1334. Outcomes Among Influenza and SARS-CoV-2 Infection in Hospitalized Adults Age ≥ 50 Years and With Underlying Chronic Obstructive Pulmonary Disease (COPD) or Congestive Heart Failure (CHF)
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Session: P-74. Respiratory Infections - Viral

Background. A significant burden of disease exists for adults infected with influenza (flu) and SARS-CoV-2, which causes COVID-19. However, data are limited comparing outcomes between hospitalized adults infected with these viruses.

Methods. Over the course of 3 consecutive winter respiratory viral seasons, adults ≥ 50 years of age admitted with acute respiratory tract infections (ARTI) and adults of any age with COPD or CHF-related admissions were enrolled from 2 Atlanta area hospitals. For the 2018-19 and 2019-20 seasons, participants were approached in the hospital. If the participant enrolled, nasopharyngeal (NP) and oropharyngeal (OP) swabs were collected and tested using BioFire® FilmArray® respiratory panel. Due to hospital. If the participant enrolled, nasopharyngeal (NP) and oropharyngeal (OP) swabs were collected and tested using BioFire® FilmArray® respiratory panel. Due to

Results. Of the eligible participants, 118 were flu positive (three RSV-influenza co-infections were excluded) and 527 were COVID-19 positive. Median age was lower for the flu cohort at 62 (IQR 56-71) than those with COVID-19 (67, IQR 59-77) (p < 0.0001). Length of stay (LOS) was shorter in flu-infected patients (median 3 d, IQR 2-6), but was longer for COVID-19 patients (median 5 d, IQR 3-10). ICU admission occurred in 20% of those with flu, and among those admitted to the ICU mechanical ventilation (MV) occurred in 12.5%. ICU admission and MV was significantly higher for those with COVID-19, with 28% of patients admitted to the ICU and 47% of those requiring MV. Among patients with COVID-19, 8.9% died. This was significantly higher than that of flu (3.4%) (p=0.008). Hospital discharge occurred more frequently to a nursing home or LTCF with COVID-19 (10.3%) than with flu (0%) (p=0.0001).

Table 1. Breakdown of age, hospitalization course, and discharge disposition for participants diagnosed with influenza or COVID-19 during hospitalization.

| Flu + | COVID + |
|-------|---------|
| Age, median [IQR] | 62 [56, 71] | 67 [59, 77] |
| Length of stay, median [IQR] | 3 [2.5] | 5 [3, 10] |
| Interstitial infiltration | 24 [20.3] | 146 [27.7] |
| Interstitial infiltration | 3 [12.5] | 69 [47.3] |
| Discharge Disposition** | <0.0001 |
| Death | 3 [2.3] | 48 [9.1] |
| Home | 109 [92.4] | 406 [77.0] |
| Nursing Home/LTCF | 6 [0] | 54 [10.3] |
| Other | 6 [3.2] | 19 [2.6] |

**Adverse outcomes were assessed through analyses of variance comparing outcomes between hospitalized adults infected with influenza (flu) and SARS-CoV-2, which causes COVID-19.

Conclusion. COVID-19 resulted in a longer hospital admission, a greater chance of ICU admission and MV as compared to flu. Additionally, COVID-19 participants had a high rate of discharge to a nursing home or LTCF with COVID-19 (10.3%) than with flu (0%) (p< 0.0001).

Disclosures. All Authors: No reported disclosures