

Vaccine Hesitancy in HIV Patients Following the COVID-19 Pandemics

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Introduction: The prevalence of vaccine hesitancy has been on the rise for several years in the United States leading up to the Covid19 pandemic. During the pandemic, there was controversy and media attention surrounding the effectiveness and safety of the Covid19 vaccine, with many individuals, including patients with HIV, refusing vaccination, despite evidence of its benefit. There are further concerns that patients with HIV are reluctant to receive additional vaccines that existed prior to the Covid19 pandemic. In this study, we evaluated the rate of refusal of non-Covid19 vaccines in the pre- and post-period after release of the Covid19 vaccine.

Methods: We measured and compared the number of vaccines offered and refused at each visit over the total number of visits for 195 patients with HIV during a pre-Covid (approximately 18 months before the release of the Pfizer vaccine to the public on August 23, 2021) and post-Covid period (approximately 18 months after the previously mentioned date). The vaccines studied included the following: tetanus, pneumococcal, shingles, hepatitis A/B, and influenza. The data was collected using hospital records from Athena and Cerner, as well as Michigan State Records. Data was analyzed using descriptive statistics and the Wilcoxon signed ranks test. The Mann-Whitney U test, Kruskal-Wallis test and Pearson's correlation were performed for the Covid19 vaccine statistics. In all statistical tests, a p-value less than 0.05 was taken to indicate statistical significance.

Results: Collectively, there were more refusals in the period after release of the Covid19 vaccine for non-Covid19 vaccines. This was also the case for all individual vaccines, except Hepatitis A. There was an overall statistically significant difference ($p < 0.001$) in the distribution of vaccine refusals between the pre-Covid19 and post-Covid19 period. This was observed for the Pneumococcal ($p = 0.026$), Hepatitis B ($p = 0.035$), and Shingles vaccine ($p < 0.001$) respectively. The Covid19 vaccine was more likely to be refused in female patients ($p = 0.005$), non-white patients ($p = 0.02$), and younger patients ($p = 0.04$, $r = -0.21$).

Discussion/Conclusion: This study provides evidence that there is an increase in non-Covid19 vaccine hesitancy following the release of the Covid19 vaccine in patients with HIV at Ascension St. John Hospital. Given the small size of the study population and this study being an initial evaluation, more will need to be performed. This is to further test these findings in other regions of the United States.