SARS-CoV-2 vaccination of people living with human T leukaemia virus type 1

Several SARS-CoV-2 vaccines are being rolled out worldwide, following testing in healthy volunteers and smaller groups of people with comorbidities, including HIV.[1] Human T-cell leukaemia virus type 1 (HTLV-1), a retrovirus like HIV, is oncogenic and can cause chronic immune dysfunction. However, there is no established antiretroviral treatment for HTLV-1. An estimated 10 million individuals live with HTLV-1 worldwide. Two main disease patterns are recognised: lymphoproliferative immunodeficient (adult T-cell leukaemia/lymphoma) and inflammatory immunodysfunctional (HTLV-1-associated myelopathy).

HTLV-1 is an under-researched virus, only recently adopted by the WHO. We aim to raise awareness about the marginalised group of people living with HTLV-1 (PLHTLV) receiving vaccination without specific safety or efficacy data. In this void, clinicians often rely on recommendations provided for people living with HIV (PLHIV). For example, the British HIV Association (BHIVA) recently recommended prompt SARS-CoV-2 vaccination for PLHIV, and described no HIV-specific safety concerns related to available mRNA, adenovirus-vectored DNA, protein-based or inactivated vaccines, without commenting on potential live vaccines.[2] BHIVA also underlines the many uncertainties about the subset of PLHIV who have persistent immunodysfunction. For PLHTLV, however, there is no specific treatment to restore immune function. Furthermore, disease treatment may comprise aggressive immunosuppressive therapy.

We therefore recommend a number of measures specific to PLHTLV:

- Individual assessment against the local prevalence and virulence of the virus when offering a SARS-CoV-2 vaccine.
- Depending on this assessment, aim to complete the vaccine series as soon as possible, but 2–4 weeks before starting immunosuppressive therapy.
- Alternatively, subject to risk/benefit evaluations, consider delaying vaccination 6 months after immunosuppressive treatment to improve vaccine immunogenicity. Offering a booster vaccine may become an option in future.
- Remember to arrange for early follow-up to identify adverse reactions.
- Finally, inform PLHTLV that vaccination cannot replace social distancing and vigilant hygiene measures to prevent the spread of SARS-CoV-2.

Abelardo Araujo,[1] **Fabiola Martin** [2]

[1]National Institute of Infectious Diseases, Fiocruz, Rio de Janeiro, Rio de Janeiro, Brazil
[2]School of Public Health, University of Queensland, Brisbane, Queensland, Australia

Correspondence to Dr Fabiola Martin, School of Public Health, The University of Queensland Faculty of Medicine, Herston, QLD 4006, Australia; fabiola.az.martin@gmail.com

Handling editor Anna Maria Geretti

Contributors AA conceived the idea of this project and coauthored the manuscript. FM reviewed and coauthored the manuscript.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not required.

Provenance and peer review Not commissioned; internally peer reviewed.

To cite Araujo A, Martin F. *Sex Transm Infect* Epub ahead of print: [*please include* Day Month Year]. doi:10.1136/sextrans-2021-055007

Received 14 February 2021
Revised 27 April 2021
Accepted 9 May 2021

Sex Transm Infect 2021;**0**:1. doi:10.1136/sextrans-2021-055007

ORCID iD
Fabiola Martin http://orcid.org/0000-0003-4487-8803

REFERENCES

1 Krammer F. SARS-CoV-2 vaccines in development. *Nature* 2020;586:516–27.
2 BritishHIVAssociation. British HIV association guidelines on immunisation for adults with HIV: SARS-CoV-2 (COVID-19), 2021. Available: https://www.bhiva.org/COVID-19-immunisation-guidelines-consultation2021