

## SARS-CoV-2 / COVID-19 in patients on the Swiss national transplant waiting list

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### AIMS OF THE STUDY

The impact of coronavirus disease 2019 (COVID-19) on patients listed for solid organ transplantation has not been systematically investigated to date. Thus, we assessed occurrence and effects of infections with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) on patients on the Swiss national waiting list for solid organ transplantation.

### METHODS

Patient data were retrospectively extracted from the Swiss Organ Allocation System (SOAS). From 16 March to 31 May 2020, we included all patients listed for solid organ transplantation on the Swiss national waiting list who were tested positive for SARS-CoV-2. Severity of COVID-19 was categorised as follows: stage I, mild symptoms; stage II, moderate to severe symptoms; stage III, critical symptoms; stage IV, death. We compared the incidence rate (laboratory-confirmed cases of SARS-CoV-2), the hospital admission rate (number of admissions of SARS-CoV-2-positive individuals), and the case fatality rate (number of deaths of SARS-CoV-2-positive individuals) in our study population with the general Swiss population during the study period, calculating age-adjusted standardised incidence ratios and standardised mortality ratios, with 95% confidence intervals (CIs).

### RESULTS

A total of 1439 patients were registered on the Swiss national solid organ transplantation waiting list on 31 May 2020. Twenty-four (1.7%) waiting list patients were reported to test positive for SARS-CoV-2 in the study period. The median age was 56 years (interquartile range 45.3–65.8), and 14 (58%) were male. Of all patients tested positive for SARS-CoV-2, two patients were asymptomatic, 14 (58%) presented in COVID-19 stage I, 3 (13%) in stage II, and 5 (21%) in stage III. Eight patients (33%) were admitted to hospital, four (17%) required intensive care, and three (13%) mechanical ventilation. Twenty-two patients (92%) of all those infected recovered, but two male patients aged >65 years with multiple comorbidities died in hospital from respiratory failure. Comparing our study population with the general Swiss

population, the age-adjusted standardised incidence ratio was 4.1 (95% CI 2.7–6.0).

#### CONCLUSION

The overall rate of SARS-CoV-2 infections in candidates awaiting solid organ transplantation was four times higher than in the Swiss general population; however, the frequency of testing likely played a role. Given the small sample size of affected patients, conclusions have to be drawn cautiously and results need verification in larger cohorts.

<b>type</b>	journal paper/review (English)
<b>date of publishing</b>	31-12-2020
<b>journal title</b>	Swiss Med Wkly (150)
<b>ISSN electronic</b>	1424-3997
<b>pages</b>	w20451