

# COVID-19 vaccine hesitancy in renal transplant recipients

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## COVID-19 vaccine hesitancy in renal transplant recipients

Dear Editor,

Vaccines offer the most promising solution against the COVID-19 pandemics since they provide individual and global immunity. Renal transplant recipients are more likely to be infected with SARS-CoV-2, have an increased risk of death compared to the general population [1], and are therefore prioritized for vaccination. Renal transplant patients are known to have poor responses after vaccination. The risk of breakthrough infection exists following the vaccination, and hazard ratio for COVID-19 mortality after vaccination was 8.1-fold higher in renal transplant recipients compared to general population [2]. However, we are still waiting for data on COVID-19 morbidity in vaccinated patients.

The rapid production of vaccines has caused concerns regarding their safety and efficacy. Vaccine hesitancy is defined as a delay in accepting vaccines despite the availability of vaccine services [3]. There is no data on vaccine hesitancy after renal transplantation. Herein, we report our real-life experience with vaccine hesitancy among renal transplant recipients.

All patients received written recommendations for vaccination. From August 16, 2021 to September 16, 2021, 543 patients were evaluated. Patients were questioned about the vaccination, and in case they did not receive the vaccine, they were asked to explain the reasons for refusal. Study was approved by the institutional Ethic Committee.

Twenty-one patients refused vaccination (3.86%). Twelve were male, and median age was 42 (range, 25–62). All had stable renal allograft function. The most common self-reported reason for refusal was fear from complications associated with vaccination and possible influence on renal allograft (10 patients), while four patients did not want to receive a vaccine. Three patients believe that SARS-CoV-2 cannot infect them, two do not believe in COVID-19, and one is not afraid of the disease. One patient declared that his primary care physician suggested to refuse the vaccine despite our recommendation.

The proportion of vaccinated citizens in Croatia is still below 50% despite the abundance of vaccines

available for use and aggressive promotion of the vaccination. In our cohort, the percentage of patients strongly against the COVID-19 vaccines was low (3.86%). It is much lower than then in the general population of Croatia (around 50%). Vaccine hesitancy among patients with multiple sclerosis reaches 20% [4].

Our vaccination program results from early education initiated even before the availability of vaccines with presentation of vaccination as the default approach. Long-term building of the trust, honesty about side effects, and clear presentation of the risk–benefit ratio seems to be crucial factors for the success. Still, some patients have strong beliefs and are possibly influenced by the strong anti-vaxxer movement. It would be interesting to see if some of them change their opinion regarding the vaccination after the additional clarifications.

In conclusion, vaccination hesitancy is low in renal transplant population, but should not be neglected. Safety concerns and fear for the allograft were the most common causes of vaccine hesitancy. By understanding the concerns and barriers faced by this particular group of patients, we can obtain data that can guide us on how to communicate more effectively in the future.

### CONFLICT OF INTEREST

Authors declare no conflict of interests.

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