

ARC Lung Passport

Directions for completion

1. This is a twelve-page single copy form to be completed for all lungs that have undergone assessment at an ARC. This is a supplementary form and all other forms (i.e. HTA A, HTA B, RTI) should be completed as well.
2. Sections 1a (pages 3-4) and 1b (pages 5-7) should be completed by hand by the team at the ARC.
3. Sections 2 (pages 8-10) and 3 (page 11-12) should be completed by hand by the team at the accepting transplant centre.
4. A scanned copy of each section needs to be retained by the centre completing it.
5. A copy of each section should be returned to NHSBT within 1 working day, with the exception of section 1a that needs to be returned to NHSBT immediately upon completion.
6. Section 1a and 1b need to be returned via email to **odthub.operations@nhsbt.nhs.uk** with "ARC Passport" and section number in the title
7. Section 2 and 3 need to be returned via email to **ARCInformationOfficers@nhsbt.nhs.uk** with "ARC Passport" and section number in the title

ODT Hub Information Services
NHS Blood and Transplant
500 North Bristol Park
Filton
Bristol
BS34 7QH

ARC Lung Passport

Directions for completion - continued

Reference guide for 'Indication for EVLP'

1. Donor History
 - a. Possible donor PE
 - b. Multiple blood transfusions
 - c. Smoking history >20 pack years with borderline systemic blood gases
2. Lung Imaging
 - a. Chest SR or CT findings prohibitive to standard transplantation
 - b. Significant atelectasis
 - c. Generalised oedema
 - d. Focal consolidation
 - e. Infiltrates of unclear cause
3. Lung Function
 - a. Systemic PaO₂ < 40 kPa (on 100% FiO₂ & 8 cmH₂O PEEP)
 - b. Selective PV gas < 30 kPa (on 100% FiO₂ & 8 cmH₂O PEEP)
 - c. Sustained peak airway pressure > 30 cmH₂O on target tidal volumes
 - d. Deteriorating systemic PaO₂ over time
4. Lung Inspection
 - a. Failed lung deflation test in absence of visible bullae/emphysema
 - b. Persistent atelectasis despite active recruitment manoeuvres
 - c. Inflammation or soiling of the airway at Bronchoscopy
 - d. Recurrent but not prohibitive secretions in the distal airway after adequate bronchial toilet
 - e. Unsatisfactory palpation of the lungs (undetermined masses, nodules or oedema)
 - f. Unsatisfactory inspection of lungs after procurement and administration of second retrograde preservation flush
5. DCD Donor
 - a. Functional Warm Ischaemic Time (FWIT*) > 60 minutes but < 120 minutes
 - b. Undergoing Abdominal –NRP with any additional concerns about lung flush or function

*FWIT defined as time from Systolic BP <50mmHg and/or systemic saturations below 70% to start of organ flush

ARC Lung Passport

Section 1a

ODT Donor Number

Donor DOB (dd/mm/yyyy)

Donor Hospital

DONOR DETAILS

ARC Location Lead ARC Surgeon

Received by (name) Refer to eligibility scoring system in directions for completion Primary indication for EVLP Secondary indication for EVLP

Deemed suitable for EVLP? No = 1 Yes = 2 If no, what was the final outcome? Used for research = 1 Disposed of = 2 Reoffered via fast track = 3

Sufficient tissues for EVLP collected at retrieval? Trachea No = 1 Yes = 2 Vascular Cuff No = 1 Yes = 2 Pericardium No = 1 Yes = 2 Thoracic Aorta No = 1 Yes = 2

Comments on collected tissues:

Flushed prior to EVLP? No = 1 Yes = 2 Was there any damage made to the lungs whilst being put on EVLP? No = 1 Yes = 2

If yes, what solution was used? Perfadex = 1 Steen = 2 If yes, give details

Litres used

XMAT link sent to Transplant Centre? No = 1 Yes = 2

TIMINGS (USE 24 HOUR CLOCK)

Date/time of organ arrival	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	<input type="text"/>	:	<input type="text"/>	<input type="text"/>
Date/time in theatre/EVLP facility	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	<input type="text"/>	:	<input type="text"/>	<input type="text"/>
Date/time out of organ transport box	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	<input type="text"/>	:	<input type="text"/>	<input type="text"/>
Date/time of visual assessment on arrival	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	<input type="text"/>	:	<input type="text"/>	<input type="text"/>
Date/time into 10°C fridge (if used)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	<input type="text"/>	:	<input type="text"/>	<input type="text"/>
Date/time out of 10°C fridge (if used)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	<input type="text"/>	:	<input type="text"/>	<input type="text"/>
Date/time cannulation started	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	<input type="text"/>	:	<input type="text"/>	<input type="text"/>
Date/time instrumented on EVLP	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	<input type="text"/>	:	<input type="text"/>	<input type="text"/>
Date/time perfusion started	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	<input type="text"/>	:	<input type="text"/>	<input type="text"/>
Date/time ventilation started	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	<input type="text"/>	:	<input type="text"/>	<input type="text"/>
Date/time of 1st recruitment	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	<input type="text"/>	:	<input type="text"/>	<input type="text"/>
Date/time of 2nd recruitment	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	<input type="text"/>	:	<input type="text"/>	<input type="text"/>
Date/time of 3rd recruitment	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	<input type="text"/>	:	<input type="text"/>	<input type="text"/>
Date/time of 4th recruitment	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	<input type="text"/>	:	<input type="text"/>	<input type="text"/>

ARC Lung Passport

Section 1a

ODT Donor Number

EVLP Machine ID

Perfusate level at the start

PERFUSION DATA

	Baseline		Hour 1		Hour 2		Hour 3		Hour 4		
	PA	LA	PA	LA	PA	LA	PA	LA	PA	LA	
Core assessment data	PaP (mmHg)										
	LaP (mmHg)										
	PEEP (cmH2O)										
	Ppeak (cmH2O)										
	Pplat (cmH2O)										
	Pmean (cmH2O)										
	Cdyn (mL/cmH2O)										
	Cstat (mL/cmH2O)										
	Glucose (g/l)										
	Lactate (mmol)										
	STEEN Lost (mls/hr)										
	Vti (mL)										
	Vte (mL)										
	PVR (dynes*sec*cm ⁻⁵)										
	Lung Weight (g)										
	Perfusate Flow (litres per minute)										
	Target Flow										
	FiO2 (%)										
	Optional	Temp (°C)									
pH											
pO2 (kPa)											
pCO2 (kPa)											
BE											
HCO3											
Delta LA - PA pO2 (kPa)											
Delta PO2/FiO2 (mmHg)											
*Left superior vein PaO2											
*Left inferior vein PaO2											
*Right superior vein PaO2											
*Right inferior vein PaO2											

UK TRANSPLANT REGISTRY

ARC Lung Passport

Section 1b

ODT Donor Number

Donor DOB (dd/mm/yyyy)

Donor Hospital

Drug:	Dose:	Batch number:	Expiry Date:	Date/Time given:	Prescribed by:	Administered by:

ARC Lung Passport

Section 1b

ODT Donor Number

ORGAN ASSESSMENT EXCHANGE

ARC Clinician

Recipient Centre Clinician

Were the lungs inspected remotely? No = 1 Yes = 2

Were the lungs accepted for transplant? No = 1 Yes = 2 If no, why?

If no, give final outcome Used for research = 1 Disposed of = 2 Reoffered via fast track = 3 Other = 4 If other, please specify

Was there any damage made to the lungs whilst coming off EVLP? No = 1 Yes = 2 If yes, give details

Were there any issues with the perfusion device? No = 1 Yes = 2 If yes, give details

TIMINGS (USE 24 HOUR CLOCK)

Date/time of final assessment on EVLP 2 0 at (24hr) :

Date/time of clinician-to-clinician call to discuss results 2 0 at (24hr) :

Date/time taken off EVLP 2 0 at (24hr) :

Date/time into organ transport box 2 0 at (24hr) :

ARC Lung Passport

Section 2

ODT Donor Number

Donor DOB (dd/mm/yyyy)

Donor Hospital

TRANSPLANT CENTRE LOCATION DATA

Transplant Centre

Lead Surgeon

Received by (name)

Deemed suitable for transplant?
 No = 1
 Yes = 2

Were the lungs transplanted?
 No = 1
 Yes = 2

If no, what was the final outcome?
 Used for research = 1
 Disposed of = 2
 Reoffered via fast track = 3

If the lungs were not used, why?

Lungs re-entering 10°C fridge during operation
 Left = 1
 Right = 2
 Block = 3
 None = 4

TIMINGS (USE 24 HOUR CLOCK)

Date/time of organ arrival	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	:	<input type="text"/>
Date/time in theatre/EVLP facility	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	:	<input type="text"/>
Date/time out of organ transport box	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	:	<input type="text"/>
Date/time of visual assessment on arrival	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	:	<input type="text"/>
Date/time into 10°C fridge (if used)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	:	<input type="text"/>
Date/time out of 10°C fridge (if used)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	:	<input type="text"/>
Date/time knife to skin	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	:	<input type="text"/>
Date/time lungs reentering 10°C fridge (if used)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	:	<input type="text"/>
Date/time out of 10°C fridge (if used)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	at (24hr)	<input type="text"/>	:	<input type="text"/>

ARC Lung Passport

ODT Donor Number

RECIPIENT DETAILS

Recipient ID <input type="text"/>	Recipient DOB (dd/mm/yyyy) <input type="text"/>	Transplant centre <input type="text"/>
Height <input type="text"/> cm	Blood group <input type="text"/>	
Weight <input type="text"/> kg	Disease category <input type="text"/>	
Is the recipient an inpatient? No = 1 <input type="checkbox"/> Yes = 2 <input type="checkbox"/>	Pre-transplant hypertension? No = 1 <input type="checkbox"/> Yes = 2 <input type="checkbox"/>	
If yes, how many days? <input type="text"/>	Oxygen dependent? No = 1 <input type="checkbox"/> Yes = 2 <input type="checkbox"/>	If yes, how much oxygen?(litres per minute) <input type="text"/>
If yes, what location? General = 1 <input type="checkbox"/> ITU = 2 <input type="checkbox"/> HDU = 3 <input type="checkbox"/> Other = 4 <input type="checkbox"/>	Extra-corporeal lung support? No = 1 <input type="checkbox"/> Yes = 2 <input type="checkbox"/>	If yes, how many days? <input type="text"/>
If other, please specify <input type="text"/>	Waiting list Routine = 1 <input type="checkbox"/> Urgent = 2 <input type="checkbox"/> Super Urgent = 3 <input type="checkbox"/>	

RECIPIENT DETAILS (POST-OPERATIVE)

Inotropic Support (within first 4 hours of ITU arrival)

Dopamine <input type="text"/> mcg/kg/min	Noradrenaline <input type="text"/> mcg/kg/min	Vasopressin <input type="text"/> units/hr
Milrinone <input type="text"/> mcg/kg/min	Adrenaline <input type="text"/> mcg/kg/min	GTN <input type="text"/> mg/hr
Nitric Oxide use duration <input type="text"/> hours	Maximum Nitric Oxide dose <input type="text"/> ppm	

Ventilation Parameters (within first 4 hours of ITU arrival)

Mode <input type="text"/>	Respiratory rate <input type="text"/> bpm	FiO2 <input type="text"/> %
PaO2/FiO2 ratio <input type="text"/> mmHg	PEEP <input type="text"/> cmH2O	P Support <input type="text"/>
Tidal volumes range <input type="text"/> mL - <input type="text"/> mL		

ARC Lung Passport

Section 2

ODT Donor Number

Recipient ID

Transplant centre

RECIPIENT 24-HOUR FOLLOW-UP

Please complete this section 24-hours after transplant

Recipient died? No = 1
Yes = 2

If yes, date of death: **20**

Extra-corporeal lung support post-transplantation? No = 1
Yes = 2

Total intubation time hours

Reintubation No = 1
Yes = 2

ECMO used? No = 1
Yes = 2

Ventilation support post-transplant? No = 1
Yes = 2

If yes, duration of ventilation support hours

If yes: VA = 1
VV = 2

Surgical re-exploration? No = 1
Yes = 2

Bronchoscopy post-transplant report:

ARC Lung Passport

Section 3

ODT Donor Number

Recipient ID

Transplant centre

RECIPIENT 30-DAY FOLLOW-UP - PRIMARY GRAFT DYSFUNCTION DATA

Please complete this section 30-days after transplant

PGD Grade	Radiographic infiltrates (consistent with oedema)	PaO2/FiO2 (kPa)*
0	Absent	Any
1	Present	>40
2	Present	26.7-40
3*	Present	<26.7

**If on ECMO support for respiratory failure then automatically becomes grade 3 PGD*

-Use worse reading if multiple are available

PGD grading 0-6 hours:

CXR report

PGD grading 24 hours:

CXR report

PGD grading 48 hours:

CXR report

PGD grading 72 hours:

CXR report