Estimates of Psychological Burden of RSV lower respiratory tract infection (LRTI) Hospitalization of Children <5 Years of Age on Parents: Parental Stressor Scale (PSS)

Variable	N	Mean	Std Dev	Percent Reporting: Not at all Stressful	Little or moderately Stressful	Very or extremely Stressful
Feeling helpless about how to help my baby during this time	73	4.23288	0.97924	2.74	13.7	83.57
My baby's unusual or abnormal breathing pattern	74	4.24324	0.93356	2.7	14.86	82.43
Feeling helpless & unable to protect my baby…	71	4.15493	1.09084	2.82	21.12	76.05
When my baby seemed to be in pain	68	4.04412	1.01384	1.47	25	73.53
The limp and weak appearance of my baby	63	3.90476	1.05821	4.76	22.22	73.02
Being separated from my baby	54	3.98148	1.26626	7.41	24.08	68.52
Having a machine breathe for my baby	6	4.16667	1.32916	0	33.34	66.67
When my baby looked sad	72	3.91667	0.98938	0	36.11	63.89
Seeing needles and tubes put in my baby	50	3.76	1.28667	10	28	62
Not being able to hold my baby when I want	23	3.52174	1.30974	8.7	30.43	60.87
Not feeding my baby myself	22	3.95455	1.17422	0	40.91	59.09
The unusual color of my baby	56	3.51786	1.46463	16.07	26.79	57.14
Tubes and equipment on or near my baby	74	3.60811	1.21427	8.11	35.14	56.76
My baby not being able to cry like other babies	47	3.6383	1.20552	6.38	40.42	53.19
Bruises, cuts or incisions on my baby	35	3.08571	1.52183	25.71	22.86	51.43
My baby being fed by an intravenous line or tube	15	3.33333	1.39728	13.33	40	46.67
Not having time alone with my baby	15	3.06667	1.66762	33.33	20	46.67
Jerky or restless movements of my baby	56	3.26786	1.25757	7.14	48.21	44.64
Other sick babies in the room	36	2.97222	1.62983	33.33	22.23	44.44
Sudden noise of monitor alarm	71	3.19718	1.31605	12.68	47.89	39.44
The small size of my baby	31	2.80645	1.66171	35.48	25.8	38.71
Not being able to care for my baby myself	29	2.62069	1.42463	31.03	41.38	27.58
The wrinkled appearance of my baby	9	2	1.5	55.56	22.22	22.22
Constant of monitors & equipment	70	2.3	1.20807	28.57	52.86	18.57
Presence of monitors and equipment	75	2.22667	1.13392	33.33	53.33	13.33
Large number of people working in the unit	63	1.50794	0.93106	71.43	20.64	7.94

Conclusion. RSV LRTI hospitalization among children < 5 years of age, imposed a significant psychological stress and anxiety on parents, which generally persisted up to 2-weeks post-discharge. Prevention of RSV infection through vaccines and immunoprophylaxis will help ease parental psychological burden associated with RSV hospitalization.

Disclosures. Krow Ampofo, MBChB, Merck (Grant/Research Support) Yoonyoung Choi, PhD, MS, RPh, Merck (Employee) Lyn Finelli, DrPH, MS, Merck & Co Inc, (Employee)

1503. Risk Factors for Contracting Infection with SARS-CoV-2: a Prospective Case-control Study

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Session: P-68. Respiratory Infections - Viral

Background. As the COVID-19 pandemic has exhausted the healthcare system and economic infrastructures, controlling measures are directed toward population-based strategies including individual's hygiene and safe socializing. We conducted this study to identify individual's factors at the population level which are associated with the risk of infection with SARS-CoV-2 in a middle-to-low income country.

Methods. A prospective case-control study was conducted to compare the demographics, socioeconomics, and individual's behavior between patients with COVID-19 and randomly selected healthy controls from the same population referring to a general hospital in northwest Iran.

Results. Data of 250 patients with a positive RT-PCR test for COVID-19 was compared with 250 healthy controls between March 1st and May 15th (Table1). Higher education, better socioeconomic status, having access to the internet or following relevant news, having an obsession for cleanliness especially regular hands washing with alcohol-based disinfectants, wearing masks in public especially those with an N-95 filter, complying with stay-home orders, and receiving the flu shot over the past season were protective against contracting COVID-19. On the contrary, cigarette smoking or opium consumption, a history of recent travel, having an individual with infection with SARS-CoV-2 within the household, and recent hospitalization were associated with COVID-19.

Table1. Comparison of individual's factors between COVID-19 positive and negative patients

Table1. Comparison of individual's factors between COVID-19 positive and negative patients

	COVID-19 positive patients (Case group)	COVID-19 negative patients (Control group)	*P*
Age	50.9±19.9	48.6±18.3	0.2
Gender Male : Female	138:112	128:122	0.4
Education (≥ high school)	65.6%	75.2%	0.02
Income level (≥ middle class)	26.4%	48%	<0.0001
Hometown (town and city)	79.5%	80.3%	0.8
Following relevant news (≥ average)	72%	88.4%	<0.0001
Having access to the internet (≥ average)	51.2%	74%	<0.0001
Handwashing routine (≥ average)	82.4%	99.2%	<0.0001
Using alcohol-based disinfectant (≥ average)	61.6%	94%	<0.0001
Using gloves when outdoor (≥ average)	45.2%	78.8%	<0.0001
Using a mask when in public (≥ average)	54.4%	83.2%	<0.0001
Using N-95 mask when outdoor (≥ average)	12%	28.8%	<0.0001
Following stay-home orders (≥ average)	71.6%	86.8%	<0.0001
Size of household	3.6 ± 1.6	3.5 ± 1.8	0.6
Having ≥ 2 children in household	20%	33.6%	0.001
Having an infected individual in household	10%	0.8%	<0.0001
Having cleanliness OCD (≥ average)	6.8%	22.8%	<0.0001
Recent travel	18%	12%	0.06
Recent hospital admission	15.6%	4%	<0.0001
Recent viral illness of any type	8.4%	6.4%	0.4
Smoking cigarette	25.6%	16.4%	0.012
Opium consumption	7.6%	2%	0.003
Alcohol consumption	12.8%	8.8%	0.2
Corticosteroid	6.8%	3.6%	0.1
Flu shot over the last season	7.2%	20.8%	<0.0001

Conclusion: Individuals' characteristics at a family or public level can guide healthcare authorities and lawmakers in their ongoing endeavors toward controlling the COVID-19 pandemics, especially in low-to-middle income regions.

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

1504. Risk of Influenza-Associated Hospitalization Among Older Adults Living with Diabetes — United States, 2012–2017

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Session: P-68. Respiratory Infections - Viral

Background. Older adults account for tens to hundreds of thousands of influenza-associated hospitalizations annually. Diabetes mellitus (DM) is common among patients hospitalized with influenza, yet data are limited on the impact of DM on influenza-associated hospitalizations. We compared influenza-associated hospitalization rates among older adults living with and without DM

Methods. We included adults ≥65 years hospitalized with influenza during 2012–13 through 2016–17 from the Influenza Hospitalization Surveillance Network (FluSurv-Net), a population-based surveillance system for laboratory-confirmed influenza-associated hospitalizations conducted in defined catchment areas within 13 states. Influenza testing is clinician-directed, and surveillance officers identify cases through infection control logs, laboratory records and other disease reporting systems. Data on underlying conditions, including DM, were abstracted from medical records Population denominators were calculated using county-specific estimates of DM prevalence from the Centers for Medicare and Medicaid Services. We calculated hospitalization rates by state and season, and present pooled rates and rate ratios, with 95% confidence intervals (CI), using meta-analysis with state as a random effect.

Results. Of 31,934 patients included in the analysis, 34% had DM. DM prevalence in the FluSurv-Net source population aged ≥65 years was 25%. Accounting for variability by state, the average influenza-associated hospitalization rate per 100,000 person years from 2012-13 through 2016-17 was 276 (95% CI: 230–330/100,000) in those with DM and 181 (95% CI:150–217/100,000) in those without DM. Though the magnitude of the association varied by season, hospitalization rates among those with DM was consistently greater than those without DM (pooled rate ratio: 1.57; 95% CI: 1.43–1.72; P< .0001).

Conclusion. Older adults have high influenza-associated hospitalization rates, and those with DM have a 57% increased risk compared to those without DM. These findings reinforce the importance of annual influenza vaccination in adults ≥65 years of age, particularly those with DM.

Disclosures. Nisha B. Alden, MPH, CDC (Grant/Research Support) Evan J. Anderson, MD, Sanofi Pasteur (Scientific Research Study Investigator) Sue Kim, MPH, Council of State and Territorial Epidemiologists (CSTE) (Grant/Research Support)

1505. Antiviral and Antibiotic Prescribing Among Patients at an Ambulatory Cancer Center with Laboratory-Confirmed Influenza

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Session: P-68. Respiratory Infections - Viral

Background. Cancer patients are at high risk for serious complications due to influenza. Early treatment with neuraminidase inhibitors (NAIs) is recommended for high-risk patients with suspected or documented influenza. Limited data exist on timing of presentation to care and ambulatory management of cancer patients with influenza. We sought to characterize antimicrobial prescribing and outcomes among patients with influenza at a large cancer center.

Methods. We selected consecutive patients seen in the ambulatory cancer clinic with laboratory confirmed influenza between January 1, 2016 and December 31, 2018 for chart review. A lab-developed multiplex PCR assay was used with a turnaround time of about 24 hours. We obtained demographics, symptoms at first clinic encounter (day 0), viral testing, NAI and antibiotic prescribing, and clinical outcomes.

Results. Of 138 charts reviewed, 133 (96%) were eligible for analysis. 109 (82%) had an underlying hematologic malignancy. 84 (63%) tested positive for influenza A and 49 for influenza B. 58 (44%) presented to care within 48 hours of symptom onset (F1). The most commonly reported symptoms were cough (83%), fever (41%), and rhinorrhea (40%) (F2). 110 (83%) were prescribed oseltamivir, with 24 (22%) receiving empiric therapy on day 0, and 63 (57%) prescribed on day 1 (F3). Among 109 patients with known symptom onset date, 34 (31%) were prescribed oseltamivir within 48 hours of symptom onset. 23 (17.3%) were prescribed antibiotics, 17 (74%) on day 0 (F3). Levofloxacin (26%), azithromycin (21%) and vancomycin (18%) were most commonly prescribed. Nine (6.8%) patients progressed to lower respiratory tract infection, 1 complicated by bacterial pneumonia. There were 11 (8.3%) influenza-related hospitalizations, 1 (0.7%) ICU admission, and no influenza-related deaths.

Figure 1. Time From Symptom Onset to Date of First Clinical Encounter

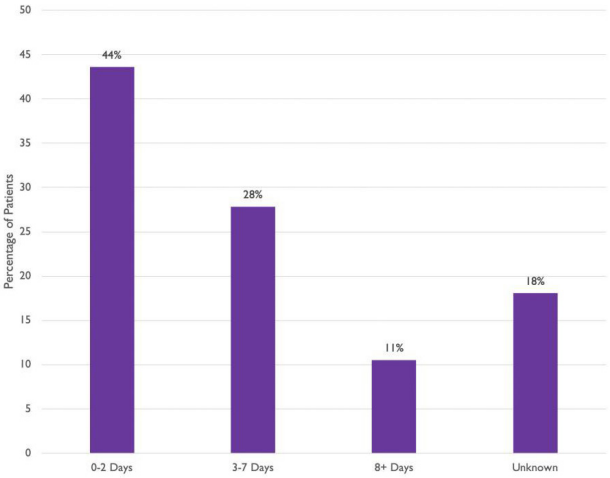

Figure 2. Symptoms Reported at First Clinical Encounter

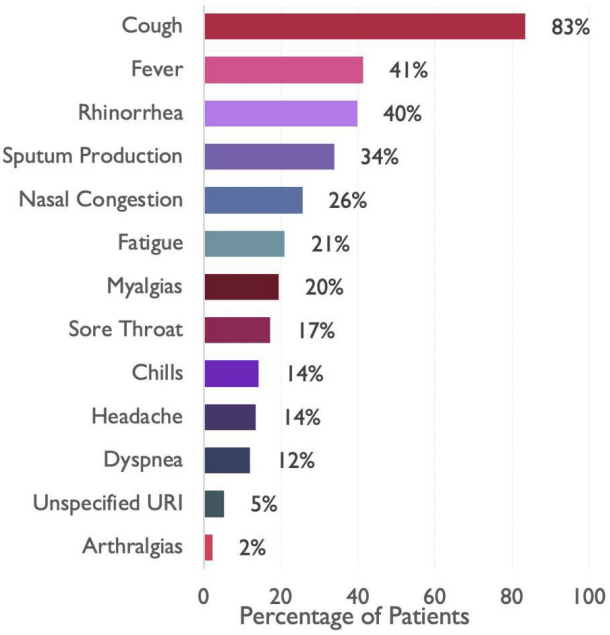

Figure 3. Time from First Clinical Encounter to Oseltamivir and Antibiotic Prescription