

Australian and New Zealand Paired Kidney Exchange Program

Protocol 11: Coronavirus Disease (COVID-19) Testing



Coronavirus Disease 2019 (COVID-19) Testing for Donor and Recipient Pairs in the Australian and New Zealand Paired Kidney Exchange Program

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the cause of COVID-19, emerged in late 2019 and has impacted transplantation globally.

This protocol was developed to minimise the risk to donors and recipients – in particular the risk of a donor having COVID-19 at the time of donation and thereby potentially transmitting the virus.^{1, 2, 3}

These precautions continue to evolve over time based on factors such as the community levels of infection. The ANZKX protocols are also modified to follow recommendations from the Transplantation Society of Australia and New Zealand (TSANZ) which advise on up-to-date COVID-19 practices related to transplantation in both countries.^{3, 4}

Screening Protocol for ANZKX Donors

All ANZKX kidney donors and recipients should be assessed for the risk of COVID-19 transmission as per their local transplanting unit's protocol. This should include educating donors to notify their transplanting unit if their risk of acquiring COVID infection has increased due to contact with a suspected or known case. Donors should self-isolate as much as it is possible for the 2 weeks prior to surgery.

7-9 days prior to surgery

All **donors and recipients** should have an assessment performed 7-9 days prior to surgery for any exposure to a person with known or suspected COVID-19 or for symptoms consistent with COVID-19. The ANZKX team should be informed of the outcome of this assessment by email.

The assessment should include asking whether the donor or recipient:

- Have they had any international travel in the last 4 weeks, **or**
- they have had contact within the last 4 weeks with a suspected or proven case of COVID-19, **or**
- have any symptoms that could be due to COVID-19 infection

Symptoms of COVID-19 include fever, sore throat, cough and dyspnoea, anosmia, rhinorrhoea, loss of taste, myalgia, arthralgia, anorexia, nausea and vomiting and diarrhoea.^{2, 5}

Actions based on this assessment:

- 1** If the donor or recipient has been exposed to a proven COVID-19 case within the last 10 days then the date for surgery should be cancelled and a new date at least 4 weeks later should be selected. If the exposure was 10-21 days prior to this review then they should have PCR testing.
- 2** If the donor or recipient has been exposed to a suspected case, the symptomatic person (who the donor was exposed to) should be tested (PCR) and advice from an infectious disease specialist should be sought. If the symptomatic person does not undergo PCR testing then they should be assumed to be positive and if the exposure was within the last 10 days then the date for surgery should be cancelled and a new date at least 4 weeks later should be selected.



- 3 If the donor or recipient has no recent exposure to a suspected or proven COVID-19 case within the last 4 weeks but has mild symptoms, then they should be tested (PCR). If the PCR is negative and their symptoms resolve prior to surgery then they can proceed if their transplant unit is confident that the risk of COVID-19 infection is minimal, with advice from an infectious disease specialist if required.
- 4 If the donor has severe symptoms or a positive COVID-19 PCR the date for surgery should be cancelled.

In the event of any concerns regarding a donor having risks of COVID-19 infection, such as possible exposure or mild symptoms requiring a PCR test, the matched recipient unit will be informed by the ANZKX team.

1 day prior to surgery

All donors and recipients should again have an assessment for any exposure to a person with known or suspected COVID-19 and for symptoms of COVID-19. Donors should also have SARS-CoV-2 (COVID-19) PCR testing performed 1 day prior to surgery, as long as the result will be available on the same day (the day prior to surgery). If there are concerns that results will not be available on the same day then please contact the ANZKX team to discuss whether it is preferable to perform the test 2 days prior to surgery. Testing of recipients will depend on the current policy of the transplant unit and based on factors including local epidemiology.

Please inform the ANZKX team of the outcome of this assessment by email. If either donor or recipient have had contact with a known or suspected case of COVID-19 or they have symptoms that could be consistent with COVID-19 then the date for surgery will be cancelled.

The result of donor testing also needs to be made available to the ANZKX team before 5pm on the day prior to surgery. This will allow adequate time to inform centres of surgery cancellation if a positive COVID-19 result has been received.

An **identified** copy of the donor's result should be sent to the ANZKX team as soon as it is available, and a de-identified copy will be forwarded to the recipient centre by the ANZKX coordinator.

All units should liaise with their local laboratory to ensure adequate SARS-CoV-2 PCR turnaround time.

Day of surgery

All donors should have an ongoing assessment for risk factors and symptoms of COVID up until surgery. The ANZKX team are to be informed if any clinical concerns develop prior to surgery. In order to go ahead with donor surgery the clinicians at the donor centre must be satisfied that the donor has not had contact with a known or suspected case of COVID-19, does not have any symptoms of possible COVID-19 and their SARS-CoV-2 test 1 day prior to surgery was negative.

COVID-19 Testing

SARS-CoV-2 Nucleic Acid Detection testing should be by PCR to detect current infection. There is a limited evidence base for the reliability of COVID-19 tests, but overseas testing shows a specificity of >99% and a sensitivity dependent on the severity of the disease, the specimen type and quality and assay type.^{2,5}

Transplanting Units should ensure SARS-CoV-2 testing is performed on ANZKX donors in laboratories approved by their unit's state or territory's communicable diseases unit.

SARS-CoV-2 testing should be performed by staff trained in nasopharyngeal swab for COVID-19.^{5, 6}

Protocol for Reactivation of Donors/Recipients in ANZKX following recent COVID-19

A donor / recipient pair is cleared for reactivation in the ANZKX program when they are confirmed to have cleared COVID-19 infection based on:

- the patient is asymptomatic AND;
- has 2 negative nasopharyngeal SARS-CoV-2 PCRs tested 24 hours apart

If a donor/recipient has ongoing nasopharyngeal SARS-CoV-2 positivity and is asymptomatic, an infectious disease referral is recommended. The reactivation of this pair would be discussed with RACOS following the infectious diseases review and transplant unit's assessment.

If a chain has been deferred due to a COVID-19 positive donor or recipient, a new surgical date will be set at least 7 weeks from the initial development of symptoms.⁴



Appendix

- 1 Communicable Diseases Network Australia (CDNA):
<https://www1.health.gov.au/internet/main/publishing.nsf/Content/cda-cdna-cdna.htm>
- 2 Coronavirus Disease 2019 (COVID-19) – CDNA National Guidelines for Public Health Units:
<https://www1.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-novel-coronavirus.htm>
- 3 TSANZ/OTA communiques: <https://tsanz.com.au/information/covid-19.htm> and Australian Health Protection Principal Committee (AHPPC) COVID-19 statements:
<https://www.health.gov.au/news/australian-health-protection-principal-committee-ahppc-coronavirus-covid-19-statements-on-7-april-2020#statement-on-organ-donation-and-transplantation-during-the-covid19-pandemic>
- 4 TSANZ Assessment of COVID-19 status in transplant candidates:
https://tsanz.com.au/storage/COVID_Communicues/Pre-transplant-COVID-assessment-V4b-110222_Final.pdf
- 5 Centers for Disease Control and Prevention (CDC) – About COVID-19:
<https://www.cdc.gov/coronavirus/2019-ncov/your-health/about-covid-19.html>
- 6 CDC Guidance for Healthcare Workers about COVID-19 (SARS-CoV-2) Testing:
<https://www.cdc.gov/coronavirus/2019-ncov/hcp/testing.html>



VERSION CONTROL			
Version	Date	Author	Comments
V 1.0	Sep 2020	ANZKX Team	New protocol created in response to the COVID-19 pandemic.
V 1.0	Feb 2021	ANZKX Team	Reviewed no changes.
V 1.0	Nov 2021	ANZKX Team	Reviewed no changes.
V 2.0	Apr 2022	ANZKX Team	<ol style="list-style-type: none"> 1. Changed advice to cancel surgery due to COVID-19 exposure detected 7-9 days prior to planned surgery, to an exposure within the last 10 days. 2. Changed the final donor PCR to the day prior to surgery. 3. Added protocol for the reactivation of donors and recipients after COVID-19. 4. Updated appendix references and links.

