



ISHLT

ISHLT and JHLT Share COVID-19 Vaccination Findings and Recommendations

ADDISON, Texas – 13 May, 2021 – Evidence is emerging about the immunogenicity of vaccination to the SARS-CoV-2 virus in immune-suppressed individuals, including organ transplant recipients. The *Journal of Heart and Lung Transplantation (JHLT)* presents two key studies in thoracic organ transplantation.

Peled et al describes 77 vaccinated heart transplant recipients, and Havlin et al presents 48 vaccinated lung transplant recipients. Both of these studies assessed the mRNA vaccine BNT162b2 mRNA (Pfizer/BioNTech). Vaccination was safe with no evidence of short-term allograft-related adverse effects in either cohort. The IgG vaccine-induced antibody response was lower in the transplant patients compared to that reported for the general population, especially in those heart and lung transplant recipients on anti-metabolite immune suppression that contained mycophenolic acid. Havlin et al specifically evaluated T- cell responses in lung transplant patients, and even among those with no discernable antibody, a third had functional T-cell response to the virus, suggesting that some vaccinated thoracic organ transplanted recipients may derive benefit from the vaccine even in the absence of an antibody response.

“These two *JHLT* studies provide the initial evidence of safety and efficacy of mRNA vaccine BNT162b2 in thoracic organ transplant recipients,” says **Daniel R. Goldstein, MD**, Editor-in-Chief of the *JHLT*, and Eliza Maria Mosher Collegiate Professor of Internal Medicine at the University of Michigan. “These studies are a critical platform for future investigation.”



Ultimately, longer term data will be needed to understand the effectiveness of SARS-COV-2 vaccine in organ transplant recipients, but at this point the ISHLT COVID-19 Task Force has advised not to change patients’ immune suppression regimen after vaccination as there is likely some protection afforded by the vaccine, and reductions in immune suppression could precipitate graft rejection. As the vaccine appears safe and gives some level of immune protection, the two studies suggest that thoracic organ transplant recipients should be vaccinated.

“We urge pre-transplant vaccination of all SOT candidates as a priority whenever feasible,” says **Lara Danziger-Isakov, MD, MPH**, ISHLT President and Director of Immunocompromised Host Infectious Disease at the Cincinnati Children’s Hospital Medical Center. “We also encourage the continued SARS-CoV-2 vaccination of SOT recipients and priority for vaccination of their household members and caregivers to reduce exposure risk for these vulnerable patients.”

CONTINUED



Vaccinated thoracic organ transplant recipient and their families should continue to take “pandemic precautions” such as hygiene, social distancing, and mask wearing. Ideally, patients on the transplant waiting list and their families should receive COVID-19 vaccination so that they can mount an effective anti-SARS-COV-2 immune response prior to transplantation and immune suppression. Longer-term studies of the efficacy of COVID-19 vaccination in thoracic organ transplant recipients will also be needed.

The ISHLT COVID-19 Task Force and the American Society of Transplantation (AST) have released a [joint statement](#) on Vaccination in Solid Organ Transplant (SOT) Recipients, which can be accessed at ishlt.org/covid-19-information. To date, the statement has been endorsed by the American Society of Transplant Surgeons (ASTS), the American Association for the Study of Liver Diseases (AASLD), the International Transplant Nurses Society (ITNS), and The Transplantation Society (TTS).

###

About ISHLT

The International Society for Heart and Lung Transplantation is a not-for-profit, multidisciplinary professional organization dedicated to improving the care of patients with advanced heart or lung disease through transplantation, mechanical support and innovative therapies. With more than 3,800 members in more than 45 countries, ISHLT is the world's largest organization dedicated to the research, education and advocacy of end-stage heart and lung disease. ISHLT members represent more than 15 different professional disciplines. For more information, visit www.ishlt.org.

About JHLT

The official publication of the International Society for Heart and Lung Transplantation, the Journal of Heart and Lung Transplantation brings readers essential scholarly and timely information in the field of cardiopulmonary transplantation, mechanical and biological support of the failing heart, advanced lung disease (including pulmonary vascular disease) and cell replacement therapy. Importantly, the Journal also serves as a medium of communication of pre-clinical sciences in all these rapidly expanding areas. For more information, visit www.jhltonline.org.