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1405

Final Protocol to  
guide the assessment  
of Pulmonary  
Rehabilitation

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March, 2016

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## MSAC and PASC

The Medical Services Advisory Committee (MSAC) is an independent expert committee appointed by the Minister for Health and Ageing (the Minister) to strengthen the role of evidence in health financing decisions in Australia. MSAC advises the Minister on the evidence relating to the safety, effectiveness, and cost-effectiveness of new and existing medical technologies and procedures and under what circumstances public funding should be supported.

The Protocol Advisory Sub-Committee (PASC) is a standing sub-committee of MSAC. Its primary objective is the determination of protocols to guide clinical and economic assessments of medical interventions proposed for public funding.

### Purpose of this document

This document is intended to provide a draft decision analytic protocol that will be used to guide the assessment of an intervention for a particular population of patients. The draft protocol will be finalised after inviting relevant stakeholders to provide input to the protocol. The final protocol will provide the basis for the assessment of the intervention.

The protocol guiding the assessment of the health intervention has been developed using the widely accepted "PICO" approach. The PICO approach involves a clear articulation of the following aspects of the question for public funding the assessment is intended to answer:

- P**atients – specification of the characteristics of the patients in whom the intervention is to be considered for use
- I**ntervention – specification of the proposed intervention and how it is delivered
- C**omparator – specification of the therapy most likely to be replaced by the proposed intervention
- O**utcomes – specification of the health outcomes and the healthcare resources likely to be affected by the introduction of the proposed intervention

## **Purpose of application**

A proposal for an application requesting MBS listing of pulmonary rehabilitation (PR) program and pulmonary maintenance exercise (PME) program for patients with chronic lung disease was received from Lung Foundation Australia by the Department of Health and Ageing in December 2014. This proposal relates to a new intervention/s for listing on the MBS.

The Deakin Health Technology Assessment Group, under its contract with the Department of Health and Ageing, drafted this decision analytical protocol to guide the preparation of an assessment of the safety, effectiveness and cost-effectiveness of pulmonary rehabilitation for patients diagnosed with Chronic Pulmonary Obstructive Disease (COPD), bronchiectasis, interstitial lung diseases and lung cancer (called chronic lung disease (CLD) in this protocol) to inform MSAC's decision-making regarding public funding of the intervention.

## **Background**

### **Current arrangements for public reimbursement**

There are currently no MBS item numbers for delivery of a pulmonary rehabilitation program. MBS Item 10960, physiotherapy, provides for individual physiotherapy, is a service provided to a person who has a chronic condition and complex care needs, requires a GP Management Plan (GPMP, MBS Item 721) and Team Care Arrangement (TCA, MBS Item 723) and provides for a maximum of five services per year (if reimbursed under MBS the patient cannot claim private reimbursement, if available). A similar service is MBS item 10953 – Exercise Physiology. It is possible one-on-one pulmonary rehabilitation could be done under these MBS items (though it is more likely other interventions would be provided), but it does not provide for the delivery of the specified program in the proposal. MBS item 81315, exercise physiology health service and MBS item 81335, physiotherapist, provides for a person who is of Aboriginal or Torres Strait Islander (ATSI) descent, and has been identified by a medical practitioner a need for follow-up allied health services, provides for one on one service, requires a referral by their GP (referral form for follow-up allied health services under Medicare for ATSI) and provides for a maximum of five services per year per item. It is possible one-on-one pulmonary rehabilitation could be done under these MBS items (though it is more likely other services would be provided), but it does not provide for the delivery of the specified program.

Pulmonary rehabilitation and pulmonary maintenance exercise programs are provided through the State based Local Hospital Networks, through other State based programs e.g. programs designed to prevent frequent readmission to hospital in chronically ill patients, through private providers (private hospitals and private practitioners) and non-government organisations. Historically there has been no uniform provision and funding of these services. Previously, health professionals, knowing the strong evidence for pulmonary rehabilitation, used other funding sources to pull together programs wherever possible, but as there was no secure funding, programs often started and then stopped with loss of

skilled health professionals to other roles. Funding for pulmonary rehabilitation programs is/was reliant upon individual managers determining allocation of resources with varying amounts of funding.

In 2014-15 the Independent Hospital Pricing Authority (IHPA) introduced a new Activity Based Funding Item specifically for Pulmonary Rehabilitation (Item 40.60). Class Tier 2 Item 40.60, is an in-scope non-admitted service, which is independent of the service setting in which it is provided (e.g. at a hospital, in the community, in a person's home)—the service can be provided on an outreach basis—and was allocated a price of \$377 per person per occasion of service. The Commonwealth contributes 38% of the price for Item 40.60 (\$143) and it is up to the State to determine whether it will fully subsidise the balance. To receive IHPA funding a service must be classified as a hospital service. GP referred allied healthcare is not classified as a hospital service so is not included for IHPA funding. The service fee applies whether PR is provided for an individual, small group or group up to 12 participants (although the fee may invite a loading if it is delivered by a multidisciplinary team - a copy of the IHPA item description is at Appendix One).

Currently, there are approximately 275 places listed on the Lung Foundation Australia (LFA) website <http://lungfoundation.com.au/> as providing pulmonary rehabilitation and 183 pulmonary maintenance exercise places; which is currently being updated so the mix and total may change. Table 1 and Table 2 provide the current number of PR or PME programs by funding and State. The full current list of places providing PR is at Appendix Two. *The total number of services provided for patients by these places is not known.*

**Table 1: Pulmonary rehabilitation programs by type, funding source and state**

	HHS	Comm Health	Private Hospital	Private Provider	NGO	Total
Fund source	IHPA	IHPA	Private Health Insurance or DVA	Private Health insurance or DVA	Mixture-HACC, private health insurance or DVA	
NSW	49	48	3	2	0	102
ACT	1	0	0	0	0	1
VIC	20	32	9	2	7	70
QLD	10	19	4	4	2	39
NT	2	1	0	0	0	3
WA	21	8	2	0	0	31
TAS	4	1	0	0	0	5
SA	9	8	0	2	5	24
<b>Aus</b>	<b>116</b>	<b>117</b>	<b>18</b>	<b>10</b>	<b>14</b>	<b>275</b>

Fund=funding; HHS= hospital health service; IHPA=Independent Hospital Pricing Authority; comm=community; NGO=non-government organisation; HACC=home and community care, LIA=Lungs in Action

**Table 2: Pulmonary maintenance exercise programs by type, funding source and state**

	HHS/ Comm Health	Private Hospital	Private Provider	NGO	LIA	Total
Fund source	IHPA	Private Health Insurance or DVA	Private Health insurance or DVA	Mixture-HACC, private health insurance or DVA	Mixture-Patient pays, grant subsidies, private health insurance, DVA	
NSW	49	2	1	0	27	79
ACT	0	0	0	0	1	1
VIC	25	3	2	0	14	44
QLD	5	2	2	0	18	27
NT	1	0	0	0	1	2
WA	18	1	0	0	0	19
TAS	0	0	0	0	2	2
SA	1	0	1	4	3	9
<b>Aus</b>	<b>99</b>	<b>8</b>	<b>6</b>	<b>4</b>	<b>66</b>	<b>183</b>

Fund=funding; HHS= hospital health service; IHPA=Independent Hospital Pricing Authority; comm=community; NGO=non-government organisation; HACC=home and community care, LIA=Lungs in Action

The pulmonary maintenance exercise program. Lungs in Action, is a LFA community based maintenance exercise program, that is, an 'ongoing' maintenance class that requires prior completion of a pulmonary rehabilitation program, and no prior hospitalisation in the last 12 months (currently available in most States except WA). Geographical location of the centres providing services, and the list of places, as well as a map of the locations is at Appendix Two.

A 2011 national survey of PR in Australia looked at the structure and content of PR programs (Johnston et al, 2011). Among the respondents (n=147/193) there were 97 (66%) hospital outpatients PR programs and 39 (27%) of community health based PR programs with 6 programs being home based. These programs were widely distributed with 39% in urban areas, 25% in large regional area, 24% in small regional and 12% in rural areas with <10,000 population. Majority of the surveyed PR programs contained exercise training and patient education, were run by physiotherapists and nurses in outpatient settings and included both pre- (145/147, 99%) and post- (137/147, 93%) program assessment. This survey did not report on waiting lists to access a program.

Another survey conducted in 2007 (n=131/137), reported that there were 131 pulmonary rehabilitation programs around Australia. A majority (66%) attended twice a week, with the majority having either 6-8 participants (34%) or 9-11 (31%) and 57% of the programs ran for 8 weeks. Community based maintenance programs accounted for two-thirds, followed by maintenance programs as part of hospital service (44%). Maintenance programs are also conducted at the gym and at home. Eighty two percent of centres that did PR programs, referred patients for pulmonary maintenance exercise if a program was available (AIHW, 2013).

The number of centres providing services in 2015, represents an increase over 2011 (N=193) and 2006 (N=137) numbers. As can be seen from Table 1 and Table 2 places providing PR programs are more numerous. The majority of places where programs are delivered are in NSW, 40%, 25% in Victoria, and 14.4% in Qld and most of the centres now listed are funded based on IHPA (receive a mix of Commonwealth and State funding). Although there are more places now providing these services, data is not available to indicate whether this is due to the introduction of IHPA funded item number, and it is too soon for data to be available on demand for these services. Anecdotal evidence from Victoria is that some Local Hospital Networks have closed community centres.

For the purposes of the economic and financial analysis ***the numbers of patients serviced by these programs per year will need to be estimated.*** The 2006 survey of PR programs found only half of the available places had the capacity to service more than 100 participants per year (AIHW, 2013a).

A small ad hoc telephone survey conducted by the evaluators found that although most of the programs charge no fee to the patient, particularly those run in hospital outpatient departments, some of the community based publically run programs require a small patient contribution and charge a small fee, around \$5-10 per session or an upfront cost of \$50 per 16-20 sessions.

The applicant provided the following additional information that:

- The majority of HHS/Community Health programs are completely free-of-charge to patients,
  - In NSW – 5 HHS/Comm Health programs charged patients a gold coin donation to go towards morning tea
  - In VIC – 31 HHS/Comm Health programs charged patients a nominal fee from gold coin donation to \$9 per session (some of these payments were an upfront lump sum payment of \$30-\$50). These payments did not cover the cost of delivering these programs and in some instances patients did not have to pay if they couldn't afford the fee.



- The percentage of Private Health pulmonary rehab programs (private hospital + private provider) = 10% of all programs
  - The private health insurance payments ranged from \$444 - \$1200 for a pulmonary rehab program.
- Average cost to patient per session of Lungs in Action (pulmonary maintenance exercise) = \$9 (Lowest cost \$3 – Highest \$24)
  - Many of these programs were subsidized through local council grants, Medicare local grants, private health funds, university programs
- Some locations may only provide 1 x 6 week program each year, others provide only a review and home-exercise prescription.
- Some programs have restricted access e.g. in-patient only; age restrictions; lung disease type restrictions; referral pathway restrictions; waiting lists

#### Utilisation of current pulmonary rehabilitation services

COPD is a disease that mainly affects middle-aged and older people and it is estimated that 1 in 13 Australians aged 40 and over have lung function consistent with a diagnosis of COPD, (AIHW, 2013a; ACAM, 2011; Toelle et al. 2013). In Australia, the overall prevalence estimate of COPD classified on spirometry as Global Initiative for Chronic Lung Disease (GOLD) Stage II or higher was reported as 7.5% among people aged  $\geq 40$  years and 29.2% among those aged  $\geq 75$  years, Table 3 presents a snapshot of the information provided in this study (Toelle et al, 2013).

**Table 3: Weighted prevalence of illness and spirometric diagnoses, by age group and sex**

	40-54 years	40-54 years	40-54 years	55-74 years	55-74 years	55-74 years	Age ≥75 years	Age ≥75 years	Age ≥75 years
	Men	Women	All	Men	Women	All	Men	Women	All
<b>Ever diagnosed</b>									
Chronic bronchitis Emphysema Or COPD	2.3 (0.8-3.9)	4.2 (2.2-6.2)	3.3 (2.0-4.5)	7.4 (4.9-10.0)	7.0 (4.7-9.4)	7.2 (5.5-9.0)	8.4 (3.6-13.1)	4.5 (1.4-7.6)	6.2 (3.5-8.9)
Asthma asthmatic or allergic bronchitis	16.8 (13.1-20.5)	24.8 (20.4-29.2)	20.9 (18.0-23.8)	14.6 (11.3-17.9)	20.3 (16.6-23.9)	17.5 (15.0-20.0)	17.3 (4.5-30.2)	14.4 (6.6-22.1)	15.6 (8.5-22.7)
Ever smoked cigarettes	50.1 (44.5-55.8)	49.8 (44.5-55.1)	50.0 (46.1-53.8)	59.9 (55.4-64.5)	43.2 (38.1-48.4)	51.5 (48.0-54.9)	52.3 (37.6-67.1)	37.8 (23.9-51.8)	44.0 (34.2-53.8)
<b>GOLD stage</b>									
1 or higher	5.8 (3.6-8.0)	6.2 (3.6-8.8)	6.0 (4.3-7.7)	20.2 (16.2-24.1)	13.3 (10.3-16.3)	16.6 (14.1-19.1)	37.8 (22.6-53.0)	41.6 (26.3-56.9)	40.0 (29.1-50.8)
II or higher	1.7 (0.7-2.7)	2.2 (0.6-3.9)	2.0 (1.0-3.0)	8.3 (5.5-11.1)	6.5 (4.6-8.4)	7.3 (5.7-9.0)	24.1 (9.6-38.7)	32.9 (17.1-48.7)	29.2 (18.1-40.2)
Reversible spirometry consistent with asthma	5.5 (3.4-7.7)	3.4 (1.5-5.3)	4.4 (3.0-5.8)	7.3 (5.0-9.6)	4.1 (2.0-6.3)	5.7 (4.1-7.3)	21.2 (4.7-37.8)	3.2 (0.6-5.9)	11.1 (2.8-19.3)

Source: Table 2 (Toelle, 2013)

The prevalence results from the Toelle study are higher than previous prevalence estimates for COPD but they are not directly comparable. The 2004-05 National Health Survey (AIHW, 2010) reported that 2.8% of Australians ≥18 years self-reported a diagnosis of COPD, chronic bronchitis or emphysema whereas Toelle reported that 5.2% of people aged ≥40 self-reported having received this diagnosis (not shown in Table). The difference may be attributable to the different ages of the survey population. There was a poor overall response rate to the Toelle study, which introduces the possibility of selection bias, participants were slightly younger but were more likely to self-report a diagnosis of COPD than those who provided only minimal data. However, the study found that many participants with a confirmed airflow obstruction consistent with COPD did not have a pre-existing diagnosis (Toelle et. al, 2013).

Australia's population at 30 June 2012 was 22.7 million (ABS 2013, 3222.0 Population Projections, Australia 2012 (base) to 2101). Using series B projections, 10.9 million people are ≥40 years of age in 2014, and of these using the estimates from Toelle et al 2013, **819,311 Australians are estimated to have COPD GOLD stage II or higher**. The AIHW 2013a discussion paper into PR and long-term oxygen therapy for people with COPD (AIHW, 2013a) reported that

- only 5-10% of patients with moderate to severe COPD had accessed PR services

- over three-quarters of pulmonary rehabilitation programs had waiting period greater than 4 weeks and 37% had a waiting period of greater than 2 months
- fewer than half of the programs had capacity to provide PR services for more than 100 patients per year
- a large proportion of programs did not accept referrals from GPs, allied health or nursing professionals
- 60% of programs could not offer longer-term maintenance exercise programs or follow up assessment or care for patients who had completed the initial program.

Based on the above estimate of patients with COPD who have accessed PR services (5-10%) and the estimated 819,311 potential patients who may be referred for a PR program, **between 41,000-82,000 patients have used currently available PR services. From these estimates there appears to be a large unmet demand for PR program services.**

### Regulatory status

This intervention does not require TGA approval.

### Intervention

#### Description

The proposed intervention is a pulmonary rehabilitation program in a group setting which is expected to be provided in addition to other treatment options for COPD. Pulmonary rehabilitation is newly defined as a "...comprehensive intervention based on a thorough patient assessment followed by patient tailored therapies which include, but are not limited to, exercise training, education, and behaviour change, designed to improve the physical and psychological condition of people with chronic respiratory disease and to promote the long-term adherence to health-enhancing behaviours" (Spruit 2013).

PR may be initiated at any stage of the disease, during periods of clinical stability or directly after an exacerbation and is part of an integrated care model. It is proposed that the intervention is to be individualized to the unique needs of the patients, based on initial and ongoing assessments, including disease severity, complexity and comorbidities. The intervention is proposed to be provided in community settings, in groups, to address unmet demand for PR and in locations where some of the barriers to accessing PR can be reduced such as minimising travel and improving physical access. It is proposed that the format of the PR program is a one-hour program, delivered in groups of eight, twice a week over 8 weeks (i.e 16 sessions), repeated every 2 years and for PME, groups up to 12 participants for one hour per week, over 16 weeks (i.e 16 sessions). **PASC requested that consideration be given to the concept of dose response for both interventions and that the proposed formats should be evaluated.**

The proposed population for whom pulmonary rehabilitation would be prescribed are for patients under the care of their GP who have been diagnosed with COPD (which is an umbrella term for a group of diseases including emphysema, chronic bronchitis and chronic asthma that is not fully reversible); bronchiectasis; interstitial lung diseases; and lung cancer and **have had their pharmacotherapy optimized**. The applicant specifically excluded patients with cystic fibrosis from the target population on the basis that their susceptibility to infection means they cannot exercise in a group. ***Patients, who based on the severity of their chronic lung disease (CLD) only hospital based pulmonary rehabilitation is viable, are excluded from the eligible population.***

COPD is a progressive chronic lung disease that causes obstruction in airflow and is associated with persistent and progressive breathlessness, productive coughing, fatigue and recurrent chest infections (McCarthy B, 2015; GOLD, 2014). COPD is also associated with extra pulmonary effects such as muscle wasting, osteopaenia, cardiovascular disease and depression and is understood as a systemic disease. The initial underlying pathology of COPD is confined to the lungs, and a clinical diagnosis is based on presenting symptoms and confirmation of airflow limitation, determined by spirometry testing whereby pre and post bronchodilator forced expiratory volume in one second (FEV<sub>1</sub>) and forced vital capacity ratio (FVC) are measured. Airflow limitation that is not fully reversible (post-bronchodilator) FEV<sub>1</sub>/FVC ratio < 0.70 and FEV<sub>1</sub> <80% (GOLD 2014) is diagnostic. Predicted values for these lung measurements are based on gender, height, age and ethnicity. Australian guidelines include the following guide to the severity of COPD (COPDx, Primary Care), Table 4.

**Table 4: Guide to the severity of COPD**

COPD Severity	FEV <sub>1</sub> (%predicted)	Symptoms	History of exacerbations	Comorbid conditions
Mild	60-80	<ul style="list-style-type: none"> <li>Breathlessness on moderate exertion</li> <li>Recurrent chest infections</li> <li>Little or no effect on daily activities</li> </ul>	Frequency may increase with severity	Present across all severity groups*
Moderate	40-49	<ul style="list-style-type: none"> <li>Increasing dyspnoea</li> <li>Breathlessness walking on level ground</li> <li>Increasing limitation of daily activities</li> <li>Cough and sputum production</li> <li>Exacerbations requiring corticosteroids and/or antibiotics</li> </ul>	Frequency may increase with severity	Present across all severity groups*
Severe	<40	<ul style="list-style-type: none"> <li>Dyspnoea on minimal exertion</li> <li>Daily activities severely curtailed</li> <li>Experiencing regular sputum production</li> <li>Chronic cough</li> </ul>	Frequency may increase with severity	Present across all severity groups*

\*common comorbid conditions include cardiovascular disease, skeletal muscle dysfunction, metabolic syndrome, osteoporosis, anxiety or depression, lung cancer, peripheral vascular disease and sleep apnoea.

The symptoms of COPD make engagement in physical activity unpleasant as the result of air trapping and increased hyperinflation in the lungs, which results in increased breathlessness due to subsequent inefficient breathing (O' Donnell, 2007). The exertional dyspnoea is usually multifactorial in origin, partly reflecting peripheral muscle dysfunction, the consequences of dynamic hyperinflation, increased respiratory load or defective gas exchange (Spruit, 2013; Aliverti, 2008; Debigaré, 2008). Increased

breathlessness provokes anxiety, which inevitably leads to further breathlessness, exacerbation of COPD symptoms and panic. This causes a vicious circle whereby any activities that involve physical exertion are avoided, causing further muscle de-conditioning, which further reduces capacity to engage in physical activity (Bourbeau, 2007). Physical inactivity is therefore a key predictor of mortality in people with COPD (Garcia-Aymerich 2006; Spruit 2013; Waschki 2011). Consequently, the joint American Thoracic Society and European Respiratory Society (ATS/ERS) guidelines highlight the importance of exercise in the treatment and management of COPD (Spruit 2013). Treatment interventions for COPD include smoking cessation, pharmacological and non-pharmacological therapies and, in specific circumstances, supplemental oxygen, ventilatory support, surgical treatment and palliative care (GOLD 2014).

Patients with COPD present at different stages of the disease process. There is evidence that COPD is not well recognized or optimally managed in its early stages and that effective treatment strategies that improve the symptoms and progress of COPD are underutilized (Johnston, 2015). The Australian guidelines recommend that after GPs diagnose and assess a patient's baseline functional status, non-pharmacological strategies should be provided to all patients with COPD. These include smoking cessation strategies, regular physical activity and pulmonary rehabilitation. It is recommended that GPs recommend pulmonary rehabilitation for all patients with exertional dyspnoea as well as re-assessing and considering re-referral to PR for patients who have stopped being active (Abramson, 2014).

A COPD exacerbation is characterised by a change in the patient's baseline dyspnoea, cough and/or sputum that is beyond normal day-to-day variations, is acute in onset and may warrant a change in regular medication or hospital admission.

Pulmonary rehabilitation and selective use of long-term (home) oxygen therapy (LTOT) are among the key non-pharmacological interventions recommended in the Australian guidelines on the diagnosis and management of COPD-the COPD-X Plan (Abramson et al. 2014).

While pulmonary rehabilitation evidence has been built largely upon patients with COPD, there is existing and growing evidence for other lung diseases (chronic asthma, bronchiectasis, interstitial lung disease and lung cancer).

Asthma is a chronic lung disease which can be controlled but not cured. Asthma is defined by the presence of excessive variation in lung function (variation in expiratory airflow that is greater than that seen in healthy people) and respiratory symptoms (wheeze, shortness of breath, cough, chest tightness) (National Asthma Council Australia 2014). In well-controlled asthma there is loss of this airway variability and reduction in symptoms and normalisation of measured lung function. The intervention is not intended for people with well-controlled asthma. However, older people with long-standing asthma may develop fixed (irreversible or incompletely reversible) airflow limitation (NAC 2014). They have fixed airflow limitation when stable as measured by a post-bronchodilator FEV1 <80% predicted despite maximal therapy. This group of people in some literature are referred to as having "asthma-COPD overlap". Chronic Asthma is asthma that is long-term and may not be

considered to be controlled because it is no longer fully reversible (i.e. post-bronchodilator FEV<sub>1</sub> <80%predicted).

Bronchiectasis is a common lung disease characterised by chronic infection in small airways that results in some parts of the lung becoming damaged, scarred and dilated, allowing infected mucus to build up in pockets (LFA website). It is also characterised by cough with purulent sputum, recurrent pulmonary infections and dyspnoea. People with bronchiectasis experience reduction in both exercise capacity and health-related quality of life (Spruit, 2013; Lee, 2009)

Interstitial lung diseases (ILD) are a group of less common lung conditions that cause chronic breathlessness. The problem usually develops over the age of 50 years, and can affect both men and women, and also children. Generally the causes of these diseases are unknown. The major problem in ILD is inflammation of the lung tissue which leads to scarring (fibrosis) of the air sacs (alveoli) that interferes with the ability of the lung to deliver oxygen. If the problem gets worse, the lungs become stiff, and shrink resulting in increased breathlessness (LFA website). Exercise intolerance is a key feature of the ILDs and is often associated with marked dyspnoea on exertion. Although the mechanism of respiratory limitation in COPD and ILD differ, there is a similarity in clinical problems (exercise intolerance, muscle dysfunction, dyspnoea, and impaired quality of life) that suggest that pulmonary rehabilitation may benefit these patients (Spruit, 2013).

Patients with lung cancer may be physically inactive which results in deconditioning, muscle weakness and fatigue. In addition they may be, cachexic, and anxious and also have concurrent COPD all of which results in disability among individuals with lung cancer. Dyspnoea and depressed mood also contribute to impaired quality of life (Spruit, 2013; Maione, 2005; Ostroff, 2011).

It was suggested to expand the proposed population to include:

- Pulmonary fibrosis (e.g. following asbestosis)
- Alpha1 antitrypsin deficiency
- Nontuberculosis mycobacteria
- Pulmonary arterial hypertension
- Pre-op for patients slated to undergo lung or heart-lung transplant

*PASC advice is that if a convincing case can be made to extrapolate from the existing evidence base to these subgroups these groups could be included in the proposed population for funding.*

Chronic respiratory conditions are predominantly managed in primary health care, with asthma reported as the most common chronic respiratory conditions managed by GPs accounting for about 2 per 100 GP-patient encounters in 2012-13 (Britt et al. 2013). The hospitalisation rate for asthma was 173 per 100,000 in 2011-12 (this number is for all asthma). The hospitalisation rate for COPD (among those aged 55 and over) was 1200 per 100,000 population (AIHW, 2010).

In 2011, COPD caused 5,878 deaths (3,278 males and 2,600 females), asthma 378 deaths and bronchiectasis 314 deaths. The death rate from COPD for males has decreased markedly over the past 40 years, with the age-standardised rate in 2011 less than one-third of that in 1970 (falling from 95 to 30 per 100,000 populations). In contrast, there was a small rise in the death rate for females over this period (from 13 to 18 per 100,000 population) (AIHW, 2014). In 2012, the ABS reported in total 394 deaths due to asthma, which in 60% of cases occurred in people aged 75 years and over but does not specify if due to chronic or acute asthma (half of all people with asthma aged 75 years and over have not been diagnosed by a doctor (National Asthma Council).

Deaths due to asthma and COPD are higher in people residing in *Remote* area of Australia compared to *Major cities*, Indigenous Australians compared to non-Indigenous Australians and people residing in areas of greatest socioeconomic disadvantage (AIHW, 2014).

### **Delivery of the intervention**

Patients with confirmed and symptomatic chronic lung conditions who have

- COPD confirmed through post bronchodilator spirometry; or
- Bronchiectasis confirmed by CT scan, MRI or specialist diagnosis; or
- Interstitial lung disease with diagnosis confirmed by a specialist; or
- Lung cancer with diagnosis confirmed by a specialist; and

with optimal pharmacotherapy can be referred for pulmonary rehabilitation by their GP/specialist. The proposed intervention, has two components:

#### (1) Pulmonary rehabilitation

A Pulmonary rehabilitation program will involve:

- GP or specialist refers client for pulmonary rehabilitation program
- Participant receives an initial pre-assessment which will include, among other things, a medical history, testing of functional exercise capacity (six-minute walk test); assessments of health status (Quality of Life questionnaire) and a psychosocial assessment questionnaire. Based on this initial assessment an individually tailored program will be prescribed for the participant
- The individually tailored program will be an evidence-based program that includes a combination of:
  - Exercise
    - Endurance exercise (walking, cycle ergometry)
    - Upper/lower limb strength exercises
    - With a preference to functional exercise, with little specialised exercise equipment to encourage patients to do the exercise at home on their own
    - Home exercise program for at least a third session per week (i.e. unsupervised session)

- Education (using C.O.P.E. – COPD Online Patient Education developed by Lung Foundation Australia, or Better Living with COPD Patient Guide (Booklet available free of charge online at the LFA website) or other suitable education program
- The participant will then attend the supervised community based program where they undertake their individually prescribed exercise program (with all the elements as described above) as part of a group with a maximum of 8 participants,
- Each session to be of one hour duration, twice a week for eight weeks (or to be completed within a 10 week period)
- A final post-assessment of the participant that will include retesting of functional exercise capacity (six-minute walk test), health status (Quality of Life questionnaires) and psychosocial assessment to measure patient outcomes.. A letter will be written to the referring doctor.
- Participants are to be eligible to do this program every two years.

## (2) pulmonary maintenance exercise (PME)

- GP or specialist refers participant for a pulmonary maintenance exercise (PME) program
- Participants cannot do this program without finishing Part One-PR program
- The maintenance program will consist of a one hour session per week for sixteen weeks
- Maximum number of participants is 12 patients
- The sixteen sessions to be completed within six months of referral
- Participants are eligible annually to do this program for those with severe disease, frequent exacerbations, multi-morbidity or low-socioeconomic status.

The proposal is that patients will be eligible to undertake a PR program every two years.

It was proposed that patients who have been hospitalised for an acute exacerbation, or if a major deterioration in clinical condition occurs, be eligible to redo the program within this two year period. Clinical experts were asked to estimate the proportion of patients referred for PR who have mild COPD, moderate COPD and severe COPD and what proportion of the patients within each category may have an exacerbation or major deterioration requiring a further PR program. This information was then used to estimate the proportion of the eligible population who may require more than one PR program in the two-year period.

Expert advice is that, within this two year period, after completing a PR program, patients with mild COPD (approximately 50-55% of the eligible population), are highly unlikely to have an exacerbation or significant sudden deterioration; patients with moderate COPD (approximately 35-40% of the eligible population) approximately 20-30% might expect to have such a change (this is likely to be halved if the patient attends a maintenance program or maintains all the healthy behaviours promoted within PR); patients with severe COPD (approximately 10% of the eligible population) approximately 50-60% would have an exacerbation within the two year period. Based on the expert advice, and accepting that half of patients with moderate COPD likely to have an exacerbation will no longer have one if they follow their PR program diligently (that is 65% of all patients are unlikely to have an exacerbation requiring hospitalisation or major clinical change after PR in the two-year period), it is likely that **approximately 12% of the eligible population who have undertaken a PR**



**program are likely to require another within the two years. If patients with moderate COPD do not respond as expected to their PR program, this may increase to 18%.**

The PR program to be delivered two sessions a week for 8 weeks for a total of 16 sessions. To allow for any non-attendance by the patients, for example due to sickness, the time to complete the pulmonary rehabilitation program is extended to 10 weeks to enable an 8-week program to be completed within a 10-week period.

The timeline for the completion of the 16-session PME program is 6 months. A six-month deadline allows for a patient to miss 10 weeks of the PME program. PME programs are a strategy to enhance behaviour change and encourage long-term engagement in an exercise program and six-month deadline allows time for patients to take some 'time out' from the program if required for family/work reasons without precluding them from being engaged in the program.

It is anticipated that it is highly likely that the same provider in primary care will deliver pulmonary rehabilitation and then the pulmonary maintenance exercise. However, if a person was hospitalised for an acute exacerbation and referred to pulmonary rehabilitation at a hospital outpatient department, they will most likely do their pulmonary maintenance exercise (PME) program at another facility.

The provision of the proposed intervention may result in patients who would have been referred to a currently existing state funded community based program instead being referred to private community based programs. However, this intervention does not wish to provide services for patients who are too unwell to do the program in a community setting. After consultation, in respect of the percentage of patients who must receive PR and/or PME in a hospital clinic versus a community provider, it is likely that **1 in 12 patients would still need to attend a hospital outpatients for pulmonary rehabilitation, and fewer again for pulmonary maintenance exercise** (this is based on the work of Dr Sue Jenkins (WA) who has been stratifying patients between hospital programs and community programs for a number of years).

The preferred model of delivery is that the accredited eligible allied health provider who undertakes the initial respiratory assessment provides the group service and completes the post-assessment as well as the written letter to the referring GP/specialist. The initial respiratory assessment can only be done by an accredited eligible physiotherapist or an accredited exercise physiologist.

The Australian guidelines do not suggest the optimal size of the exercise group. The American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR 2011) recommends a staff-to-participant ratio of 1:4, and the British Thoracic Society (British Thoracic Society 2001) a ratio of 1:8. Therefore the limit of a maximum of eight participants in the PR program appears within the recommendations. The maximum number of participants in the PME program is 12.

All best evidence and all current international guidelines ratify the central role of pulmonary rehabilitation in the treatment of people with COPD (GOLD 2014; NICE 2010; Nici 2006; Ries 2007; Spruit 2013). This advice appears to have been in place for a significant period of time but, attendance by eligible patients to PR programs is reported to be low. Reasons for this are quoted as lack of referrals by GPs, availability of local programs, transport, waiting periods, and patient choice.

The provision of PR programs delivered in diverse community settings, it is hoped, will address some of these identified barriers but not the low GP awareness or referral rates. It has been recommended that strategies to improve referral to and participation in PR are required (AIHW 2013a, Johnston et al, 2013). Lung Foundation Australia has nominated a number of strategies to help address low GP awareness and referral rates:

- Lung Foundation has a GP ALM (Active Learning Module) through the RACGP and ACRRM, runs GP workshops with Medicare Locals (soon to be PHNs), and attends GP conferences and writes articles in publications. They also run similar activities with practice nurses, pharmacists and other groups.
- It will be important to raise awareness of physiotherapists and AEPs regarding the new item number and the need for them to upskill in pulmonary rehabilitation if they wish to deliver this service. In addition, hospital-based physiotherapists and accredited exercise physiologists who work in pulmonary rehabilitation will need to be made aware of the availability of pulmonary maintenance exercise in the community so that they can ensure patients have access to such programs after completing pulmonary rehabilitation.

Lung Foundation has an Australia-wide Pulmonary Rehabilitation Network and a list of the current hospital-based programs and will use this network to inform and educate.

The LFA provides a face-to-face train-the-trainer, training program (Breathe Easy, Walk Easy) for rural and remote health care providers. This program provides participants with the skills and knowledge to set up and deliver local pulmonary rehabilitation programs for their patients. However, participants must pay a fee for this program (approximately \$3000) which may be a barrier for small rural and remote communities. The fee covers the 2-day workshop at the rural or remote site for all interested local health professionals, usually about 8) and a follow-up visit at 3 months.

Therefore Lung Foundation Australia developed Pulmonary Rehabilitation Training online to enable those in rural, remote and metropolitan centres to be able to undertake the training at a lower cost (\$175) and from the comfort of their own home or workplace. However unlike Breathe Easy, Walk Easy above it does not contain a practical component. This training is paid for by the individual

### **Prerequisites**

It is proposed that the intervention will be provided in the community by providers who have their own business premises in the form of clinics/gyms/community halls. The proposal argues that community based locations enable increased accessibility for people with chronic lung disease. Service providers can use existing or minimal additional equipment requirements, e.g. chairs for sit-to-stand exercises; steps; dumbbells; resistance bands; walking areas; (or treadmills and stationary cycles).

To be able to deliver this intervention the eligible health professionals will require credentialing and will need to be registered as either a physiotherapist accredited by the Australian Health Practitioner Regulation Agency (AHPRA) or an Exercise and Sports Science Australia (ESSA) accredited exercise physiologist. Training to deliver the program will be determined by the accreditation agencies.

## Facility Accreditation

Physiotherapists or exercise physiotherapist accredited to provide PR or PME programs will require mandatory facility accreditation to provide these programs in a community setting. **Although these requirements are still to be finalised** it is likely that this facility accreditation will at least consist of the following requirements:

- Current Cardio Pulmonary Resuscitation certificate
- adequate emergency procedures should be in place, including a telephone to call an ambulance
- Current registration with AHPRA or ESSA
- Current public liability insurance and scope of practice to provide exercise training and testing in the community setting

Aside from the cost charged to patients to participate in the Lungs in Action program, a fee is charged by the LFA to train instructors and accredit them to run the Lungs in Action program. The fee to become credentialed is not stated on the website but there is an option to do only the online theoretical, which doesn't provide for accreditation, and this incurs a charge of \$220. Fees charged by other bodies for credentialing are not available. Any significant fee for credentialing may limit the number of health service professionals available to deliver the intervention. The provider noted that individual instructors pay to undertake the training to deliver Lungs in Action programs. Payments are for cost-recovery purposes and contribute toward the cost of infrastructure and updates to the training, management of the pulmonary rehabilitation network and other activities. To date, this has not been a barrier to uptake of training.

## Co-administered and associated interventions

There are no co-administered or associated interventions that are required to deliver pulmonary rehabilitation programs. Some of the patients who do pulmonary rehabilitation programs will require long-term oxygen therapy. This therapy will be required over a prolonged period at home and so will accompany the patient to any PR or PME programs but it is not specific to the intervention.

As part of the individualised pulmonary rehabilitation program developed for the patient during assessment, multidisciplinary care beyond what the PR provides may be identified. For example, patients may require other non-pharmacological interventions (e.g. mental health assessment, dietician referrals). This will be assessed on an individual basis, and it is not known what proportion of patients will be assessed as requiring additional MBS items. *The applicant has provided information on the likely proportion of patients who are assessed for PR that may require additional referrals to:*

- Dietician (MBS item 723, GP referral via Item 723 or a non-Medicare rebate service) (*Applicant advice; In an Australian study by Noteboom et al 2014, within the chronic lung disease cohort, 26% were underweight and 18% had a BMI>30. Both these groups would be referred to a dietician*)
- Mental health assessment (e.g. items 2700, 2701, 2715 and 2717.701) (*Applicant advice; In a paper by Puhan et al 2008, 23% of patients had anxiety or depression at initial assessment. Such patients would be referred via their treating GP to a psychologist if available.*)

- Other chronic diseases e.g. diabetes (MBS item 721 and 723). *It is common for people with COPD to have up to 3 co-morbidities.*

## Listing proposed and options for MSAC consideration

### Proposed MBS listing

From the information provided in the application the following MBS listing is proposed, Table 5. Separate MBS item numbers are described according to whether the service is for the pre and post assessment, PR or PME programs.

**Table 5: Proposed MBS item descriptor for [item]**

Category 8 – Miscellaneous
<p>MBS [item number]</p> <p><b>PULMONARY REHABILITATION SERVICE – INDIVIDUAL ASSESSMENT FOR GROUP SERVICES</b></p> <p>Pulmonary rehabilitation health service provided to a person by an eligible physiotherapist or exercise physiologist, for the purposes of ASSESSING a person's baseline respiratory status, including taking a medical history, testing of functional exercise capacity (six-minute walk test), assessment of health status (quality of life questionnaires) and a psychosocial assessment questionnaire, planning an individualized pulmonary rehabilitation program, if:</p> <ul style="list-style-type: none"> <li>(a) The service is provided to a person diagnosed with COPD, chronic irreversible asthma, bronchiectasis, interstitial lung disease or lung cancer</li> <li>(b) The person is being managed by a general practitioner under a GP Management Plan [i.e. item 721 or 732], or if the person is a resident of an aged care facility, their medical practitioner has contributed to a multidisciplinary care plan [i.e. item 731]; OR, the person is being managed by a specialist (respiratory, rehabilitation, general, consultant physician, surgeon)</li> <li>(c) The patient's pharmacotherapy for CLD has been optimized by their medical practitioner</li> <li>(d) The person is referred to an eligible physiotherapist or exercise physiologist by the medical practitioner using a referral form that has been issued by the Department of Health, or a referral form that contains all the components of the form issued by the Department; and</li> <li>(e) The person is not an admitted patient of a hospital, and</li> <li>(f) The service is provided to the person individually and in person; and</li> <li>(g) The service is of at least 45 minutes duration; and</li> <li>(h) After the service, the eligible physiotherapist or exercise physiologist gives a written report to the referring medical practitioner mentioned in paragraph (b); and</li> <li>(i) In the case of a service in respect of which a private health insurance benefit is payable – the person who incurred the medical expenses in respect of the service has elected to claim the Medicare benefit in respect of the service, and not the private health insurance benefit.</li> </ul> <p>- To a maximum of one every two years</p> <p>Fee: \$65.00 Benefit: 85% = \$55.25</p> <p>[Relevant explanatory notes]</p>
<p>MBS [item number]</p> <p><b>PULMONARY REHABILITATION SERVICE – GROUP SERVICE</b></p> <p>Pulmonary rehabilitation program provided to a person by an eligible physiotherapist or exercise physiologist as a GROUP SERVICE for the management of COPD chronic irreversible asthma, bronchiectasis, interstitial lung disease, lung cancer if:</p> <ul style="list-style-type: none"> <li>(a) The person has been assessed as suitable for a pulmonary rehabilitation program under assessment</li> <li>(b) The service is provided to a person who is part of a group of a maximum of 8 patients inclusive; and</li> <li>(c) The person is not an admitted patient of a hospital; and</li> <li>(d) The service is provided to a person involving the personal attendance by an eligible physiotherapist or exercise physiologist and</li> </ul>

- (e) The service is of at least 60 minutes duration; and
- (f) After the last service in the group services program provided to the person under item [ ], the eligible physiotherapist or exercise physiologist, prepares, or contributes to, a written report to be provided to the referring medical practitioner; and
- (g) An attendance record for the group is maintained by the eligible physiotherapist or exercise physiologist; and
- (h) In the case of a service in respect of which a private health insurance benefit is payable – the person who incurred the medical expenses in respect of the service has elected to claim the Medicare benefit in respect of the service, and not the private health insurance benefit.

- To a maximum of sixteen GROUP SERVICES to be completed within a 10 week period

[Item descriptor]

Fee: \$25.00: 85%=\$21.25

[Relevant explanatory notes]

MBS [item number]

#### PULMONARY MAINTENANCE EXERCISE SERVICE – GROUP SERVICE

Pulmonary maintenance exercise provided to a person by an eligible physiotherapist or exercise physiologist, as a GROUP SERVICE for the management of COPD, chronic irreversible asthma, bronchiectasis, interstitial lung disease, lung cancer if:

- (a) The person has completed a pulmonary rehabilitation program under assessment
- (b) The service is provided to a person who is part of a group of a maximum of 12 patients inclusive; and
- (c) The person is not an admitted patient of a hospital; and
- (d) The service is provided to a person involving the personal attendance by an eligible physiotherapist or exercise physiologist; and
- (e) The service is of at least 60 minutes duration; and
- (f) An attendance record for the group is maintained by the eligible physiotherapist or exercise physiologist; and
- (g) In the case of a service in respect of which a private health insurance benefit is payable – the person who incurred the medical expenses in respect of the service has elected to claim the Medicare benefit in respect of the service, and not the private health insurance benefit.

- To a maximum of sixteen GROUP SERVICES (to be completed within 6-months) in a calendar year

Fee: \$12 85%=\$10.20

[Relevant explanatory notes]

MBS [item number]

#### PULMONARY REHABILITATION SERVICE – INDIVIDUAL ASSESSMENT POST GROUP SERVICES

Pulmonary rehabilitation health service provided to a person by an eligible physiotherapist or exercise physiologist, for the purposes of ASSESSING a person's POST pulmonary rehabilitation group service respiratory status, including taking a medical history, testing of functional exercise capacity (six-minute walk test), assessment of health status (quality of life questionnaires) and a psychosocial assessment questionnaire, if:

- (a) The service is provided to a person diagnosed with COPD, chronic irreversible asthma, bronchiectasis, interstitial lung disease or lung cancer
- (b) The person is being managed by a general practitioner, under a GP Management Plan [i.e. item 721 or 732, or if the person is a resident of an aged care facility, their medical practitioner has contributed to a multidisciplinary care plan [i.e. item 731]; OR, the person is being managed by a specialist (respiratory, rehabilitation, general, consultant physician, surgeon)
- (c) The person WAS referred to an eligible physiotherapist or exercise physiologist by the medical practitioner using a referral form that has been issued by the Department of Health, or a referral form that contains all the components of the form issued by the Department; and
- (d) The eligible physiotherapist or exercise physiologist provided PULMONARY REHABILITATION group service under item [ item number for PR group service ]; and
- (e) The service is provided to the person individually and in person; and

- (f) The service is of at least 45 minutes duration; and
- (g) After the service, the eligible physiotherapist or exercise physiologist gives a written report to the referring medical practitioner mentioned in paragraph (b); and
- (h) In the case of a service in respect of which a private health insurance benefit is payable – the person who incurred the medical expenses in respect of the service has elected to claim the Medicare benefit in respect of the service, and not the private health insurance benefit.

Fee: \$65.00 Benefit: 85% = \$55.25

[Relevant explanatory notes]

The patient would be eligible for a PR program every two years. It was noted that approximately 10% of patients might have a deterioration in their medical condition in this 2-year period, which may benefit from a repeat of the initial pulmonary rehabilitation program. PASC advice was that repeating the initial medical service after initial failure would be less likely to be successful than providing the initial medical service. *However, the assessment should consider the benefit of repeating the initial medical treatment beyond the first treatment.*

The MBS item for PR or PME is to be separate to the currently existing MBS items available for other allied health services. Therefore no limits are included in the MBS item descriptor or text that would tie this item to other MBS items for the provision of group services.

Both accredited eligible physiotherapists and exercise physiologists are able to provide the pre- and post- assessment as well as to deliver the PR programs. The optimum service would be if the same allied health professional (or organisation) delivering the pulmonary rehabilitation programs also undertakes the pre- and post-assessments.

The patient population that would benefit from the use of pulmonary rehabilitation, are patients with chronic lung disease who have been diagnosed with

- COPD (including chronic irreversible asthma) confirmed with post bronchodilator spirometry; or
- Bronchiectasis confirmed by CT scan, MRI or specialist diagnosis;
- Interstitial lung disease with diagnosis confirmed by a specialist;
- Lung cancer with diagnosis confirmed by a specialist

The application has not indicated that the provision of pulmonary rehabilitation should be limited according to the severity of the chronic lung disease, although there will be a group of patients who will only be able to do PR at a hospital outpatient centre. **Evidence in support of the benefits of PR, in a community setting, in patients according to the level of severity of their CLD will need to be presented in any assessment.** Criteria that a patient would need to satisfy to continue with maintenance therapy has not been provided but it is a preference that all patients who have completed PR continue to PME. It is expected that the post-assessment written letter to the referring medical practitioner would address whether the patient has obtained sufficient benefit from the PR program. If not it is unlikely the medical practitioner would refer the patient on to a maintenance program.

Patients under the care of their GP will be referred using MBS item 721, with the MBS items for PR and PME worded in such a way that this would not result in a reduction in the availability of the other group allied health services. Data capture could be driven by the separate MBS item numbers claimed by the physiotherapist or AEP. The applicant has provided a modified Type 2 diabetes referral form to suggest how this might work (Appendix Three).

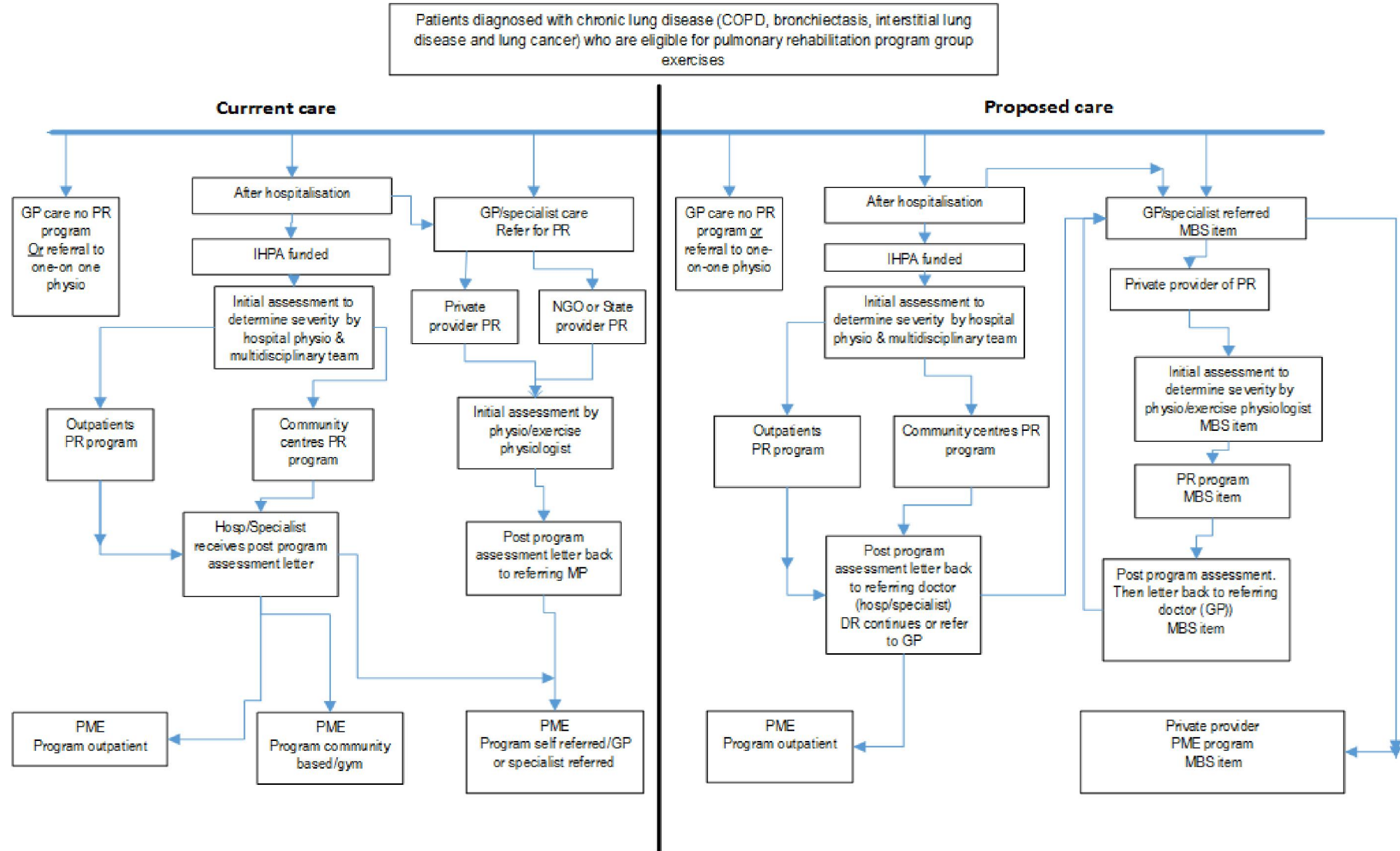
Under the scenario described patients would require a GP or specialist referral to a PR program and upon successful completion, a post-assessment and a post-assessment letter from the eligible provider (physiotherapist, exercise physiologist), another referral from the GP or specialist would need to be provided for the PME program. The benefit of separate referrals to the PR and PME program is that the GP/specialist would be able to assess the benefits of the PR program for the patient (after receipt of the written post assessment) before deciding to refer for ongoing maintenance. However, there is a potential downside in that the need for a follow-up visit by the patient to obtain the additional referral might delay or prevent follow up PME from occurring. PASC considered that separate referrals for the PR and PME programs is the desirable approach, but that adherence and completion of programs were a key concern.

### **Clinical place for proposed intervention**

It is proposed that the accredited physiotherapist or exercise physiologist will be based in private business premises when delivering the proposed intervention; individually tailored pulmonary rehabilitation programs within a group setting.

The suggested clinical management algorithms, that apply currently without pulmonary rehabilitation on the MBS (left hand side of diagram) and that would apply should pulmonary rehabilitation be included on the MBS (right hand side of diagram), are summarised in Figure .1

Figure 1: Clinical management algorithm





## Current treatment algorithm

The clinical management algorithm, describes the two treatment pathways available to patients with CLD through which they can access pulmonary rehabilitation programs, under both current care and the proposed care management algorithms. One treatment pathway, IHPA funded, is only available for patients who are newly released from hospital after an exacerbation of their existing CLD (or lung cancer), and pulmonary rehabilitation is provided as a non-admitted hospital service, the other treatment pathway are for patients under the management of their GP or specialist in the community.

As explained under the subheading 'Current arrangements for public reimbursement' a new Item specifically for Pulmonary Rehabilitation has been introduced by the IHPA commencing in the 2014-15 financial year. Pulmonary Rehabilitation services, attracting Commonwealth funding, are defined as hospital services therefore excluding referrals from a GP. The effect of this new funding model is not yet fully apparent on the current provision of PR and PME services across Australia, and there remains a mix of State, Commonwealth, NGO and private providers. It is not yet possible to determine if this new funding model has led to an increase or decrease in the provision of centres able to provide the intervention, within the Local Hospital Networks, or will result in any long-term changes in the provision of State government programs. The description of the current care for patients requiring an individually tailored PR program, describes what is now available under IHPA funding, as well as other funding sources, delivered in a group setting but as this is a transition period it may be incomplete. Available programs were found to differ from State to State.

Of the pulmonary rehabilitation programs provided, most are through the State Based Local Hospital Network, either as outpatient programs in hospital or the community health setting, are IHPA funded (non-admitted services), and do not accept GP referrals (previously some patients were referred by GPs under different funding). These non-admitted services are independent of the service setting in which they are provided (e.g. community, home) and a Commonwealth subsidy is provided irrespective of whether the service is provided one-on-one or in a group setting. The treatment pathway under IHPA funded in Figure 1 refers only to the individually tailored PR programs delivered in community settings as part of a group. Patients attending outpatient PR programs are assessed by a multidisciplinary team that develops a tailored program and patients attending community-based programs have their initial assessment done by an accredited physiotherapist but other specialists may take part in this initial assessment. The PR program is delivered in two one-hour sessions per week for a period of 8-10 weeks. In addition, once or twice a week, in some programs, the patient attends an educational one-hour session (a presentation by a pharmacist, dietician, psychologists, social worker, etc.) and can be referred for an individual assessment by any of these professionals, Patients can be required to do individually tailored home exercises at least twice a week. Post program assessments are done, but in some instances take the form of the weekly record of the progress, which forms a part of a hospital record (this is practised not only by the outpatients departments, but also by the community based rehabilitation centres that are part of the local hospital network). *However, post-program assessments should be performed and are the international recommendations.* Some community-based centres always send the results of assessment and discharge letters to the referring doctors, while other centres do it on demand from the patients or the referring doctors. Patients will then be referred on to PME programs. Some community health centres

in Victoria (and this may occur in other States) patients can be referred to a PME program that includes 10 sessions in the local gym under the supervision of the physiotherapist. The patients are then encouraged to continue the PME program unsupervised (subsidised gym memberships is available). These maintenance programs are only available for patients who were enrolled and completed the PR program.

Currently, if a patient is seen by their GP after hospitalisation for exacerbation of CLD or lung cancer, or are newly diagnosed most appear to be treated by their GP without a PR program. Of the available PR programs that GPs can refer to, most are State Government funded, e.g. HACC funded and provided by NGOs or special programs targeting patients with chronic diseases and/or frequent hospital admissions (such as in Victoria), or provided through private hospitals or private rehabilitations centres, and may be reimbursed through private health membership.

A small number of community based privately run group exercise PR programs exist (private hospital outpatients, rehabilitation centres), in which patients can be referred by their specialist, or GP. Patients in this group receive an initial assessment by an accredited physiotherapist, exercise physiologist or nurse. Community based PME can also be provided privately, through for example, Lungs in Action, which is provided in limited numbers in most States with the exception of Western Australia. Patients are referred through their specialist, GP or can be self-referred, but must meet minimum criteria. A review of the programs registered on the Lung Foundation database identified 10% as provided through private hospitals or private providers (utilising private health insurance or DVA payments).

The option is available for a GP to refer a patient to a private physiotherapist or exercise physiologist (MBS items 10960 and 10953) for one-on-one physiotherapy or exercise physiology (up to a maximum of 5 sessions can be reimbursed). Although some physiotherapists or exercise physiologists may provide a full program of 16 sessions, within an 8-week period (with patients being reimbursed for the remaining 11 sessions by their private health insurance), the proportion of patients who see a private physiotherapist or exercise physiologist for one-on-one pulmonary rehabilitation is not possible to be determined but the numbers are thought to be low and not likely to be relevant to this intervention.

There are a limited number of community-based centres who specialise in maintenance programs available to both COPD and cardiovascular patients. Patients can self-refer to these programs, be referred by their specialist or by their GP (45% referral from a GP was quoted in one instance, but overall the proportions are not known).

**The proportion of patients currently referred straight to their GP after hospitalisation and the proportion who remain within the local hospital network and are provided with a PR program, is not known. Expert advice on these proportions will be required as they will need to be included in the economic evaluation.**

### Proposed clinical treatment algorithm

If the proposed intervention is successfully listed on the MBS, clinical treatment algorithm (right side of Figure 1), it is anticipated that patients with CLD (or lung cancer) requiring PR delivered in a group setting will have access to greater numbers of private providers of the intervention in a community care setting.

Similar to the current treatment algorithm two treatment pathways will remain available to patients; through the local hospital network (IHPA funded) or GP referred programs available through private providers. Patients, post hospitalisation, will either be assessed as requiring their pulmonary rehabilitation program to be managed within the local hospital network or community. **Patients will be eligible for PR once they have had their pharmacotherapy optimised.**

It is likely, under the proposed scenario, that patients who have been hospitalised for exacerbation of their CLD fewer of them will have their pulmonary rehabilitation programs provided through the Local Hospital Network but will instead be referred back to their GP for management. There will be a group of patients who are severely unwell i.e. those who experience oxygen desaturation during exercise, those on long-term oxygen therapy, those with high cardiac risk, those with pulmonary arterial hypertension and/or those with multiple comorbidities and those who are severely breathless, who will still require PR at a hospital outpatients program. *Expert advice is that around 1-2 patients in 12 would still need to attend a hospital outpatient PR program (i.e. they would not be eligible to attend PR in a community setting).*

It is anticipated that group exercise PME provided through the local hospital network may decrease. Expert advice is that the proportion of patients who would still need to do PME in a hospital outpatients department is unknown, but would be expected to *be lower than 1 in 12 since the PR program would have enabled them to exercise safely and most would be able to attend PME in the community.* PME in the community setting will most likely be managed by their GP (although some patients may remain under the care of their specialist) and provided by private providers due to the increased number of privately provided places.

Similar to the current situation, for some patients managed by their GP they may not be referred to a pulmonary rehabilitation service, but it is expected that this number will decrease with the increase in available privately provided programs and increasing GP/specialist awareness of these programs. Therefore GPs are likely to see their non-pharmacological management of patients with CLD increase. Increasing numbers of post hospitalisation patients with COPD as well as newly diagnosed patients requiring pulmonary rehabilitation will be managed by their GP. It is expected that other State government funded programs, such as those under HACC will be defunded. This will be due not just to a consistent funding source for PR under Medicare but also the likely longer-term effects of the introduction of the IHPA funding of the local hospital networks for pulmonary rehabilitation (it is assumed that the State government would not double up with separate funding of PR in a community setting through NGOs if it provides funding for PR programs, in a community setting, subsidised by IHPA funding).

The aim for all patients who finish a PR program is that they will continue onto a PME program, to consolidate their rehabilitation and to maintain lifestyle changes beneficial to managing their condition. It is anticipated that aside from the PME programs provided in a hospital outpatient setting, increasing PME programs will be provided in a community setting by private providers.

The description of the likely changes to clinical management that may result from listing of PR and PME programs on the MBS only relates to the delivery of the intervention as part of a group exercise in a community setting. PR and PME can be provided by the local hospital network as one-on-one or home based non-admitted services subsidised by IHPA, and these services are considered to be outside this clinical management algorithm.

## Comparator

The proposed service, best care delivered by a GP/specialist with pulmonary rehabilitation delivered by an accredited physiotherapist or exercise physiologist in the community is expected to substitute for

- Best care delivered by a GP/specialist without PR program available
- Best care delivered by a GP/specialist with currently available PR programs
  - PR program delivered in hospital based outpatient setting (state/IHPA funded)
  - PR program delivered in the community (state/IHPA funded)
  - PR program delivered in the community (private)

The proposed service, pulmonary exercise maintenance delivered by accredited eligible physiotherapists or exercise physiologists is expected to substitute for

- Best care delivered by a GP/specialist without PME program available
- Best care delivered by a GP/specialist with currently available PME programs
  - PME program delivered in hospital based outpatient setting (state/IHPA funded)
  - PME program delivered in the community (state/IHPA funded)
  - PME program delivered in the community (privately funded)

The delivery of PR and PME services differs from State to State. All States appear to provide PR programs as outpatient programs, at least in urban areas. Some States provide more of these programs than others. Some through their Local Hospital Networks provide ongoing pulmonary maintenance exercise programs. For other States these programs are provided as private community programs. In large areas of Australia, it appears that the delivery of PR programs or PME programs does not occur; even privately funded programs. *The substitution of state funded community based programs by privately funded community based programs is not expected to have an effect on clinical efficacy but is likely to shift costs with financial implications for Medicare. Clinical efficacy evidence for this scenario is unlikely to be available. A shift from hospital-based programs to community-based programs, may have an effect on clinical efficacy, and clinical evidence appears to be available.* However, patients who, because of the severity of their condition, can only undertake PR in an outpatients setting are not the population targeted by this intervention. Therefore, clinical efficacy of the hospital-based programs for these patients compared to a community setting is not likely to be

comparing the same population. It is acknowledged that with the increasing numbers of community based programs there may be a group of patients currently undertaking a PR program in the outpatients setting, whose medical condition allows for it, who will move to the community setting. This will have cost implications. Therefore, given the above discussion, PASC decided that the comparator for the purposes of determining clinical efficacy, is:

**For pulmonary rehabilitation program delivered by an eligible health service provider in a community setting**

- **Best care delivered by a GP/specialist without PR program available**

**For pulmonary maintenance exercise program delivered by an eligible health service provider in a community setting**

- **Best care delivered by a GP/specialist without PME program available**

The number of patients (or proportion of the total) currently receiving PR and PME programs in an outpatient, community (state-based funding), or community (private funding) setting will need to be agreed, based on expert advice, for Australia, to be able to estimate the numbers of patients who migrate to the proposed intervention. This data is required to undertake the economic evaluation and the financial implications to the MBS and other governments from the proposed listing of the intervention.

## **Clinical claim**

The proposal anticipates that the evidence will demonstrate that the comparative effectiveness and safety of pulmonary rehabilitation and pulmonary maintenance exercise compared to best care delivered by a GP/specialist with or without pulmonary rehabilitation will claim that:

- Pulmonary rehabilitation in the community setting will be superior to no pulmonary rehabilitation in patients with CLD
- Pulmonary rehabilitation in the community setting will be at least as safe as no pulmonary rehabilitation
- Pulmonary maintenance exercise in the community setting after pulmonary rehabilitation will be superior to no pulmonary maintenance exercise after pulmonary rehabilitation in patients with CLD.
- Pulmonary maintenance exercise after pulmonary rehabilitation will be at least as safe as no pulmonary maintenance exercise after pulmonary rehabilitation

## Outcomes and health care resources affected by introduction of proposed intervention

### Clinical outcomes

It is proposed that the effectiveness of performing pulmonary rehabilitation in a community setting can be assessed by considering

- Change in the number of Hospital admissions/readmissions
- Change in the number of hospital bed days
- Change in patient survival due to reduced mortality
- Change in overall quality of life and in the domains of
  - Dyspnoea
  - Fatigue
  - Depression and anxiety
- Change in exercise capacity/tolerance as measured by the six-minute walk test
- Reduced frequency of exacerbations (this may be difficult to measure)

A broader range of functional exercise tests are available to determine change in exercise capacity/tolerance. The usefulness of these broader range of measures should be assessed at evaluation, but any other proposed functional outcomes measures (aside from the six minute walk test which is validated with a clearly defined and substantiated minimal clinically important difference (MCID)) should be validated with reference to appropriate supporting evidence and should also have a clearly defined and substantiated MCID.

The Assessment should consider the evidence available of the benefit and cost of repeating the initial pulmonary rehabilitation program beyond the first treatment.

The proposal states that provision of pulmonary rehabilitation in a community setting will increase the availability of PR programs and reduce the distance travelled for PR or PME which may result in increased uptake in referrals by patients and improved adherence to the program. Outcomes that may measure increased utilisation of community based PR programs will need to be included, such as:

- Rates of Participation (attendance rates)
- Adherence (number of patients who commence a program who finish the program)

It was noted by PASC that participation/adherence could be defined as attendance of a least 70% of sessions.

Any clinical safety issues are likely to be captured in the patient relevant outcomes described above.

## Health care resources

Health care resources that are likely to change are use of MBS items, GP services, cost of MBS items to confirm diagnosis of COPD, e.g. respiratory function tests or GP office based spirometry (Item 11506). Other health care resources to be included include hospitalisation for exacerbation of COPD and bed days. Drug costs may change as a result of better management of COPD. Patient transport costs could be identified as likely to change as the programs are based locally. However, if indirect costs are included in the economic analysis, two analyses should be presented – one including and one excluding the indirect costs.

## Proposed structure of economic evaluation (decision-analytic)

Table 6, presents a table summarising the extended PICO for each patients diagnosed with COPD, bronchiectasis, interstitial lung disease and lung cancer (CLD) under the management of their GP/specialist who is referred for pulmonary rehabilitation delivered in a community setting compared to no pulmonary rehabilitation or pulmonary rehabilitation delivered in an outpatients setting. Table 6, also presents the extended PICO for each patient diagnosed with COPD, bronchiectasis, interstitial lung disease and lung cancer under the care of their GP who receives pulmonary rehabilitation followed by PME in a community setting compared to pulmonary rehabilitation without PME or pulmonary rehabilitation with PME delivered in an outpatients setting.

**Table 6: Summary of extended PICO to define the question for public funding that assessment will investigate**

Population	Intervention	Comparator	Outcomes to be assessed	Healthcare resources to be considered
Patients diagnosed with CLD under the care of their GP/specialist who have their pharmacotherapy optimised	Pulmonary rehabilitation delivered in a community setting	No pulmonary rehabilitation	Change in hospital admissions Change in frequency of exacerbations Change in hospital bed days Change in patient survival Change in exercise capacity Change in quality of life	MBS consultation items, physio/EP MBS item for lung function testing Drug costs Hospitalisation Allied health costs
Patients diagnosed with CLD under the care of their GP/specialist who have their pharmacotherapy optimised	Pulmonary rehabilitation followed by pulmonary maintenance exercise delivered in a community setting	Pulmonary rehabilitation without PME	Change in frequency of exacerbations Change in hospital admission Change in quality of life	MBS consultation items Hospitalisation Hospital bed days Drug costs



## Appendix One

### Independent Hospital Pricing Authority Tier 2: Non-Admitted Care Clinic Definitions – NEW NUMBER

#### Pulmonary Rehabilitation 40.60

The IHPA has introduced a new Activity based Funding item specifically for Pulmonary Rehabilitation. The full service definition provides details what is included and excluded see Table 1.

Pulmonary Rehabilitation 40.60 Price-Weight Index = 0.0759

Current National Efficient Price (NEP) = \$4971

Price = (Price-Weight Index) x NEP  
= 0.0759x \$4971  
= \$377

Therefore the value that the IHPA places on Pulmonary Rehabilitation is \$377per person per occasion of service. The Commonwealth will contribute around 38% of this amount (\$143) and it is up to the State to determine whether it will fully subsidize the balance. Therefore some States may contribute less than others.

The Price Weight index 0.0759 attributed to Pulmonary Rehabilitation is at the top of the range for non-admitted services and recognizes the complexity of the patients attending these services.

In the event that the patient attends a multidisciplinary service (see below for definitions) a loading of 55% is applicable, which increases the value of the clinic to \$585.

#### Tier 2: non-admitted services clinic definitions

The website [for IHPA item for pulmonary rehabilitation](#) should be consulted for any additional information to that provided below. The following information has been extracted for your information.

**Scope:** In-scope non-admitted services is independent of the service setting in which they are provided (e.g. at a hospital, in the community, in a person's home). This means that in-scope services can be provided on an outreach basis.

To be included as an in-scope non-admitted service, the service must meet the definition of a *Service Event* which is:

“an interaction between one or more healthcare provider(s) with **one non-admitted patient**, which must contain therapeutic/clinical content and result in a dated entry in the patient’s medical record.”

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References:

[URL for IHPA item for pulmonary rehabilitation](#)



## Appendix Two

### List of current Pulmonary Rehabilitation Places on Lung Foundation Australia website

#### Pulmonary Rehabilitation – ACT

Woden                      Canberra Hospital

#### Pulmonary Rehabilitation – NSW

Albury	Albury Base Hospital
Armidale	Community Health Centre
Ballina	Ballina Community Health Service
Balmain	Balmain Hospital
Bankstown	Bankstown Health Service
Barraba	Barraba Health Service
Batesmans Bay	Batesmans Bay Community Health Centre
Bathurst	Bathurst Community Health Service
Baulkham Hills	The Hills Private Hospital
Belmont	Belmont District Hospital
Bingara	Bingara Community Health Service
Blayney	Blayney Hospital
Broken Hill	Broken Hill Hospital
Bowral	Bowral Health Service
Byron Bay	Byron Bay Community Hospital
Campbelltown	Warby St Physiotherapy, Hydrotherapy & Spinal Injury Centre
Campbelltown	Active Solutions Exercise Clinic
Campbelltown	Campbelltown Health Service
Camperdown	Royal Prince Alfred Hospital
Campsie	Canterbury Hospital
Canowindra	Canowindra Hospital
Casino	Casino Community Health
Casino	Dharahgibing Aboriginal Community
Cessnock	Cessnock District Hospital
Cobar	Cobar Community Health
Coffs Harbour	Coffs Harbour Health Campus
Concord	Concord Hospital
Cootamundra	Cootamundra Community Health
Cowra	Cowra Community Health
Darlinghurst	St Vincent's Hospital – Public
Deniliquin	Deniliquin Hospital
Dubbo	Dubbo Base Hospital

Albury	Albury Base Hospital
Fairfield	Fairfield Health Service
Forster/Tuncurry	Manning Community Health
Gilgandra	Gilgandra Hospital
Glen Innes	Glen Innes Community Health
Goulburn	Goulburn Base Hospital
Gosford	Central Coast Area Health
Grafton	Grafton Base Hospital
Griffith	Griffith Base Hospital
Gulgong	Codgegong Physiotherapy
Hornsby	Hornsby Ku-Ring-Gai Hospital
Inverell	Community Health Centre
Katoomba	Blue Mountain Hospital
Kempsey	Kempsey District Hospital
Kogarah	St George Hospital
Kurri Kurri	Kurri Kurri Hospital
Kyogle	Kyogle Community Health Centre
Lismore	St Vincent's Hospital
Lithgow	Lithgow Hospital
Liverpool	Liverpool Health Service
Macksville	Macksville Hospital
Maclean	Maclean Community Health Centre
Maitland	Maitland Hospital
Manilla	Manilla Community Health Centre
Moree	Moree Community Health Centre
Moruya	Moruya Community Centre
Mt Druitt	Blacktown Hospital
Mudgee	Mudgee Community Centre
Mullumbimby	Mullumbimby Community Health Service
Murwillumbah	North Coast Area Health Service
Muswellbrook	Muswellbrook District Hospital
Narooma	Marooma Community Centre
Narrabri	Narrabri Community Health
Nepean	Nepean Hospital
Nelson Bay	Nelson Bay Community Health Centre
Newcastle	John Hunter Hospital
Newcastle	Newcastle Community Health Centre
North Turrumurra	Lady Davidson Hospital
Nowra	Shoalhaven District Memorial Hospital
Orange	Orange Community Health Centre
Pambula	Pambula Community Health Service
Parkes	Parkes Hospital
Penrith	Nepean Hospital

Port Macquarie	Port Macquarie Base Hospital
Queanbeyan	Great Southern Area Health Service
Randwick	Prince of Wales Hospital – Public
Ryde	Ryde Hospital
Scone	Scone Hospital
Shellharbour	Shellharbour Hospital
Singleton	Singleton Hospital
St Leonards	Royal North Shore Hospital
Sutherland	South Care
Tamworth	Tamworth Hospital
Taree	Manning Base Hospital
Tenterfield	Tenterfield Hospital
Toronto	Toronto Polyclinic
Tweed Heads	Tweed Heads Hospital
Wagga	Wagga Base Hospital
Westmead	Westmead Hospital
Wollongong	Wollongong Hospital
Wyong	Central Coast Area Health
Yass	Yass District Health Service
Young	Young, Boorowa and Harden Hospitals

#### Pulmonary Rehabilitation – QLD

Atherton	Cairns District and Community Rural Health
Babinda	Cairns District and Community Rural Health
Bribie Island	Bribie Island Physiotherapy
Bundaberg	Bundaberg District Health Service
Cairns	Cairns District and Community Rural Health
Caloundra	Respiratory Service, Sunshine Coast Wide Bay Health Service District
Carina Heights	Blue Care – Salvin Park
Chermside	Prince Charles Hospital
Cleveland	Redlands Health Service Centre
Deagon	Blue Care Allied Health
Edmonton	Cairns District and Community Rural Health
Fraser Coast	Community Health Centre
Gladstone	Community Health
Gold Coast	Gold Coast & District Community Health Services
Gold Coast	Rehabilitation at Home
Greenslopes	Greenslopes Private Hospital
Gympie	Gympie Base Hospital
Herston	Royal Brisbane Hospital
Inala	Inala Community Health Centre
Innisfail	Cassowary Area Community Health
Ipswich	University of Qld – Ipswich Campus
Ipswich	Ipswich Community Health

Logan Central	Logan Hospital
Mackay	Mackay Base Hospital
Nambour/ Maroochydore	Respiratory Service, Sunshine Coast Wide Bay Health Service District
Noosa	Respiratory Service, Sunshine Coast Wide Bay Health Service District
North Lakes	North Lakes Community Health
Rockhampton	Qld Health CQU Health Clinic
Roma	Roma Base Hospital
Smithfield	Cairns District and Community Rural Health
South Brisbane	Mater Adult Hospital
South Brisbane	Active Rehabilitation Physiotherapy
Spring Hill	St Andrew's Hospital
St Lucia	University of Qld – Physiotherapy Department
Toowong	Wesley Private Hospital
Toowoomba	Toowoomba Base Hospital
Toowoomba	St Vincent's Hospital
Townsville	Kirwan Health Campus
Tugun	John Flynn Hospital
Tully	Cassowary Area Community Health
Woolloongabba	Princess Alexandra Hospital
Wynnum	Redlands Health Service

#### Pulmonary Rehabilitation – VIC

Alexandra	Alexandra District Hospital Community Health
Ararat	East Grampians Health Service
Bairnsdale	Bairnsdale Regional Health Service
Ballarat	St John of God Health Care
Ballarat	Ballarat Base Hospital
Belmont	Belmont Community Rehab Centre
Benella	Delatite Community Health Service
Berwick	St John of God Health Care
Brighton	Epworth Rehabilitation Centre
Brunswick	Brunswick Private Hospital
Camberwell	Epworth Rehabilitation
Castlemaine	Mt Alexander Hospital
Chelsea	Frankstown Community Rehabilitation
Clayton	Clayton Community Rehabilitation Centre
Coburg	Merri Community Health Centre
Colac	Colac Area Health Service
Craigieburn	Craigieburn Community Health Service
Cranbourne	Cardinia Casey Community Health Service
Deer Park	ISIS Primary Care
Donvale	Donvale Rehabilitation Hospital
Eaglehawk	Stewart Cowen Community Rehab Centre
East Brighton	Platinum Physiotherapy
Epping	The Northern Hospital

Essendon	Merri Community Health
Fitzroy	St Vincent's Hospital
Footscray	Western Hospital
Frankston	Peninsula Health/Community Health
Frankston	St John of God Nepean Rehabilitation Hospital
Geelong	Geelong Private Hospital
Geelong North	Grace McKellar Centre
Glen Waverley	Victorian Rehabilitation Centre
Hamilton	Western District Health Service
Heidelberg	Austin Hospital
Horsham	Wimmera Health Care Group
Kerang	Kerang & District Hospital
Kew	St Vincent's Community Rehabilitation Centre
Korrumburra	Gippsland Southern Health Service
Lakes Entrance	Gippsland Lakes Community Health
Lara	St Lawrence Community Services
Melton	Melton Health
Mildura	Mildura Base Hospital
Oakleigh	Uniting Aged Care
Pakenham	Cardinia Casey Community Health Service
Pascoe Vale	Dorset Rehabilitation
Point Lonsdale	Bellarine Community Health
Portland	Portland District Hospital
Prahran	The Alfred Hospital
Preston /East Reservoir	Darebin Community Health
Ringwood East	Yarra Ranges Health
Ringwood East	Eastern Access Community Health
Rosebud	Peninsula Health/Community Health
Sale	Central Gippsland Health Service
Sandringham	Bentleigh Bayside Community Health Service
Seymour	Seymour District Memorial Hospital
Shepparton	Goulburn Valley Health
South Melbourne	Port Phillip Community Rehabilitation
Springvale	Springvale Community Rehab Centre
Sunshine/St Albans	Sunshine Hospital
Swan Hill	Swan Hill Hospital
Traralgon	Latrobe Regional Hospital
Upper Ferntree Gully	Angliss Hospital
Wangaratta	North East Health
Warragul	West Gippsland Hospital
Warrnambool	South West Healthcare
Werribee	Werribee Mercy Hospital
Wodonga	Wodonga Regional Health Service
Wonthaggi	Wonthaggi District Hospital
Yarram	Yarram District Health Service

## Pulmonary Rehabilitation – SA

Bedford Park	Flinders Medical Centre
Berri	Riverland Community Health
Daw Park	Repatriation General Hospital
Elizabeth	Resthaven Northern Community Services
Elizabeth Vale	Lyell McEwin Hospital
Gawler	Gawler Health Service
Hazelwood Park	Lifespan Physiotherapy
Millicent	Community Health Centre
Morphett Vale	ECH Southern Therapy Service
Mount Gambier	Mount Gambier Community Health Service
Mt Barker	Community Health Centre
North Plympton	Pines Rehabilitation Service
Northfield	Royal Adelaide Hospital
Port Augusta	Port Augusta Hospital
Tanunda	Tanunda REX Centre
Victor Harbour	South Coast District Hospital
Walkerville	Calvary College Grove Rehabilitation Hospital
Walleroo	Walleroo Hospital
Whyalla	Whyalla Community Health Centre
Woodville	Queen Elizabeth Hospital
Woodville Park	Adelaide Exercise Physiology

## Pulmonary Rehabilitation – WA

Albany	Albany Community Health
Armadale	Armadale Hospital
Beechboro	Community Physiotherapy Services
Bentley	Bentley Health Service
Bunbury	Bunbury Regional Hospital
Esperance	Esperance District Hospital
Fremantle	Fremantle Hospital
Geraldton	Geraldton Health Service
Heathridge	Community Physiotherapy Services
Leederville	Community Physiotherapy Services
Mandurah	Mandurah Community Health
Middle Swan	Swan Health Service
Murdoch	Fiona Stanley Hospital
Murdoch	South Care Physiotherapy – St John of God Hospital
Nedlands	Sir Charles Gairdner Hospital
North Lake	Community Physiotherapy Services
Northam	Northam Hospital



Perth	Royal Perth Hospital
Rockingham	Rockingham General Hospital

**Pulmonary Rehabilitation – NT**

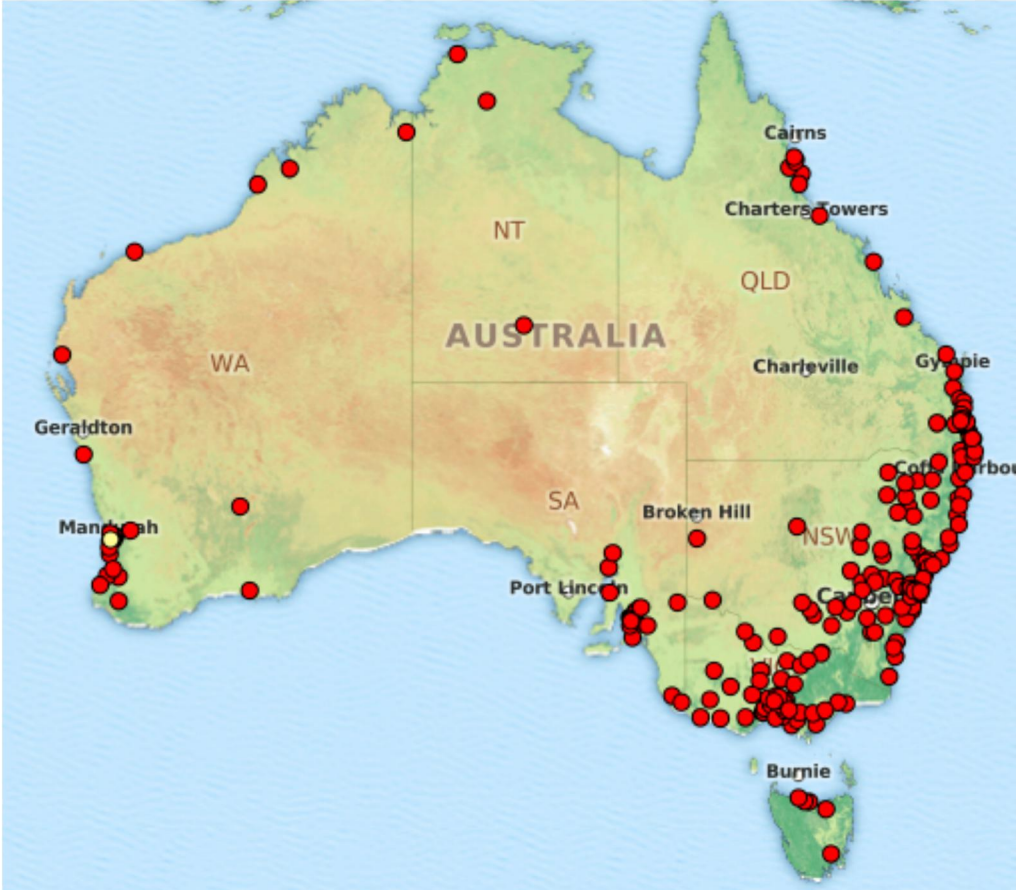
Alice Springs	Alice Springs Hospital
Palmerston	“Inspirations” Palmerston Community Centre

**Pulmonary Rehabilitation – TAS**

Hobart	Royal Hobart Hospital
Launceston	Launceston General Hospital

FINAL

Map of Pulmonary rehabilitation program locations



## Appendix Three

### Proposed Referral form, by LFA, for Group Allied Health Services under Medicare: patients with chronic lung disease

Note: GPs can use this form issued by the Department of Health or one that contains all of the components of this form.

#### PART A – To be completed by referring GP (tick relevant boxes):

- Patient is symptomatic and has
  - COPD (emphysema, chronic bronchitis or chronic asthma which isn't fully reversible) confirmed by post-bronchodilator spirometry (attach results),
  - Bronchiectasis confirmed by CT scan [Indigenous/Rural/Remote confirmed by clinical diagnosis]
  - Interstitial lung disease confirmed by specialist
  - Lung cancer
- Patient is being managed via a current GP Management Plan and/or TCA (MBS item 721 or 732) OR
- for a resident of a residential aged care facility, GP has contributed to or reviewed a care plan prepared by the residential aged care facility (MBS item 731)]
- Patient is willing to participate in a Pulmonary Rehabilitation and/or Pulmonary Maintenance program ([website for pulmonary rehabilitation fact sheet](#))

**Note:** GPs are encouraged to attach a copy of the patient's care plan to this form and other relevant information (e.g. specialist report, chest CXR, CT scan, other investigations). Please also provide list of patient medicines.

Please advise patients that Medicare rebates and Private Health Insurance benefits cannot both be claimed for this service

PART B -To be completed by the referring GP (tick relevant box):

Patient is being referred for:

Pulmonary Rehabilitation (pre- and post- assessment plus 16 group exercise sessions delivered over 8-10 weeks) followed by pulmonary maintenance exercise program.

Pulmonary Rehabilitation only (pre- and post-assessment plus 16 group exercise sessions delivered over 8-10 weeks).

Pulmonary maintenance exercise only e.g *Lungs in Action* (16 group exercise sessions initiated and completed within a 6 month period). [Please note – patients must have completed a pulmonary rehabilitation program in the last 12 months] Please provide the following:

Date pulmonary rehabilitation completed: \_\_\_\_\_ Provider of Pulmonary Rehab program: \_\_\_\_\_

Assessment for suitability to participate in a pulmonary maintenance program (for patients who have previously completed pulmonary rehabilitation in the last 2 years, but have not continued supervised exercise):

Date pulmonary rehabilitation completed: \_\_\_\_\_ Provider of Pulmonary Rehab program: \_\_\_\_\_

**GP details**

Provider Number

Name

Address  Postcode

**Patient details**

First Name  Surname

Address  Postcode

Note: Eligible patients may access Medicare rebates for **pulmonary rehabilitation program** (pre- and post- assessment plus 16 group exercise sessions delivered over 8-10 weeks) every two years and less than two years if presenting after a hospital admission for acute exacerbation of their lung disease. Eligible patients may access Medicare rebates for **pulmonary maintenance program** (16 group exercise sessions delivered within a 6 month period) annually.

Indicate the name of the individual practitioner (physiotherapist or accredited exercise physiologist), or the allied health practice, you wish to refer the patient to for pulmonary rehabilitation and/or pulmonary maintenance exercise.

**Allied Health Practitioner (or practice) the patient is referred to for pulmonary rehabilitation program:**

Name of AHP or practice	<input type="text"/>		
Address	<input type="text"/>		Postcode
Referring GP's signature	<input type="text"/>	Date	<input type="text"/>

**Allied Health Practitioner (or practice) the patient is referred to for pulmonary maintenance exercise:**

As above

OR other allied health practitioner

Name of AHP or practice	<input type="text"/>		
Address	<input type="text"/>		Postcode
Referring GP's signature	<input type="text"/>	Date	<input type="text"/>

Allied health providers must provide, or contribute to, a **written report** to the patient's GP after the **pulmonary rehabilitation program**. Allied health providers should retain a copy of the referral form for record keeping and Department of Human Services (Medicare) audit purposes. Allied health services funded by other Commonwealth or State/Territory programmes are not eligible for Medicare rebates under these items, except where the service is operating under sub-section 19(2) arrangements. This form may be downloaded from the Department of Health website at [health department primary care items](#).

**THIS FORM DOES NOT HAVE TO ACCOMPANY MEDICARE CLAIMS**

Diabgrp 0510

FINAL

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