



Nurse led COPD Education and Support Programme

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The Project

Aim

To determine if a nurse-led management programme improved outcomes for patients with COPD over a 12-month period.

Measurable outcomes

- i) improvement in COPD Assessment Test (CAT) score
- ii) reduction in number of exacerbations
- iii) reduction in number of hospital admissions

➤ Recruited 40 patients & followed them for 12mths



Method

- Preparation

- Recruitment

 - Search of Medtech 32 database at our practice

 - Inclusion criteria - classification of COPD, age >35years, eligible for CarePlus funding

 - Exclusion criteria – already enrolled in funding programme, diagnosis of lung cancer

First 55 patients who met inclusion criteria were invited to participate

39 patients in total were enrolled in the programme for a 12-month period from October 2015-October 2016

Programme content

➤ Evidence –

- i) Global Initiative for Chronic Obstructive Lung Disease (GOLD), 2014
- ii) Australasian Lung Foundation COPD-X guideline, 2010
- iii) BPac articles on COPD management, 2011

Appointments – 4x 30min annually

➤ 1st appointment – assessment & data collection

➤ Subsequent appointments:

Pathophysiology of disease

Prevention

Pulmonary Rehab

Self-management skills

Progression of disease

Advanced Care Planning

Risk identification

Community Support

Nutrition

Co-morbidities

Managing exacerbations

EACH VISIT includes – review of symptoms/CAT score, smoking cessation, medication adherence, inhaler technique, respiratory examination and review of action plan,

Importance of inhaler technique





Mrs D

- ▶ 53yr old, European, Chef
- ▶ Smoked pack a day for 36 yrs
- ▶ Frequent chest infections & hospital admission with pneumonia
- ▶ Declined influenza vaccine

- ▶ Stopped smoking
- ▶ Reduced number of exacerbations - Nil hospitalisations
- ▶ Self-manages exacerbations according to Action Plan

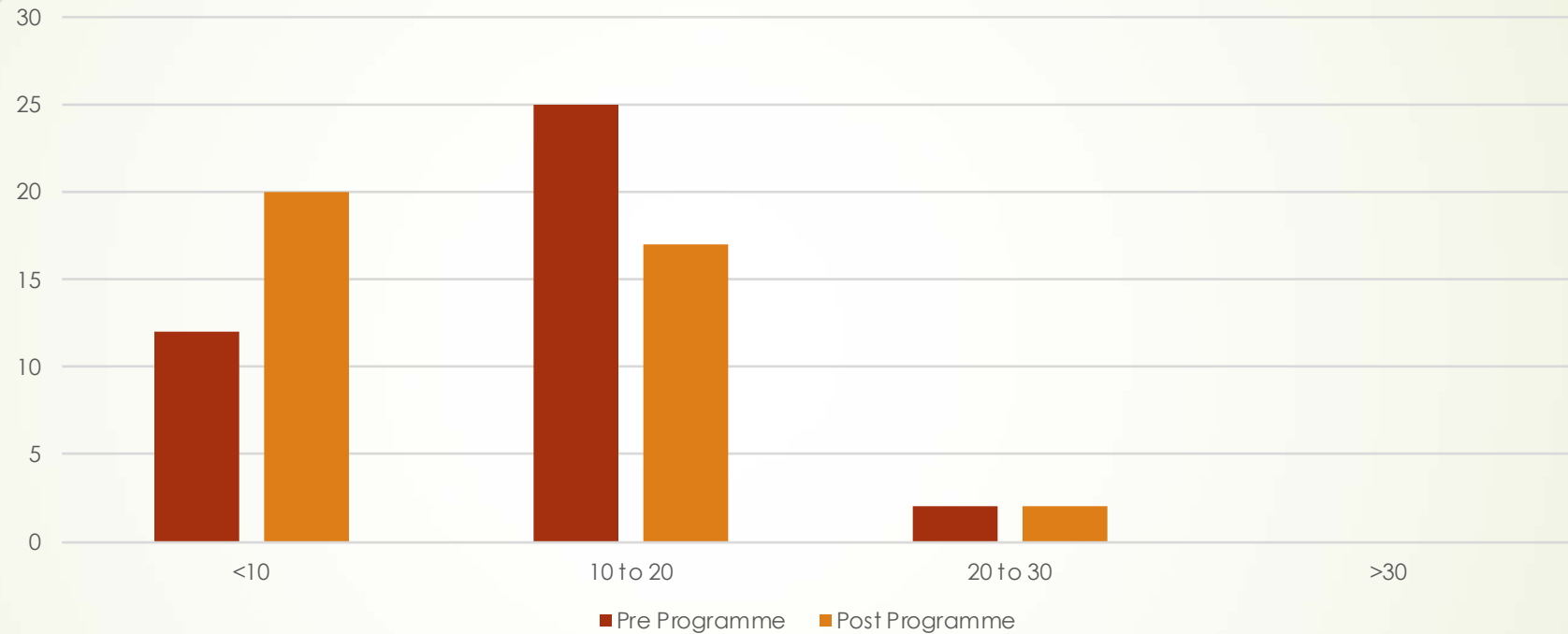
Results

- ▶ 94% patients identified as European, 3% as Maori and 3% Samoan.
- ▶ 38% were Male & 62% Female.
- ▶ Age range 51-89 years
- ▶ 95% of patients were current or ex-smokers, 5% had never smoked.
- ▶ Equal representation seen across the patient deprivation quintiles.
- ▶ All groups of GOLD classification scale (A=mild, B=moderate, C=severe, D=very severe) were included - majority of patients were GOLD C
- ▶ Initial CAT scores - 31% of patients scored <10, 64% scored 10-20 and 5% 20-30. No scores >30 very high impact were recorded.

- ▶ 38 patients completed the programme
- ▶ No patients were lost to follow up

Improvements in CAT score – quality of life & functional ability

Figure 1: Changes in CAT score

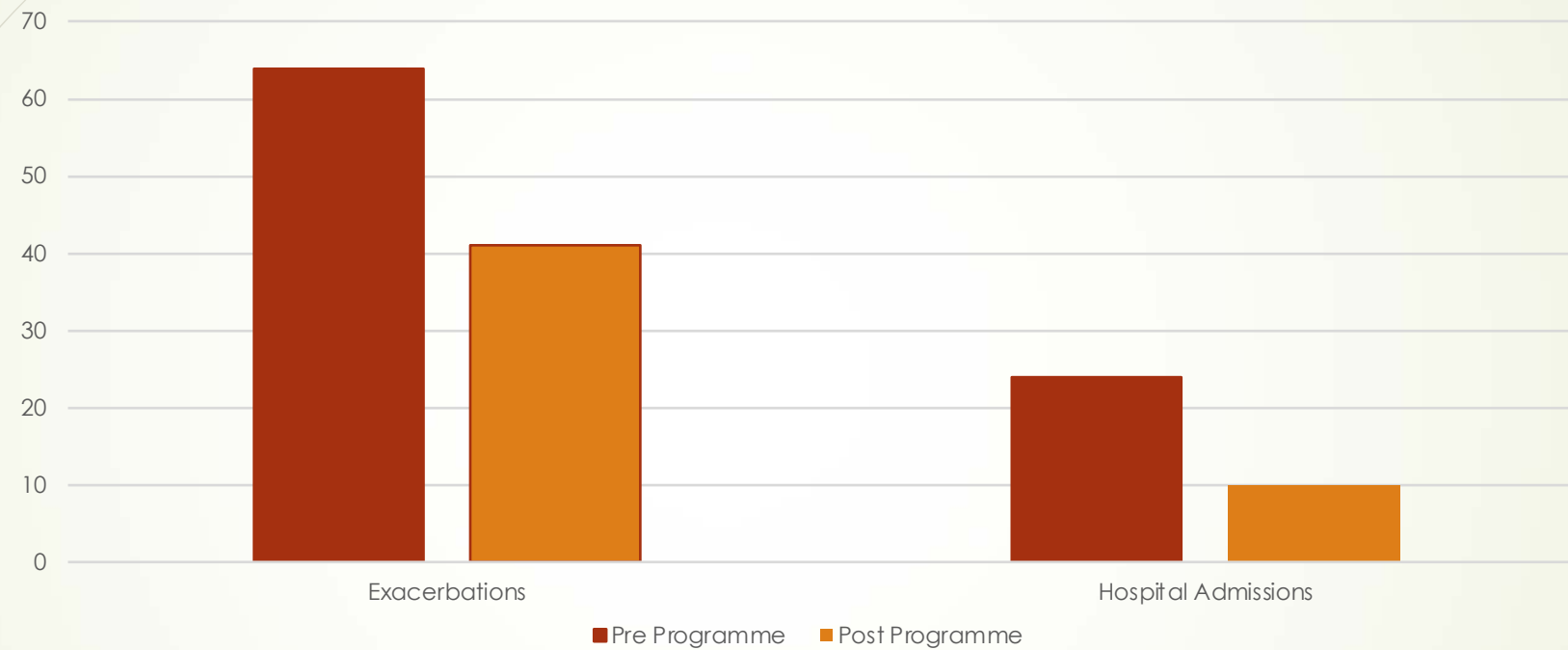


*CAT score - <10 low impact, 10-20 medium impact, 20-30 high impact and >30 very high impact.

More than half of patients had an improvement in their CAT score.

Exacerbations and Hospital Admissions

Figure 2: Number of exacerbations and hospital admissions



*Exacerbations: Pre Programme 64, Post Programme 41 Hospital Admissions: Pre Programme 24, Post Programme 10

These results indicate a **36% reduction** in the total number of exacerbations, and a **60% reduction** in total hospital admissions.



Other Outcomes

Smoking cessation

- ▶ 44% patients were smokers at start of project
- ▶ Reduced to 24% smoking on completion

Influenza & Pneumovax vaccinations

- ▶ 8% increased uptake of Influenza and 3% in Pneumovax vaccination.

Spirometry testing & changes in lung function (FEV1%)

- ▶ 28 patients underwent repeat spirometry
- ▶ 64% recording increases in lung function (FEV1% measurement).
- ▶ % increases ranged from 4-43%

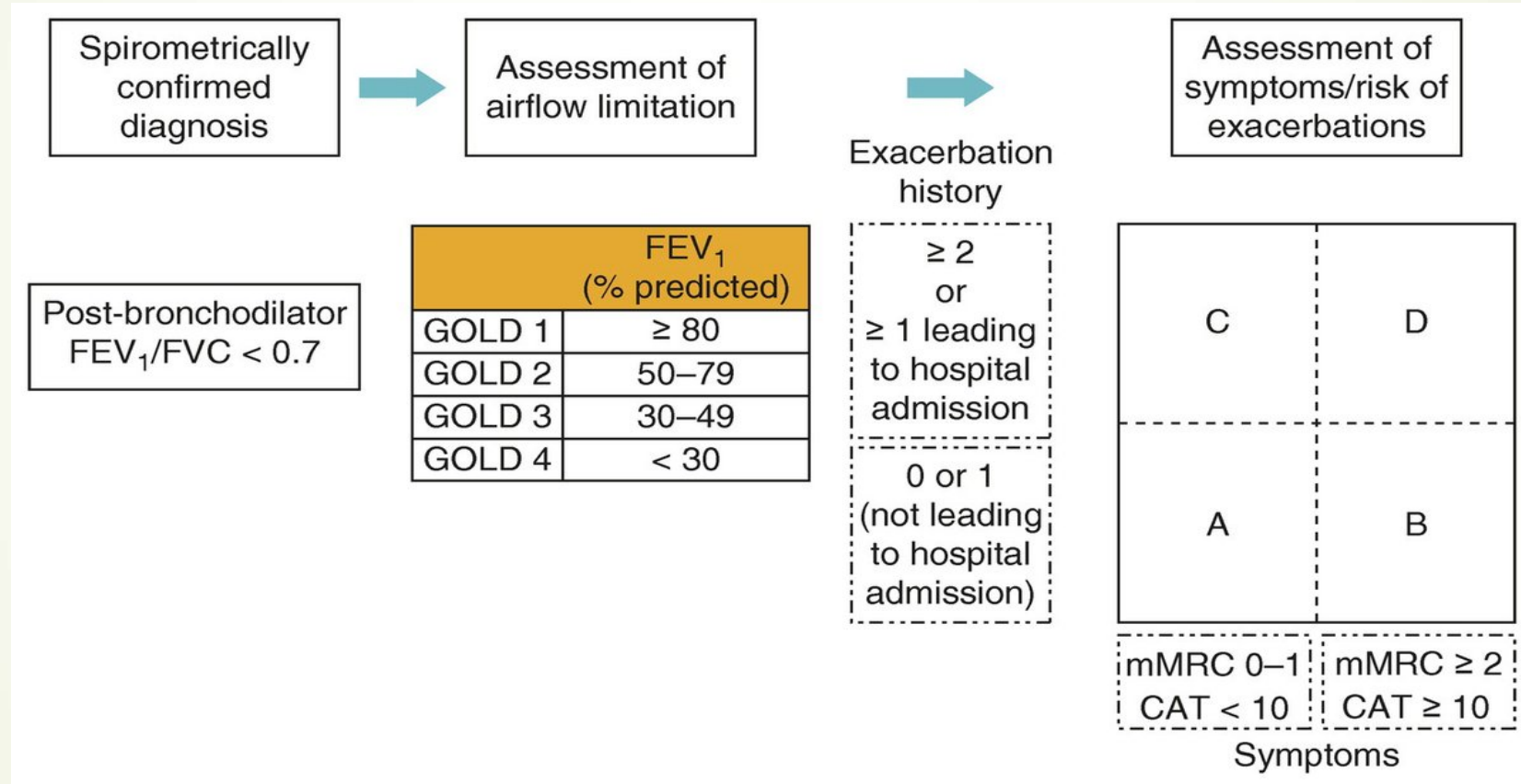


Discussion

- ▶ Limitations of study
- ▶ Significance of this project
- ▶ PHO COPD Initiative across WBOP PHO

In concluding I would like to acknowledge the support of the Asthma & Respiratory Centre Tauranga, my GP mentor Dr Luke Bradford, and the partners at 5th Avenue Family Practice for their assistance and support.


COPD ABCD assessment tool



CAT score

Your name:

Today's date:



How is your COPD? Take the COPD Assessment Test™ (CAT)

This questionnaire will help you and your healthcare professional measure the impact COPD (Chronic Obstructive Pulmonary Disease) is having on your wellbeing and daily life. Your answers, and test score, can be used by you and your healthcare professional to help improve the management of your COPD and get the greatest benefits from treatment.

For each item below, place a mark (X) in the box that best describes you currently. Be sure to only select one response for each question.

Example: I am very happy (0) **X** (2) (3) (4) (5) I am very sad

			SCORE
I never cough	(0) (1) (2) (3) (4) (5)	I cough all the time	<input type="text"/>
I have no phlegm (mucus) in my chest at all	(0) (1) (2) (3) (4) (5)	My chest is completely full of phlegm (mucus)	<input type="text"/>
My chest does not feel tight at all	(0) (1) (2) (3) (4) (5)	My chest feels very tight	<input type="text"/>
When I walk up a hill or one flight of stairs I am not breathless	(0) (1) (2) (3) (4) (5)	When I walk up a hill or one flight of stairs I am very breathless	<input type="text"/>
I am not limited doing any activities at home	(0) (1) (2) (3) (4) (5)	I am very limited doing activities at home	<input type="text"/>
I am confident leaving my home despite my lung condition	(0) (1) (2) (3) (4) (5)	I am not at all confident leaving my home because of my lung condition	<input type="text"/>
I sleep soundly	(0) (1) (2) (3) (4) (5)	I don't sleep soundly because of my lung condition	<input type="text"/>
I have lots of energy	(0) (1) (2) (3) (4) (5)	I have no energy at all	<input type="text"/>
		TOTAL SCORE	<input type="text"/>

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