



# Therapeutic Brief

[www.veteransmates.net.au](http://www.veteransmates.net.au)

March 2017

## Keeping your COPD patients well this winter

Acute exacerbations in people with Chronic Obstructive Pulmonary Disease (COPD) contribute to long-term decline in lung function, exercise performance, quality of life and more frequent hospitalisation. For people living in temperate climates, exacerbations are almost twice as likely to occur during winter as in summer.<sup>1-3</sup>

Analysis of DVA health claims data indicated, of the veteran hospitalisations between 2014 and 2015 for COPD, the majority occurred during the winter months of July and August.<sup>4</sup>

This therapeutic brief highlights interventions that can help to prevent exacerbations and improve the physical and mental well-being of COPD patients.

## Reduce the risk of exacerbations by:

### Arranging pulmonary rehabilitation

Pulmonary rehabilitation is an evidence-based, multidisciplinary intervention that promotes the adoption of healthy long-term behaviours to reduce the impact of COPD. It involves individualised therapies based on initial and ongoing assessments of the patient.<sup>5</sup> **Pulmonary rehabilitation is highly beneficial, strongly recommended and improves exercise tolerance and quality of life for patients, irrespective of the severity or stage of their disease.**<sup>5</sup>

Pulmonary rehabilitation, initiated shortly after a hospitalisation for an exacerbation, reduces the risk of subsequent hospitalisations.<sup>5,6</sup>

An established program typically involves six to eight weeks, two to three times a

week, of being supervised and trained by a variety of qualified healthcare professionals. Programs can include:

- **An initial assessment** to review patients' medical history, usually provided by the GP, and to assess exercise capacity, quality of life, breathlessness and individual goals.<sup>7</sup>
- **Education** to provide patients with the knowledge, skills and confidence to better manage their condition.<sup>5</sup> Topics might include smoking cessation, basic information about COPD and management of stress, depression and breathlessness.<sup>7,8</sup>
- **Exercise training** to improve cardiorespiratory endurance, strength and flexibility. Specific training may include endurance, interval, or resistance training, neuromuscular electrical stimulation or inspiratory muscle training

### Key points

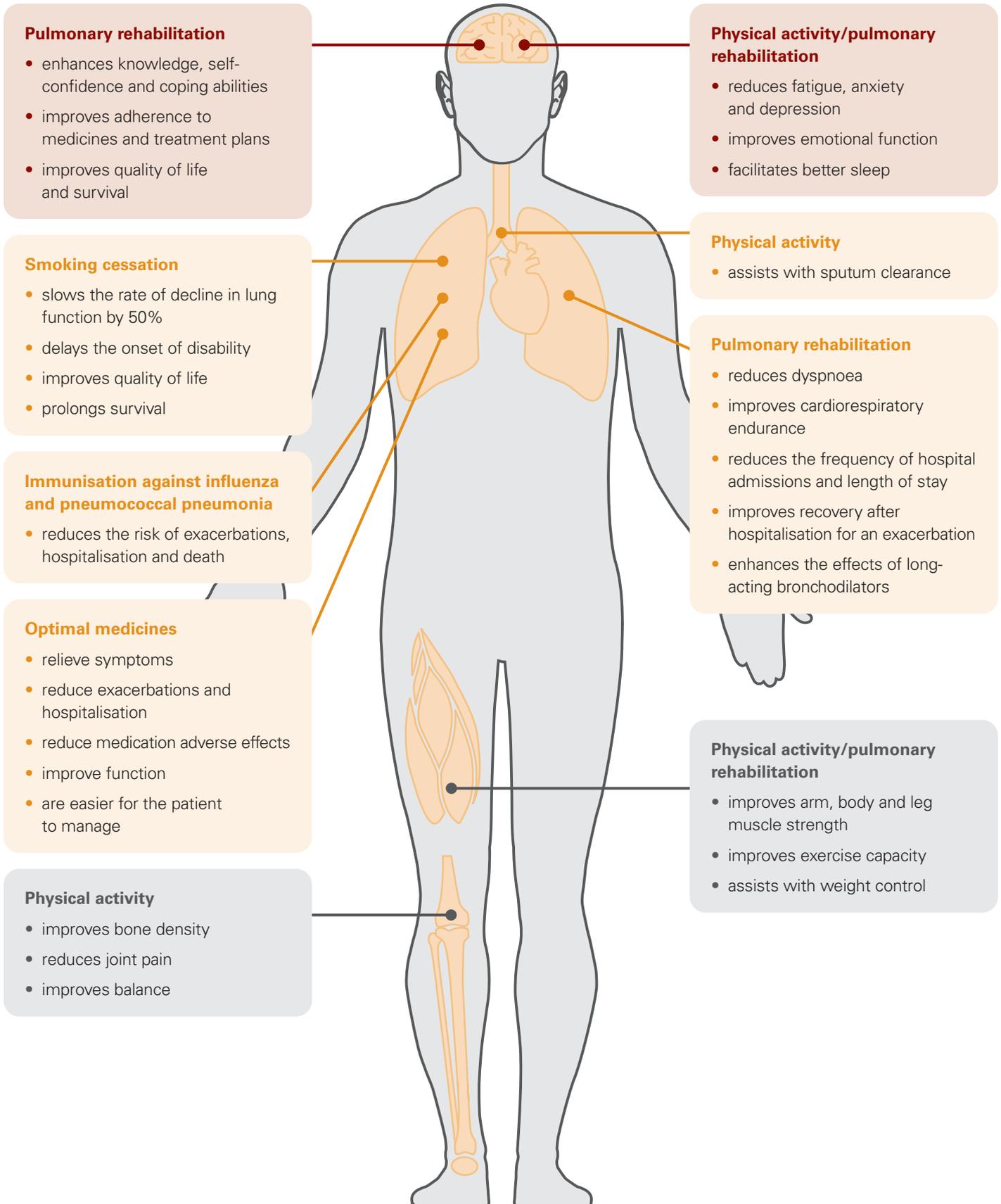
-  Arrange for your COPD patients to attend pulmonary rehabilitation
-  Encourage daily physical activity
-  Prioritise smoking cessation
-  Immunise against influenza and pneumococcal pneumonia
-  Support self-management with education and a personalised COPD action plan
-  Check your patients' inhaler device management and adherence
-  Refer your patients for a Home Medicines Review (HMR) or a Residential Medication Management Review (RMMR)

and breathing techniques.<sup>5</sup> Even if patients are not able to participate in the exercise training, they can join in the education sessions.<sup>7</sup>

- **Behaviour change and self-management techniques** including Cognitive Behavioural Therapy (CBT) to improve physical and mental well-being and quality of life. Behaviour change might include improving adherence to medicines, maintaining daily exercise or eating a healthier diet.<sup>5</sup> CBT can be helpful in reducing symptoms of mild to moderate anxiety and depression often present in people with COPD.<sup>9</sup>
- **Evaluation** based on patient feedback and improvement in exercise capacity and quality of life.<sup>7</sup>



## The benefits of guideline-directed care for your COPD patients<sup>5,11,14,15</sup>



## ✓ Immunising against influenza and pneumococcal pneumonia

Review immunisation status and offer the influenza vaccination to your patients each year in early autumn, and consider vaccinating against pneumococcal disease if appropriate.<sup>11</sup>

Refer to the Australian Immunisation Handbook online for detailed information at: <https://immunisationhandbook.health.gov.au/vaccines>

## ✓ Supporting self-management and developing care plans

Develop a GP Management Plan (GPMP) and if eligible, a Team Care Arrangement (TCA) with your patients, their family and carers to anticipate and plan for their long-term care needs.<sup>11</sup>

Patients able to self-manage well have improved quality of life and reduced hospital admissions.<sup>16,17</sup> A written action plan personalised for your patients, in addition to a GPMP and a TCA enables them to take action when symptoms are worsening to avoid or minimise an exacerbation. Routinely recall your patients when a review is due.<sup>11</sup>

Access a COPD action plan template at: <https://lungfoundation.com.au/resources/?search=COPD%20Action%20Plan&condition=9>

## ✓ Optimising medicines

Base medicine choice on your patients' treatment goals, symptoms, exacerbation history, response to treatment and risk of side effects.<sup>11</sup> Minimise use of different devices to reduce confusion and consider a spacer with a pressurised metered-dose inhaler (pMDI), particularly for your

patients with poor inspiratory effort, or diminished coordination and dexterity.<sup>14</sup> Review as needed to assess shortness of breath, quality of life and frequency of exacerbations.<sup>11</sup> Because many COPD medicines are combination products, take care not to duplicate classes when adding or changing medicines.<sup>11,14</sup>

Refer to the 'Stepwise Management of Stable COPD' and other recent guidelines available at: <https://lungfoundation.com.au/health-professionals/conditions/copd/overview/> The COPD-X guidelines are regularly updated at this website.

## ✓ Reviewing your patients' device management

Incorrect or poor use of devices and non-adherence is common among patients with COPD.<sup>15,18</sup> Before considering any change in inhaled medicines, check that your patients are taking them as directed and their inhaler device management, including technique is correct.<sup>11</sup>

Talk with your patient about:

- when and how to prime or load their device
- how to clean and store their device
- when their device is empty
- when to replace their old device
- their susceptibility to dental and oral problems and the need for optimal oral care and regular check-ups, and
- what their medicines are for.

Consider referring your patients for an HMR or an RMMR if you suspect management or adherence issues or incorrect use of a device.<sup>11</sup>

### Ask the pharmacist to review your patients' inhaler device technique.

Instructional videos and printable patient handouts for inhaler devices and their management can be viewed from <https://lungfoundation.com.au/resources/?search=technique>

## References

1. Jenkins C, et al. Seasonality and determinants of moderate and severe COPD exacerbations in the TORCH study. *European Respiratory Journal*. 2012; 39: 38-45.
2. Donaldson G, Seemungal T, Bhowmik A, Wedzicha J. Relationship between exacerbation frequency and lung function decline in chronic obstructive pulmonary disease. *Thorax*. 2002; 57: 847-852.
3. Anzueto A. Impact of exacerbations on COPD. *European Respiratory Review*. 2010; 19 (116): 113-118.
4. DVA Health Claims Database, University of South Australia, QUMPRC. [Accessed October 2016].
5. Spruit M, et al. An Official American Thoracic Society/ European Respiratory Society Statement: Key Concepts and Advances in Pulmonary Rehabilitation. *American Journal of Respiratory and Critical Care Medicine*. 2013; 188 (8): e13-64.
6. Puhan M, et al. Pulmonary rehabilitation following exacerbations of chronic obstructive pulmonary disease (review). *The Cochrane Database of Systematic Reviews*. 2011, Issue 10.
7. Lung Foundation Australia. Pulmonary rehabilitation toolkit. Available at: <http://lungfoundation.com.au/health-professionals/clinical-resources/copd/pulmonary-rehabilitation-toolkit/> [Accessed July 2016].
8. Decramer M, et al. Global initiative for chronic obstructive lung disease. Global strategy for the diagnosis, management and prevention of chronic obstructive pulmonary disease. Updated 2016. Available from: <http://goldcopd.org/> [Accessed October 2016].
9. Hynninen M, et al. A randomised controlled trial of cognitive behavioural therapy for anxiety and depression in COPD. *Respiratory Medicine*. 2010; 104: 986-994.
10. Lung Foundation Australia. Primary care respiratory toolkit. Available at: <http://lungfoundation.com.au/health-professionals/clinical-resources/copd/primary-care-respiratory-toolkit/> [Accessed July 2016].
11. Abramson M, et al. COPD-X Concise Guide for Primary Care. Brisbane. Lung Foundation Australia. 2016.
12. Miravittles M, Cantoni J & Naberan K. Factors associated with a low level of physical activity in patients with chronic obstructive pulmonary disease. *Lung*. 2014; 192: 259-265.
13. Wootton S, et al. Ground-based walking training improves quality of life and exercise capacity in COPD. *European Respiratory Journal*. 2014; doi: 10.1183/09031936.00078014
14. Australian Medicines Handbook, Adelaide: Australian Medicines Handbook Pty Ltd. 2016.
15. Yang I, et al. The COPD-X Plan: Australian and New Zealand Guidelines for the management of Chronic Obstructive Pulmonary Disease 2016. Version 2.46, June 2016.
16. Effing T, et al. Self-management education for patients with chronic obstructive pulmonary disease (review). *The Cochrane Database of Systematic Reviews*. 2009; Issue 4: 1-62.
17. Zwerink M, et al. Self management for patients with chronic obstructive pulmonary disease (review). *The Cochrane Database of Systematic Reviews*. 2014; Issue 3: CD002990.
18. Sanchis J, Gich I & Pedersen S. Systematic review of errors in inhaler use: has patient technique improved over time? *Chest*. 2016; doi:10.1016/j.chest.2016.03.041





# Setting up a pulmonary rehabilitation program

Pulmonary rehabilitation is highly beneficial and strongly recommended for people with Chronic Obstructive Pulmonary Disease (COPD).<sup>1,2</sup> The core components of a program include individualised patient assessment, exercise training, education and evaluation. The structure and delivery can vary, depending on resources available, especially in rural and remote areas.<sup>3</sup> Even a pulmonary rehabilitation program with limited resources has been shown to be effective. If you are interested in setting up your own program using local resources available, the following information will help you.

## What personnel and equipment do I need?

### The exercise component

The minimum requirements include knowing how to conduct an exercise program for people with lung disease and being trained in cardiopulmonary resuscitation.<sup>3</sup>

### The education component

The team can include a doctor, nurse, dietician, psychologist, exercise physiologist, physiotherapist, pharmacist or social worker, depending on locally available healthcare professionals.<sup>3</sup>

### The equipment component

A minimum requirements list is available at: [www.pulmonaryrehab.com.au/wp-content/uploads/2016/08/What\\_Equipment\\_Will\\_I\\_Need.pdf](http://www.pulmonaryrehab.com.au/wp-content/uploads/2016/08/What_Equipment_Will_I_Need.pdf)

## How do I set up the program?

- Gold and white card holders might be eligible for services provided by health professionals. Details for DVA funded health services are available at: [www.dva.gov.au/health-and-treatment/injury-or-health-treatments/health-services/health-services-veteran-community](http://www.dva.gov.au/health-and-treatment/injury-or-health-treatments/health-services/health-services-veteran-community)
- Access the **Pulmonary Rehabilitation Toolkit**, an initiative of Lung Foundation Australia and the Australian Physiotherapy Association to be guided through the process of setting up a program. Components of the toolkit include 'Getting started, Patient assessment, Exercise training, Patient education and Program evaluation' and are available at: <https://pulmonaryrehab.com.au/>
- Access **Pulmonary Rehabilitation Training Online** to increase your knowledge, skills and confidence in delivering a program. Details are available at: <https://lungfoundation.com.au/events/pulmonary-rehabilitation-online-training/>
- Another educational resource for patients and families is the **COPD Online Patient Education (C.O.P.E.)** available at: [www.cope.lungfoundation.com.au](http://www.cope.lungfoundation.com.au)
- **Resources to get started are available online** and include a program brochure, referral form, invitation and assessment letters and a patient survey available at: [www.pulmonaryrehab.com.au/introduction/resources](http://www.pulmonaryrehab.com.au/introduction/resources)

## References

1. Spruit M, et al. An Official American Thoracic Society/European Respiratory Society Statement: Key Concepts and Advances in Pulmonary Rehabilitation. *American Journal of Respiratory and Critical Care Medicine*. 2013; 188: e13-64.
2. Abramson M, et al. COPD-X Concise Guide for Primary Care. 2016. Brisbane, Australia. Available at: <http://lungfoundation.com.au/health-professionals/guidelines/copd/copd-x-concise-guide-for-primary-care/> [Accessed October 2016].
3. Lung Foundation Australia. Primary care respiratory toolkit. Available at: <http://lungfoundation.com.au/health-professionals/clinical-resources/copd/primary-care-respiratory-toolkit/> [Accessed July 2016].