Table 1. Characteristics of nursing home residents with repeat positive SARS-CoV-2 specimens 90 days or more following initial infection: July 2020 – March 2021.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Total</th>
<th>High RNA Viral Load (cT)</th>
<th>Low RNA Viral Load (cT)</th>
<th>p-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age years (interquartile range (IQR))</td>
<td>67 (41–85)</td>
<td>62 (42–76)</td>
<td>68 (60–89)</td>
<td>0.56</td>
</tr>
<tr>
<td>Time since initial infection to repeat positive test (d)</td>
<td>124 (12–25)</td>
<td>122 (10–22)</td>
<td>201 (159–294)</td>
<td>0.13</td>
</tr>
</tbody>
</table>

Experience

40 (68%), 4 (69%), 33 (57%) | 0.18 |

Sawing between initial and repeat positive test -

No (68%) | 0.027 | 0.044 | 0.049 |

Medication use before the repeat positive test

26 (52%) | 0.735 | 0.633 | 0.030 |

Sensitivity of repeat positive test in patients who died -

Aseptic necrosis (11%) | 5 (92%) | 28 (48%) | -0.01 |

Symptomatic (13%) | 5 (92%) | 1 (17%) | - |

Symptomatic or confirmed or suspected COVID-19 exposure** -

Yes (97%) | 7 (100%) | 18 (18%) | 0.10 |

No (3%) | 0 (0%) | 12 (12%) | 0.17 |

Conclusion.

In this study, nearly 1 in 6 NH residents and staff with repeat positive tests after 90 days demonstrated high viral RNA loads and viable virus, indicating possible infectivity. While individuals with high viral RNA load may be more likely to be symptomatic, asymptomatic individuals who have high viral loads may be difficult with timing since initial infection, other test results, or exposure history alone.

Disclosures.

John A. Jernigan, MD, MS. Nothing to disclose.

394. Descriptive Evaluation of Epidemiology and Microbiology of Patients with COVID-19 Pre/post Implementation of Corticosteroids as Standard of Care

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Table: P-16. COVID-19 Epidemiology and Screening

Background. Coronavirus disease (COVID-19) is associated with significant morbidity and mortality. This study aimed to explore the early predictors of intensive care unit (ICU) admission and in-hospital mortality among patients diagnosed with COVID-19.

Methods. This was a case-control study of adult patients with confirmed COVID-19. Cases were defined as patients admitted to ICU during the period February 28 - May 29, 2020. For each enrolled, one control was matched by age and gender.

Results. A total of 1560 patients with confirmed COVID-19 were included. Each group included 780 patients with a predominant male gender (89.7%) and a median age of 49 years (interquartile range = 18). Predictors independently associated with ICU admission and in-hospital mortality were cardiovascular disease (CVD) (adjusted odds ratio (aOR)=1.64, 95% confidence interval (CI): 1.16 - 2.32, p=0.005), diabetes (aOR=1.52, 95% CI: 1.08 - 2.13, p= 0.016), obesity (aOR=1.46, 95% CI: 1.03-2.08, p= 0.034), lymphopenia (aOR=2.69, 95% CI: 1.80-4.02, p< 0.001), high aspartate aminotransferase (AST) (aOR=2.59, 95% CI: 1.53-4.36, p<0.001), high ferritin (aOR=1.96, 95% CI: 1.40-2.74, p< 0.001), high C-reactive protein (CRP) (aOR=4.09, 95% CI: 2.81-5.96, p< 0.001), and dyspnea (aOR=2.50, 95% CI: 1.77-3.54, p< 0.001). Similarly, significant predictors of mortality included CVD (aOR=2.16, 95% CI: 1.32-3.53, p=0.002), diabetes (aOR=1.77, 95% CI: 1.07-2.90, p=0.025), cancer (aOR=4.65, 95% CI: 1.50-14.42, p<0.008), lymphopenia (aOR=2.34, 95% CI: 1.45-3.78, p=0.001), and high AST (aOR=1.89, 95% CI: 1.04-3.43, p=0.036).

Risk Factors for ICU admission among patients with COVID-19 (N=1560)

Conclusion. Having CVD, diabetes, lymphopenia, and increased AST were independent predictors for both ICU admission and in-hospital mortality in patients with COVID-19. In addition, obesity, high ferritin, and CRP levels were associated with increased risk of ICU admission, while cancer was strongly associated with in-hospital mortality. Early identification and monitoring of patients at risk is essential in planning the level of care needed to prevent delay in medical intervention.

Disclosures. Adel Abou-Ali, PharmD, PhD; Astellas Pharma Global Development, Inc. (Employee)


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