

States and Mexico are experiencing widespread community transmission of SARS-CoV-2, which may have implications for antibiotic seeking and use. The objective of this study was to examine antibiotic seeking behavior as it relates to COVID-19 in the border region relative to the greater US and Mexico populations. **Methods:** An interdisciplinary team at The University of Arizona developed a survey to assess knowledge, attitudes, and beliefs about antibiotics along the US–Mexico border region (defined as 100 km from the border) and to compare findings from the border region to the broader US and Mexico populations. The team recruited survey participants through Amazon’s MTurk survey platform and through the distribution of recruitment flyers to community partners in Arizona and Mexico border regions from October 2020 to January 2021. Targeted recruitment was 750 through March 2021. We report here on findings from the first round of recruitment ($n = 116$). These participants were asked whether they had sought out antibiotics specifically as a treatment for COVID-19, as well as their general beliefs and behaviors on self-seeking antibiotics for illness. **Results:** As of January 24, 2021, we surveyed 116 participants: 82 (70.7%) from the United States and 34 (29.3%) from Mexico. Most participants (71.2%) were aged 25–44 years; 56.9% were male; and 50% reported Hispanic ethnicity. Of these, 13.8% lived within 100 km of the US–Mexico border. Overall, 21.6% of participants reported taking antibiotics to fight COVID-19–like illness. Of these participants, 28% obtained the antibiotics directly from a pharmacy, without a physician prescription, and 16% obtained them from an online vendor. Additionally, 33% of US respondents reported that they would be willing to travel to Mexico to obtain antibiotics if they were too difficult to obtain in the United States. Of these respondents, 55% said they would be willing to travel for >1 hour to obtain antibiotics. **Conclusions:** Preliminary data suggest that the COVID-19 pandemic will have widespread ramifications on antibiotic seeking behavior and could propagate antibiotic resistance. Targeted intervention strategies in the border region are necessary to mitigate the unique factors that contribute to antibiotic use in this area.

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Risk Factors for In-Hospital Mortality from COVID-19 Among Nursing Home Patients—An Urban Center Experience

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Background: As the COVID-19 pandemic continues, special attention is focused on high-risk patients. In this study, we assessed the risk factors for COVID-19 mortality in nursing home patients. **Methods:** In this retrospective cohort study, we reviewed the electronic medical records of SARS-COV-2 PCR–positive nursing-home patients between March 8 and June 14, 2020. The primary outcome was in-hospital mortality. Risk factors were compared between those who were discharged or died using the Student *t* test, the Mann-Whitney U test, χ^2 analysis, and logistic regression. **Results:** Among 169 hospitalized nursing-home patients, the case fatality rate was 43.2%. The mean age was 72.3 ± 13.8 years; 92 patients (54.4%) were male; and 112 patients (66.3%) were black. Within the first day of hospitalization, 83 (49%) patients developed fever. On admission, 24 (14.2%) patients were hypotensive. Leukopenia, lymphopenia, and thrombocytopenia were present in 20 (12%), 91 (53%), and 40 (23.7%) patients, respectively. Among the inflammatory markers, elevations in CRP and ferritin levels occurred in 79% and 24%, respectively. Intensive care admission was needed for 40 patients (23.7%). Septic shock occurred in 25 patients (14.8%). Patients over the age of 70 were more likely to die than younger patients (OR, 2.2; 95% CI, 1.2– 4.1; $P = .20$). Patients with a fever on admission were more likely to die than those who were afebrile (OR, 2.03; 95% CI, 1.08–3.8; $P = .03$). Also, 66.7% hypotensive patients died compared to 39.3% normotensive patients (OR, 3.1; 95% CI, 1.2–7.7

$P = .01$). Intubated patients died more often than those not intubated, 78.4% versus 33.3%, respectively (OR=7.3, $p < 0.001$, CI 3.1, 17.2) Factors significantly associated with death included higher mean qSofa ($p < 0.001$), higher median Charlson scores (0.02), thrombocytopenia ($p = 0.04$) and lymphocytopenia (0.04). From multivariable logistic regression, independent factors associated with death were Charlson score (OR=1.2, $p=0.05$), qSofa (OR=2.0, $p=0.004$), thrombocytopenia (OR = 3.0, $p = 0.01$) and BMI less than 25 (OR = 3.5, $p=0.002$). **Conclusions:** Our multivariable analysis revealed that patients with a greater burden of comorbidities, lower BMI, higher qSOFA sepsis score, and thrombocytopenia had a higher risk of death, perhaps because of severe infection despite a robust immune response.

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Linking Staff Cases in a Hospital COVID-19 Outbreak Using Electronic Tracking Data

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Background: Significant outbreaks of SARS-CoV-2 infections have occurred in healthcare personnel (HCP). We used an electronic tracking system (ETS) as a tool to link staff cases of COVID-19 in place and time during a COVID-19 outbreak in a community hospital. **Methods:** We identified SARS-CoV-2 infection cases through surveillance, case investigation and contact tracing, and voluntary testing. For those wearing ETS badges (Centrak), data were reviewed for places occupied by the personnel during their incubation and infectious windows. Contacts beyond 15 minutes in the same location were considered close contacts. **Results:** Over 6 weeks (August 10–September 14, 2020), 35 HCPs tested positive for SARS-CoV-2 by NAAT testing. In total, 18 nurses and aides were clustered on 1 hospital unit, 7 cases occurred among respiratory therapists that visited that unit, and 10 occurred in other departments. Overall, 17 individuals wore ETS badges as part of hand hygiene monitoring. ETS data established potential transmission opportunities in 17 instances, all but 2 before symptom onset or positive test result. Contacts were most often (10 of 17) in common work areas (nursing stations), with a median time of 45 minutes (IQR, 21–137). Contacts occurred within and between departments. A few COVID-19 patients were cared for in this location at the time of the outbreak. However, we did not detect HCP-to-patient nor patient-to-HCP transmission. **Conclusions:** Significant HCP-to-HCP transmission occurred during this outbreak based on ETS location. These events often occurred in shared work areas such as the nursing station in addition to break areas noted in other reports. ETS systems, installed for other purposes, can serve to reinforce standard epidemiology.

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Using a Quality-Driven Approach to Maintain an N-95 Respirator Supply During a Pandemic-Driven Global Shortage

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Background: Reports of hospitals overwhelmed by COVID-19 patients created severe shortages of personal protective equipment (PPE). In this large academic medical system, we used a systematic team approach to