

COVID-19

Internal recommendations for transplanted patients during the pandemic

Bern, 26.10.2020

Internal recommendations for tx patients during the pandemic (1)

Tschopp J. Am J Transplant (in press). 1st experience of SARS-CoV-2 infections in solid organ transplant recipients in the *Swiss Transplant Cohort Study*

Study aim: To describe the epidemiology, clinical presentation, treatments, and outcomes of the 1st documented SARS-CoV-2 infections among SOT recipients.

Methods: STCS data of patients tested positive for SARS-CoV-2 between March 9th and April 6th 2020.

Results: >5'000 SOT recipients were followed up in the STCS before start of the observation period. No systematic screening performed. N=21 patients were included (median age 56 years), N=10 renal TX, N=5 liver TX, N=1 pancreas TX, N=1 lung TX, N=1 heart TX, N=3 multi-organ TX recipients). The most common symptoms at presentation were fever in 76% of cases, dry cough in 57%, and GI symptoms (V&D) in 33% of cases, respectively. 9 of 10 patients were hospitalised, 24% of recipients required ICU admission, 19% were intubated. After a median of 33 days of F/U, N=16 recipients were discharged, N=3 were still hospitalised, N=2 died.

Conclusion: Clinical manifestations of middle-aged SOT recipients seem comparable to the general population, without a higher complication rate detectable.

Internal recommendations for tx patients during the Pandemic (2)

Review

COVID-19 in Patients with Solid Organ Transplantation: A Systematic Review

René Hage ^{1,2}, Carolin Steinack ^{1,2}, Christian Benden ^{2,3} and Macé M. Schuurmans ^{1,2,*}

Transplantology 2020; 1: 1-15

Study aim: To evaluate the association between immunosuppression in SOT recipients, SARS-CoV-2 infections, and COVID-19 outcomes.

Methods: Literature search between 2019 and 2020 (up to April 8th 2020), using the terms: transplant or immunosuppression and COVID-19 or SARS-CoV-2.

Results: N=19 potential articles were retrieved, only N=5 included after full-text screening (heart TX, liver TX, lung TX, and kidney TX recipients).

Conclusion: Based on limited evidence, no firm conclusion is made with regard to SOT recipients, but current evidence suggests that immunosuppression is likely associated with better outcome of SARS-CoV-2 infection and COVID-19, probably as it prevents hyperinflammation (»cytokine storm») in SOT recipients.

Internal recommendations for tx patients during the pandemic (3)

*Guidance from the **ISHLT** regarding the SARS-CoV-2 pandemic*

Work Force: An international expert group of ISHLT members representing cardiology, cardio-thoracic surgery, infectious diseases (ID), pharmacy, and pulmonology. Chair: Saima Aslam, MD (ID), USA.

Recommendations:

1. Reducing the risk of infection with SARS-CoV-2
 - a) Minimise medical facility visits and social interactions in the community
 - b) Continue all prior disease-specific therapy or immunosuppression
2. Management of HTX/LTX recipients and patients on MCS: *COVID-19 directed therapies*
 - a) Facilitate inclusion of patients in clinical trials
 - b) Consider potential drug-drug interactions of newly started *COVID-19 directed therapies*

Table 1. Common COVID-19 directed proven/investigational therapies with focus on pharmacodynamic and drug-drug interaction considerations for cardiothoracic transplant/MSC patients.

Dexamethasone	Low potential for clinically significant interactions with immunosuppression, pulmonary vasodilators or anticoagulants;
Remdesivir	Low potential for clinically significant interactions with immunosuppression, pulmonary vasodilators or anticoagulants; however, potential risk of lower tacrolimus, cyclosporine and sirolimus levels.
IL-6 inhibitors	Low potential for clinically significant interactions with immunosuppression, pulmonary vasodilators or anticoagulants; however, potential risk of lower tacrolimus, cyclosporine and sirolimus levels.