1)

2)

## **Submitter Details**

Please complete the survey below.	
Click 'Submit' to continue onto the next form. Thank you!	
Transplant Institute Name	
	_
Please enter the initials of the submitter	
	_
Submitter Email Address	



## **Pre-Transplant Module**

Please complete the survey below.

Click 'Submit' to continue onto the next form. Thank you!		
Patient Gender at Birth	<ul><li>○ Male</li><li>○ Female</li></ul>	
Age at time of listing		
Patient Race	<ul><li>○ White/Caucasian</li><li>○ Black</li><li>○ Asian</li><li>○ Native American</li><li>○ Other</li><li>○ Unknown</li></ul>	
Patient's ethnicity	<ul><li>○ Hispanic</li><li>○ Non-Hispanic</li><li>○ Unknown</li></ul>	
What country does the patient live in?	<ul><li>○ United States</li><li>○ Other</li></ul>	
What country is the patient from if other?		
Did the patient have co-morbid conditions prior to contracting COVID-19	○ Yes ○ No	
If the patient had pre-existing comorbid conditions, which conditions did they have?	Any lung disease prior to developing COVID-19   Essential hypertension   Diabetes   Obesity, BMI>30-35   Morbid Obesity, BMI > 35   Hyperlipidemia   Coronary artery disease   Peripheral vascular disease   Depression or anxiety   Chronic kidney disease   Immunosuppressed state   History of smoking   Blood disorders (sickle cell disease, thalassemia)   Other pertinent diagnoses	
What other comorbid conditions did the patient have?		
Which lung diseases did the patient have prior to COVID-19	☐ Asthma ☐ COPD/ emphysema ☐ Sarcoidosis ☐ ILD: IPF ☐ ILD: non-IPF ☐ Cystic fibrosis ☐ Pulmonary arterial hypertension ☐ None ☐ Other	

What other lung comorbid conditions did the patient have?	
Did the patient require supplemental oxygen prior to contracting COVID-19	○ Yes ○ No
How many liters of oxygen did the patient require prior to COVID-19 diagnosis?	
Was the patient listed for lung transplant prior to contracting COVID-19.	○ Yes ○ No
If the patient was listed for lung transplant prior to contracting COVID, what was the leading indication for listing?	☐ COPD/ emphysematous lung disease ☐ Interstitial lung disease, IPF ☐ Interstitial lung disease, non-IPF ☐ Cystic fibrosis ☐ Pulmonary arterial hypertension ☐ Other
What was the other reason for listing for lung transplant prior to COVID-19?	
If patient was listed for lung transplant prior to contracting COVID, what was the most recent lung allocation score prior to the COVID diagnosis?	
How many days between the initial COVID-19 diagnosis and the time of listing	
Did the patient have a negative PCR test at any site prior to transplant?	○ Yes ○ No
Time in days from first positive PCR to first negative PCR Testing	
Site of first negative PCR result	☐ Upper Track (Nasal or Oral) ☐ Lower Track (eg, Tracheal or bronchial samples) ☐ Unknown
Time from initial diagnosis to first negative Upper Track (Nasal or oral) in days	
Time in days from first PCR to first negative deep sample PCR (tracheal or bronch samples)	
How many negative tests were required to clear for transplant	<ul> <li>None were required to be negative</li> <li>One negative PCR</li> <li>Two negative PCRs</li> <li>Three negative PCRs</li> <li>&gt;3 negative PCRs</li> </ul>
Was the SARS-CoV-2 PCR positive at the time of listing for transplant	☐ Yes ☐ No
Which site had a positive result at the time of listing	☐ Upper ☐ Deep

**REDCap**°

What was the Ct value of the positive result (if both sites are positive, list lower track source)?	
Was the COVID PCR positive at the time of transplant?	☐ Yes ☐ No ☐ Not tested at the time of transplant
Which site was positive at the time of transplant	☐ Upper ☐ Lower
What was the Ct value of the positive PCR at the time of transplant (if multiple sites, provide the lower track Ct value)	
Did the patient have SARS-CoV-2 antibody testing prior to transplant?	○ Yes ○ No
Which assay was done and positive (if not done, do not check)?	☐ Spike Antibody Positive ☐ Spike Antibody Negative ☐ Nucleocapsid Antibody Positive ☐ Nucleocapsid Antibody Negative ☐ Other Antibody Positive ☐ Other Antibody Negtive
Time from first SARS-CoV-2 PCR to antibody test in days	
How many days was the patient on mechanical ventilation from initial diagnosis to the date of transplantation	
Was the patient ventilator-dependent at the time of transplant?	
What was the Fi02 on the ventilator at the time of transplant	
What was the static lung compliance at the time of transplant (mL/cmH20)?	
Number of days of ECMO support from the time of initial diagnosis to the time of transplant	
Was the patient ECMO Dependent at the time of transplant	○ Yes ○ No
What was the FiO2 on the ECMO circuit at the time of transplant?	
What was the patient's level of mobility at the time of transplant?	<ul> <li>Patient fully ambulatory</li> <li>Patient ambulatory with assistance</li> <li>Patient not ambulatory, but able to participate in physical therapy</li> <li>Patient not ambulatory and not able to participate in physical therapy</li> </ul>

Did the patient require paralytics within 7 days of transplant	<ul><li>Yes</li><li>No</li></ul>
Who provided the transplant consent?	☐ The Patient ☐ Next of Kin
Did the patient have any cavities on chest imaging prior to transplant?	○ Yes ○ No
What was the cause of the cavity?	<ul> <li>Proven Aspergillus</li> <li>Presumed Aspergillus</li> <li>Proven Mucormycosis</li> <li>Presumed Mucormycosis</li> <li>Bacterial</li> <li>Non-Infectious</li> <li>Unable to diagnose the cause</li> </ul>
How was the patient treated after the cavity was noted?	<ul> <li>No treatment provided</li> <li>Empiric antibiotics</li> <li>Pathogen-directed antibiotics</li> <li>Empiric antifungals</li> <li>Pathogen-directed antifungals</li> </ul>
Was the therapy used to treat the presumed or proven cause of the cavity:	<ul> <li>Stopped at some point prior to transplant (short course of therapy completed)</li> <li>Ongoing at the time of transplant but not continued post-transplant</li> <li>Ongoing at the time of transplant and continued post-transplant</li> </ul>
Did the patient have evidence of fibrosis on CT imaging prior to the transplant?	○ Yes ○ No
What was the Lung Allocation Score (LAS) at the time of transplant?	
What medical therapies did the patient receive to treat COVID-19 prior to transplant?	☐ Remdesivir ☐ Dexamethasone ☐ Convalescent plasma ☐ Monoclonal antibody treatment ☐ IL-6 Therapy (Tocilizumab, Sarilumab) ☐ Barcitinib ☐ Other
What was the other medical therapy used to treat COVID-19 prior to transplant?	
Please list all bacterial infections (culture or PCR positive) treated in the 2 weeks prior to transplant (leave blank if none)	
Please list all fungal infections treated in the 2 weeks prior to transplant (leave blank if none)	
Please list all mycobacterial infections treated in the 2 weeks prior to transplant (leave blank if none)	

Please list all viral infections treated in the 2 weeks prior to transplant (leave blank if none)	
Please list all other infections treated in the 2 weeks prior to transplant (leave blank if none)	



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## **Transplant Event Module**

How many units of platelets were used in the OR (enter

Please complete the survey below. Click 'Submit' to continue onto the next form. Thank you! How many days from the first positive SARS-CoV-2 PCR test to the day of transplant ○ Yes Was intraoperative ECMO used for the patient?  $\bigcirc$  No What type of ECMO was used in OR? □ VA  $\square$  VV Was the patient on ECMO when they left the OR? Yes  $\bigcirc$  No How many minutes of ECMO were used in the OR? Was Cardiopulmonary Bypass Used in the OR? Yes  $\bigcirc$  No How many minutes of cardiopulmonary bypass were required? What was the total ischemia time (hours) Was the Cell Saver used intra-operatively Yes ○ No How many intra-operative units of RBCs were given (enter 0 if none)? How many units of FFP were used while in the OR (enter 0 if none)?



0 if none)?

## **Post-Transplant Course Module**

Please complete the survey below.		
This is the final form for the survey. Once submitted, this record will be marked as complete.		
Did the patient receive induction immunosuppression?	○ Yes ○ No	
What agent(s) was used for induction immunosuppression?	<ul> <li>☐ Basiliximab</li> <li>☐ Alemtuzemab</li> <li>☐ Thymoglobulin</li> <li>☐ Daclizumab</li> <li>☐ Methylprednisolone</li> <li>☐ Other</li> </ul>	
What other agent(s) were used for induction immunosuppression?		
What are the current maintenance immunosuppression being used on the patient currently?	☐ Tacrolimus ☐ Mycophenolate mofetil ☐ Prednisone ☐ Sirolimus ☐ Cyclosporine ☐ Everolimus ☐ Belatacept	
Did the patient receive any additional immunosuppression at any point post-transplant?	<ul><li>None</li><li>Eculizumab</li><li>Rituxumab</li><li>Plasma Pharesis</li><li>IVIG</li></ul>	
Did the patient receive any SARS-CoV-2 directed therapy post-transplant	○ Yes ○ No	
What COVID-10 specific therapeutics were used post-transplant?	☐ Remdesivir ☐ Monoclonal antibody ☐ Convalescent plasma ☐ IL-6 inhibitor ☐ JAK inhibitor ☐ Other	
What other COVID-19 specific therapies were used post-transplant		
Did the patient have post-transplant surveillance for SARS-CoV-2 by PCR testing?	○ Yes ○ No	
Please list the site and days post-transplant that the positive Podone)  Site Days Post-Txp Test #1 Test #2 Test #3 Test #4 Test #4 Test #5	CR results were detected (leave row blank if test not	

What was the post-transplant length of stay in the ICU in days?	
How many days of ECMO support were needed between transplant and discharge?	
How many days of mechanical ventilatory support were needed from transplant until discharge?	
What was the post-transplant total length of stay in the hospital (days from transplant to first discharge)	
Where was the patient discharged to?	<ul><li>Still Hospitalized</li><li>Home</li><li>Rehabilitation Facility</li></ul>
How long was the patient in inpatient rehabilitation (in days)?	
30 Day Post-Transplant Status: The following qu	estions relate to how the patient was doing
Did the patient survive to day 30?	<ul><li>Yes</li><li>No</li></ul>
What was the cause of death?	
What was the post-translant day of death	
Which of the following post-transplant complications did the patient experience in the first 30 days after transplant?	☐ Airway dehiscence ☐ Airway ischemia/necrosis ☐ Bronchial stricture/stenosis requiring intervention ☐ recurrent COVID-19 ☐ post-transplant pneumonia ☐ bacteremia ☐ septic shock ☐ Grade 3 PGD within 72 hours of transplant ☐ Pulmonary Embolism ☐ Invasive Aspergillosis ☐ other
List Other Complications	

6 Month Post-Transplant Status: The following questions relate to how the patient was doing through day 180 (6 months) post-transplant.		
Which of the following post-transplant complications did the patient experience day 31-90 post-transplant?	☐ Airway dehiscence ☐ Airway ischemia/necrosis ☐ Bronchial stricture/stenosis requiring intervention ☐ recurrent COVID-19 ☐ post-transplant pneumonia ☐ bacteremia ☐ septic shock ☐ Grade 3 PGD within 72 hours of transplant ☐ Pulmonary Embolism ☐ Invasive Aspergillosis ☐ other	
List Other Complications		
Which of the following post-transplant complications did the patient experience day 91-180 (months 3-6) post-transplant?	Airway dehiscence Airway ischemia/necrosis Bronchial stricture/stenosis requiring intervention recurrent COVID-19 post-transplant pneumonia bacteremia septic shock Grade 3 PGD within 72 hours of transplant Pulmonary Embolism Invasive Aspergillosis other	
List Other Complications		
Is the patient alive at day 180 post-transplant?	<ul><li>○ Yes</li><li>○ No</li><li>○ Not yet 180 days post-transplant</li></ul>	
What was the cause of death?		
Did the patient experience antibody or cellular rejection through day 180 (6 months) post-transplant?		
How many treated episodes of rejection (ACR or AMR) occurred during the first 180 days (6 months) post-transplant?		
For rejection episode #1: What type of rejection did the patient have?	☐ Acute Cellular Rejection ☐ Antibody-Mediated Rejection	
For rejection episode #1: Using ISHLT Criteria, what was the grade of rejection (if more than one, please select most severe)		
Did the patient have another rejection episode in the first 180 days (6 months post-transplant)?		
For rejection episode #2: What type of rejection did the patient have?	☐ Acute Cellular Rejection ☐ Antibody-Mediated Rejection	



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For rejection episode #2: Using ISHLT Criteria, what was the grade of rejection (if more than one, please select most severe)	
Did the patient have another rejection episode in the first 180 days (6 months post-transplant)?	<ul><li>Yes</li><li>No</li></ul>
For rejection episode #3: What type of rejection did the patient have?	☐ Acute Cellular Rejection ☐ Antibody-Mediated Rejection
For rejection episode #3: Using ISHLT Criteria, what was the grade of rejection (if more than one, please select most severe)	
Did the patient have another rejection episode in the first 180 days (6 months post-transplant)?	<ul><li>Yes</li><li>No</li></ul>
For rejection episode #4: What type of rejection did the patient have?	☐ Acute Cellular Rejection ☐ Antibody-Mediated Rejection
For rejection episode #4: Using ISHLT Criteria, what was the grade of rejection (if more than one, please select most severe)	
12 Month Follow-Up Data: For the following section	n, please provide data on the patient
between day 181 and 365 (through 1-year post-tran	nsplant).
Which of the following post-transplant complications did the patient experience day 181-365 (months 6-12) post-transplant?	Airway dehiscence Airway ischemia/necrosis Bronchial stricture/stenosis requiring intervention recurrent COVID-19 post-transplant pneumonia bacteremia septic shock Grade 3 PGD within 72 hours of transplant Pulmonary Embolism Invasive Aspergillosis other
Which of the following post-transplant complications did the patient experience day 181-365 (months 6-12)	☐ Airway dehiscence ☐ Airway ischemia/necrosis ☐ Bronchial stricture/stenosis requiring intervention ☐ recurrent COVID-19 ☐ post-transplant pneumonia ☐ bacteremia ☐ septic shock ☐ Grade 3 PGD within 72 hours of transplant ☐ Pulmonary Embolism ☐ Invasive Aspergillosis
Which of the following post-transplant complications did the patient experience day 181-365 (months 6-12) post-transplant?	☐ Airway dehiscence ☐ Airway ischemia/necrosis ☐ Bronchial stricture/stenosis requiring intervention ☐ recurrent COVID-19 ☐ post-transplant pneumonia ☐ bacteremia ☐ septic shock ☐ Grade 3 PGD within 72 hours of transplant ☐ Pulmonary Embolism ☐ Invasive Aspergillosis
Which of the following post-transplant complications did the patient experience day 181-365 (months 6-12) post-transplant?  List Other Complications  Is the patient alive at day 365 (1 year)	Airway dehiscence Airway ischemia/necrosis Bronchial stricture/stenosis requiring intervention recurrent COVID-19 post-transplant pneumonia bacteremia septic shock Grade 3 PGD within 72 hours of transplant Pulmonary Embolism Invasive Aspergillosis other  Yes No
Which of the following post-transplant complications did the patient experience day 181-365 (months 6-12) post-transplant?  List Other Complications  Is the patient alive at day 365 (1 year) post-transplant?	Airway dehiscence Airway ischemia/necrosis Bronchial stricture/stenosis requiring intervention recurrent COVID-19 post-transplant pneumonia bacteremia septic shock Grade 3 PGD within 72 hours of transplant Pulmonary Embolism Invasive Aspergillosis other  Yes No

For rejection episode #1: What type of rejection did the patient have?	<ul> <li>☐ Acute Cellular Rejection</li> <li>☐ Antibody-Mediated Rejection</li> </ul>	
For rejection episode #1: Using ISHLT Criteria, what was the grade of rejection (if more than one, please select most severe)		
Did the patient have another rejection episode in day 181-365 days (months 6-12 months post-transplant)?		
For rejection episode #2: What type of rejection did the patient have?	<ul><li>☐ Acute Cellular Rejection</li><li>☐ Antibody-Mediated Rejection</li></ul>	
For rejection episode #2: Using ISHLT Criteria, what was the grade of rejection (if more than one, please select most severe)		
Did the patient have another rejection episode in the first 180 days (6 months post-transplant)?		
For rejection episode #3: What type of rejection did the patient have?	<ul><li>☐ Acute Cellular Rejection</li><li>☐ Antibody-Mediated Rejection</li></ul>	
For rejection episode #3: Using ISHLT Criteria, what was the grade of rejection (if more than one, please select most severe)		
Did the patient have another rejection episode in the first 180 days (6 months post-transplant)?		
For rejection episode #4: What type of rejection did the patient have?	☐ Acute Cellular Rejection ☐ Antibody-Mediated Rejection	
For rejection episode #4: Using ISHLT Criteria, what was the grade of rejection (if more than one, please select most severe)		
Are there any other issues about the patient you want to include?		

