1). The incidence rate of all-cause and respiratory-related readmission was 19.9 (95%CI 15.5-24.9) and 13.1 (95%CI 9.5-17.5) per 100 patients, respectively. Median age of readmitted patients was 11 months (interquartile range 5.9-11 months). Median numbers of readmissions were 1 (range: 1-4), with initial readmissions occurring within 28 days (median) of index admission; most (74%) due to a respiratory-related illness. Second and 3rd admissions were less common and occurred at 67 (median) and 160 (median) days respectively. During all readmissions, 19% of children required ICU admission and 25% had chronic medical conditions.

Conclusion. All cause and respiratory readmission after Initial hospitalization with RSV LRTI commonly occurred among children <5 years. These data support the need for RSV vaccines and immunoprophylaxis to prevent RSV hospitalization. A further study with a control group is needed to determine the role of RSV in readmission.

Disclosures. Yoonyoung Choi, PhD, MS, RPh, Merck (Employee) Lyn Finelli, DrPH, MS, Merck (Employee)