Appendix

Questionnaire used in survey

1) How many adult lung transplant operations have been done yearly at your center, on average, over the past 3 years?
   a) 0-10
   b) 11-20
   c) 21-30
   d) 31-40
   e) 41-50
   f) 51 or more per year

2) How many surgeons independently perform lung transplants in your program?
   a) 1
   b) 2
   c) 3
   d) 4 or more

3) In the past 3 years, how many adults awaiting lung transplant have been placed on ECMO? [If 0, skip to question 9]
   a) 0
   b) 1
   c) 2
   d) 3
   e) 4 or more [specify]
4) Of the patients placed on ECMO from question 3), how many actually received a lung transplant?
   a) 0
   b) 1
   c) 2
   d) 3
   e) 4 or more [specify]

5) Of the patients from question 3), how many were supported with VV ECMO?
   a) 0
   b) 1
   c) 2
   d) 3
   e) 4 or more [specify]

6) Of the patients from question 3), how many were supported with VA ECMO?
   a) 0
   b) 1
   c) 2
   d) 3
   e) 4 or more
7) Of the patients supported with VV ECMO, how many were supported with the AVALON cannula pre-transplant?

   a) 0
   b) 1
   c) 2
   d) 3
   e) 4 or more [specify]

8) Of the patients supported with VV ECMO support, how many were awake and how many were ambulatory while on ECMO support? (reviewer 1, comment 20)

<table>
<thead>
<tr>
<th>Awake</th>
<th>Ambulatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) 0</td>
<td>a) 0</td>
</tr>
<tr>
<td>b) 1</td>
<td>b) 1</td>
</tr>
<tr>
<td>c) 2</td>
<td>c) 2</td>
</tr>
<tr>
<td>d) 3</td>
<td>d) 3</td>
</tr>
<tr>
<td>e) 4 or more [specify]</td>
<td>e) 4 or more [specify]</td>
</tr>
</tbody>
</table>

9) Does your institution have a dedicated team or service that is available for ECMO cannula insertion 24/7?

   a) yes
   b) no
10) Which model of ECMO ICU bedside care applies to your center?

a) ECMO-trained clinician [RN or respiratory therapist] and perfusionist at patient bedside 24/7

b) ECMO-trained clinician [RN or respiratory therapist] at patient bedside 24/7, with perfusionist backup support in hospital

c) ECMO-trained clinician [RN or respiratory therapist] at patient bedside 24/7, with perfusionist backup support out of hospital

d) ICU RN and respiratory therapist at patient bedside 24/7, with perfusionist backup support

e) Other (please specify)

11) What age would disqualify a patient from receiving ECMO therapy as a bridge to lung transplant at your institution?

a) age >55 years

b) age >60 years

c) age >65 years

d) age >70 years

e) there is no official age cutoff for pre-lung transplant ECMO support at my institution

12) What is considered the longest acceptable duration of ECMO (reviewer 1, comment 5) therapy pre-lung transplant at your institution?

a) <5 days

b) 5-10 days

c) >10 days

d) there is no official cutoff; depends on patient factors
13) What is your preferred method for monitoring anticoagulation during ECMO support?
   a) ACT  
   b) PTT  
   c) TEG  
   d) Other (please specify)  

14) What is your preferred cannulation scheme for VV ECMO?
   a) femoral vein->ECMO->return to IJ or subclavian vein  
   b) femoral vein->ECMO->return to femoral vein  
   c) AVALON cannula in upper body vein  
   d) Other (please specify)  

15) What is your preferred cannulation scheme for VA ECMO?
   a) femoral vein->ECMO->femoral artery  
   b) femoral vein->ECMO->axillary artery  
   c) IJ or subclavian vein->ECMO->axillary artery  
   d) Central cannulation  
   e) Other (please specify)  

16) What is (are) the most important reason(s) that ECMO is not utilized more often at your institution to bridge patients to lung transplant (please check all that apply)?
   a) lack of institutional commitment to ECMO at my institution  
   b) inadequate personnel bedside care of the ECMO patient in the ICU  
   c) Initiating and maintaining ECMO support at my institution is too costly  
   d) Lack of surgeon interest/expertise in ECMO
17) Which choice below is the (reviewer 1, comment 5) earliest timepoint where pre-lung transplant ECMO would be considered for a patient (assuming no contraindications to ECMO support)?

   a) no time point, our program does not utilize ECMO pre-transplant

   b) patient is not intubated but has escalating O2 requirements (>80% by face mask or high flow) with limited mobility

   c) patient is intubated with stable hemodynamics and adequate oxygenation and ventilation

   d) patient is intubated with stable hemodynamics but deteriorating oxygenation and ventilation

   e) Other (please specify)

18) Which choice below most accurately reflects the use of VV vs. VA ECMO in your center pre-lung transplant?

   a) our program does not utilize VV or VA ECMO pre-transplant

   b) VV ECMO is the preferred initial mode of pre-transplant ECMO therapy. VA ECMO is reserved for cases where VV ECMO is unsuccessful

   c) VA ECMO is used as the initial mode of pre-transplant ECMO therapy in selected cases (e.g. severe RV dysfunction with pulmonary hypertension)

   d) VA ECMO is the preferred initial mode of pre-transplant ECMO therapy

   e) Other (please specify)