Best Practice Message

June 2023

Assessing Chronic Obstructive Pulmonary Disease (COPD) Control

Practice changing moments

- Māori are disproportionately affected by COPD and Hawke's Bay dispensing data does not reflect this.
- The COPD Assessment Test can be used to determine a patient's COPD control and health status.
- Smoking cessation is the most important treatment option for COPD. Despite this up to 40% of patients are current smokers.

The burden of COPD among Māori

The burden of COPD among Māori is one of the most significant health disparities in Aotearoa. Māori are burdened by COPD 15-20 years younger; the Māori hospitalisation rate is 3.5 times higher and Māori COPD mortality rate is 2.2 times higher than non-Māori, non-Pacific, and non-Asian rates. Pacific people are also disproportionately burdened, with 2.7 times higher hospitalisation rates than other groups [1,2]. Māori have a 2-3 times higher incidence of COPD, yet Hawke's Bay dispensing data of LAMA inhalers does not reflect this.

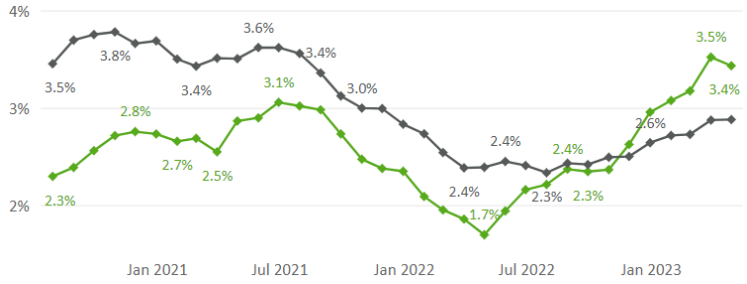

Figure 1. percentage of patients (18+) with a CAT score recorded in the past 12 months for Māori (green) and non-Māori (grey). Practice specific data including patient lists is available via Thalamus.

Assessing COPD control and exacerbation risk

As part of the NZ COPD guideline four step consultation, assessing a patient's COPD control and exacerbation risk is crucial in COPD management.

The COPD Assessment Test (CAT) was developed for reviewing the health status of a patient with COPD. The CAT assess the impact on cough, phlegm, chest tightness, breathlessness, activity limitations, confidence leaving home, sleep and energy through a short comprehensive 8 point questionnaire with scores ranging from 0 to 40[3]. The lower the score the better. Unlike the ACT there is no specific cut-off score to determine well controlled COPD from poorly controlled however, a minimum important difference of 2 points can be used to interpret a patient's improvement or worsening of CAT score[4,5]. Trends and changes are more valuable than single measurements, it is recommended to perform an assessment such as the CAT at each visit or every 2 to 3 months. This allows for the identification of trends to a patient's COPD control both seasonally and progressively.
Due to the progressive nature of disease, it is expected that a patient's score would worsen by no more than 1 point per year. If scores worsen greater than this, this may indicate that the patient is experiencing exacerbations that they have not reported.

Patients with COPD are known to self-limit their exercise and activities to avoid the symptoms of breathlessness. This will lead to deconditioning of skeletal muscles and cause further decline in lung function this is known as the "dyspnoea spiral"[6]. It is important to clarify this when discussing the questions related to breathlessness and activity limitation in the CAT questionnaire.

Extra care is required to assess COPD patients who have experienced an exacerbation in the last 12 months. Having a previous treated exacerbation in the past year increases the risk of future exacerbations four-fold[7]. Managing trigger factors, co-morbid conditions and monitoring of symptoms and lung function are essential when reviewing a patient following an exacerbation.

Non-adherence can be high

Prior to considering whether adjustments to pharmacological management is required in patients with inadequately controlled symptoms or recent exacerbations consider adherence to maintenance treatment.

Despite inhaler therapy being an important aspect in COPD care adherence to inhaled medication is low, with studies into the adherence to inhaled medication ranging from 20-60%. It is expected that non-adherence typically develops in the first one to two years of treatment [8]. When considering adjusting therapy for a patient, confirm adherence and satisfaction with inhaler devices. There is limited clinical difference between different COPD therapies of the same class in clinical trials[9,10]. Inhaler therapy for COPD should largely depend on what inhaler devices the patient is comfortable with and able to use.

Smoking impacts on COPD treatment

Smoking cessation is considered the most important treatment for COPD[1]. Despite this it is estimated that up to 40% of patients with COPD are current smokers.[3] Not only does smoking reduce impair responses to respiratory infections, the benefit of inhaled corticosteroid (ICS) treatment is reduced in current smokers, possibly due to changes to oxidative stress on the lungs[11]. This is important due to the high rate of Asthma/COPD overlap in New Zealand where ICS therapy is a key treatment. While studies in this area are limited, there is growing evidence that vaping also produces oxidative stressors on the lungs which may cause the same reduction in ICS treatment efficacy[12,13].

Resources:

- COPD Assessment Test
- NZ COPD Guidelines
- Thalamus Dashboard

References:

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