

HIV infection and anti-SARS-Cov2 vaccination

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The Covid-19 epidemic has not spared people living with HIV (PLHIV). However, the series published in China, Spain, Germany, Italy and the United States do not show a higher incidence or a different clinical expression of SARS CoV-2 infection in this population. On the other hand, several studies report a two to three times higher risk of Covid-19 mortality [1]. Immunosuppression, with a CD4 lymphocyte count $<200/\mu\text{l}$ or an HIV viral load > 1000 copies/ml, is associated with an increased risk of death from Covid-19. Even on effective antiretroviral therapy and with a long-term controlled viral load, these patients may remain more vulnerable due to residual immune deregulation. In addition, PLHIV often have comorbidities associated with an increased risk of severe Covid-19: obesity, diabetes, respiratory, cardiovascular, renal or hepatic diseases [2].

The coexistence of Covid-19 with HIV/AIDS endemicity can turn out to be deleterious in low- and middle-income countries. The emergence of a SARS-CoV-2 “variant” in August in South Africa, one of the countries in the world most affected by HIV infection, could result from more intense and prolonged viral replication in the bodies of PLHIV, favoring the accumulation of mutations such as those of the 501.V2 clone, which give this variant an evolutionary advantage that has led to its rapid spread in many countries [3].

As all antiretroviral drugs tested against CoV-2-SARS have been shown to be ineffective, there is no need to change the current triple therapy regimens in the hope of preventing or curing Covid-19 in PLHIV [4]. However, it appears that when HIV infection is well controlled by triple therapy, the serological response to Covid-19 is equivalent to that of non-HIV patients, which may suggest a good response to vaccination [5]. The participants initially recruited in the clinical studies of the currently licensed or soon to be licensed CoV-2 SARS vaccines were mostly healthy and not HIV-positive. Secondly, PLHIV have been included in these studies, but their small numbers and the short duration of follow-up have not yet confirmed the efficacy and safety of these vaccines in these patients.

With the exception of attenuated whole-virus vaccines, not intended for use in the European Union, there are currently no contraindications in principle to the vaccination of PLHIV. This is why, considering that these persons must be protected from Covid-19 and benefit from the SARS-CoV-2 vaccination in the same way as flu and pneumococcal vaccinations, **the National Academy of Medicine recommends:**

- not to interrupt or relax the therapeutic care of PLHIV during the Covid-19 pandemic and to maintain the accessibility of free information, screening and diagnostic Centers;

- to include PLHIV among the vulnerable populations that should benefit from vaccination as soon as possible, regardless of age;
- to entrust the indication and monitoring of this vaccination to the referring physician;
- to include PLHIV among the vulnerable populations who should benefit from the vaccination as soon as possible, regardless of age ;
- to carry out clinical studies to better understand the efficacy and safety of anti-SARS-CoV-2 vaccines according to patients' immune deficiency.

References

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