COPD RIGHT CARE

Personalised and safe care, delivering a better experience for people living with COPD

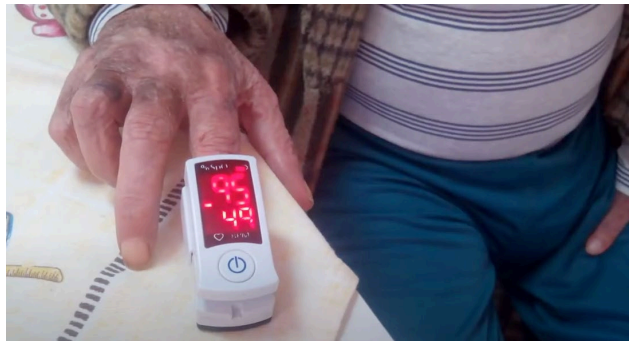
Introduction

www.ipcrg.org/copdrightcare

Definition

Doing the right things and only the right things in the right way for the right people at the right time in the right place, whatever that means in the local context

PR group in Crete during FRESH AIR



Pulse oximetry, Portugal

WHO's Florence, a 24/7 virtual health worker, provides digital counselling services to those trying to quit tobacco.

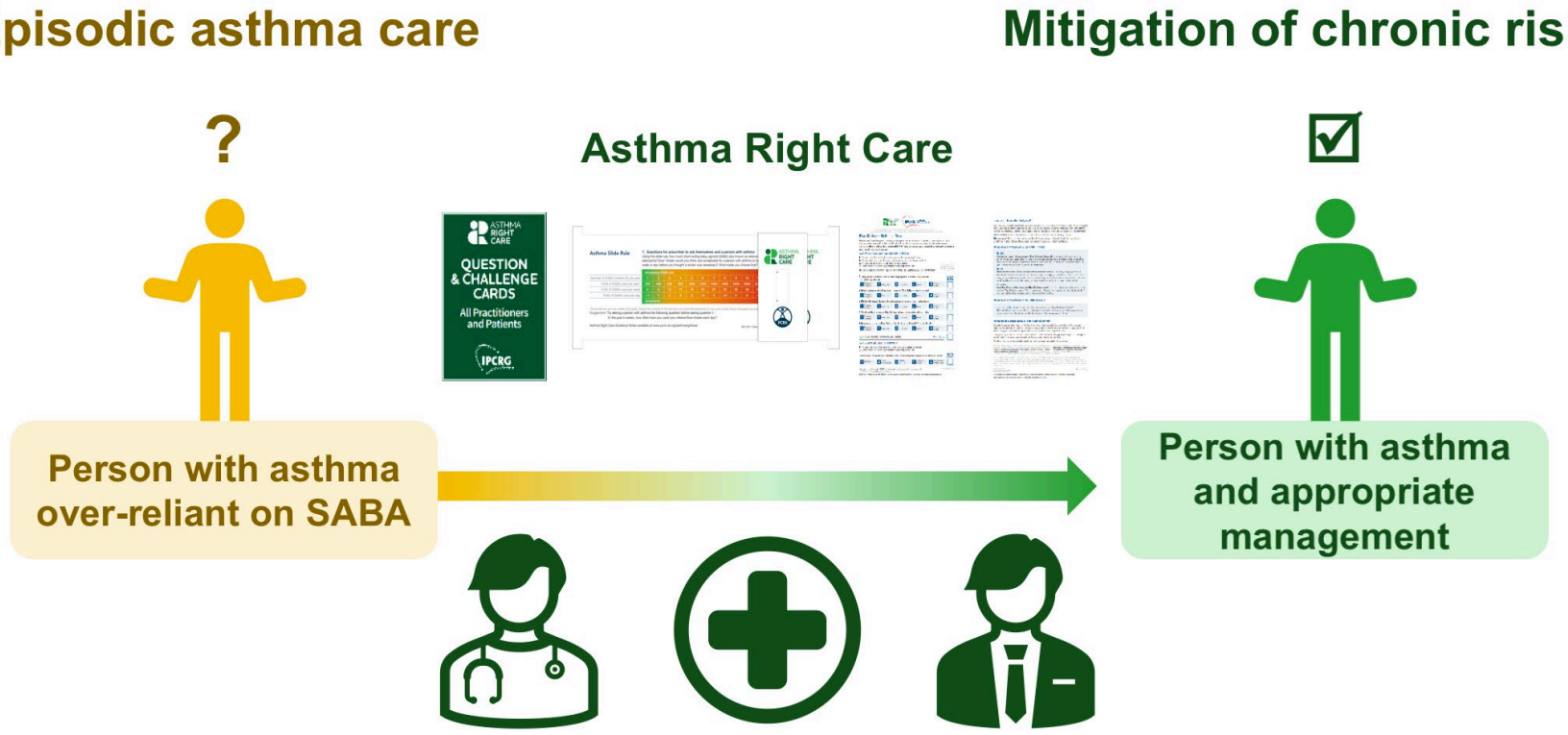
Right Care. Lancet Series 2017

With the focus firmly on universal health coverage as a central part to the UN Sustainable Development Goals, ……

Underuse and overuse of medical and health services exist side-by-side with poor outcomes for health and wellbeing…..

….achieving the right care is both an urgent task and an enormous opportunity.

What inspired it?
1. Asthma Right Care

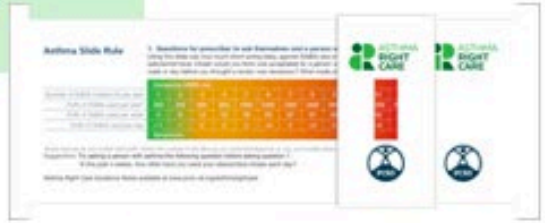


www.ipcrg.org/asthmarightcare

What are we doing, and what more can we do?

GP reflects on prescribing practices and adapts

Pharmacists move to prescription only for SABA, and are part of the asthma pathway

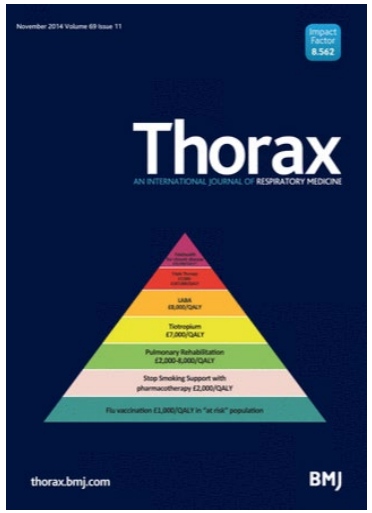


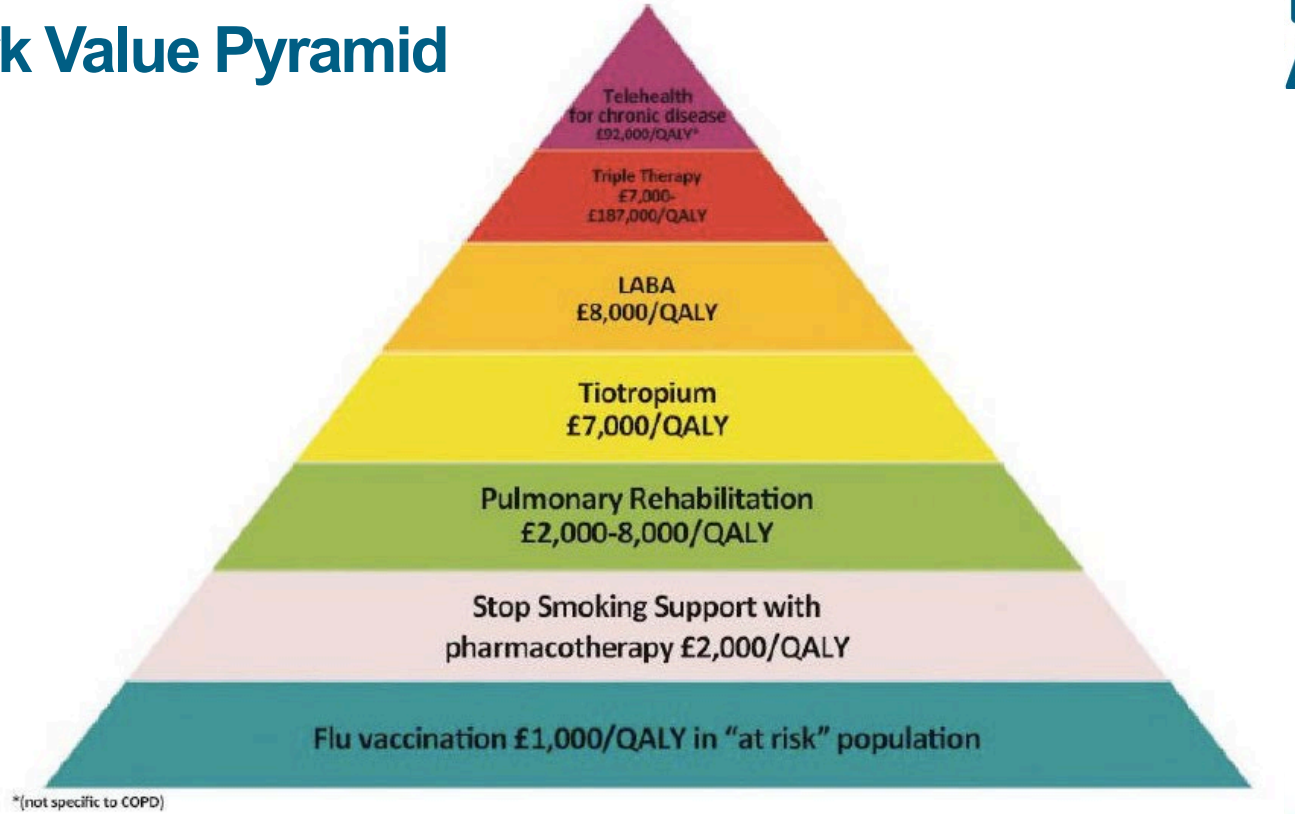
Journalists use appropriate images to change the asthma narrative

Emergency doctor seizes teachable moment: refers patient back to GP; no SABA without ICS

What inspired it?

2. London Respiratory Network Value Pyramid





*(not specific to COPD)

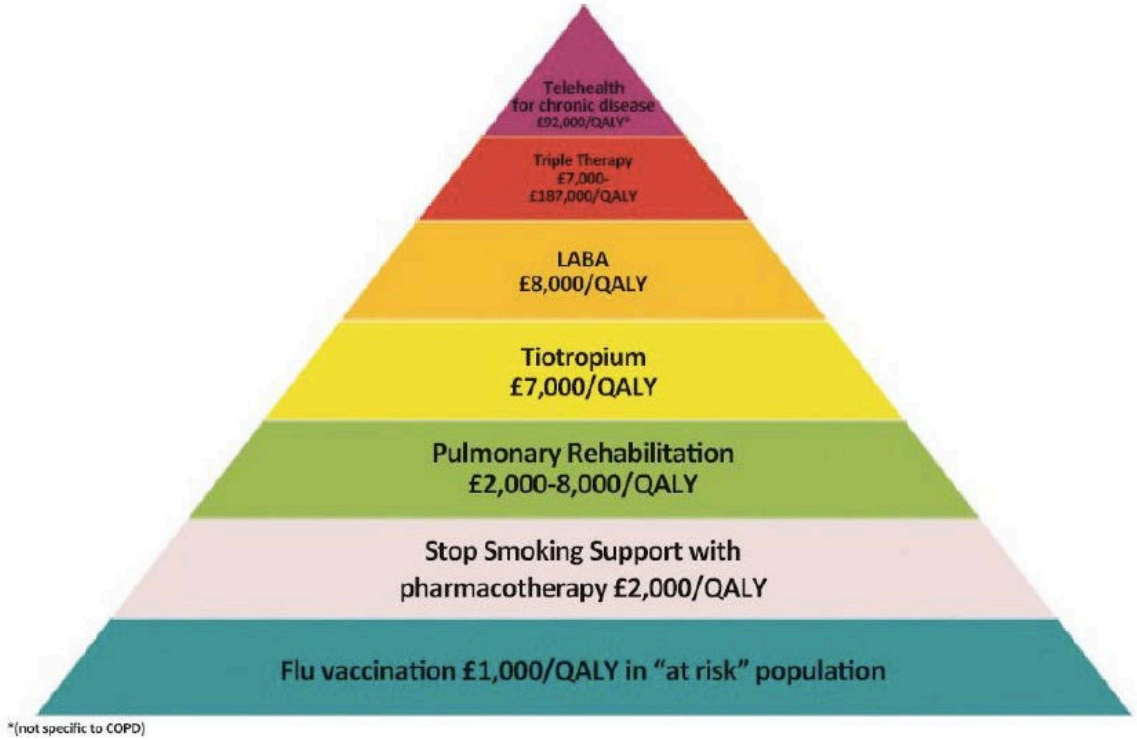
New

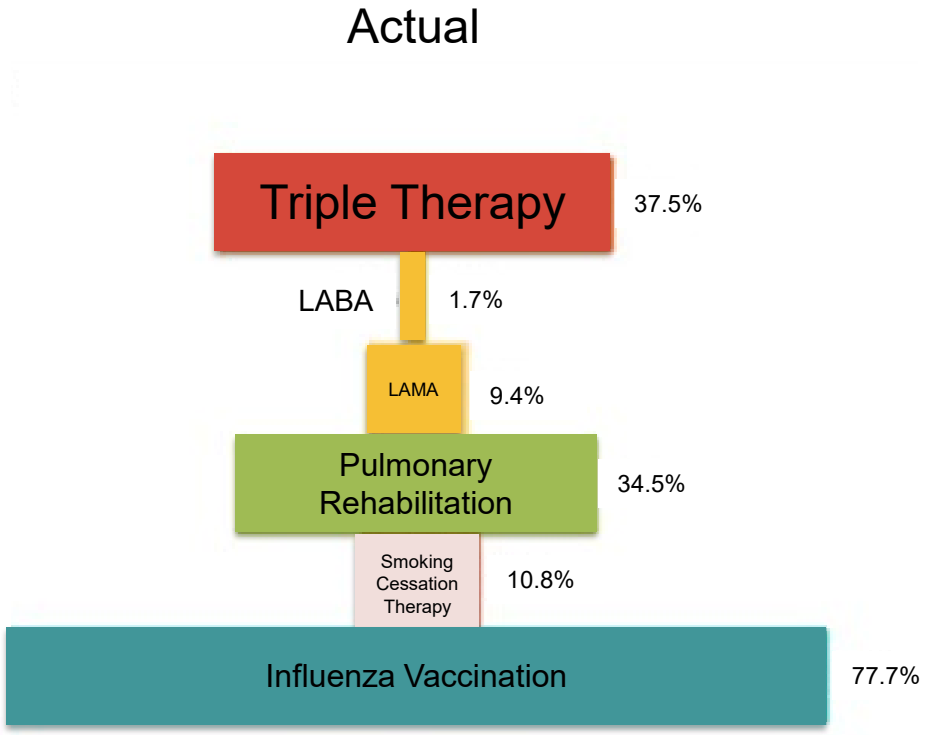
Education and training to underpin all implementation; and improved diagnosis to ensure allocation of interventions to the right people

First, leadership to build trust between different parts of the system, and respect for primary care, which is the highest value input in a health system: can deliver 90% of a person's health needs over their lifetime, and highly cost-effective

Example of how to use it:

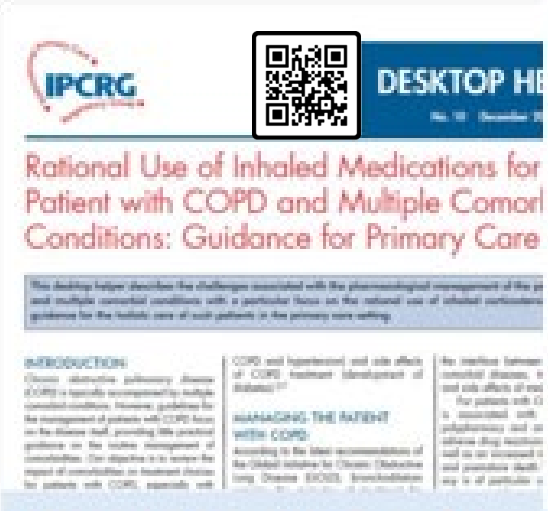
UK Royal College of Physicians primary care audit Wales 2014-15 published Nov 2016



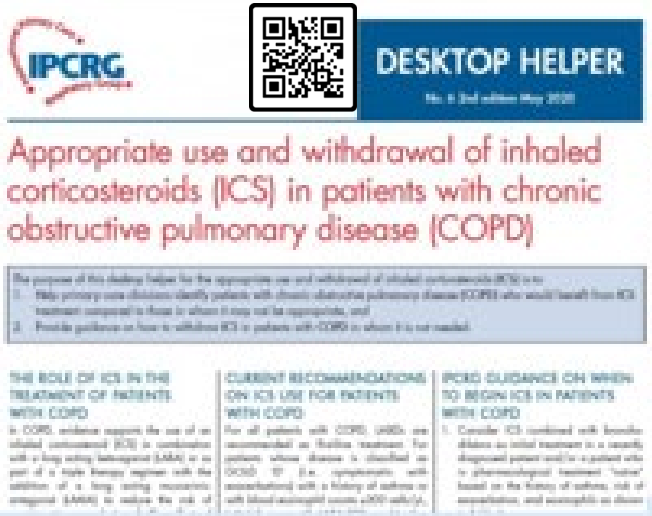


- Need to tackle underuse, misuse and overuse
- Recognise need multi-professional system-wide approaches
- Integrate personalization
- Patient safety – eg appropriate use of ICS

Builds on IPCRG's existing work

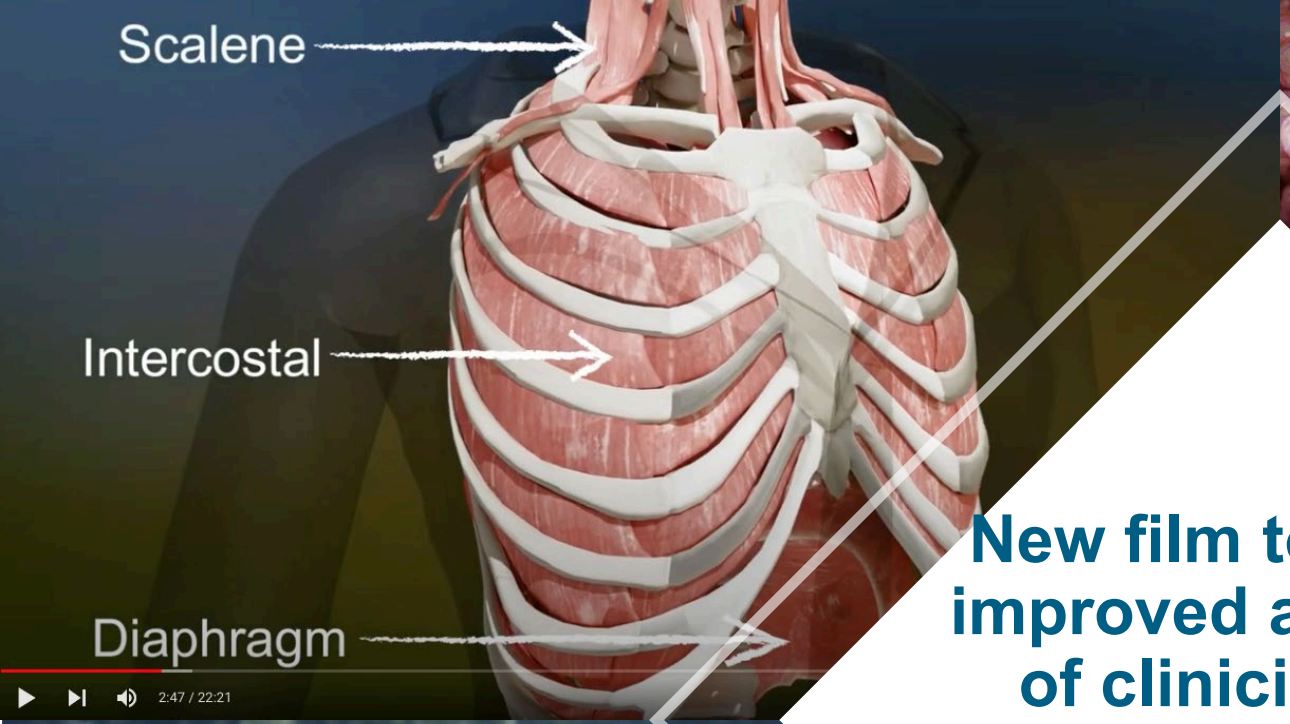


Desktop Helper No. 10 - Rational use of inhaled medications for the patier with COPD and multiple comorbid conditions: Guidance for primary care

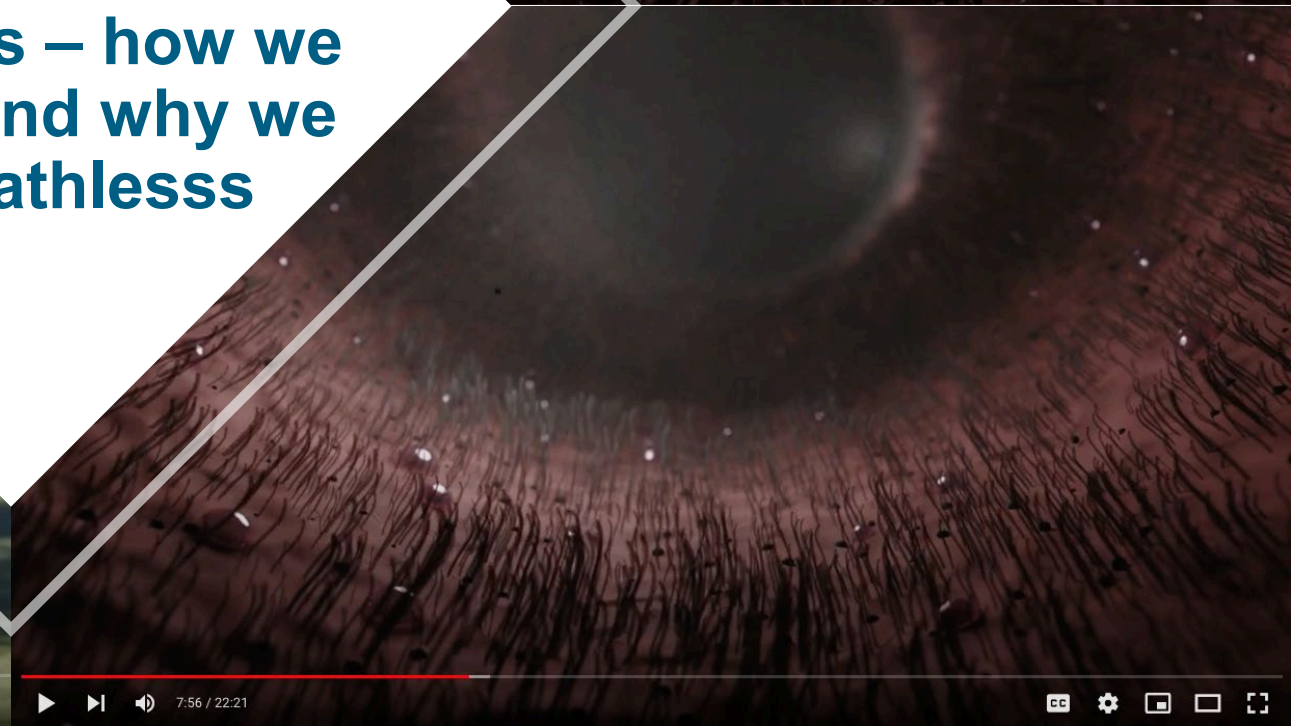


Desktop Helper No. 6 - Evaluation of appropriateness of inhaled corticosteroid (ICS) therapy in COPD and guidance on ICS withdrawal

Desktop Helper No. 7 - Pulmonary rehabilitation in the community



New film to support improved awareness of clinicians and individuals – how we breathe, and why we get breathlesss



New desktop helper 2022

COPD RIGHT CARE

International Primary Care Respiratory Group IPCRG Est. 2001

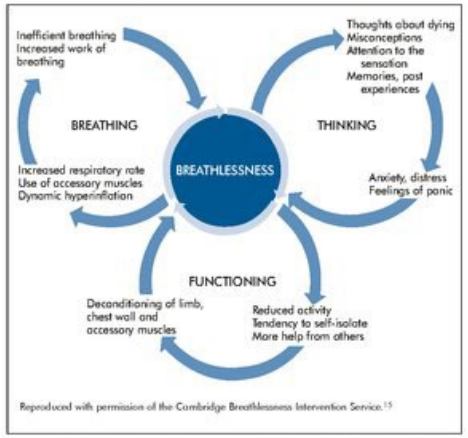
DESKTOP HELPER
No. 12 March 2022

COPD and Mental Health: Holistic and Practical Guidance for Primary Care

This desktop helper aims to raise awareness of the challenge of identifying and managing mental health problems in people with chronic obstructive pulmonary disease (COPD) and to direct primary care professionals (PCPs) to assessment tools as well as non-pharmacological and pharmacological interventions.

INTRODUCTION

Mental health problems, including anxiety and depression, are common among people with COPD and substantially impact their quality of life (QoL). In countries where tobacco smoking is prevalent, tobacco dependence is an additional factor that can significantly impact on QoL of people with COPD. However, PCPs often have low confidence to treat these problems due to the complex inter-relationships between them and symptoms such as breathlessness, which make assessment and treatment challenging. Estimates suggest that about 30% of people with COPD have comorbid depression (increasing to up to 80% with increasing COPD severity), and between 10% and 50% have comorbid anxiety.[1–3] Prevalence increases with age and as symptoms of COPD worsen, and they can co-exist.[3–6] Globally, about 20% of people smoke tobacco,[7] although this varies by country, and about 20% of them will develop COPD.[8] Despite this increased risk, smoking rates remain high following a diagnosis of COPD.[9,10] Mono-disease guidelines that focus on only one element are inadequate and guidance for PCPs is lacking.



Reproduced with permission of the Cambridge Breathlessness Intervention Service.[15]

COPD AND MENTAL HEALTH

Despite strong evidence of a high prevalence of depression and anxiety in people with COPD these comorbidities are underdiagnosed and undertreated. COPD-related depression and/or anxiety is associated with poorer QoL, more persistent smoking, worse adherence to treatment plans, more hospital admissions, readmissions and exacerbations, lower self-management rates, poorer survival and higher care costs than for people without psychological comorbidities.[11] Indeed, breathlessness, depression, anxiety and exercise tolerance are more correlated with health status than the widely used spirometric values.[12] People with COPD often report feelings of isolation and mental illness can increase this isolation due to societal and self-imposed stigma resulting in a cycle of decline which can impact QoL and impair adherence to COPD treatment.[13,14]

BREATHLESSNESS AND PSYCHOLOGICAL DISTRESS

Breathlessness is a core and complex symptom among people with COPD. It is not only the subjective perception of breathlessness but a person's reactions and responses to the sensation that matter.[15] The 'Thinking' negative cycle in the Breathing-Thinking-Functioning (BTF) model (see diagram above) offers a way of understanding how thoughts affect and are affected by breathing and also physical activity; it also suggests how we can break these cycles.[15]

Attention to the sensation of breathlessness, memories of past experiences, misconceptions and thoughts about dying can contribute to anxiety, feelings of panic, frustration, anger and low mood, which in turn reinforce unhelpful and unrealistic thoughts and images. Conversely, interventions to address these negative thoughts in relation to breathlessness and manage symptoms of anxiety and low mood have the potential to improve QoL and improve adherence to COPD treatment.

TOBACCO USE AND POOR MENTAL HEALTH

While smoking rates are not high among people with COPD in all countries, where they are, the strong association between tobacco use and poor mental health should be considered. Tobacco smokers with mental health disorders tend to be more addicted to smoking, smoke more cigarettes and are more likely to relapse and therefore need support for repeated attempts at quitting.[16–19] Smoking, depression, and anxiety are all associated with higher risk of death in people with COPD. The risk of death, depression and anxiety increases with increasing duration of smoking (years) and cigarette pack-years.[20] Yet smoking cessation is effective and is the most important intervention to slow the progression of COPD, increase survival and reduce morbidity.[5,21,22] Contrary to popular belief, quitting reduces anxiety and depression. Indeed, the effect size is as large or larger than antidepressants for mood and anxiety disorders.[23,24] It can be challenging to differentiate between symptoms of anxiety and of withdrawal, so assess anxiety levels at each appointment.

Table 1: Assessment of mental health problems in people with COPD

Many tools have been used in research settings, but in clinical practice PCPs are familiar with these easy-to-use tools:

- The WHO-recommended Patient Health Questionnaire 4 (PHQ-4) for very brief measurement of depression and anxiety. This tool can be completed online. Questions 1 and 2 are the GAD2 anxiety subscale; Q3 and Q4 are the PHQ2 depression subscale. A score of above 3 on either indicates further evaluation should be undertaken with, for example, the Patient Health Questionnaire 9 (PHQ9) or Generalised Anxiety Disorder Scale (GAD7).

Over the last 2 weeks how often have you been bothered by these problems: 0 = not at all; 1 = several days; 2 = more than half the days; 3 = nearly every day					
1. Feeling nervous, anxious or on edge	0	1	2	3	A score of 3 or more considered + for anxiety
2. Not being able to stop or control worrying	0	1	2	3	
3. Little interest or pleasure in doing things	0	1	2	3	A score of 3 or more considered + for depression
4. Feeling down, depressed or hopeless	0	1	2	3	

Categories of psychological distress based on total score:

- None: 0–2
- Mild: 3–5
- Moderate: 6–8
- Severe: 9–12

Source: https://qxmd.com/calculate/calculator_476/patient-health-questionnaire-4-phq-4.

- The PHQ9 is used to assess depression, consists of 9 items with a cut-off score of 5 and is available in multiple languages.
- The GAD7 is used to assess anxiety and is a 7-item self-report scale, with a cut-off score of 10 The GAD7 is also available in multiple languages.

These tools may be most useful in screening for depression and anxiety and in clarifying a suspected diagnosis.

Table 2: OARS

O	Open questions	To learn about their feelings and beliefs e.g. "Would you like to tell me more about how you feel?" "How do you experience breathlessness?"
A	Affirmations	Be positive and reinforcing; build a relationship and demonstrate empathy "It's great that you are willing to discuss your sadness, I am here to help you."
R	Reflection	"It sounds as though you have thought a lot about your symptoms and you know what to do."
S	Summary	"So let's make a summary of what we discussed."

Source: https://www.euro.who.int/__data/assets/pdf_file/0008/394208/Session-5.pdf

ACTION POINTS TO IDENTIFY MENTAL HEALTH PROBLEMS IN PEOPLE WITH COPD

Good patient-centred consultation skills will help. Recognise depression and anxiety are common comorbidities that can influence COPD outcomes. Anticipate that the individual may have depression or anxiety or both. As you assess for mental health problems employ active listening and avoid interrupting, show empathy and observe carefully. Body language and non-verbal signals may offer useful information, for example, long pauses and lack of eye contact during conversation. When considering a diagnosis, take a patient-centred approach and consider whether a 'label' of depressed and/or anxious will be helpful, for example, for the patient's understanding of their situation and for their holistic management.

ASSESSMENT TOOLS

Be aware of physical symptoms such as poor concentration, impaired sleep, fatigue or headache, that may be associated with anxiety and depression, and consider using a validated questionnaire if the person has symptoms (see Table 1).

TREATMENT OF MENTAL HEALTH PROBLEMS IN PEOPLE WITH COPD

Care for people with COPD and mental health problems needs a very broad approach recognizing that mind, body, how we interact with people and the environment are all interrelated. A patient-centred approach that focuses on the desires, goals and preferences of the patient is important. Utilize OARS skills to establish and maintain rapport using verbal and non-verbal responses and behaviours (Table 2).

People with COPD often have low levels of self-compassion[25] and a holistic approach to well-being is essential to address such negative self-perceptions and address mental health problems. Here we consider the evidence for some non-pharmacological and pharmacological interventions feasible in primary care.

NON-PHARMACOLOGICAL INTERVENTIONS

Cochrane reviews concluded a structured cognitive behavioural therapy (CBT) approach may be effective in reducing depression and anxiety symptoms.[1,26] This approach is feasible and cost-effective in the community delivered by trained practitioners.[27] Incorporating a CBT approach to address breathlessness in COPD and supporting self-management has the potential to increase willingness to engage with treatment including behavioural activation and physical activity, which can also be helpful for anxiety and depression.[28–31]

Table 3 details a range of interventions that may be useful to address breathlessness. We appreciate not all of these are accessible, translated, validated, affordable or culturally acceptable in every country, but the list is varied so include those which might be accessible in your setting. For example, the Cambridge Breathlessness Intervention Service offers a range of interventions to address breathlessness related to the "thinking" vicious cycle.[15]

Holistic care of the person with COPD and comorbidities such as anxiety and depression may be delivered via a multidisciplinary team, where available, who can deliver some or all of the interventions outlined above as well as pulmonary rehabilitation (PR). PR improves anxiety and depression symptoms.[32] However, practitioners under-refer, and people with COPD commonly fail to attend, or complete, their PR course; we await results of the TANDEM trial which is incorporating CBT to improve PR uptake.[2] Exercise in the natural environment has many therapeutic benefits, for both mental and physical health.[33] Taking part in nature-based activities helps people who are suffering from mental ill-health and can contribute to a reduction in levels of anxiety, stress and depression.[34] There are no specific studies in people with COPD.

Table 3: Interventions to address breathlessness

Intervention	Purpose/aim	Supporting evidence
Cognitive behavioural therapy	Problem-solving approach that challenges unhelpful thoughts/behaviours; reduces anxiety in COPD in short term; increases pulmonary rehabilitation attendance.	Yohannes AM, et al. *J Am Med Dir Assoc* 2017;18:1096.e1-1096.e17. Heslop-Marshall K, et al. *ERJ Open Res* 2018;4:0094-2018. Pumar MI, et al. *J Thorac Dis* 2019;11(Suppl 17):S2238–S2253.
Mindfulness/ meditation	20-minute mindful breathing reduces breathlessness in lung disease, and anxiety/depression in advanced disease; enhances non-evaluative attention and may increase self-efficacy.	Seetee S, et al. *J Med Assoc Thai* 2016;99:828–8. Malpass A, et al. *BMJ Open Respir Res* 2018;5:e000309. Tan SB, et al. *J Pain Symptom Manage* 2019;57:802–8. Look ML, et al. *BMJ Supportive & Palliative Care* 2021;11:433–9.
Relaxation techniques	Some evidence that relaxation interventions can help anxiety, breathlessness and fatigue in COPD. Guided imagery ('thinking of a nice place'), progressive muscular relaxation and counting are most acceptable.	Hyland ME, et al. *Int J Chron Obstruct Pulmon Dis* 2016;11:2315–9. Yilmaz CK, Kapucu S. *Holist Nurs Pract* 2017;31:369–77. Volpato E, et al. *Evid Based Complement Alternat Med* 2015;2015:628365.
Acupuncture/ pressure	Improves breathlessness in advanced disease and may reduce anxiety.	von Trott P, et al. *J Pain Symptom Manage* 2020;59:327–338.e3.
Singing therapy	Most evidence suggest singing therapy can improve lung function; some evidence suggest it may improve anxiety and QoL; anecdotal evidence of value.	Gimenes Bonilha A, et al. *Int J Chron Obstruct Pulmon Dis* 2009;4:1–8. Lord VM, et al. *BMC Pulm Med* 2010;10:41. McNamara RJ, et al. *Cochrane Database Syst Rev* 2017;12:CD012296.
Positive psychology giving sense of control/ confidence	Not evidence-based. However, holistic breathlessness services reduce anxiety/depression and use positive psychology, improving self-efficacy.	Brighton LJ, et al. *Thorax* 2019;74:270–81. Lovell N, et al. *J Pain Symptom Manage* 2019;57:140–155.e2.
Social presence	Experimental evidence in healthy volunteers for social presence reducing breathless perception; patients describe reassurance from presence of others.	Herzog M, et al. *Biol Psychol* 2019;140:48–54.

Pharmacological interventions

Effective management of breathlessness using bronchodilator therapy[5] will contribute to easing psychological distress. Treat tobacco dependence with available pharmacotherapy as well as counselling. Recommendations regarding antidepressant medications for people with COPD are lacking.[11] However, we suggest reasonable approaches to management include the use of selective serotonin reuptake inhibitors (SSRIs; preferred) or, if not available or not appropriate for other clinical reasons, tricyclic antidepressants (TCAs) may be a second-line option for the treatment of depression.[11] Avoid using TCAs in people with severe COPD, due to an increased risk of respiratory centre depression and respiratory failure. Anxiety may be managed using SSRIs but the evidence is weak.[35] Despite widespread use of benzodiazepines for COPD, evidence suggests it does not help with breathlessness and should not be used for this indication.[36] They may be considered for people with acute distressing anxiety for short-term use (no more than 4 weeks) and at the lowest dose possible.[37] Metabolism of antidepressants and anti-anxiety drugs is increased in tobacco smokers who are therefore likely to need higher doses than non-smokers. Success in quitting means you may need to reduce the dose to compensate for this.[38]

WHEN TO REFER

Refer (or direct) people with COPD to appropriate mental health services where available, including psychology if the patient expresses a preference for non-pharmacological care, or the management of anxiety or depression is not achieved with the interventions available to you. People with COPD and psychosis or suicidal ideation require immediate referral to specialised mental health services.

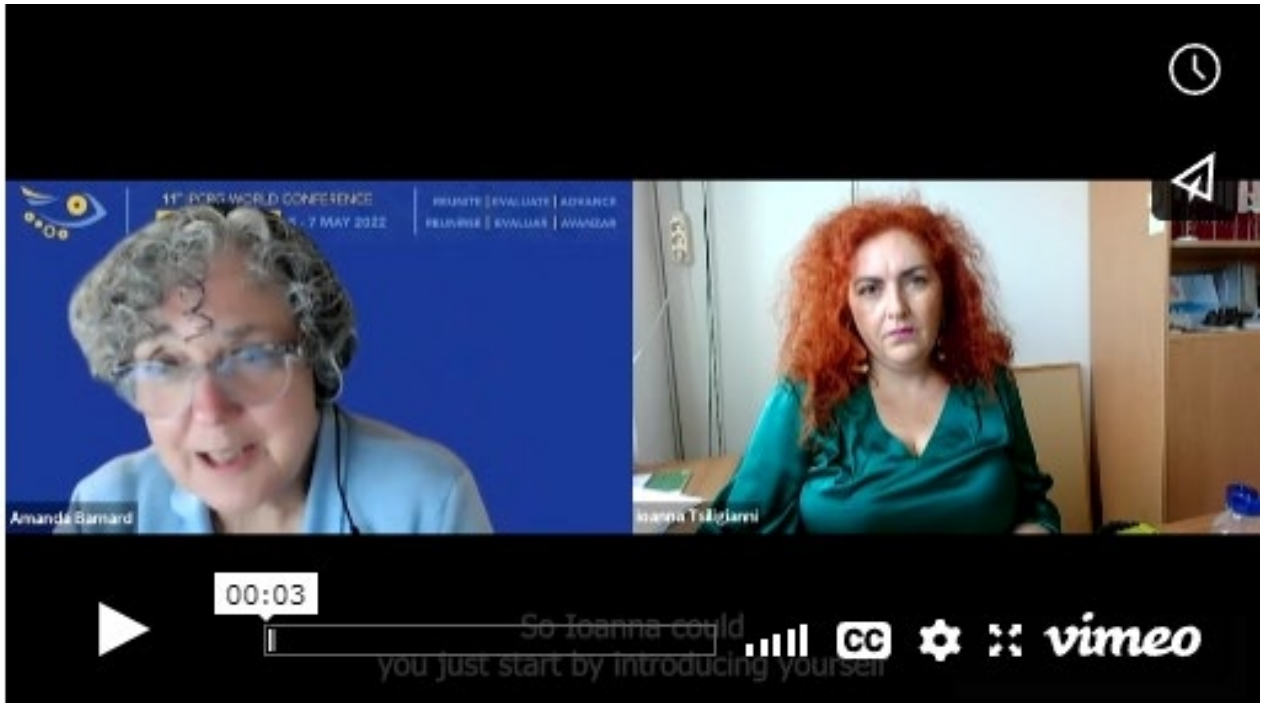
CONCLUSIONS

Improvement of mental health improves COPD outcomes. PCPs caring for people with COPD need communication flexibility and skills to identify depression and anxiety particularly in current smokers and those trying to quit who are at the greatest risk of poor outcomes. Offer smoking cessation support (see the IPCRG Desktop Helper helping patients quit tobacco[39]) and consider CBT. Draw on available local services to support mental well-being. The value of pharmacological treatment needs more evidence.

Teaching case studies and slides available

COPD and Mental Health Film

Amanda Barnard interviewing Ioanna Tsiligianni



https://vimeo.com/710772384

New desktop helper 2022

COPD RIGHT CARE

International Primary Care Respiratory Group IPCRG Est. 2001

DESKTOP HELPER

No. 3 April 2022

Improving the life of people with COPD by integrating a supportive and palliative approach from diagnosis to end of life

This desktop helper supports a long-term holistic approach to chronic obstructive pulmonary disease (COPD) management. The course and prognosis of COPD can be difficult to predict. Care is directed towards enhancing the quality of life of the individual and their family, slowing progression, reducing symptoms and preventing exacerbations, which is why palliative approaches are useful from the time the COPD diagnosis is communicated. It is important to remember that 'palliative' is a broad term for approaches that address individual needs across the spectrum of COPD.

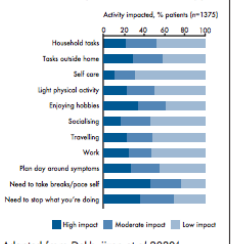
INTRODUCTION

People live with COPD from years to decades, experiencing a lower quality of life (QoL), and greater functional limitations, anxiety and depression than others who are the same age without COPD. These potentially significant changes in QoL and expectations from life may be improved with enhanced care, highlighting the need for a long-term and holistic approach to support people with COPD, their family and caregivers. Care selection is based on repeated discussion during the evolving prognosis and symptom trajectory, identifying and minimising distressing symptoms and ensuring medical, physical, social and spiritual support. This may include supporting access to supportive and financial care packages from social care and other non-medical services.[1] From beginning to end, COPD must be treated using all available appropriate therapies for COPD AND the common co-morbidities such as cardiovascular disease (CVD), depression/anxiety, diabetes, renal disease, lung cancer and osteoporosis. Treatment must be based on appropriate evaluations and knowledge of the person's functional status and personal goals at each stage of COPD stabilisation and progression (e.g. evaluated at least annually). Variations will depend on the local availability of healthcare and therapies, cultural norms and the individual's beliefs and goals.

IMPACT OF COPD

COPD is a chronic disease that impacts every aspect of life and is often diagnosed after months or years of people reducing or eliminating activities to lessen breathlessness or feelings of "air hunger" or fatigue. For people living with COPD, breathlessness may be due to a combination of factors including common comorbidities such as heart disease or anxiety.[2,3] COPD lowers overall QoL including social interactions, mood, work, family life and self-care (Figure 1).[4]

Figure 1: The high burden of COPD. International survey of people with COPD receiving maintenance therapy



Adapted from Dekhuijzen *et al* 2020[4]

INCLUDING THE PREFERENCES OF THE PERSON WITH COPD IN THEIR LONG-TERM CARE

A crucial step in the longitudinal care that primary care can provide is understanding the individual's current state by assessing **symptom burden** (perhaps using the COPD Assessment Test available at https://www.catestonline.org/), **functional abilities** (e.g. ability to do what they consider important – work, family and social interactions, self-care), **the frequency and severity of exacerbations** (e.g. may be labelled as episodes of "bad colds" or "acute bronchitis"), and **ideas, concerns and expectations** (ICE) such as losing independence, ability for self-care or having to live in a "nursing care facility"). The individual with COPD and their family may share feelings, frustrations and concerns about future needs with others in our primary care teams and we can also use this information and these team members, help to open important discussions. People living with COPD remind us — **"If you ask us questions then LISTEN to our answers"** (Table 1).

Table 2 provides questions to guide discussion on long-term care to help you explore the broader aspects of care and identify those areas of greatest importance to each individual.

An important advantage of care continued over months and years is that the conversations are built upon our previous discussions – our knowledge is cumulative and evolving. Understanding and documenting what the individual and family wants regarding goals, future plans and end of life care/living wills, can ensure their preferences are recorded and available when care may include hospital specialists or hospitalisation. These questions can be set in the **Open questions, Affirmation, Reflective listening, Summarising (OARS)** framework (see the IPCRG Desktop Helper COPD and mental health www.ipcrg.org/dth12) that helps establish and maintain rapport, assess the individual's needs and personalise your counselling and education responses.[5]

LEARNING ABOUT COMMUNITY RESOURCES

To make plans, people need to know what is available to them. Information on local and regional resources needs to be gathered and shared with them, most usefully by someone in the primary care team. In addition, home visits and telehealth video visits may show you where and how the person with COPD lives to facilitate better understanding of opportunities to support their interests and needs for living with COPD and any associated comorbidities.

See how Seneth Samaranayake, a GP in Sri Lanka, takes a palliative approach using the resources available in his community in our online Supplementary material S2.

Table 1: The perspectives of people with COPD–what my healthcare team needs to know!

1.	My healthcare team needs to know who I am and what my functional status is and what my goals are. Without this baseline, many of the conservations take too long or are meaningless.
2.	Ask me "What is a usual day's activity like for you? What have you had to give up or modify over the last few years? What do you not want? e.g. I never want to go to a nursing home."
3.	Ask me "What are your thoughts about your life over the next year or if your COPD gets worse?" This is probably best done during in-person visits where the clinician can read body language and give more support.
4.	Ask me "What do you and your family want us to know and put in your medical record about your goals and future plans?"
5.	Many of us don't know what we don't know or what to ask. Let us know what our options are by sharing information, a website link or someone to talk to.
6.	Finally, if you ask then LISTEN to our answers.

Thanks to the people with COPD who allowed Barbara Yawn to interview them.

Table 2: Questions to ask to guide broader care and to record in the medical record

Essential questions to be asked at each visit: • What brings you here/to this visit? • Any special concerns from you, your family or your carer?
Questions to be asked over subsequent visits to help to develop an understanding of personalised needs and goals to direct support: • What is your understanding of where you are with your COPD at this time? • What are your fears and worries for the future? • What are your goals……if time is short? • What outcomes/consequences/results would be unacceptable to you?

See our online Supplementary material S1 for additional questions to help with your conversations with individuals and their families. Listen to author and surgeon Atul Gawande discuss the importance of these four questions to understand people's priorities at https://www.bbc.co.uk/programmes/b04tjdlj

ACTIVELY MANAGING SYMPTOMS INCLUDING BREATHLESSNESS

People with COPD may have many symptoms including fatigue, breathlessness, cough, depression, anxiety and sleep disturbance that each require relieving ("palliative") treatment. These can be offered by every primary care clinician working holistically and attending to each and all of the person's needs, irrespective of life expectancy.

Non-drug treatments

Evidence-based smoking cessation is the most effective intervention to slow the progression of COPD in people who are tobacco dependent (see the IPCRG Desktop Helper Helping patients quit tobacco)[6] and employ the Ask, Advise, Act approach at every consultation.[7] Quitting success will be improved if tobacco dependence medicines and support services like "quit lines" are also used.[6]

Pulmonary rehabilitation (PR) is effective in reducing breathlessness and fatigue and improving health status and exercise tolerance and can reduce rehospitalisation in those who have had a recent exacerbation. It also can reduce symptoms of anxiety and depression.[8,9] Read more at: www.ipcrg.org/PR.

Breathlessness is the most common symptom in people with COPD and can be challenging to manage. The severity of breathlessness may bear little relationship to the severity of COPD as measured by lung function, with more than 40% of people with mild COPD experiencing moderate to severe breathlessness.[10] However, there are a number of non-pharmacological interventions in addition to PR that may also be suggested depending on the cause and individual preferences.[11-13] A range of possible interventions are shown in Table 3.

We have insufficient data to present evidence levels to support widespread use of other interventions for breathlessness such as positive psychology, singing therapy, self-hypnosis and laughter therapy, but they may be useful, balancing individual preferences and risk assessment. When available and feasible to use, non-invasive ventilation may also reduce daytime breathlessness in people with advanced breathlessness.[8]

Drug treatments to be used together with non-pharmacological interventions

Inhaled bronchodilators are the first line COPD pharmacotherapy.[8,13] Whenever possible, use long-acting single or dual bronchodilators which can improve breathlessness, and reduce hyperinflation thereby reducing symptoms and in some people also reducing the risk of future exacerbations.[13] Add corticosteroids when frequent exacerbations cannot be prevented with bronchodilators, by trigger avoidance or, if available, PR.[8] Neither inhaled or oral corticosteroids are considered therapy for breathlessness.[8] Additional drug options

Table 3: Non-pharmacological interventions to address breathlessness and exercise capacity

Intervention	Purpose/aim
Pulmonary rehabilitation	Can relieve breathlessness and fatigue, improves emotional state and enhances person's sense of control over their condition – moderately large and clinically significant improvements
Facial cooling with a fan or cool flannel. See this video: https://www.youtube.com/watch?v=y5tBC5R8DYs	Good evidence of short-term benefit from using a fan (static or hand held), relieving breathlessness at rest and reducing recovery time after activity. Movement of air over a person's face is thought to stimulate a vagal response A cool flannel is an alternative
Mindfulness/ meditation	20-minute mindful breathing reduces breathlessness in lung disease, and anxiety/depression in advanced disease; enhances non-evaluative attention and may increase self-efficacy
Relaxation techniques	Some evidence can help anxiety, breathlessness and fatigue in COPD. Guided imagery ("thinking of a nice place"), progressive muscular relaxation and counting are most acceptable
Pacing	May help breathlessness as a component of an evidence-based complex intervention
Walking aids	Can improve exercise capacity
Cognitive behavioural therapy	Problem-solving approach that challenges unhelpful thoughts/behaviours; reduces anxiety in COPD in short term; increases pulmonary rehabilitation attendance
Breathing techniques	Most studies do not find this intervention improves breathlessness, although some evidence in lung cancer and pursed lip breathing may help in COPD; however, these are a key component of evidence-based complex interventions for breathlessness
Acupuncture/ pressure	Improves breathlessness in advanced disease and may reduce anxiety
Inspiratory muscle training	Conflicting evidence for impact on breathlessness; people need to be carefully selected

See our online Supplementary material for a full list of supporting references at www.ipcrg.org/dth3_supp

to know the evidence as well as have an awareness of local practice and beliefs which may vary from the evidence led by tradition, "specialist practice" or local systems. Awareness of the evidence allows clinicians to provide people with COPD and their carers with more informed choices to support best use of limited resource.

Managing malnutrition

Fatigue, muscle weakness and overall health status can all be improved with nutritional support.[8] About 1 in 5 people with COPD are at risk of malnutrition, particularly under nutrition, causing poor outcomes and increased healthcare costs due to loss of skeletal muscle (sarcopenia) and lean tissue mass (cachexia). Malnutrition can result from inadequate local access to food or from inability to shop and cook among other reasons. Calculate body mass index (BMI) and track weight loss in the office or by the person at home. When available, a simple measure like handgrip strength can be used as a marker of muscle strength. If malnutrition is a concern, it is necessary to explore reasons for the malnutrition and try to identify solutions which may include better food access, setting goals to increase body weight and muscle mass, exploring eating habits and identifying food support systems. **A useful pathway for guidance** on managing malnutrition in COPD is available at www.malnutritionpathway.co.uk/copd/. Quitting smoking may help to improve appetite and taste.

ROLE OF PRIMARY CARE TEAM

People with COPD attend primary care throughout their life, and therefore primary care must respond to their changing need for symptom relief which is independent of disease severity. Responding to people's changing needs may include being mindful of alternative communication methods including the telephone or tele-video that enables regular contact with no travel effort.[1] A model that can work in high and low income settings (See our online Supplementary material S2) is the allocation of a health care professional or "coach" with specific COPD knowledge to support the individual over the course of their life and as their needs change and guide them to locally available health and social services, faith organisations and online self-help resources. Tools such as questions in Table 1 can guide the discussion. Consider establishing a **register** of people for whom discussions around advance care planning would be appropriate. Such discussions should then be recorded and dated and revisited at regular intervals. The Breathing Thinking Functioning model[10] has been found by primary care clinicians in the UK to be a very helpful and practical wa

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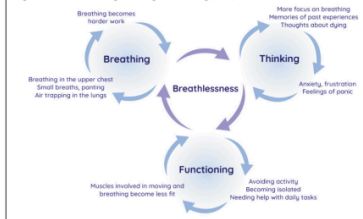
Figure 2: The Breathing-Thinking-Functioning (BTF) model[10]

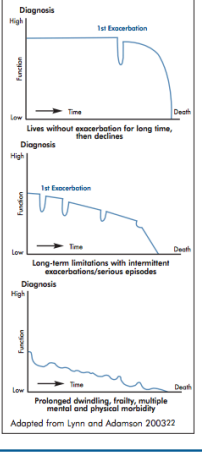


Reproduced with permission of the Cambridge Breathlessness Intervention Service.[10] See: https://www.btf.phpc.cam.ac.uk/

care may be shared or transferred to other groups of health care professionals. Plans and preferences should not be static and must be reviewed and updated regularly as their and their family's circumstances evolve. For example, it is important to review using questions such as "Before, you thought you would like… Is that still what you would like?" Asking about death and dying can be intimidating and uncomfortable for many HCPs but people with COPD and their families appreciate the opportunity for these discussions (See our online Supplementary material S3).

COPD can have multiple trajectories (Figure 3) from progressive and often unrecognized disabling breathlessness, pain, anxiety and depression to sudden events and death during acute exacerbations or cardiac events against a background of long-term decline. Even where hospices are available, they may not meet the needs in all these events. Some events can help highlight the need to discuss palliative and end of life care. Half of people admitted for COPD and acute respiratory failure will typically die in the next two years. This could be a key indicator for inclusion in the palliative care register and updating or completing a living will, if these are available. The palliative care approach requires repeated assessments of current status, available resources, involving the person and family desires and capabilities, bringing whole systems and available services together to meet the full range of needs. Since it is often not possible to predict the trajectory for individual people, especially as they near end of life, having discussions earlier to supplement discussion

Figure 3: Possible disease trajectories in people with COPD



Adapted from Lynn and Adamson 2003[22]

during an event is important. Be clear that predicting trajectories and 'time left' is difficult and often uncertain but reassure the person that support is available and their wishes will be respected. Include family and carers to ensure that the person's wishes are known and feasible to accomplish.

DYING

The aim is for people with COPD to die in their preferred place. This may be at home. However, this preference may change over time as a person experiences changes in their condition and realises what supports are not able to be provided at home. For example, their preference may change to a hospice. For this reason, advance planning should be viewed as a dynamic process involving sensitive discussions with the individual and their families that should be revisited over time and records updated accordingly. See our online Supplementary material S5 for examples of formularies for end-of-life prescribing.

References

1. Chyr LC, et al. Ann Fam Med 2022;20:77-83.
2. Holland AE, et al. Chron Respir Dis 2016;13:372-82.
3. Barnett K, et al. Lancet 2012;380:37-43.
4. Dekhuijzen PNR, et al. J Chron Obstruc Pulm Dis 2020; 17:419-28.
5. Miller WR, Rollnick S. Motivational Interviewing: Helping People Change, 3rd Edition. New York: The Guilford Press, 2013.
6. IPCRG. Desktop Helper No. 4 - Helping patients quit tobacco - 3rd edition. Available at: https://www.ipcrg.org/desktophelpers/desktop-helper-no-4-helping-patients-quit-tobacco-3rd-edition. Accessed March 2022.
7. NCSCT. Very Brief Advice training module. Available at: https://www.ncsct.co.uk/publication_very-brief-advice.php. Accessed March 2022.
8. GOLD. Global strategy for prevention, diagnosis and management of COPD: 2022 Report. Available at: https://goldcopd.org/2022-gold-reports-2/. Accessed January 2022.
9. Spruit MA, et al. Am J Respir Crit Care Med 2013;188: e13-64.
10. Spathis A, et al. npj Prim Care Respir Med 2017;27:27.
11. Marciniuk DD, et al. Can Respir J 2011;18:69-78.
12. Massari A, Hunt DP. J Gen Intern Med 2021;36:1035-40.
13. O'Donnell DE, et al. Adv Ther 2020;37:41–60.
14. Verberkt C, et al. JAMA Intern Med 2020;180:1306-14.
15. Waerman R, et al. Australian Fam Phys 2013;42:137-40.
16. Ekström M, et al. Ann Am Thorac Soc 2015;12:1079-92.
17. Barnes H, et al. Cochrane Database Syst Rev 2016;3: CD011008.
18. Currow DC, et al. ERJ Open Res 2020;6:00299-2019.
19. Simon ST, et al. Cochrane Database Syst Rev 2016; 10:CD007354.
20. Luckett T, et al. Eur Respir J 2017;50:1700262.
21. Patel K, et al. Respirology 2017;17:72-8.
22. Lynn J, Adamson DM. Living well at the end of life. Adapting health care to serious chronic illness in old age. Washington, Rand Health, 2003. Available at: https://apps.dtic.mil/sti/citations/ADA416211. Accessed March 2022.

Additional resources and full references can be accessed via the online version of the Desktop Helper www.ipcrg.org/dth3

International Primary Care Respiratory Group IPCRG Est. 2001

Authors: **Barbara Yawn, Matteo Mannucci, Seneth Samaranayake** and **Siân Williams;** Contributor: **Anna Spathis** Reviewers: **Nicholas Glasgow, Steve Holmes, Katherine Irene Pettus;** Editor: **Tracey Lonergan**

This desktop helper was self-funded by the IPCRG.

Full slideset available

COPD RIGHT CARE

Personalised and safe care, delivering a better experience for people living with COPD

Launched May 2022

Two tools project

Two tools project: purpose and inspiration

- Start new conversations
- Challenge the status quo

FRENTE

RÉGUA ASMA

Questões para o próprio prescritor e para a pessoa com asma
1. Se utiliza um agonista beta 2 de curta duração de ação (SABA) / inalador de alívio, qual o número de utilizações que considera aceitável, para uma pessoa com asma num ano, numa semana, ou num dia, antes de considerar necessária uma revisão terapêutica?

CUIDADOS ADEQUADOS À PESSOA COM ASMA

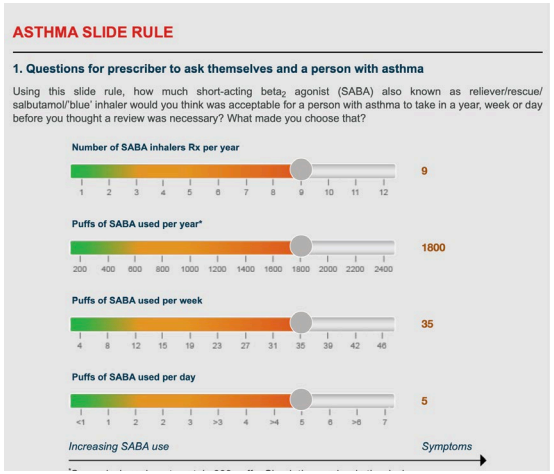
	Aumento no uso de agonistas beta 2 de curta duração de ação. A dose padrão é 2 puffs de cada vez.											
Nº de inaladores de curta duração de ação (SABA) prescritos num ano	1	2	3	4	5	6	7	8	9	10	11	12
Doses de SABA utilizados por ano	200	400	600	800	1000	1200	1400	1600	1800	2000	2200	2400
Doses de SABA utilizados por semana	4	8	12	15	19	23	27	31	35	39	42	46
Doses de SABA utilizadas por dia	< 1	1	2	2	3	>3	4	>4	5	6	>6	7
	Sintomas											

Sugestão: Posteriormente, pergunte à pessoa com asma:
Nas últimas 4 semanas, quantas vezes usou o inalador de alívio ou medicação em nebulização (ex: salbutamol)?

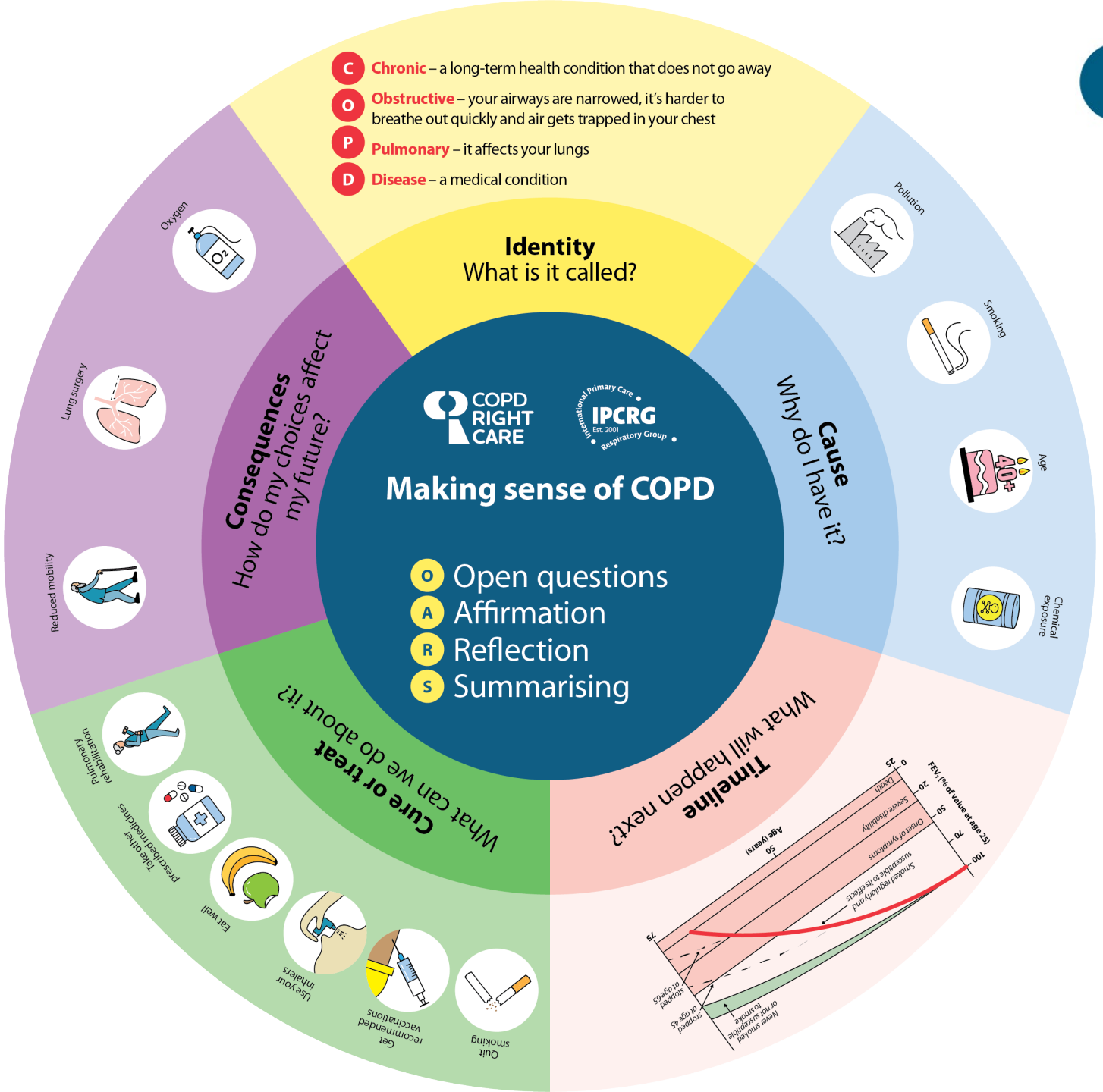
3 ou mais vezes por dia	1 ou 2 vezes por dia	2 ou 3 vezes por semana	≤1 por semana	Nenhuma vez

(www.nhp.org/provider/asthma/Survey_ACT_adult_EN.pdf)

International Primary Care Respiratory Group IPCRG



Created by IPCRG Steering Group, supported by educational grant from Boehringer Ingelheim

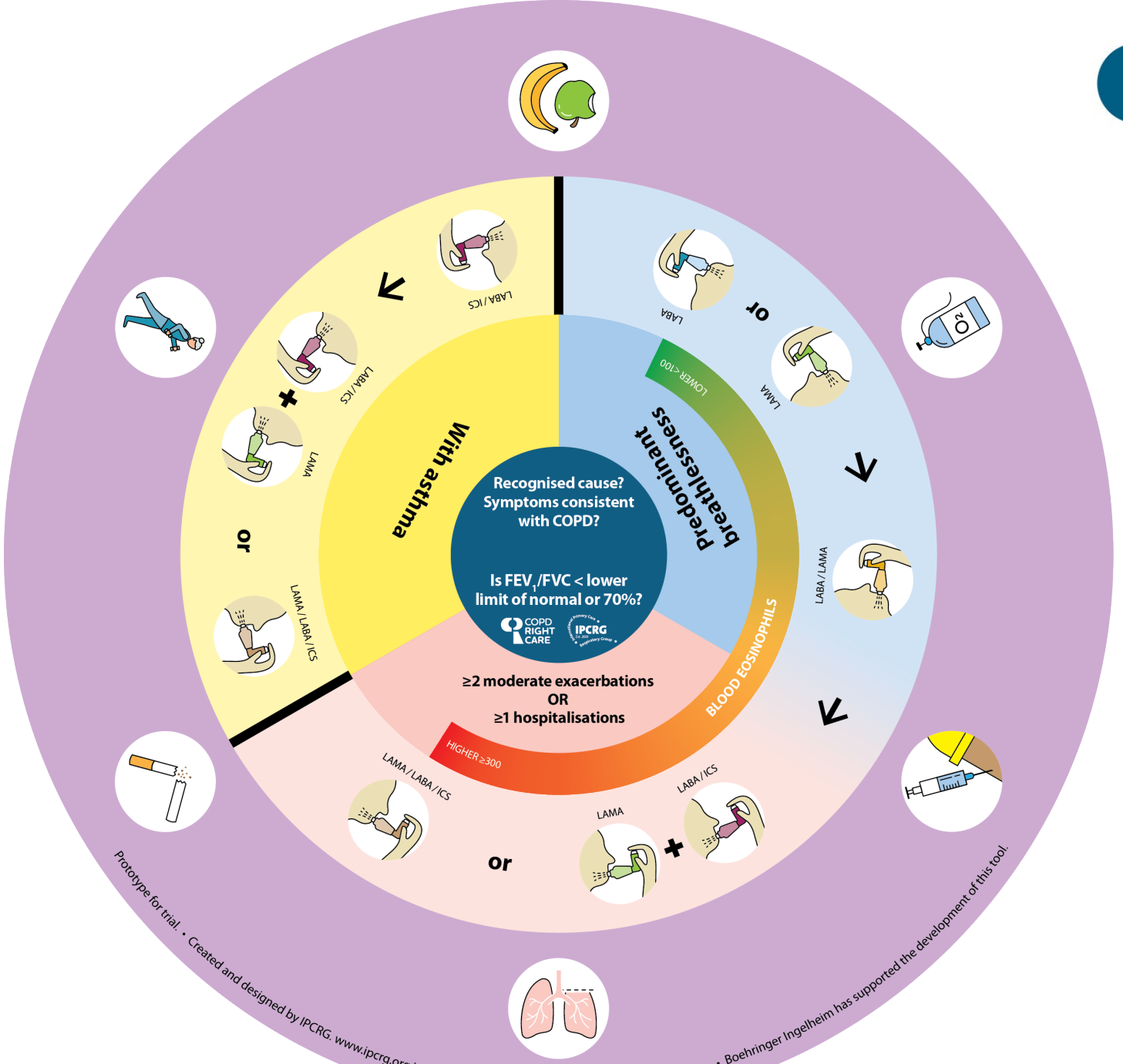


COPD RIGHT CARE

Patient communication side
Draws on:

- WHO-recommended OARS model for motivational interviewing
- Leventhal's common sense model 5 questions
- Fletcher & Peto
- GOLD 2022
- Co-design with primary care and patients

Draft released for clinical and patient engagement May 2022



COPD RIGHT CARE

Clinical decision-making side

Draws on:

- GOLD 2022
- Primary care and patient co-design

Draft

COPD Right Care Wheel guidance notes

The Chronic Obstructive Pulmonary Disease (COPD) Right Care Wheel has been developed by the clinically-led charity, International Primary Care Respiratory Group (IPCRG) as a quick helper for prescribing choices.

The tool is intended to support health care prescribers who know people with COPD need inhaled medicine(s) but are unsure which option to choose; and to help clinicians develop their COPD consultation skills by working with people with COPD to understand what the condition is, what might happen to them and to improve their adherence to therapies.

As part of a growing social movement approach we are having these conversations between prescribers, COPD educators, pharmacists and people with COPD in five countries. Try and see how you can use it to get a conversation going.

The guidance provides potential steps and questions to ask when using the tool. Tailor it to the person you are speaking to.

More information can be found at www.ipcrg.org/COPDRightCare where there is a short video showing the use of the Wheel.

Good luck with your conversations and thank you for participating.

The COPD Right Care Team April 2022

Further Reading

Please refer to your national guideline on COPD if you require further information. If you do not have one, please refer to the GOLD Report and Pocket Guide from the Global Initiative for Chronic Obstructive Lung Disease which is updated annually.[1]

To find out more about COPD Right Care go to https://www.ipcrg.org/copdrightcare

The wheel is currently a prototype and will be trialled in a number of settings with feedback gathered to improve on the tool. Details as to how this will be done are in development.

Created and designed by IPCRG www.ipcrg.org.
COPD Right Care is an IPCRG initiative. Boehringer Ingelheim has supported the development of this tool.

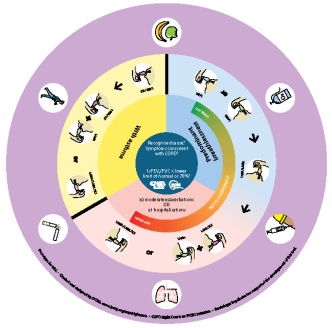
Guidance Steps

The wheel has two sides:

- **Side A** to assist with prescribing, with a rotating inner wheel
- **Side B** to assist with patient conversations and motivational interviewing

Side A

To assist with prescribing, with a rotating inner wheel



Side A Rotating Inner Circle

Depicts the 3 types of COPD people tend to have (phenotypes) matching 3 inhaler pathways.

Step 1

Look at the words in the core of the inner circle in terms of cause, symptoms and spirometry and check that the patient meets the three criteria for a diagnosis of COPD.

Cause – is there a recognised cause, such as tobacco smoking?

Symptoms – are they consistent with COPD?

Spirometry – Is the FEV_1 < the lower limit of normal or <70%?

Step 2

Choose one of the 3 phenotypes on the outer ring of the inner wheel and then move it to match with the correct prescribing pathway (align using the colour coding: with asthma, yellow; predominant breathlessness, blue; ≥2 moderate exacerbations or ≥1 hospitalisation, pink)

Also consider blood eosinophil levels: ≥300 or <100 and adjust the ring.

Parameters are based on the GOLD 2022 guidance below and when taken account of will make treatment more personalized and reduce over prescribing of ICS.

Factors to consider when initiating ICS treatment in combination with one or two long-acting bronchodilators (note the secnario is different when considering ICS withdrawal

Strong support	*Consider use*	*Against use*
History of hospitalisation(s) for exacerbations of COPD# ≥ 2 moderate exacerbations of COPD per year# Blood eosinophils ≥ 300 cells/µl History of, or concomitant, asthma	1 moderate exacerbation of COPD per year# Blood eosinophils ≥ 100 to <300 cells/µl	Repeated pneumonia events Blood eosinophils <100 cells/µl History of mycobacterial infection

#despite appropriate long-lasting bronchodilator maintenance therapy
*note that blood eosinophils should be seen as a continuum; quoted values represent approximate cut-points; eosinophil counts are likely to fluctuate

Reproduced with permission of the © ERS 2022: European Respiratory Journal 52 (6) 1801219; DOI: 10.1183/13993003.01219-2018 Published 13 December 2018

Step 3

Check and assure yourself you are choosing the right and safest pathway.

Side A Fixed Outer Circle

Step 4

Whilst you are looking at inhaler choices, use the prompt of the COPD Right Care therapies depicted round the outer circle to consider which may also be appropriate e.g., vaccination (influenza and pneumococcal); help to quit tobacco; physical activity, nutritional advice, and for some people with advanced COPD, oxygen therapy or lung volume reduction surgery.

References

1 GOLD. Global strategy for prevention, diagnosis and management of COPD: 2022 Report. Available at: https://goldcopd.org/. Accessed April 2022.

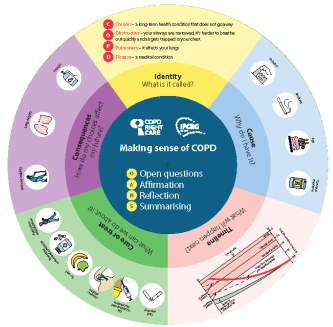
2 Leventhal H, et al. J Behav Med 2016;39:935-46.

3 Source: https://www.euro.who.int/__data/assets/pdf_file/0008/394208/Session-5.pdf. Accessed April 2022.

Side B

To assist with patient consultation and motivational interviewing

The graph on the wheel is reproduced from The natural history of chronic airflow obstruction. Fletcher C, Peto R. BMJ 1977;1:16458 with permission from BMJ Publishing Group Ltd



It will support clinicians with a role in helping people with COPD to:

- understand what their condition is
- know what will happen to them; and
- improve adherence to therapies

Step 1

There are 5 key areas to be explored, for people to understand their condition and be able to take part in shared decisions about treatment goals. They are based on the Leventhal Model:

Leventhal Model2

- **Identity:** what's my diagnosis called?
- **Timeline:** disease path
- **Cause:** how did it happen?
- **Cure/Treat:** what can I do about it?
- **Consequences:** how does my choice affect my future? [shared decision-making]

Step 2

There are 4 consultation styles (OARS = a WHO-recommended motivational interviewing approach) that you can use to help people choose and that may help people be adherent to their therapies.[3]

- **O**pen questions
- **A**ffirmation of effort, strength, volition
- **R**eflecting to check meaning
- **S**ummary

Step 3

Practise your consultation skills by choosing one of 5 key conversation topics and match with one of 4 motivational interviewing techniques.

Available at https://www.ipcrg.org/resources/search-resources/copd-right-care-wheel-guidance-notes

COPD RIGHT CARE

Personalised and safe care, delivering a better experience for people living with COPD

Steroid alert card

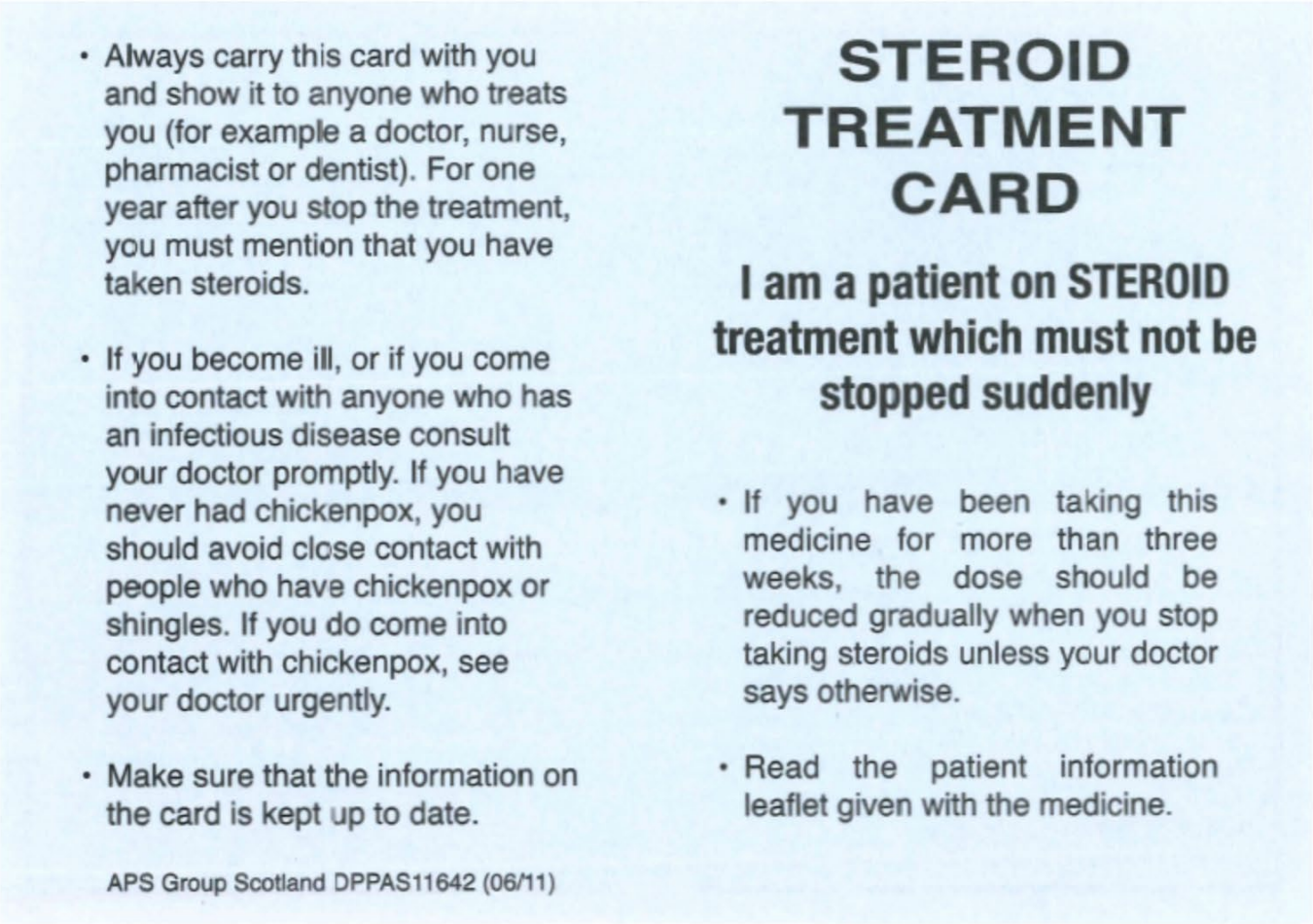
History

Original blue small steroid card already existed in UK

Discharge planning / Community use

Patient and carer advice points

- Patients expected to be taking corticosteroids for more than 3 weeks should be given a Steroid Treatment Card and the leaflet contained in the manufacturer's packaging.



- Always carry this card with you and show it to anyone who treats you (for example a doctor, nurse, pharmacist or dentist). For one year after you stop the treatment, you must mention that you have taken steroids.
- If you become ill, or if you come into contact with anyone who has an infectious disease consult your doctor promptly. If you have never had chickenpox, you should avoid close contact with people who have chickenpox or shingles. If you do come into contact with chickenpox, see your doctor urgently.
- Make sure that the information on the card is kept up to date.

APS Group Scotland DPPAS11642 (06/11)

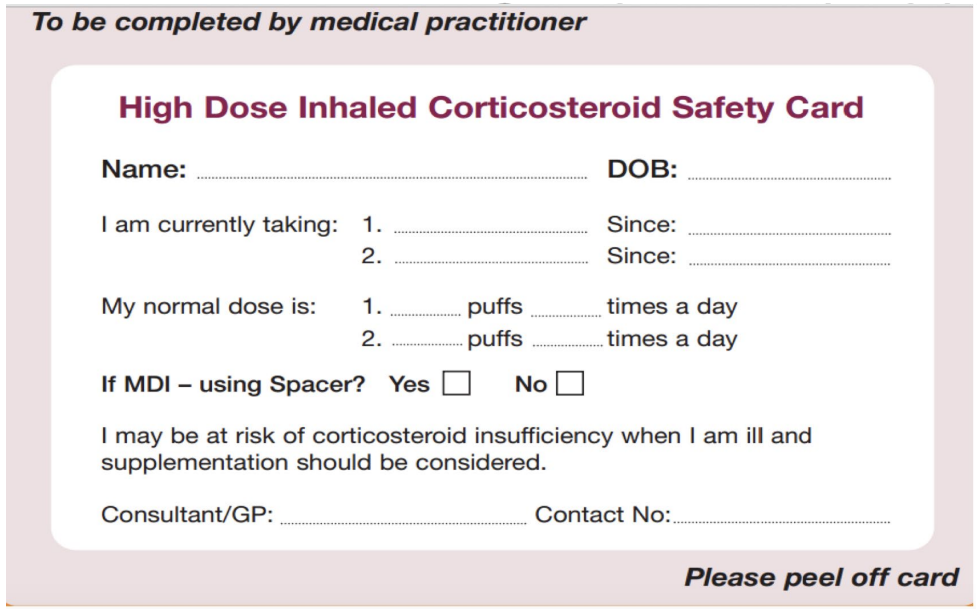
STEROID TREATMENT CARD

I am a patient on STEROID treatment which must not be stopped suddenly

- If you have been taking this medicine for more than three weeks, the dose should be reduced gradually when you stop taking steroids unless your doctor says otherwise.
- Read the patient information leaflet given with the medicine.

https://www.palliativecareguidelines.scot.nhs.uk/guidelines/medicine-information-sheets/dexamethasone.aspx

The respiratory network in London, the London Respiratory Team (LRT), identified that the original blue steroid treatment card was inappropriate for use in patients with COPD on high dose ICS. A patient safety card was drafted along with prescribing guidance including all the factors for safe and effective ICS use. This was piloted in both hospital and primary care settings and then redrafted.



To be completed by medical practitioner

High Dose Inhaled Corticosteroid Safety Card

Name: ..... DOB: .....

I am currently taking: 1. ..... Since: .....
2. ..... Since: .....

My normal dose is: 1. ..... puffs ..... times a day
2. ..... puffs ..... times a day

If MDI – using Spacer? Yes ☐ No ☐

I may be at risk of corticosteroid insufficiency when I am ill and supplementation should be considered.

Consultant/GP: ..... Contact No: .....

Please peel off card

Aim of the ICS patient safety card

The card is written for patients, so that they understand the benefit of, and how to minimise, the potential harms of treatment, particularly adrenal suppression. At the same time there is an underlying objective that the process of attempting to issue the card would prompt a prescriber to consider whether the high dose of ICS is actually required, or whether a lower dose used appropriately would provide similar efficacy, with fewer side effects. Ideally this would result in avoiding the need to issue the steroid card in all but a few patients.

https://www.networks.nhs.uk/nhs-networks/south-east-coast-respiratory-programme/documents/breathing-matters-edition-24

Inhaled Corticosteroid Safety Information for Adults

Inhaled corticosteroid agents are very important in the treatment of respiratory conditions such as asthma and sometimes, chronic obstructive pulmonary disease (COPD). They act by reducing inflammation and preventing symptoms from developing. Corticosteroid sprays are also used for nasal conditions such as sinusitis and hayfever. Generally, they are very safe and free from serious side effects when used in standard doses.

Inhaled corticosteroids can cause local side effects such as sore throat, hoarse voice or oral thrush (sore white patches in the mouth). The risk of these side effects may be reduced by using a spacer device with aerosol inhalers (MDI's) that contain corticosteroids, and rinsing your mouth out with water (and spitting out) after using any corticosteroid inhaler. Prolonged use of inhaled corticosteroids may lead to easy bruising or thinning of the skin, especially in older people. Very rarely, higher doses of inhaled corticosteroids may temporarily reduce your body's ability to produce its own corticosteroids when under stress, such as in severe illness or undergoing surgery, or to fight off some infections (e.g. chickenpox).

***If you become ill for any reason**, be sure to alert the medical staff looking after you that you are using higher doses of inhaled corticosteroid as you may need additional corticosteroids. Ideally, carry the safety card attached to this information sheet with you at all times and show this to your medical team. Recorded on the safety card below are any inhaled corticosteroids that you should be currently taking.*

***If you start to experience any of these symptoms:** worsening fatigue, muscle weakness, loss of appetite, unintentional weight loss, dizziness, unexplained nausea, vomiting and diarrhoea, go and see your general practitioner (GP), because they might be related to the inhaled corticosteroid you are taking. Do not stop taking your inhaled corticosteroid suddenly. If you have never had chickenpox, you should avoid close contact with people who have chickenpox or shingles. If you do come into contact with someone with these conditions, see your doctor urgently.*

To be completed by healthcare professional and kept by you

High Dose Inhaled Corticosteroid Safety Card

Name: ..... DOB: .....

I take: ..... Strength: .....

MDI + Spacer / Accuhaler / Turbohaler / .....

At a dose of: ..... puffs ..... time(s) a day

I may be at risk of corticosteroid insufficiency when I am ill and supplementation should be considered.

Prescriber: ..... Date: .....

SAMPLE

Please peel off card

Developed by London Respiratory Network

NHS England

COPD RIGHT CARE

You have been given this safety card because you are taking a high dose of inhaled corticosteroid.

It is important that you do NOT stop using your inhaled corticosteroid suddenly, particularly if you have been taking this medication for more than 3 weeks.

Be sure to get your repeat prescription of your inhaler before it runs out.

Always carry this card with you and show it to your medical team if you become ill.

NHS England

https://www.ashleyforms.co.uk/products-and-services/high-dose-ics-safety-card

NHS England

Guidance for Healthcare Professionals on Inhaled Corticosteroids in Adults

The side effect profile of an ICS

- Inhaled corticosteroids (ICS) are prescribed in asthma to improve control, reduce exacerbations and risk of death, and in those with severe to very severe COPD, to reduce the frequency of exacerbations. The benefits of an ICS outweigh the risks when used in clinically effective doses, however, long-term high doses (≥1000 micrograms beclometasone dipropionate (BDP) equivalent/day) may cause systemic side effects.
- The systemic side effects of corticosteroids are well known. High doses of ICS are associated with clinically detectable adrenal suppression (*Arch Intern Med* 1999;**159**:941-55), increased risk of non-fatal pneumonia in patients with COPD (*Arch Intern Med* 2009;**169**:219-29), increased risk of type II diabetes (*Am J Med* 2010;**123**:10016), and may increase the risk of fractures (*Thorax* 2011;**66**:699-708) and tuberculosis (*Chest* 2014;**145**(6):1286-1297). It is recommended that all patients on high doses of ICS are made aware of the risks and given an ICS safety warning card.
- At equipotent doses, the safety profiles of all ICS are similar. Budesonide and ciclesonide are approximately equipotent with BDP, while fluticasone propionate (FP), mometasone and ultrafine particle BDP-HFA inhalers (Qvar® and Fostair®) are twice as potent as standard BDP inhalers. Equivalence data for fluticasone furoate is not currently available.

In patients with Asthma:

- Once a patient has persistently good control (e.g. for 3 months), consider stepping down to the lowest dose of ICS that maintains symptom control.
- There is limited evidence that increasing an ICS dose above 800 micrograms BDP equivalent/day improves asthma control, even in acute exacerbations (Cochrane Review CD007524). MHRA guidance suggests that a total daily dose of 500-1000 micrograms of fluticasone propionate should only be prescribed for moderate to severe asthma, with doses above this, only prescribed by an asthma specialist, when additional benefit is expected or demonstrated, or by the ability to reduce oral corticosteroid use (http://www.mhra.gov.uk/home/groups/pl-p/documents/websiteresources/con007456.pdf).

In patients with COPD:

- In severe COPD (FEV_1<50%), an ICS+LABA may reduce the frequency of exacerbations. Clinical trials in severe COPD and ≥2 exacerbations/year, suggest that twice daily inhalation of Symbicort (budesonide/formoterol) 400/12 (*ERJ* 2003;**22**:912-19, *ERJ* 2003;**21**:74-81), Fostair (beclometasone HFA/formoterol) 200 micrograms (*Respir Med* 2010;**104**:1858-68) and Seretide (FP/salmeterol) 500 Accuhaler (*NEJM* 2007;**356**:775-89) are equally effective in reducing the frequency of exacerbations. Patients taking Seretide will need an ICS card whereas those prescribed Symbicort and Fostair may not.

Before increasing an ICS (or any therapy) the following are recommended:

1. **Check adherence** to therapy. Very few patients take their medicines as directed all the time. Sub-optimal inhaler technique or not taking the medicines regularly as directed are common, but often fixable causes of treatment failure. Always ask the patient to describe *how* they take their medicines in a non-judgmental way – the purpose is to discover if you should change therapy or discuss how to take current therapy more effectively.
2. **Improve ICS delivery** to the lungs. This may be more effective than increasing the dose, so inhaler technique must be checked and optimized regularly. Using a metered dose inhaler (MDI) with a spacer device improves lung deposition (*Br J Clin Pharmacol* 1998;**46**:45-8, *Clin Pharmacokinet* 2004;**43**:349-60) and in aiding co-ordination, reduces oropharyngeal deposition and local side effects (eg hoarseness or sore throat).
3. **Encourage people to stop smoking.** Provide stop smoking therapy for people with COPD and asthma who smoke. In COPD, intervening early reduces mortality (*Ann Intern Med.*2005;**142**:233–239) and improves health status (*Thorax*. 2010;**65**:711-8). In asthma, stopping smoking may avoid the need for stepping up ICS dose when poorly controlled (*Thorax* 2005;**60**:282–287).

Developed by London Respiratory Network

NHS England

Doses of inhaled corticosteroids in adults that require an inhaled corticosteroid card

	Total Daily Dose of Inhaled Corticosteroid		
	Low dose No ICS card required	**Intermediate dose Consider an ICS card**	**High dose ICS card is required**
Beclometasone dipropionate			
Aerosol Inhaler (prescribe by brand name)			
Non-proprietary	<800 micrograms	800-1000 micrograms	≥1000 micrograms
Clenil modulite	<800 micrograms	800-1000 micrograms	≥1000 micrograms
Qvar (BDP HFA)	<400 micrograms	400-500 micrograms	≥500 micrograms
Fostair (BDP HFA)	<400 micrograms	400-500 micrograms	≥500 micrograms
Dry Powder Inhaler			
Asmabec Clickhaler	<800 micrograms	800-1000 micrograms	≥1000 micrograms
Budesonide			
Dry Powder Inhaler			
Easyhaler, Novolizer	<800 micrograms	800-1000 micrograms	≥1000 micrograms
Turbohaler (Pulmicort, Symbicort)	<800 micrograms	800-1000 micrograms	≥1000 micrograms
Ciclesonide			
Aerosol Inhaler Alvesco	≤240 micrograms	320 micrograms	≥480 micrograms
Fluticasone propionate (FP)			
Aerosol Inhaler			
Flixotide, Flutiform▼, Seretide	<400 micrograms	400-500 micrograms	≥500 micrograms
Dry Powder Inhaler			
Flixotide and Seretide	<400 micrograms	400-500 micrograms	≥500 micrograms
Fluticasone furoate (FF)*			
Dry Powder Inhaler Relvar▼		Literature not available*	
Mometasone furoate			
Dry Powder Inhaler Asmanex	220 micrograms	440 micrograms	≥880 micrograms

*Fluticasone furoate 92 micrograms once daily is approximately equivalent to fluticasone propionate 250 micrograms twice daily (https://www.medicines.org.uk/emc/medicine/28496). This could be interpreted as being equivalent to 1000 micrograms of beclomethasone dipropionate, but caution is advised as direct comparator studies have not been published.

- Dosage equivalents are approximate and dose delivered will depend on other factors such as inhaler technique
- Encourage patients to use appropriate breathing techniques according to inhaler device e.g.: "Slow and Steady" for an aerosol inhaler, "Quick and Deep" for a dry powder inhaler
- If a patient is using nasal corticosteroids and an ICS, they should be assessed individually. For example, for a patient taking nasal corticosteroids and 800-1000 micrograms of BDP equivalent/day, a corticosteroid safety card is recommended.
- Before prescribing, patients should always have their therapy reviewed for continued appropriateness and if necessary, issued an ICS card: www.ashleyforms.co.uk/products-and-services/high-dose-ics-safety-card

	**Fostair NEXThaler 100micrograms / dose / 6micrograms / dose dry powder inhaler (Chiesi Ltd) 120 dose** **Beclometasone 100micrograms / dose + Formoterol 6micrograms / dose**	🟢 Low adult steroid dose 🟠 Medium adult steroid dose ICS + LABA Dry powder inhaler (DPI) £29.32 / 30 days (based on 4 puffs / day) Steroid safety card not always required, but recommended for medium doses
	**Luforbec 100micrograms / dose / 6micrograms / dose inhaler (Lupin Healthcare (UK) Ltd) 120 dose** **Beclometasone 100micrograms / dose + Formoterol 6micrograms / dose**	🟢 Low adult steroid dose 🟠 Medium adult steroid dose ICS + LABA Pressurised aerosol inhaler (MDI) £23.45 / 30 days (based on 4 puffs / day) Steroid safety card not always required, but recommended for medium doses
	**Fostair 100micrograms / dose / 6micrograms / dose inhaler (Chiesi Ltd) 120 dose** **Beclometasone 100micrograms / dose + Formoterol 6micrograms / dose**	🟢 Low adult steroid dose 🟠 Medium adult steroid dose ICS + LABA Pressurised aerosol inhaler (MDI) £29.32 / 30 days (based on 4 puffs / day) Steroid safety card not always required, but recommended for medium doses
	**Qvar 100 Autohaler (Teva UK Ltd) 200 dose** **Beclometasone 100micrograms / dose**	🟠 Medium adult steroid dose 🔴 High adult steroid dose ICS Pressurised aerosol inhaler (MDI) £10.33 / 30 days (based on 4 puffs / day) Steroid safety card recommended for medium doses; required for higher doses
	**Qvar 100 Easi-Breathe inhaler (Teva UK Ltd) 200 dose** **Beclometasone 100micrograms / dose**	🟠 Medium adult steroid dose 🔴 High adult steroid dose ICS Pressurised aerosol inhaler (MDI) £10.17 / 30 days (based on 4 puffs / day) Steroid safety card recommended for medium doses; required for higher doses
	**Clenil Modulite 100 inhaler (Chiesi Ltd) 200 dose** **Beclometasone 100micrograms / dose**	🟢 Low adult steroid dose ICS Pressurised aerosol inhaler (MDI) £4.45 / 30 days (based on 4 puffs / day) Steroid safety card not normally required
	**Kelhale 100 inhaler (Cipla EU Ltd) 200 dose** **Beclometasone 100micrograms / dose**	🟠 Medium adult steroid dose 🔴 High adult steroid dose ICS Pressurised aerosol inhaler (MDI) £3.12 / 30 days (based on 4 puffs / day) Steroid safety card recommended for medium doses; required for higher doses

COPD RIGHT CARE

#asthmarightimage

https://www.rightbreathe.com/?s=

Since then, this has continued to be used by respiratory teams across the UK to prompt prescriber reflection about prescribing high dose inhaled steroids for COPD.

Meanwhile, the UK NHS has now updated the NHS steroid card – for non-respiratory conditions – this doesn't have same aim of prompting reconsideration of whether high dose is actually needed

Brief rationale:

https://www.england.nhs.uk/wp-content/uploads/2020/08/NPSA-Emergency-Steroid-Card-FINAL-2.3.pdf
https://www.endocrinology.org/media/4091/spssfe_supporting_sec_-final_10032021-1.pdf

Some patients who take oral, inhaled or topical steroids for other medical conditions may develop secondary adrenal insufficiency and be steroid dependent; new guidance, clarifies which patients may become steroid dependent. Omission of steroids for patients with adrenal insufficiency can lead to adrenal crisis; a medical emergency which if left untreated can be fatal. Patients with adrenal insufficiency require higher doses of steroids if they become acutely ill or are subject to major body stressors, such as from trauma or surgery, to prevent an adrenal crisis.

Recently published national guidance promotes a new patient-held Steroid Emergency Card to be issued by prescribers. This helps healthcare staff to identify appropriate patients and gives information on the emergency treatment to start if they are acutely ill, or experience trauma, surgery or other major stressors.

Useful resources:

Ordering Steroid cards:
https://www.england.nhs.uk/wp-content/uploads/2020/08/NPSA-Emergency-Steroid-Card-FINAL-2.3.pdf

Process map: Implementing the steroid card NPSA Alert:

https://www.prescqipp.info/umbraco/surface/authorisedmediasurface/index?url=%2fmedia%2f5486%2fimplementing-the-steroid-card-safety-advice-v22-hot-topic-april-2021.pdf

Blue Steroid treatment cards and the London respiratory network card.

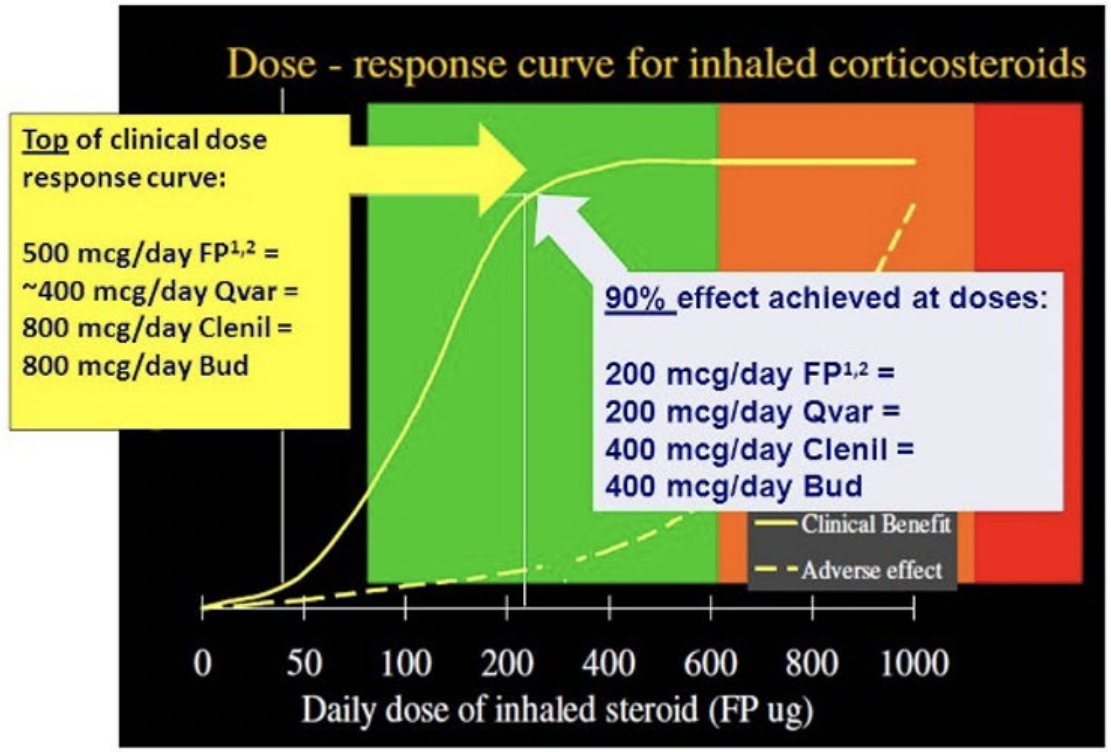
The blue Steroid Treatment Card (figure 2) and the London Respiratory Network Card (https://www.networks.nhs.uk/nhs-networks/london-lungs/documents/high-dose-inhaled-corticosteroid-alert-card-order-form) are unaffected by the introduction of the NHS Steroid Emergency Card (figure 1). Patients should keep these, if advised by their healthcare team whilst implementation of the new Steroid Emergency Card takes place. Patients being prescribed steroids outside the scope of this alert, would still be eligible for the blue standard Steroid Treatment Card.[3] The blue Steroid Treatment Card gives patients guidance on minimising the risks when taking steroids and also provides details of the prescriber, drug, dosage and duration of treatment.

Figure 1: Steroid Emergency Card

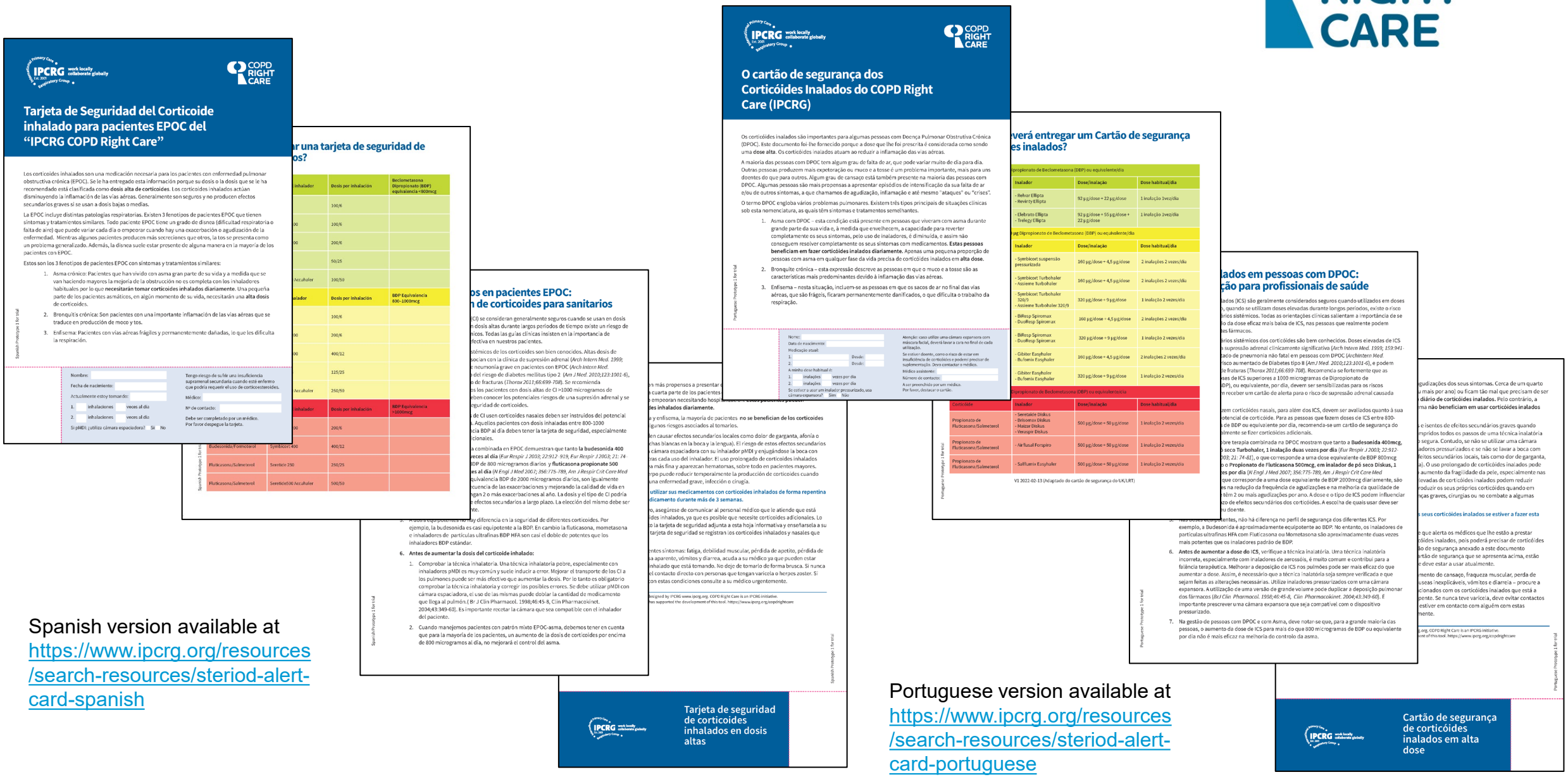
A key learning point is that approx. 15% of patients with asthma need to be on high doses and you can achieve 90% of the ICS dose response curve with low doses, if inhaler technique is optimised:

Dose of ICS ?

1. Masoli M et al. Thorax 2004; 59:16-20
2. Holt S et al. BMJ 2001: 323:253-256



Steroid card – Spanish and Portuguese



Spanish version available at https://www.ipcrg.org/resources/search-resources/steriod-alert-card-spanish

Portuguese version available at https://www.ipcrg.org/resources/search-resources/steriod-alert-card-portuguese