

A Survey of the Potential Acceptance of a SARS-CoV-2 Vaccine Amongst People Living with HIV

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Dear Sir,

To date there have been over 380,000 cases of, and 5,200 deaths from COVID-19 in Ireland, and 90% of adults in Ireland are now vaccinated against SARS-CoV-2¹. Studies suggest that people living with HIV (PLWH) are at increased risk of severe COVID-19². The FDA has now approved a booster dose for those at risk of severe COVID-19, and other countries are likely to follow suit. Given the potential for increased severity of infection in PLWH, achieving a high rate of vaccination in this group is important. Our survey aimed to assess the level of vaccine acceptability among PLWH.

We carried out a survey among PLWH attending our clinic in the west of Ireland from 10/12/2020 until 01/04/2021. MCQs assessed sex, age, HIV control, comorbidities, years since diagnosis, annual influenza vaccination acceptance and history of COVID-19 personally or in a household member. A five-level Likert scale assessed participants' level of agreement with current government restrictions, and willingness to accept a SARS-CoV-2 vaccine. Chi-Square and Fisher's exact tests were used to assess for interactions between categorical variables.

51 people responded to the survey. 68.6% (35/51) were male. 56.9% (29/51) were born in Ireland, 17.6% (9/51) in another European country, 9.8% (5/51) in Africa, 7.9% (4/51) in South America, 5.9% (3/51) in North America, and 2.0% (1/51) in Asia. 49.0% (25/51) had been diagnosed with HIV for longer than 10 years, and 33.3% (17/51) less than 5 years. 92.2% (47/51) reported being on antiretroviral therapy with a suppressed viral load and CD4 count above 200. 11.8% (6/51) of patients reported hypertension, 9.8% (5/51) respiratory disease, 7.8% (4/51) obesity, 3.9% (2/51) diabetes, and 2.0% (1/51) cardiovascular disease. 21.6% (11/51) are current smokers. While not specifically recorded, we estimate approximately 200 patients attended the clinic during this time giving an estimated response rate of 25.5%.

94.1% (48/51) indicated they were in agreement with receiving a SARS-CoV-2 vaccine. Similarly, 96.1% (49/51) were in agreement with government restrictions. 94.1% (48/51) indicated that they accepted the annual influenza vaccine.

Unsurprisingly, those accepting of current government restrictions were also likely to accept SARS-CoV-2 vaccination ($p < 0.001$). However, none of the other recorded characteristics were associated with vaccine acceptance, likely as a result of small participant numbers and the very small number who were not agreeable to vaccination.

PLWH seem to be at higher risk of severe COVID-19². It is unclear whether this is related to HIV infection itself or because of the higher prevalence of comorbidities associated with severe COVID-19 among PLWH³. Regardless, achieving high rates of vaccination in this population is important. Our survey demonstrates an overwhelming level of acceptability of SARS-CoV-2 vaccination among PLWH in the west of Ireland. We acknowledge the risk of sampling bias, and limited generalisability given the modest response rate. Nevertheless, the results are encouraging for the success of the vaccine rollout among this population.

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