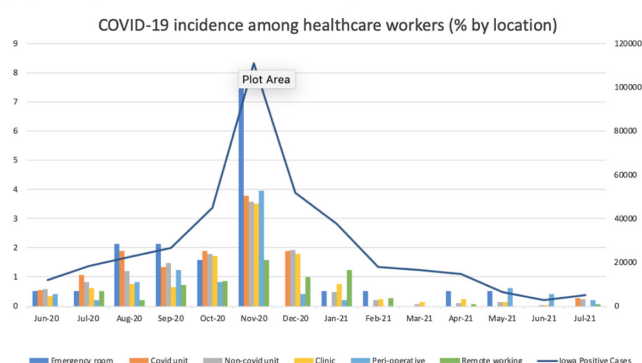


Figure 1: Trend of COVID-19 infections among healthcare workers at a mid-west tertiary care hospital (% by location) and COVID-19 cases in the state of Iowa, 2020-2021



COVID-19 incidence among HCWs by location was lower and comparable after the availability of COVID-19 vaccines, facilities should make COVID-19 vaccination mandatory as a condition of employment for all HCWs, especially in areas where the COVID-19 incidence is high.

Funding: None

Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2022;2(Suppl. S1):s6-s7

doi:10.1017/ash.2022.65

Presentation Type:

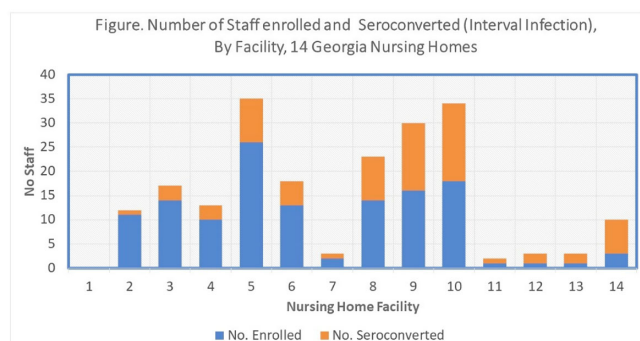
Poster Presentation - Top Poster Award

Subject Category: COVID-19

Which nursing home workers were at highest risk for SARS-CoV-2 infection during the November 2020–February 2021 winter surge of COVID-1?

Joseph Kellogg; William Dube; Carly Adams; Matthew Collins; Theodore Lopman; Theodore Johnson; Avnika Amin; Joshua Weitz and Scott Fridkin

Background: Nursing home (NH) residents and staff were at high risk for COVID-19 early in the pandemic; several studies estimated seroprevalence of infection in NH staff to be 3-fold higher among CNAs and nurses compared to other staff. Risk mitigation added in Fall 2020 included systematic testing of residents and staff (and furlough if positive) to reduce transmission risk. We estimated risks for SARS-CoV-2 infection among NH staff during the first winter surge before widespread vaccination. **Methods:** Between February and May 2021, voluntary serologic testing was performed on NH staff who were seronegative for SARS-CoV-2 in late Fall 2020 (during a previous serology study at 14 Georgia NHs). An exposure assessment at the second time point covered prior 3 months of job activities, community exposures, and self-reported COVID-19 vaccination, including very recent vaccination (≤ 4 weeks). Risk factors for seroconversion were estimated by job type using multivariable logistic regression, accounting for interval community-incidence and interval change in



resident infections per bed. **Results:** Among 203 eligible staff, 72 (35.5%) had evidence of interval seroconversion (Fig. 1). Among 80 unvaccinated staff, interval infection was significantly higher among CNAs and nurses (aOR, 4.9; 95% CI, 1.4–20.7) than other staff, after adjusting for race and interval community incidence and facility infections. This risk persisted but was attenuated when utilizing the full study cohort including those with very recent vaccination (aOR, 1.8; 95% CI, 0.9–3.7). **Conclusions:** Midway through the first year of the pandemic, NH staff with close or common resident contact continued to be at increased risk for infection despite enhanced infection prevention efforts. Mitigation strategies, prior to vaccination, did not eliminate occupational risk for infection. Vaccine utilization is critical to eliminate occupational risk among frontline healthcare providers.

Funding: None

Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2022;2(Suppl. S1):s7

doi:10.1017/ash.2022.66

Presentation Type:

Poster Presentation - Top Poster Award

Subject Category: COVID-19

Coinfections in hospitalized COVID-19 patients are associated with high mortality: need for improved diagnostic tools

Sonya Kothadia; Brigid Wilson; Federico Perez and Robert Bonomo

Background: Hospitalized patients with COVID-19 often receive antimicrobial therapies due to concerns for bacterial and fungal coinfections. We analyzed patients admitted with COVID-19 to our VA facility to understand antimicrobial use, frequency of coinfections, and outcomes in our population. **Methods:** This retrospective study included veterans who were 18 years or older and hospitalized with COVID-19 from March 10, 2020, to March 9, 2021 at the Louis Stokes VA Medical Center in Cleveland, Ohio. We identified antimicrobials administered and coinfections with bacterial or fungal pathogens. Patients were deemed to have coinfection if there was supporting microbiological data and a consistent clinical course upon review of clinical records. Urinary tract infections were excluded because of difficulty determining infection. Odds ratios (ORs) and 95% confidence intervals (CIs) for 30-day mortality were derived using multivariate logistic regression models that included age, Charlson comorbidity index (CCI), corticosteroid use, and time of infection. **Results:** In our cohort of 312 patients, the median age was 70 years and 97% of the patients were male. The mean CCI was 3.7 (SD, 3.0), and 111 patients (35.6%) had a score ≥ 5 . Oxygen was administered to 250 patients (80.1%), and 20 (6.4%) required mechanical ventilation. Antimicrobials were administered to 164 patients (52.6%) (Fig. 1). Of 20 patients (6.4%) with coinfection, 11 (3.5%) had a bloodstream infection (BSI) and 9 (2.9%) had bacterial pneumonia (Fig. 2). The overall 30-day mortality rate was 12.5% (39 of 312).

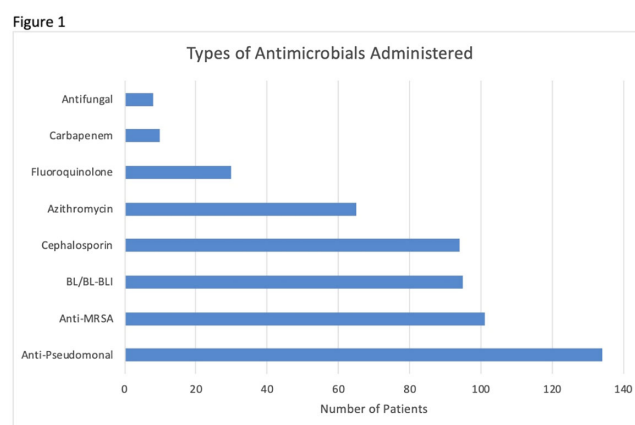


Figure 1: Number of hospitalized COVID-19 patients who received at least one dose of an antimicrobial from each category