

# ELIGIBILITY CRITERIA FOR PULMONARY ARTERIAL HYPERTENSION THERAPY

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## **ELIGIBILITY CRITERIA FOR INITIATION OF PULMONARY ARTERIAL HYPERTENSION THERAPY**

These guidelines are intended to assist relevant practitioners in gauging which patients are likely to be approved for pulmonary arterial hypertension treatments. In view of the complexity of pulmonary arterial hypertension diagnosis, classification and severity assessment, each application is thoroughly evaluated by the PAH Panel to determine the appropriateness of pulmonary vasodilator treatment.

Please note that the pharmaceuticals covered by these access criteria have different registered indications, and that some of the criteria included here are Unapproved Indications. If clinicians are intending to prescribe any of these pharmaceuticals for an Unapproved Indication, they should be aware of and comply with their obligations, including those set out in rule 4.6 of the Pharmaceutical Schedule.

All requested studies should be carried out in line with the relevant professional guidelines. Patients with pulmonary arterial hypertension who meet the following criteria may be eligible for initiation of pulmonary arterial hypertension treatment based on current clinical evidence.

The following treatments may be subsidised by application to the PAH Panel:

<b>Category</b>	<b>Treatment</b>
Endothelin receptor antagonists	Ambrisentan (Volibris) Bosentan (Tracleer)
Phosphodiesterase type 5 inhibitors	Sildenafil (Viagra)
Prostacyclin analogues	Iloprost (Ventavis)

## Patients eligible for initial approval of Special Authority

1. The patient must have a diagnosis of pulmonary arterial hypertension with the following WHO (Venice) clinical classifications:

- **Group 1**

- Idiopathic;
- Familial;
- Associated with:
  - Connective tissue disease;
  - Congenital systemic pulmonary shunts;
  - Portal hypertension;
  - HIV infection;
  - Drugs and toxins;
  - Other;
- Associated with significant venous or capillary involvement:
  - Pulmonary veno-occlusive disease (PVOD);
  - Pulmonary capillary haemangiomatosis (PCH);
- Persistent pulmonary hypertension of the newborn (PPHN) including:
  1. [persistent pulmonary hypertension associated with premature/neonatal severe chronic lung disease or congenital diaphragmatic hernia](#)
  2. [infantile severe chronic lung disease where there is supportive evidence that the pulmonary vascular resistance had never normalised](#)

- **Group 4**

- Pulmonary arterial hypertension due to thrombotic and/or embolic disease only)

- **Group 5**

- Miscellaneous group
  - E.g. sarcoidosis, histiocytosis X and lymphangiomatosis

Patients with PAH classified as group 2 or 3 are not eligible for subsidised treatment.

- **Group 2** - pulmonary hypertension associated with left heart disease

- **Group 3** - pulmonary hypertension associated with respiratory diseases and / or hypoxaemia.

Lung function tests and cardiac function tests must be supplied with the initial application. For children under 10 years old, funding of sildenafil monotherapy will be considered using the data provided according to the application forms for children less than 10 years.

2. The patient must have NYHA/WHO functional class III or IV. For patients who are functional class II, applications will be considered in cases where there is clear evidence of disease progression (defined as a deterioration in performance of the 6MWT or deterioration in haemodynamic variables) despite current therapy.

Patients who are functional class I are not eligible for subsidised treatment.

**New York Heart Association / World Health Organization Functional Classification of**

Pulmonary Hypertension	
Class I:	Patients with pulmonary hypertension but without resulting limitation of physical activity. Ordinary physical activity does not cause undue dyspnoea or fatigue, chest pain, or near syncope.
Class II:	Patients with pulmonary hypertension resulting in slight limitation of physical activity. They are comfortable at rest. Ordinary physical activity does not cause undue dyspnoea or fatigue, chest pain, or near syncope.
Class III:	Patients with pulmonary hypertension resulting in pronounced limitation of physical activity. They are comfortable at rest. Less than ordinary activity causes undue dyspnoea or fatigue, chest pain, or near syncope.
Class IV:	Patients with pulmonary hypertension with inability to carry out any physical activity without symptoms. These patients manifest signs of right heart failure. Dyspnoea and/or fatigue may even be present at rest. Discomfort is increased by any physical activity.

3. Right cardiac catheterisation data<sup>1</sup> must be supplied with the application. If cardiac catheterisation is contra-indicated, a letter of explanation is required. Unequivocal, significant evidence of raised pulmonary arterial pressure, in the absence of significant left heart disease, must be demonstrated.

- The patient must have a pulmonary capillary wedge pressure (PCWP)  $\leq$  15 mmHg (patients with a PCWP between 15 mmHg and 18 mmHg may be considered at the Panel's discretion).
- The patient must have a mean pulmonary artery pressure (PAPm)  $>$  25 mmHg [unless the patient is peri Fontan repair \(see below\)](#).
- [The patient must have a pulmonary vascular resistance \(PVR\) of:](#)
  - [\$>\$  3 Wood Units;](#) or
  - [\$>\$  240 International Units \(dyn s cm<sup>-5</sup>\)](#)
- An assessment of vasoreactivity has been carried out using iloprost, adenosine or nitric oxide. Where this assessment has not been carried out, applicants must provide reasons for this. (Vasoreactivity studies are not mandatory in patients with severe PAH (functional class IV or right atrial pressure  $>$  12 mmHg or Cardiac Index  $<$  2 l/min/m<sup>2</sup>) or PAH associated with connective tissue disease.)
- Where the patient has been shown to be vasoreactive (defined as a fall in mean PAP of greater than or equal to 10mmHg to less than 40mmHg with either an increase or no change in cardiac index), evidence of an adequate therapeutic trial of calcium channel blockers for three to six months must have been undertaken, followed by re-catheterisation demonstrating evidence of haemodynamic progression. (Due to the negative inotropic effects of CCBs, a trial of CCBs is not required in patients with severe disease as defined above.)
- [For children peri Fontan repair, haemodynamic data is required and formal cardiac catheterisation should be considered at a clinically appropriate stage of the patient's management. Due to the presence of a non-pulsatile circuit a mean pulmonary artery pressure \(PAPm\)  \$<\$  25mmHg would be acceptable.](#)

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<sup>1</sup> Grossman, W (Ed). Cardiac Catheterization and Angiography, 3rd ed, Lea & Febiger, Philadelphia 1986

4. Persistent pulmonary hypertension of the newborn associated with severe chronic lung disease (CLD) or congenital diaphragmatic hernia (CDH).
  - The application must include an inpatient management summary, admission history, echocardiogram, and short and long term management plan (including weaning plan).
  - Cardiac catheter should be considered for patients with CDH or CLD at a clinically appropriate stage of the patient's management where treatment is required for 12 months or more.

### **Treatment selection**

#### *Initial treatment:*

- Patients who have not previously been treated with any of these agents would generally be expected to start treatment with sildenafil.
- NYHA WHO functional class IV patients who have been stabilised in hospital on iloprost would be able to receive iloprost in the community for a period of time to allow transition to sildenafil monotherapy, if clinically appropriate.

#### *Change of treatment:*

- Where sildenafil is not tolerated due to side-effects clinicians may apply for monotherapy with bosentan, ambrisentan or iloprost.
- Where the patient has not responded to sildenafil monotherapy, clinicians may apply for alternative monotherapy within 6 months of treatment initiation.

### **Patients eligible for renewal of Special Authority**

Renewal applications must be submitted to the PAH Panel after six months of treatment approval, with annual reviews required thereafter.

### **Treatment selection**

#### *Renewal of treatment (stable patients):*

- Patients who are stable or improve on PAH therapy will be considered for renewal of special authority.

#### *Escalation of treatment:*

- Eligibility for combination therapy for patients stable on treatment for at least six months who then deteriorate shall be determined by:
  - Clear evidence of deterioration in right heart cardiac catheterisation measures;  
or
  - 15% deterioration in two 6MWTs done at least two weeks apart; or
  - NYHA/WHO functional class IV.
- Where patients show signs and symptoms of deterioration, and escalation of treatment is requested, a repeat right heart cardiac catheter is mandatory, except if the cardiac

catheter is contraindicated, when a letter of explanation must be provided for the Panel to consider.

- Patients who have failed to respond to two monotherapies within the first six months of treatment may be eligible for combination therapy.
- Combination bosentan/iloprost or ambrisentan/iloprost may be considered for patients who cannot tolerate a sildenafil regime.
- Combination sildenafil/bosentan/iloprost therapy will not be approved.
- Combination sildenafil/ambrisentan/iloprost therapy will not be approved.

**Initial Application for Funding of Pulmonary Arterial Hypertension Treatments  
for Adults (and children aged over 10 years)**

Date of Application \_\_\_\_\_

Please send applications to:

PAH Panel Coordinator  
PHARMAC  
P O Box 10-254  
WELLINGTON

Phone: 04 9167 512  
Facsimile: 04 974 4858  
Email: [PAH@pharmac.govt.nz](mailto:PAH@pharmac.govt.nz)

Applications **must** be **complete** and accompanied by supporting data where required.

Have you attached:

- Cardiac catheterisation reports
- Lung function tests
- Echocardiography report
- Vasoreactivity data
- CCB trial results

Patient Details – patient sticker is acceptable			
Surname:			
First Name/s:			
NHI No:			
Gender:	<input type="checkbox"/> Male <input type="checkbox"/> Female		
D.O.B:			
Address:			
Phone No:	Home:	Work:	Mobile:

Physician Details	
Name:	
NZMC Registration Number:	
Practice Address:	
Phone No:	
Mobile No:	
Fax No:	
Email:	
Signature of applying physician:	



<b>Basis of request for PAH treatments</b>	
<b>Diagnosis</b>	<b>Tick</b>
Patient has been diagnosed as having pulmonary arterial hypertension	<input type="checkbox"/>
<b>NYHA/WHO functional class</b>	
*2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>	* Note: Applications for patients with functional class 2 need to demonstrate clear evidence of disease progression on current treatments.
<b>WHO (Venice) clinical classification</b>	
<u>Group One</u> – Pulmonary arterial hypertension	
Idiopathic PAH	<input type="checkbox"/>
Familial PAH	<input type="checkbox"/>
Associated with other diseases:	
Connective tissue disease	<input type="checkbox"/>
Congenital systemic pulmonary shunts	<input type="checkbox"/>
Portal hypertension	<input type="checkbox"/>
HIV infection	<input type="checkbox"/>
Drugs/toxins	<input type="checkbox"/>
Other (specify):	<input type="checkbox"/>
Associated with significant venous or capillary involvement	
Pulmonary veno-occlusive disease	<input type="checkbox"/>
Pulmonary capillary haemangiomas	<input type="checkbox"/>
Persistent pulmonary hypertension of the newborn	<input type="checkbox"/>
<u>Group Four</u> – Pulmonary hypertension due to chronic thrombotic and/or embolic disease only	<input type="checkbox"/>
<u>Group Five</u> – Other pulmonary hypertension (specify)	<input type="checkbox"/>

Test results					
Height (cm):		Weight (kg):		BMI (kg/m <sup>2</sup> ):	
<u>Blood pressure</u>					
<b>Lung function</b>					
Date of test: Please report as actual values and percent predicted and attach report					
	Actual		Percent predicted		
FEV <sub>1</sub>					
FVC					
FEV <sub>1</sub> /FVC (%)					
DLCO					
DLCO/VA					
TLC					
<b>Six minute walk test:</b>					
Date of test:					
Distance walked (m):					
SpO <sub>2</sub> :		Baseline:		Nadir:	
Heart Rate:		Baseline:		Maximum:	
Borg Index:		Pre:		Post:	
<b>Brain natriuretic peptide (BNP)</b>			<u>BNP Reference Range:</u>		

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Right Heart Cardiac Catheter (please attach reports)		
Date of test: Testing centre:		
	Pre vasoreactivity testing	Post vasoreactivity testing
Pulmonary capillary wedge pressure: (Threshold: $\leq 15$ mmHg):		
Pulmonary artery pressures:	Mean:	
	Systolic:	
	Diastolic:	
Mean right atrial pressure:		
Pulmonary vascular resistance:	<input type="checkbox"/> Wood units (Threshold: $>3$ )	
	<input type="checkbox"/> International units ( $\text{dyn s cm}^{-5}$ ) (Threshold: $>240$ )	
Cardiac output:		
Cardiac index:		
Vasoreactivity		
Has the patient been assessed for vasoreactivity using iloprost, adenosine or nitric oxide? If no, please provide reasons: <input type="checkbox"/> Yes <input type="checkbox"/> No		
<b>Cardiac catheterisation contraindicated:</b>		
<b>Discussion:</b>		

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<b>Calcium channel blocker (CCB) history</b>	
<ul style="list-style-type: none"> <li>• If the patient has idiopathic PAH and is vasoreactive, and has had a trial of CCBs for at least three months (preferably six), please attach re-catheterisation data demonstrating disease progression despite CCB treatment.</li> <li>• If necessary, please provide discussion of CCB treatment:</li> </ul>	
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<b>Echocardiography (please attach full report)</b>	
Echo RVP	Date of test:
Echo RAP	

<b>Medical History</b>	
<b>Transplant status:</b>	<input type="checkbox"/> Not suitable for referral/turned down
	<input type="checkbox"/> Not yet referred
	<input type="checkbox"/> Inactive waiting list
	<input type="checkbox"/> Active waiting list
<b>Smoking status</b> (for reporting purposes only):	<input type="checkbox"/> Smoker
	<input type="checkbox"/> Smoker and offered smoking cessation counselling and treatment
	<input type="checkbox"/> Ex-smoker, please state length of time:
	<input type="checkbox"/> Non-smoker
<b>Current and relevant medications (including CCBs):</b>	
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**Renewal Application / Request for Change of Therapy for Pulmonary Arterial Hypertension Treatments for Adults (and children aged over 10 years)**

Use this form for renewal applications and applications for therapy changes. Initial approval is valid for a period of six months. Subsequent approvals are valid for twelve months.

**Date of Application:** \_\_\_\_\_

**Please send applications to:**

PAH Panel Coordinator  
PHARMAC  
P O Box 10-254  
WELLINGTON

*Applications **must** be **complete** and accompanied by supporting data where required.*

**Have you attached:**

- Cardiac catheterisation report
- Echo results

Phone: 04 9167 512

Facsimile: 04 974 4858

Email : [PAH@pharmac.govt.nz](mailto:PAH@pharmac.govt.nz)

Patient Details – patient sticker is acceptable			
Surname:			
First Name/s:			
NHI No:			
Gender:	<input type="checkbox"/> Male <input type="checkbox"/> Female		
D.O.B:			
Address:			
Phone No:	Home:	Work:	Mobile:

Patient's Physician	
Name:	
NZMC Registration Number:	
Practice Address:	
Phone No:	
Mobile No:	
Fax No:	
Email:	
Signature of applying physician:	Date:



Status Update					
<b>NYHA/WHO functional class</b>					
2 <input type="checkbox"/>		3 <input type="checkbox"/>		4 <input type="checkbox"/>	
Test results					
Height (cm):		Weight (kg):		BMI (kg/m <sup>2</sup> ):	
<u>Blood pressure</u>					
<b>Six minute walk test (x2 if annual renewal ie done every six months):</b>					
Distance walked (m):					
SpO2:	Baseline:		Nadir:		
Heart Rate:	Baseline:		Maximum:		
Borg Index:	Pre:		Post:		
<b>Brain natriuretic peptide (BNP)</b>		<u>BNP Reference Range:</u>			

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<b>Right heart cardiac catheter (please attach report)</b>	
Date of test:	
All patients: Repeat cardiac catheter reports must be provided one year after the start of treatment. <ul style="list-style-type: none"> <li>Stable patients: cardiac catheter reports are required at 2 to 4 year intervals depending upon patient progress.</li> <li>Unstable patients: Where escalation of treatment is requested, a repeat right heart cardiac catheter is mandatory.</li> </ul>	
Testing centre:	
Pulmonary capillary wedge pressure: (Threshold: ≤ 15 mmHg)	
Pulmonary artery pressures:	Mean:
	Systolic:
	Diastolic:
Mean right atrial pressure:	
Pulmonary vascular resistance:	<input type="checkbox"/> Wood units (Threshold: >3)
	<input type="checkbox"/> <u>International units (dyn s cm<sup>-5</sup>)</u> (Threshold: >240)

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Cardiac output	
Cardiac index	

**Cardiac catheter contraindicated:**

Discussion:

**Echocardiography (please attach full report)**                      Date of test:

Echo RVP	
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Echo RAP	
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**Current symptoms / general well-being over previous 6 or 12 months (as applicable)**

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**Initial Application for Funding of Pulmonary Arterial Hypertension Treatment**  
**Application for children less than 10 years for PDE-5 inhibitor (sildenafil)**  
**treatment**

This form is applicable for younger patients requiring PDE-5 inhibitor (**sildenafil**) monotherapy only. If other treatments are required use the form for adults and children aged over 10 years.

**Date of Application:** \_\_\_\_\_

**Please send applications to:**

PAH Panel Coordinator  
 PHARMAC  
 P O Box 10-254  
 WELLINGTON

*Applications **must** be **complete** and accompanied by supporting data where required.*

**Have you attached:**

- Cardiac catheterisation report
- Echocardiography report
- CT report

Phone: 04 9167 512  
 Facsimile: 04 974 4858  
 Email: [PAH@pharmac.govt.nz](mailto:PAH@pharmac.govt.nz)

Patient Details – patient sticker is acceptable			
Surname:			
First Name/s:			
NHI No:			
Gender:	<input type="checkbox"/> Male <input type="checkbox"/> Female		
D.O.B:			
Address:			
Phone No:	Home:	Work:	Mobile:

Physician Details	
Name:	
NZMC Registration Number:	
Practice Address:	
Phone No:	
Mobile No:	
Fax No:	
Email:	
Signature of applying physician:	

Treatment requested
<input type="checkbox"/> Phosphodiesterase type-5 inhibitors [ <i>sildenafil</i> ]  <input type="checkbox"/> <b>Suspension required.</b> Please indicate which suspension product will be used: <ul style="list-style-type: none"> <li><input type="checkbox"/> Methycellulose or water. Available via community funding, dispensed by HP1 community pharmacies and hospital pharmacies.</li> <li><input type="checkbox"/> Ora-Blend or Ora-Plus or Ora-Sweet. Available via DHB Hospital funding, dispensed only by hospital pharmacies. Please ensure that the funding DHB hospital has agreed to pay for this suspending product.</li> </ul>

Please discuss the rationale for the proposed treatment regime:

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Please describe anticipated benefits of treatment

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<b>Basis of request for PAH treatments</b>	
<b>Diagnosis</b>	<b>Tick</b>
Patient has been diagnosed as having pulmonary arterial hypertension	<input type="checkbox"/>
<b>WHO (Venice) clinical classification</b>	
<u>Group One</u> – Pulmonary arterial hypertension	
Idiopathic PAH	<input type="checkbox"/>
Familial PAH	<input type="checkbox"/>
Associated with other diseases:	
Connective tissue disease	<input type="checkbox"/>
Congenital systemic pulmonary shunts	<input type="checkbox"/>
Portal hypertension	<input type="checkbox"/>
HIV infection	<input type="checkbox"/>
Drugs/toxins	<input type="checkbox"/>
Other (specify)	<input type="checkbox"/>
Associated with significant venous or capillary involvement	
Pulmonary veno-occlusive disease	<input type="checkbox"/>
Pulmonary capillary haemangiomatosis	<input type="checkbox"/>
Persistent pulmonary hypertension of the newborn	<input type="checkbox"/>
<u>Group Four</u> – Pulmonary hypertension due to chronic thrombotic and/or embolic disease only	<input type="checkbox"/>
<u>Group Five</u> – Other pulmonary hypertension (specify)	<input type="checkbox"/>

Test results			
Height (cm):		Weight (kg):	
Height centile:		Weight centile:	
Gestation at birth:	Birth weight (centile):		
Number of hospital admissions:			
ICU Days:			
History of ventilation:			
Current oxygen use:			
Saturations	On Room air: _____	On Oxygen at ___ Litres/min: _____	
Results of overnight oximetry:			
Chest X Ray findings:			
<b>Six minute walk test: (if relevant)</b>		Date of test:	
Distance walked (m):			
SpO2	Baseline:		Nadir:
Heart Rate	Baseline:		Maximum:
Borg Index	Pre:		Post:
<b>Other:</b>			
Brain natriuretic peptide (BNP):		<u>BNP Reference Range:</u>	
Radiology CT Chest results – if applicable (attach report)			

<b>Right heart cardiac catheterisation (if performed)</b>		Date of test:	
Testing centre:			
Pulmonary capillary wedge pressure:			Threshold: $\leq 15$ mmHg
Pulmonary artery pressures:	Mean:		Threshold $> 25$ mmHg at rest
	Systolic:		Diastolic:
Mean right atrial pressure:			
Pulmonary vascular resistance:	<input type="checkbox"/> Wood units (Threshold: $>3$ )		
	<input type="checkbox"/> <a href="#">International units (dyn s cm<sup>-5</sup>)</a> (Threshold: $>240$ )		
Cardiac output:			
Cardiac index:			
<b>Cardiac catheter contraindicated:</b>			
Discussion:			
<b>Echocardiography (please attach report)</b>		Date of test:	
Estimate of PA pressure			
How obtained? (TR jet vs PDA or other)			
Systemic BP			
RV dilation			
RV function			
Structural congenital heart disease (please describe)			

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(Threshold:  $>240$ )

**Renewal Application for Funding of Pulmonary Arterial Hypertension Treatment . Application for children less than 10 years for PDE-5 inhibitor (sildenafil) treatment**

This form is applicable for younger patients requiring PDE-5 inhibitor (**sildenafil**) monotherapy only. If other treatments are required use the form for adults and children aged over 10 years.

**Date of Application:** \_\_\_\_\_

**Please send applications to:**  
 PAH Panel Coordinator  
 PHARMAC  
 P O Box 10-254  
 WELLINGTON

Phone: 04 9167 512  
 Facsimile: 04 974 4858  
 Email: [PAH@pharmac.govt.nz](mailto:PAH@pharmac.govt.nz)

*Applications **must be complete** and accompanied by supporting data where required.*

**Have you attached:**

- Echocardiography report
- Cardiac catheterisation report
- CT report

Patient Details – patient sticker is acceptable			
Surname:			
First name/s:			
NHI No:			
Gender:	<input type="checkbox"/> Male <input type="checkbox"/> Female		
D.O.B:			
Address:			
Phone No:	Home:	Work:	Mobile:

Physician Details	
Name:	
NZMC Registration Number:	
Practice Address:	
Phone No:	
Mobile No:	
Fax No:	
Email:	
Signature of applying physician:	

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<b>Basis of request for PAH treatments</b>	
<b>Diagnosis</b>	<b>Tick</b>
Patient has been diagnosed as having pulmonary arterial hypertension	<input type="checkbox"/>
<b>WHO (Venice) clinical classification</b>	
<u>Group One</u> – Pulmonary arterial hypertension	
Idiopathic PAH	<input type="checkbox"/>
Familial PAH	<input type="checkbox"/>
Associated with other diseases:	
Connective tissue disease	<input type="checkbox"/>
Congenital systemic pulmonary shunts	<input type="checkbox"/>
Portal hypertension	<input type="checkbox"/>
HIV infection	<input type="checkbox"/>
Drugs/toxins	<input type="checkbox"/>
Other (specify):	<input type="checkbox"/>
Associated with significant venous or capillary involvement	
Pulmonary veno-occlusive disease	<input type="checkbox"/>
Pulmonary capillary haemangiomatosis	<input type="checkbox"/>
Persistent pulmonary hypertension of the newborn	<input type="checkbox"/>
<u>Group Four</u> – Pulmonary hypertension due to chronic thrombotic and/or embolic disease only	<input type="checkbox"/>
<u>Group Five</u> – Other pulmonary hypertension (specify)	<input type="checkbox"/>

Test results			
Height (cm): ▲		Weight (kg):	
Height centile:		Weight centile:	
Oxygen Saturations	On Room air _____	On Oxygen at ___ Litres/min: _____	
Current oxygen use:			
Results of overnight oximetry:			
Hospital admissions since approval (please list dates and diagnoses)			
ICU days since approval:			
Chest X Ray findings:			
<b>Six minute walk test: (if relevant)</b>		Date of test:	
Distance walked (m):			
SpO2:	Baseline:		Nadir:
Heart Rate:	Baseline:		Maximum:
Borg Index:	Pre:		Post:
<b>Other:</b>			
Brain natriuretic peptide (BNP):		BNP Reference Range:	
Radiology CT Chest results – if applicable (attach report)			

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Right Heart Cardiac Catheter (please attach reports)		
Date of test: Testing centre:		
	Date of current catheter:	Date of previous catheter:
Pulmonary capillary wedge pressure: (Threshold: $\leq 15$ mmHg)		
Pulmonary artery pressures: (mPAP $>25$ mmHg at rest)	Mean:	
	Systolic:	
	Diastolic:	
Mean right atrial pressure:		
Pulmonary vascular resistance:	<input type="checkbox"/> Wood units (Threshold: $>3$ )	
	<input type="checkbox"/> <a href="#">International units</a> ( $\text{dyn s cm}^{-5}$ ) (Threshold: $>240$ )	
Cardiac output		
Cardiac index		
<b>Cardiac catheter contraindicated:</b>		
Discussion:		
<b>Echocardiography (please attach report)</b>		
	Date of current echo:	Date of previous echo:
Estimate of PA pressure:		
How obtained? (TR jet vs PDA or other)		
Systemic BP:		
RV dilation:		
RV function:		
Structural congenital heart disease (please describe):		

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(Threshold:  $>240$ )