



# What does good quality COPD care look like

Siân Williams  
CEO, IPCRG

# 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



Pulmonary Rehabilitation group in Crete during FRESH AIR study



Pulse oximetry, Portugal



WHO's Florence, a 24/7 virtual health worker, provides digital counselling services to those trying to quit tobacco. <https://www.who.int/campaigns/Florence>

# Why do we need it?



- Persistent unwarranted variation (not due to patient difference)
- Need to offer practical tools that
  - Raise awareness
  - Build confidence
  - Build competence
- So it becomes easy to do the right thing

# Approach

1. Driven by primary care
2. Social movement for health that mobilises stakeholders
3. Followers and first followers
4. Bring joy to work
5. Operates at scale
6. Teach teachers
7. Value

# 1. Primary care is the right place for most people with COPD and asthma

- First point of contact
- Community-based
- Throughout life course
- Primary to quaternary prevention
- Can deal with 80–90% of an individual's needs over their lifetime and no more than required

COPD, chronic obstructive pulmonary disease  
World Health Organization. Primary Health Care; 1 April 2021. Available at: [www.who.int/news-room/fact-sheets/detail/primary-health-care](http://www.who.int/news-room/fact-sheets/detail/primary-health-care)  
(Accessed July 2023)

## PRIMARY HEALTH CARE

Primary health care is essential health care with its heart in the community. It is the foundation of an effective health system and the key to achieving Universal Health Coverage. Primary health care provides comprehensive and continuous care to individuals throughout their lives.

Primary health care is uniquely placed to provide the spectrum of care required to meet most of the health needs of a population - from prevention and treatment to rehabilitation and palliative care.



Primary health care is high-quality, people-centred, affordable care at every stage of your life.

## 2. Social movements for health: Raise awareness of the problem and gain commitment to solving it



"Pursuing social change is more of an art than a science. There is no fixed model. No curricula. No rules. No guarantee. It's about reading power. Building relationships. Framing issues. Honing messages. Mobilising supporters. Bringing pressure to bear. All of this in an increasingly complex, networked society in which assumptions that held even a year ago no longer hold."<sup>1</sup>

*(Sue Tibballs – Chief Executive, Sheila McKechnie Foundation)*



1. Nesta. We change the world report. Available at: [https://media.nesta.org.uk/documents/we\\_change\\_the\\_world\\_report.pdf](https://media.nesta.org.uk/documents/we_change_the_world_report.pdf) (Accessed August 2023)

# 3. First followers matter: the Dancing Guy



Photos from <https://www.youtube.com/watch?v=fW8amMCVAJQ>

# 4. Bring joy to work

- Promote health literacy in asthma
- Common presentation before walk
  - All over the country
  - >50 initiatives
  - >3000 people participated!





# 4. Bring joy to work

- Building on success of 2022 Walk with Asthma
- Planning local awareness events, e.g. walks in various cities in Portugal
  - Working with health units and local partners (e.g. municipal councils)
- Repeated in Brazil



CAPA - Cuidados adequados à pessoa com asma

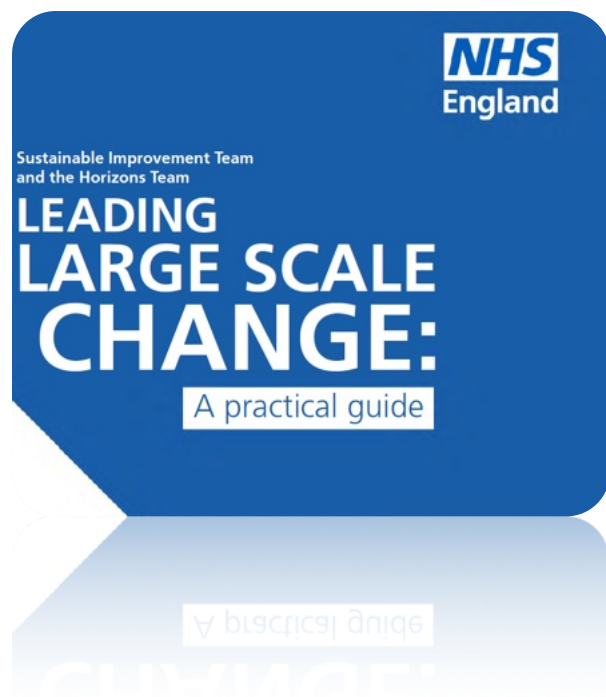
11 de julho de 2022

No âmbito da comemoração do Dia Mundial da Asma, o Movimento CAPA (Cuidados Adequados à Pessoa com Asma), componente portuguesa do projeto internacional designado por ARC – Asthma Right Care em parceria com o Grupo de Estudos de Doenças Respiratórias (GRESRP) da APMGF dinamizou atividades de caminhada programadas ao longo do mês do maio por todo o país. A Caminh'Asma contou com cerca de 3200 inscrições, envolvendo a participação de aproximadamente meia centena de unidades de sa... Ver mais



# 5. Apply evidence about achieving change at scale

## NHS Leading Large Scale Change



**Pervasiveness:**  
Affect as many parts of the system as we can

**Depth:**  
Affect ways of thinking and doing – influence cognitive behaviour, and ultimately achieve paradigm shift

**Size:**  
Reach as many geographies as possible

- NHS England. Leading Large Scale Change: A Practical Guide. Available at: <https://www.england.nhs.uk/wp-content/uploads/2017/09/practical-guide-large-scale-change-april-2018-smll.pdf> (Accessed August 2023)



Riding a bike is easy:  
unconscious  
incompetence



Ah, it's harder than it  
looks, this feels awkward:  
conscious incompetence



Let me practise, and  
concentrate: conscious  
competence



Don't even need to think  
about it now: unconscious  
competence

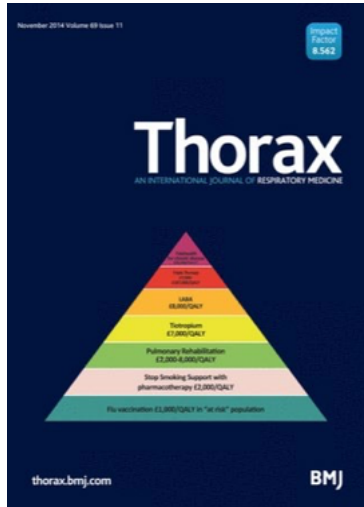


I am confident to teach others because I  
understand the process and can tailor my  
teaching: conscious competence of  
unconscious incompetence

## Achieving competence – the journey

IPCRG Teach the Teacher  
programmes

# 7. Value: London Respiratory Network Value Pyramid



New

# Behaviour change: Asthma Right Care example

## SPOT THE TEACHABLE MOMENT

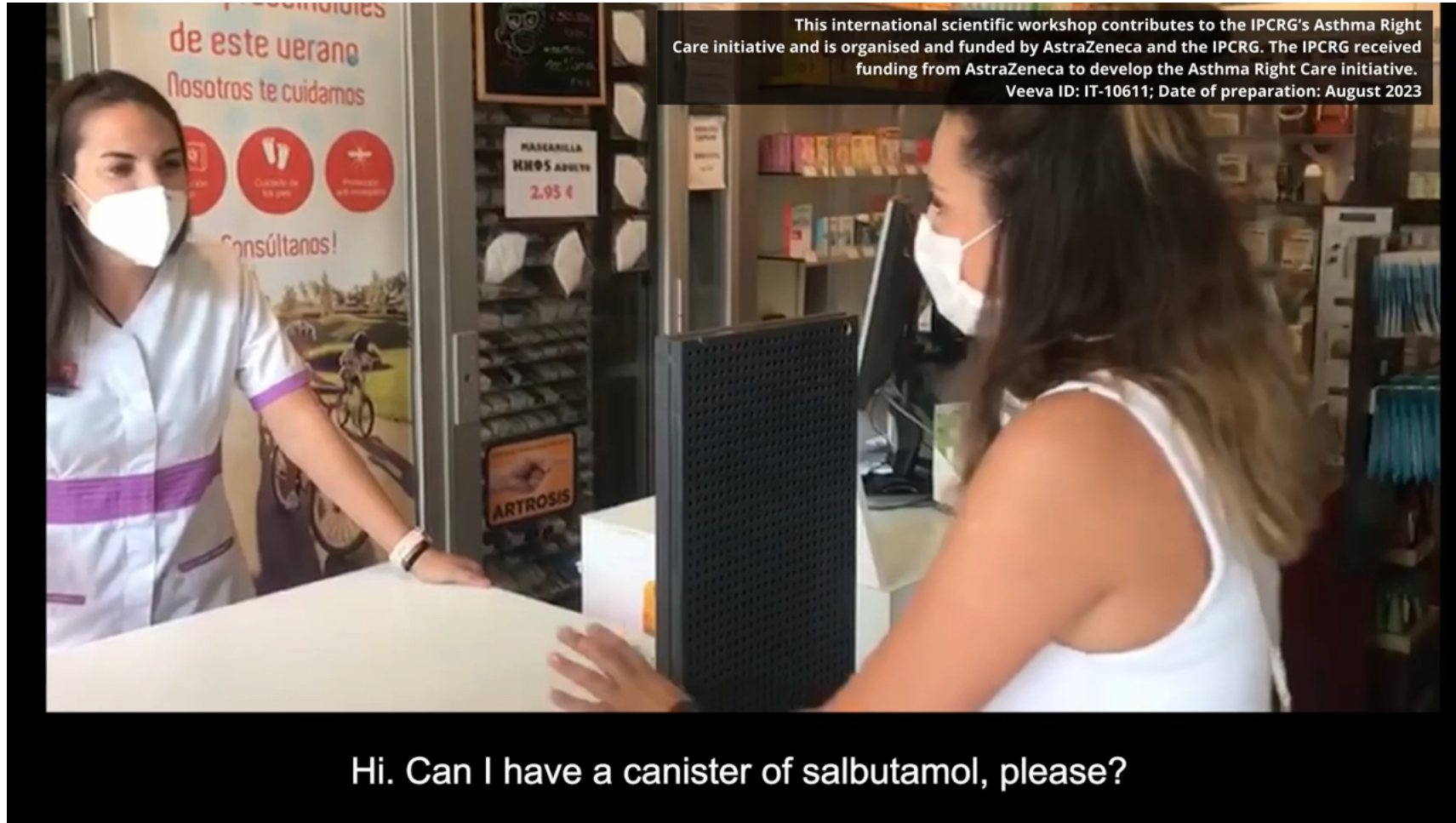
Instead of simply providing the SABA canister on demand,

Community pharmacists **take advantage** of this **teachable moment**,

Offer accurate information  
Refer the individual to a follow-up appointment with their primary care physician when necessary



# What does an ideal teachable moment at the community pharmacy look like?



# — COPD Right Care Strategy Team —



**Ioanna Tsigianni**

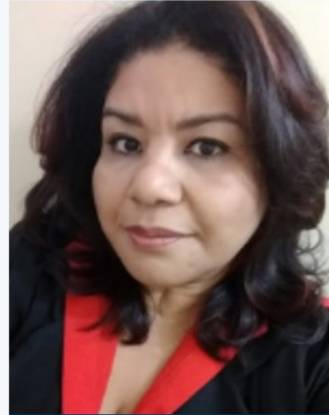
Chair



**Siân Williams**



**Pedro Fonte**



**Sonia Maria Martins**



**Juliana  
Franceschini**



**Stephanie Williams**



**Ana Viejo**



**Darush Attar-Zadeh**



**Dr Sundeep Salvi**

# What does good quality COPD care look like?

IPCRG is regularly asked by primary care clinicians to define good quality care. We take the view that primary care is person-centred, and therefore the best way to define quality is from the perspective of the person at risk of, or with the condition. From our regular conversations with expert patients and clinicians [we have summarised what good quality care should look like from a patient perspective and how can clinicians provide that in 10 person-centred statements](#). These are divided into five areas: Prevention, Diagnosis and communication about the diagnosis, Management, Review and Referral. Our vision is that clinical teams will use them to benchmark their practice and potentially identify an area for improvement. Our own programme of work is steered by these statements. We are currently defining the competencies required to deliver them and the teaching methods and tools to enable delivery.

IPCRG tools that we already offer are listed in blue italics.\*

## People with exposure to risk factors for COPD deserve...

### Prevention

- 1 Information, advice on mitigation and public health protection including local and personal risk factors. <https://www.ipcrq.org/howwebreathe> and [helping people quit](#).

## People with COPD deserve...

### Diagnosis and communication about the diagnosis

- 2 A primary care service that is competent and confident in diagnosing COPD including timely, accurate and objective tests, and information about COPD, its causes, the likely timeline, how it can be managed but not cured, and the consequences of decisions about treatment and self-management. [Desktop helper 14 \(spirometry\)](#), [desktop helper on earlier diagnosis](#), [COPD Right Care wheel](#).

### Management

- 3 A primary care team competent to classify the stage and type of their link to disease over time using spirometry, quality of life and exacerbation history and competent to assess other morbidities.
- 4 Long term holistic management according to the guidelines including vaccination, counselling and treatment if they are tobacco dependent, pharmacological and non-pharmacological treatment and referral eg to pulmonary rehabilitation, end of life care. [Desktop helpers 3 \(supportive & palliative approach\)](#), [4 \(quit smoking\)](#), [6 \(ICS and ICS withdrawal\)](#), [7 \(pulmonary rehabilitation\)](#), [8 \(women & COPD\)](#), [10 \(multi-morbidity\)](#) and [12 \(mental health\)](#), [www.ipcrq.org/copdwheel](http://www.ipcrq.org/copdwheel)
- 5 To be offered appropriate inhaler(s) according to their physical and cognitive abilities and characteristics and appropriate inhaler technique training by a primary care professional who knows the importance of eosinophil count and that bronchodilation is the basis of treatment. eg [www.rightbreathe.com](http://www.rightbreathe.com)
- 6 Yearly flu vaccination, pneumococcal, Tdap, herpes zoster and COVID-19 vaccinations according to their history and national schedule.
- 7 To agree an individualised self-management plan including recognition of exacerbations, smoking cessation, breathing exercises, nutrition, and physical activity taking into consideration mental and physical health, health literacy and access to care. [www.ipcrq.org/copdmagazine](http://www.ipcrq.org/copdmagazine)
- 8 To be asked in a culturally appropriate way about exacerbations, to receive reassurance and appropriate treatment and to be followed up to ensure they have adequate support.

### Review

- 9 A structured assessment of their symptoms, wellbeing, inhalation technique, future risk and support needs at acceptable intervals with additional follow-up after an exacerbation or a change in management. [Desktop helper 3](#).

## When their COPD cannot be managed in their usual primary care

- 10 To have easy and timely access/referral to a primary or secondary health care professional who is skillful in COPD management whenever their COPD cannot be managed in their usual primary care.



**Would you like to talk about the options available to help with your tobacco use today?**

**No:** That's OK. Could I ask your permission to talk about this again next time we meet in case you have changed your mind? You do not need to see me before then. I would be happy to see you for an appointment to talk about this more.

**Yes:** That's great, here are some of the options that are open to you now. (Point to your situation eg you may not yet have a CO monitor)

**Option 1:** - Well developed stop tobacco service and free medicines

**Option 2:** - No/limited stop tobacco service and some free medicines

**Option 3:** - No/limited stop tobacco service and private only medicines

**Option 1**

- Consider exhaled carbon monoxide (CO) testing prior to referral and advise that this is one measure for you both to monitor success.
- Ensure that the service you refer to offers both behavioural and pharmacotherapy interventions and that staff are trained and updated.
- Assure the patient that you will prescribe appropriate medicines if requested by the service for as long as is required. Reassure about the value and safety of these medicines.
- Hand out written material/contact numbers to show your support.
- Make sure your referral happens: have a system to check. Ask for feedback from the service.
- Consider offering initial prescription of NRT patches.

**Option 2 & 3 (See section 4)**

- Consider exhaled carbon monoxide (CO) (if available) testing before starting treatment. Advise that this is one measure for you both to monitor success.
- Ensure that in addition to VBA, you or a colleague within your organisation has been trained and updated to provide brief behavioural and pharmacotherapy interventions for tobacco (that is, more than VBA which is very brief and may include motivational interviewing [MI]).
- Explore with the patient the options for over the counter (OTC) or prescribed free and private medicines. Reassure about the value and safety of these medicines.
- Explain that they will have greater access if they see a health professional as well as taking medicines. Taking stop tobacco medicines OTC without support is no more effective than an unassisted quit and could be a waste of money for your patient.
- Hand out any written material/contact numbers to enhance the support you have offered.

**1. ASK:** during a consultation about another health matter

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**2. ADVISE:** about effective ways to quit (and if necessary, about the harms of tobacco)

**3. ACT:** according to the patient's response and available behavioural support and first line quit tobacco medication\*

**DESKTOP HELPER**  
for healthcare professionals

No. 4 May 2019 3rd edition

### Helping patients quit tobacco: Very Brief Advice (VBA)

**An easy, positive and effective way to help tobacco users quit:**  
**Ask, Advise & Act\***

VBA works at any point during a consultation about another health matter. VBA is proven to increase the chances of an individual making a quit attempt. It is a trigger; its effectiveness increases if more clinicians use it more of the time; the readiness of the patient to respond is variable. Therefore if we increase the chance of them encountering a VBA-trained clinician, we are more likely to catch a ready patient on the right day.

**1. ASK:** during a consultation about another health matter

Ask all patients about tobacco use (smoking or smokeless tobacco) at every clinical contact. Document tobacco/smoking status because this makes it easier for tobacco in your health system to ask the question and time, especially if you have a shared record with patients and colleagues. IT DOES NOT NEED ANY ASSESSMENT OF READINESS TO QUIT.

**"Have you used tobacco at all in the last year?" OR "I can see from your records that you have used tobacco recently, is that all the case?"**

**2. ADVISE:** about effective ways to quit (and if necessary, about the harms of tobacco)

Use most IPCRG member countries public health programmes use the media to communicate the harm caused and so the population usually knows that the use of tobacco is harmful. There is a need, therefore, to ensure that tobacco users have been advised that tobacco causes harm. This is not the patient as a support. However, the impact on awareness across a population can vary. Therefore base your advice on what you understand your patient and your local practice's awareness to best practices in their setting. If your public health system has been effective at using the TENDON around tobacco then your role is to meet the TROGGER. Give your advice on quitting with a positive and supportive tone and with a sense of hope.

**"Do you know the best way of stopping using tobacco or reducing its harm? We know from research studies that the best way of stopping using tobacco is through the use of stop tobacco medicines combined with regular help, support and encouragement, especially in the first 4 weeks and ideally for 3 months of an attempt"**

**3. ACT:** according to the patient's response and available behavioural support and first line quit tobacco medication\*

You will now need to ACT. The best way to stop tobacco is with the combination of behavioural support from a trained clinician and the use of a first line quit tobacco medication. At the end of the video, IPCRG member countries have more resources of training replacement therapy and a number of evidence-based 30-90 minute appointments for the behavioural support element of the intervention. We have also worked with countries where stop tobacco medicines are not available or if only available to purchase privately and where there is no programme of stop tobacco specialists. We illustrate these scenarios below. Refer to the most appropriate.

**"Would you like to talk about the options available to help with your tobacco use today?"**

**No:** That's OK. Could I ask your permission to talk about this again next time we meet in case you have changed your mind? You do not need to see me before then. I would be happy to see you for an appointment to talk about this more.

**Yes:** That's great, here are some of the options that are open to you now. (Point to your situation eg you may not yet have a CO monitor)

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- Hand out written material/contact numbers to show your support.
- Make sure your referral happens: have a system to check. Ask for feedback from the service.
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**Option 2 & 3 (See section 4)**

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### An easy, positive and effective way to help tobacco users quit: Ask, Advise & Act<sup>1</sup>

VBA works at any point during a consultation about another health matter. VBA is proven to increase the chances of an individual making a quit attempt. It is a trigger; its effectiveness increases if more clinicians use it more of the time: the readiness of the patient to respond is variable therefore if we increase the chance of them encountering a VBA trained clinician, we are more likely to catch a ready patient on the right day.

#### 1. ASK: during a consultation about another health matter

Ask ALL patients about tobacco use (smoking or smokeless tobacco) at every clinical contact. Document tobacco/smoking status because this makes it easier for colleagues in your health system to ask the question next time, especially if you have a shared record with patients and colleagues. IT DOES NOT NEED ANY ASSESSMENT OF READINESS TO QUIT

**"Have you used tobacco at all in the last year?" OR  
 "I can see from your records that you have used tobacco recently. Is that still the case?"**

#### 2. ADVISE: about effective ways to quit (and if necessary, about the harms of tobacco)

In most IPCRG member countries public health programmes use the media to communicate the harm caused and so the population usually knows that the use of tobacco is harmful. Where it is well understood that tobacco causes harm then advising this again can be counter-productive and not seen by the patient as a supportive position. However, the impact on awareness across a population can vary. Therefore base your advice on what you understand your patient and your local population's awareness to be and personalise a clear strong message. If your Public Health system has been effective in raising the TENSION around tobacco then your role is to enact the TRIGGER. Give your advice on quitting with a positive and supportive tone and with a sense of hope.

**"Do you know the best way of stopping using tobacco or reducing its harm? We know from research studies that the best way of stopping using tobacco is through the use of stop tobacco medicines combined with regular help, support and encouragement, especially in the first 4 weeks and ideally for 3 months of an attempt"**

#### 3. ACT: according to the patient's response and available behavioural support and first line quit tobacco medication<sup>1</sup>

You will now need to ACT. The best way to stop tobacco is with the combination of behavioural support from a trained clinician and the use of a first line quit tobacco medication. At the optimal end of the scale, IPCRG member countries have many modalities of nicotine replacement therapy and a number of anti-nicotine receptor medicines that are available free for patients as part of a national health system. These countries will also have a trained stop tobacco workforce that can provide 20-30 minute appointments for the behavioural support element of the intervention. We have also worked with countries where stop tobacco medicines are not available at all or only available to purchase privately and where there is no programme of stop tobacco specialists. We illustrate these scenarios below. Refer to the most appropriate.

**"Would you like to talk about the options available to help with your tobacco use today?"**

**No:** That's OK. Could I ask your permission to talk about this again next time we meet in case you have changed your mind? If you do reconsider before then I would be happy to see you for an appointment to talk about this more.

**Yes:** That's great, here are some of the options that are open to you now: (tailor each to your situation eg you may not yet have a CO monitor)  
**Option 1** – Well developed stop tobacco service and free medicines  
**Option 2** – No/limited stop tobacco service and some free medicines  
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##### Option 1

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- Explain that they will have greater success if they see a health professional as well as taking medicines. Taking stop tobacco medicines OTC without support is no more effective than an unassisted quit and could be a waste of money for your patient.
- Hand out any written material/contact numbers to enhance the support you have offered.

<sup>1</sup> we have used "tobacco" rather than "smoking". If, in your context it is better to use "smoking" please adapt.

The evidence-based VBA, Ask-Advise-Act, is intended to be used by all healthcare practitioners and works best when there is a nationally-funded stop tobacco service that includes free pharmacotherapy. Identified people who wish to quit or reduce harm are best managed in evidence-based services where practitioners are formally trained and regularly updated. However, globally such an offer is not always available and individuals and organisations will need to agree a treatment plan for people who receive VBA and declare a desire to quit in the absence of a comprehensive national service.

We explain why we advocate 3As not 5As in our position paper. However, this does not preclude the family practitioner with a long-term relationship with the tobacco user and family from supporting the individual with other behaviour change techniques to help treat their dependency.

VBA is intended to serve as the minimal treatment that should be delivered to all patients. More involved quit tobacco interventions which support behaviour change techniques are intended to be delivered by the specialist tobacco cessation service or, when not available, by GPs who have been trained in evidence-based tobacco treatment and can work with the person long-term as part of their long-term condition management. Tobacco dependency is a long-term relapsing remitting condition and therefore needs an intervention from a clinician.

Motivational Interviewing (MI) is effective in treating people with tobacco dependence. You may have had training in the principles of MI as part of primary care training. These principles can be effectively and easily applied by a range of clinicians in the treatment of tobacco dependence. A Cochrane systematic review with moderate quality evidence supports, particularly the GP, in delivering this intervention. It can be done, and is preferable to be done, in less than 20 minutes. This is therefore likely to be a significant treatment option in those countries where pharmacotherapy and stop tobacco specialists are not available.

#### More than VBA: when you have a dedicated appointment

Brief advice, prescribing and motivational interviewing work best when you have dedicated time as you would for a blood pressure or diabetes appointment.

It is ideal if the quit tobacco intervention below is delivered in a session dedicated to helping the patient with their tobacco use. However, we also acknowledge that many 2 minute episodes over a life course can also have a positive impact. If you are providing the service, you may be able to develop a standard schedule such as a package of 5 consultations. If so, "frontload" the consultations with more early on.

#### Start with the Visual Analogue Scale (VAS) for motivational interviewing

**On a scale from 1 – 10**  
**1. How important is it to you to stop tobacco where 0 is not at all important and 10 is the most important it can be?**  
**2. On a score of 0 – 10 where 0 is not confident at all and 10 is totally confident, how confident are you to try and stop tobacco?**

1	2	3	4	5	6	7	8	9	10
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**Dialogues:** Select from these and adapt to your own style and rapport with the patient. More listening than talking!

**Green dialogue** "That's great to hear. Why is it a 9 for confidence not a 7?" LISTEN to reply as way to hear patient beliefs; which often include stopping without help. "It sounds like you really want to try stopping tobacco (again). May I talk you through the options that are available for us to help you (building on what worked for you last time)?"

**Amber dialogue** "Can you tell me why is it a 6 and not a 4?" LISTEN to reply, and celebrate previous quitting success, which is what is often the reason given, although perceived by the patient as failure because they have then relapsed. Reflect back "It sounds like this has been really hard for you in the past but even so you succeeded for xx time. What would need to happen to move this up to an 8?" Listen to reply then ask permission "May I talk you through some of the options we now have available that we know work for patients like you, where tobacco is a big part of their lives, so that you can see whether you think any of them might be of interest to you?"

**Red dialogue** "It sounds like tobacco is a really important part of your life. That makes me want to know why you've scored it as a 3 and not a 1?" LISTEN to reply and name and affirm all positives. Reflect back "It sounds like this has been really hard for you in the past and you still feel it's not the right time for you to stop tobacco. We know that nicotine is more addictive than heroin.... even so you succeeded before for xx time." "What would need to happen to move this up to a 4 or 5?" Listen to reply then ask permission "I am hearing this does not feel the right time for you to stop tobacco and I completely respect this. However, we also saw that your CO level was very high, x, and we know this is making your condition (eg breathlessness/COPD/asthma) worse. If it would be helpful, I am happy to talk with you about what we could offer in the future, that we know works for patients like you, where tobacco has been and continues to be a major part of their lives, so you at least you know that we do have treatments that work."

The themes used in MI conversations are more listening than talking, using open-ended questions, specifically naming and affirming previous success, communicating hope especially for a long-term condition so strongly associated with shame, reflecting back and summarising. A few other things that work include:

- Name and clarify that the team is not judgemental about tobacco "We know how hard this is and that this is an addiction and that nicotine is more addictive than heroin..."
- Open-ended questions eg "Tell me about when you tried to stop tobacco before?"
- Exhaled CO testing is a very powerful motivator because the numerical reading improves quickly after cessation and is an objective measure
- Encourage the person to imagine and communicate what they think might be the benefits of quitting; reflect back and summarise and tailor your offer to their reply.
- You will know the patient's comorbidities so consider how treating their tobacco use can improve the other disease outcomes that they want eg "Did you know you... will get fewer asthma attacks? your wounds will heal better after surgery?" Keep it positive
- However, most patients who use tobacco know this – listen for the people who matter to them eg being around for grandchildren growing up.
- Explore and then reflect on ambivalent feelings: "What are the things you like and don't like about your tobacco use?" "On the one hand you say that...and on the other..."
- You may use these scales more than once in the consultation, or in subsequent conversations and if the scores increase, this will improve motivation.

#### If you are in the situation of options 2 or 3, where you will provide the counselling and medication advice then are some key actions you will want to take:

- Provide assistance in developing a quit plan – how often will you see them; how long will the session be, and what is the duration of the treatment.
- A 12 week intensive treatment is recommended if varenicline is prescribed, but ongoing support may be needed for much longer.
- Agree with the patient how you will review them to prevent relapse and provide support over subsequent months and years.
- Could you use email, text or phone for some of these sessions?
- Help them to set a quit date – make it realistic; a date chosen by the patient that you can then support.
- Know what pharmacotherapy is available OTC, free and private. Your best options are varenicline and combination NRT. Ensure doses are adequate.
- People quitting tobacco are often under-dosed on nicotine. Treat dosing, use and technique as seriously as you would for blood pressure or diabetes mellitus control.
- Include the following as needed:
  - Discuss abstinence and suggest coping strategies
  - Encourage social support
  - Assist in dealing with barriers such as fear of failure, stress coping, weight gain, social pressure
  - Give nutritional advice: sleep well, avoid caffeine and alcohol
  - Physical activity may help
- Withdrawal symptoms occur mostly during the first 2 weeks and are less troublesome after 4-7 weeks

People with COPD deserve...

- 2. A primary care service that is competent and confident in **diagnosing** COPD including timely, accurate and objective tests, and
- Information about COPD, its causes, the likely timeline, how it can be **managed** but not cured, and the consequences of decisions about treatment and self-management.



Quick guide to spirometry

This desktop helper aims to provide primary care professionals with the information they need to prepare for and interpret spirometry and understand its role and limitations in the diagnosis and monitoring of respiratory disease.

INTRODUCTION

Spirometry is an objective test that measures the volume of air a person can exhale and the speed (flow) at which they can do so.<sup>1,4</sup> It is mandatory in diagnosing and monitoring chronic obstructive pulmonary disease (COPD), and important for asthma, idiopathic pulmonary fibrosis and chronic cough. Spirometry is also helpful in the evaluation of the impact of some systemic diseases on the respiratory system and helps in determining personal risk before surgical intervention.

WHAT DO WE NEED TO DO?

Before the test

When performing spirometry, consider potential contraindications (Table 1).

This test is highly dependent on the person's collaboration and the testing circumstances, therefore, the procedure should be explained beforehand and a decision made by the prescribing physician if the person should stop taking any respiratory medications prior to the test (see Table 2 for minimum timings). It may not be necessary to withhold medication if the purpose of the test is to determine whether the person's lung function can be improved with therapy in addition to their regular treatment.

Instruct the person not to smoke, vape or use a water pipe and obtain from any strenuous physical exercise for at least one hour prior to the test, or to consume intoxicants up to 8 hours before the test. Ask them to loosen any tight clothing. Spirometry must be conducted in a comfortable and well-ventilated room (ideally, specific for spirometry), with the person sitting on a chair without arms, wheels or height adjustment. There must be scales, a stadiometer and a basic weather station (if not already integrated with the test equipment). The spirometer should have a maximum error range of  $\pm 2.5\%$  when tested with a 3L calibration syringe.

Preparing the person for spirometry

Not all people will be able to produce good

Table 1: Contraindications for spirometry.

Any situation that puts the person's health at serious risk when making a significant effort such as:	Situations in which min quality manoeuvres can such as:
<ul style="list-style-type: none"> <li>• Significant haemoptysis</li> <li>• Active or recent pneumothorax. Having a pneumothorax in the past does not contraindicate spirometry</li> <li>• Unstable CV disease (e.g. angina, recent MI, PTE)</li> <li>• Brain, thoracic or abdominal aneurysms</li> <li>• Recent retinal detachment or recent eye surgery (e.g. cataract)</li> <li>• Recent chest or abdominal surgery</li> </ul>	<ul style="list-style-type: none"> <li>• Inability to undertake unwillingness to follow instructions</li> <li>• Not understanding (e.g. children under deterioration, some)</li> <li>• Poor physical state</li> <li>• Presence of a trache considered necessary on a person with a tracheostomy should be referred to a specialist</li> <li>• Oral and/or facial problems that could affect the mouthpiece (e.g. fit)</li> <li>• Uncomfortable nose mouthpiece</li> </ul>

CV, cardiovascular; MI, myocardial infarction; PTE, pulmonary thromboembolism.

Table 2: Minimum time between taking certain drugs and undergo

Drug	Minimum allowable at
Salmeterol, terbutaline, ipratropium	
Formoterol, salmeterol	
Indacaterol, olodaterol, vilanterol	
Acetylsalicylic acid	
Tiotropium, glycopyrronium, umecidilium	
Short-acting theophyllines	
Sustained-release theophyllines	
Chromones	

quality spirometries, but the operator's competence can improve the quality of the results.

- Explain the procedure straight forwardly
- Ask them to remove any dental prostheses if they are likely to move.
- Seat them in a chair without arms, wheels or height adjustment with their back against its backrest and both feet flat on the ground, uncrossed. Advise them to sit up (feet forward) while breathing into the mouthpiece.
- Explain the procedure straight forwardly
- Ask them to remove any dental prostheses if they are likely to move.
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them to sit up (feet forward) while breathing into the mouthpiece.



Achieving earlier diagnosis of COPD

This desktop helper reviews the evidence for the benefits of earlier detection and diagnosis of COPD and provides healthcare practitioners (HCPs) with tools they can use to achieve this for the patients in their care.

WHY DOES EARLIER DIAGNOSIS MATTER?

COPD is a common global condition with considerable morbidity and mortality.<sup>1</sup> Underdiagnosis of COPD is a persistent problem worldwide and continues to be a major reason for the undertreatment of the condition despite the availability of effective non-pharmacotherapeutic and pharmacotherapeutic interventions.<sup>2</sup> The global prevalence of COPD is estimated to be 10.3%.<sup>2</sup> The rates of underdiagnosis in low and middle-income countries may be particularly high, with some estimates suggesting underdiagnosis rates in excess of 90%.<sup>3</sup>

Undiagnosed, symptomatic COPD is associated with an increased risk for exacerbations, pneumonia, a marked detrimental impact on quality of life (QoL), and even premature death.<sup>1,4-6</sup> COPD

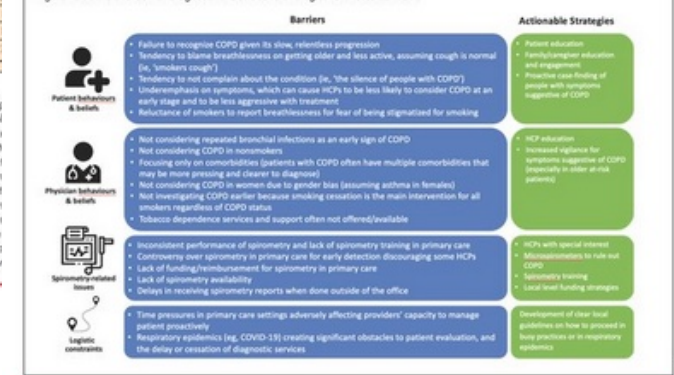
diagnosis usually occurs only after significant lung function has already been lost. By the time people seek help for their symptoms, their FEV<sub>1</sub> has often fallen to ~50% of predicted, a level at which health status is substantially reduced. In addition, other consequences of COPD such as breathlessness, depression and anxiety, often cause people to be less active and less able to cope with the disease.<sup>7</sup> The reasons for delayed diagnosis of COPD are numerous and complex including personal, HCP and system-level factors that prevent the reporting, recognition or identification of symptoms suggestive of COPD, or the availability of spirometry, essential to diagnose COPD (see the IPCRG Quick guide to spirometry at <https://www.ipcrg.org/DTH14>).<sup>8</sup> It has been considered by some practitioners and public as a self-inflicted disease if the person has smoked tobacco and this has led to stigma, self-blame and

care-seeking delays. This underappreciates the fact that tobacco use is a chronic dependency that often begins in childhood and is itself often underdiagnosed and undertreated. In addition, new scientific evidence has shown that there are many genetic and environmental factors associated with reduced lung function, that vary, accumulate, and interact over time, even before birth.<sup>9,10</sup>

CAN EARLIER INTERVENTION HELP?

Earlier intervention for symptomatic COPD can result in better quality of life (QoL).<sup>11</sup> A wide body of research indicates that diagnosis accompanied by earlier intervention delays lung function decline, reduces symptoms burden and improves QoL.<sup>12</sup> To reduce the risk of exacerbations caused by respiratory infections ensure your patients receive vaccinations (i.e.

Figure 1: Barriers to earlier diagnosis in COPD and strategies to overcome them.



# Spirometry Simplified 1st run

*Certified e-learning course (includes in-person masterclass)*

## What is it?

**Spirometry Simplified** is a IPCRG flagship initiative that aims to build capacity and spread the equitable use of Spirometry among primary care clinicians across the globe through research, education, and advocacy, to enhance earlier and accurate diagnosis of patients with obstructive airway diseases and thereby improve their quality of care.

The **Spirometry Simplified** course is being developed by leading experts in respiratory health and is a certified course that will train primary health care professionals and their assistants to prepare for, perform, evaluate and interpret high-quality spirometry.

## How does it work?

- > Instruction language: English
- > 5 modules (4 online, 1 in person)
- > Primary care oriented
- > Self-paced flexible learning
- > Includes practical case studies
- > Certified by IPCRG
- > Taught by experts from all regions of the globe

## Who is this course for?

- > General Practitioners
- > Nurses
- > Physiotherapists
- > Community Paediatricians (who offer primary care to children)
- > Pharmacy teams
- > Physicians (Internists, Pulmonologists, Paediatricians),
- > Other health care professionals with tertiary level education on respiratory anatomy and physiology

## Course structure

- Module 1 Understanding Spirometry
- Module 2 Preparing Spirometry
- Module 3 Evaluating Spirometry
- Module 4 Interpreting Spirometry
- Masterclass Performing Spirometry

## Course duration

Online: 9 hours

Masterclass: 3 hours @ IPCRG 12th World Conference, May 2024 (Athens)

## Learning objectives

By the end of this course, learners will be able to:

- > Understand the fundamentals of spirometry
- > Prepare for a spirometry test
- > Conduct a spirometry test
- > Perform spirometry quality assurance and quality control task
- > Evaluate the validity of the spirometry test result
- > Interpret the spirometry test result
- > Record and report the spirometry test result
- > Manage spirometry data / refer as needed
- > Set up a Spirometry Clinic

## Faculty

**Sundeep Salvi** [course director], Director of Chest Research Foundation, India

**Enrique Cimas Hernando**, Coordinador del Centro de Salud de Contrueces (Gijón), Spain

**Ioanna Tsiligianni**, Associate professor, Faculty of Medicine, University of Crete, Greece

**Kerry Hancock**, Education Coordinator Spirometry Learning Australia, Australia

**Jim Stout**, Professor Emeritus, University of Washington and Spirometry 360 Creator, USA

**Lindsay Zurba**, Director of Education for Health Africa, South Africa

**Stephanie Williams**, Vice President for Education and Engagement COPD Foundation, USA

**Savi Wimalasekera**, Faculty Medical Sciences, University of Sri Jayewardenepura, Sri Lanka

**Helmi Ben Saad**, Professor of Physiology, Faculty of Medicine of Sousse, Tunisia

## More information

[educationcoordinator@ipcr.org](mailto:educationcoordinator@ipcr.org)



**IPCRG** work locally collaborate globally  
Est. 2001  
Respiratory Group

The International Primary Care Respiratory Group is a clinically-led charity registered in Scotland working internationally (SC035056); company limited by guarantee (SC256268). IPCRG represents primary care on the WHO-GARD Planning Executive, is the Respiratory Special Interest Group of WONCA Europe and the Organisation in Collaborative Relations with WONCA World. Coordinator of Global Health Respiratory Network npj | Primary Care Respiratory Medicine

# Course structure



*exclusively online in Moodle (4 weeks)*

Module 1 <b>Understanding Spirometry</b>	Module 2 <b>Preparing Spirometry</b>	Module 3 <b>Evaluating Spirometry</b>	Module 4 <b>Interpreting Spirometry</b>
<b>1.5 hours online</b>	<b>1.5 hours online</b>	<b>1.5 hours online</b>	<b>1.5 hours online</b>
1.1 Respiratory anatomy and physiology relevant to spirometry	2.1 Key measurements of spirometry and methods for measuring results	3.1 Evaluating the correctness of subject data entry, choice of reference values and ethnic correction	4.1 Interpreting and grading the spirometry test result
1.2 Fundamentals of spirometry	2.2 Preparation for a spirometry test	3.2 Evaluating the test for acceptability, usability and repeatability, grade the test quality	4.2 Recording, reporting and keeping spirometry records
1.3 Setting up a Spirometry Clinic: Importance of Quality assurance & quality control	2.3 Performing a spirometry test	3.3 Evaluating the numerical results for best test and best trial in preparation for interpretation	
	2.4 Conducting a spirometry bronchodilator		

*in person*

<b>Practical workshop Performing Spirometry</b>
<b>3 hours in person</b>
5.1 Performing a linearity calibration check
5.2 Performing a spirometry test
5.3 Evaluating, recording and reporting the spirometry test result

Figure 1: Barriers to earlier diagnosis in COPD and strategies to overcome them.

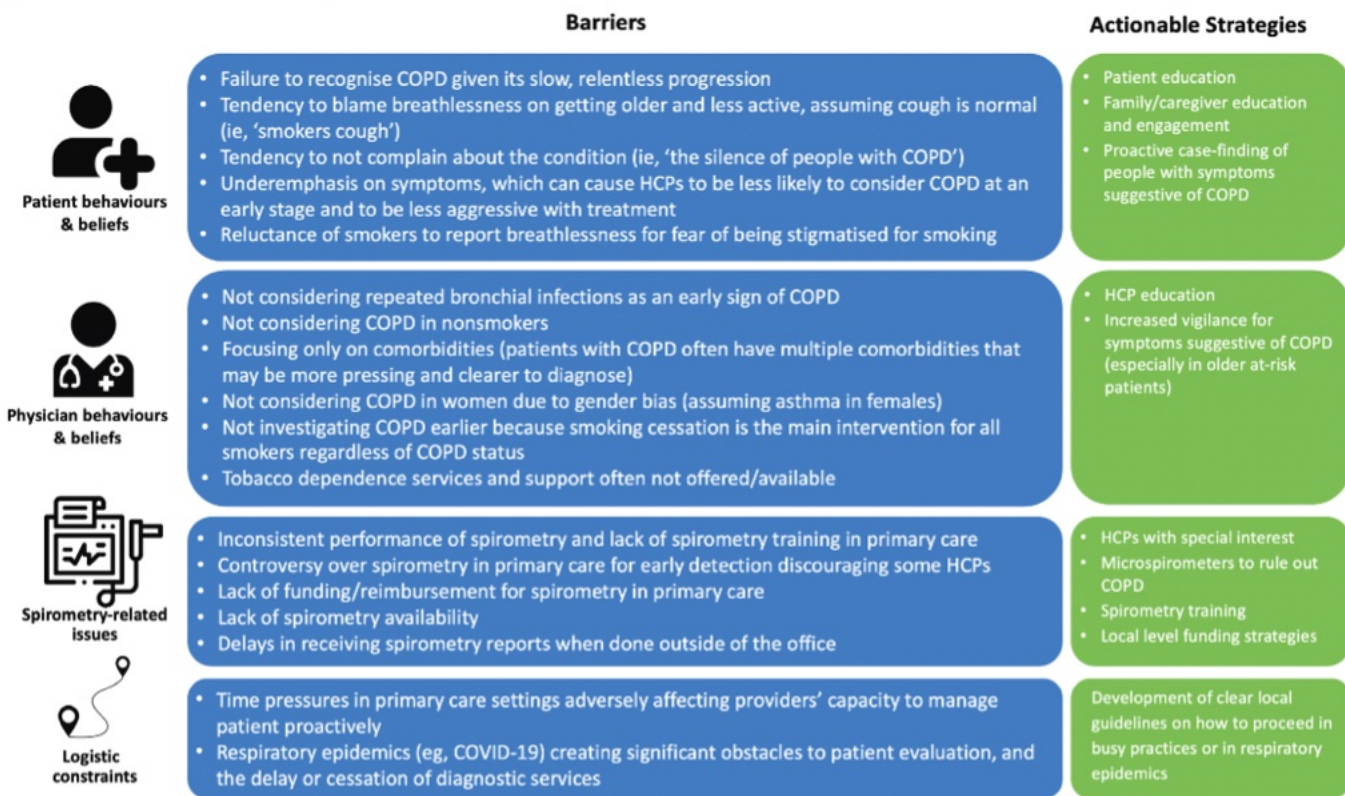


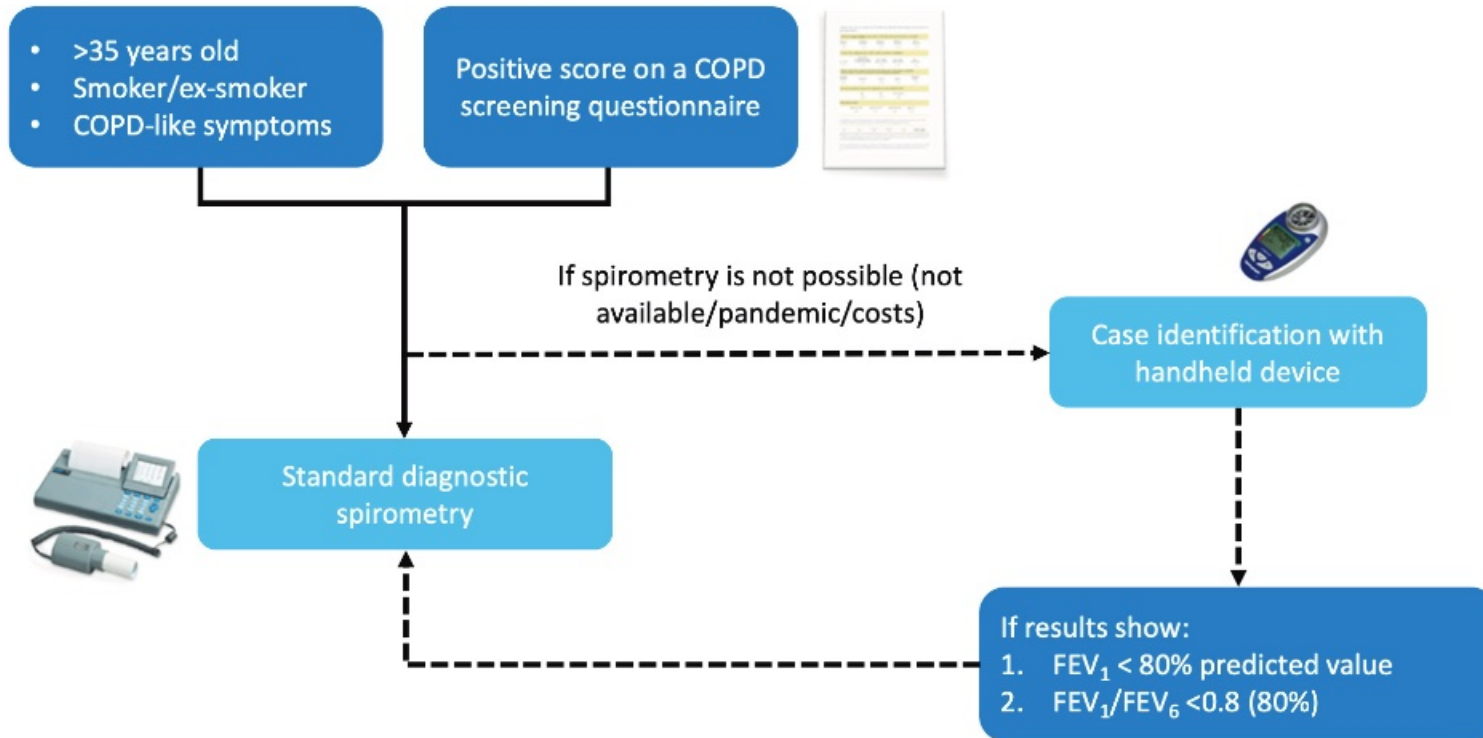
Table 1: Examples of tools for identifying people with symptoms suggestive of COPD in primary care settings who should be considered for spirometry

Tool	Comments	Web address
Canada Lung Health Test <sup>26</sup>	Simple and quick to administer; not validated. 5 questions	<a href="https://www.lungsask.ca/media/16">https://www.lungsask.ca/media/16</a>
COPD Population Screener (COPD-PS) <sup>27</sup>	Internationally recognised and validated. Simple and quick to administer, 5 questions + age	<a href="https://www.copdfoundation.org/Screener.aspx">https://www.copdfoundation.org/Screener.aspx</a>
COPD Assessment in Primary Care To Identify Undiagnosed Respiratory Disease Risk (CAPTURE) <sup>28</sup>	Validated and includes measurement of PEF. Good discriminatory capacity in LMIC settings. <sup>28</sup> Low sensitivity for detecting clinically significant COPD in a US primary care population. <sup>29</sup>	<a href="https://www.researchgate.net/figure/The-CaPTUre-COPD-assessment-in-primary-care-to-identify-undiagnosed-respiratory-disease_fig1_325741206">https://www.researchgate.net/figure/The-CaPTUre-COPD-assessment-in-primary-care-to-identify-undiagnosed-respiratory-disease_fig1_325741206</a>
COPD in LMICs (COLA) <sup>30</sup>	Validated and good discriminatory capacity in LMIC settings; <sup>28</sup> can be used alongside PEF <sup>31</sup>	<a href="https://www.dovepress.com/a-novel-case-finding-instrument-for-chronic-obstructive-pulmonary-dise-peer-reviewed-fulltext-article-COPD">https://www.dovepress.com/a-novel-case-finding-instrument-for-chronic-obstructive-pulmonary-dise-peer-reviewed-fulltext-article-COPD</a>

LMIC, low- and middle-income countries; PEF, peak expiratory flow.

# Identification and diagnosis of people with symptomatic COPD

Figure 2: Algorithm for the identification and diagnosis of people with symptomatic COPD.





# What does good quality COPD care look like?

IPCRG is regularly asked by primary care clinicians to define good quality care. We take the view that primary care is person-centred, and therefore the best way to define quality is from the perspective of the person at risk of, or with the condition. From our regular conversations with expert patients and clinicians *we have summarised what good quality care should look like from a patient perspective and how can clinicians provide that in 10 person-centred statements*. These are divided into five areas: Prevention, Diagnosis and communication about the diagnosis, Management, Review and Referral. Our vision is that clinical teams will use them to benchmark their practice and potentially identify an area for improvement. Our own programme of work is steered by these statements. We are currently defining the competencies required to deliver them and the teaching methods and tools to enable delivery.

IPCRG tools that we already offer are listed in blue italics.\*

## People with exposure to risk factors for COPD deserve...

### Prevention

- 1 Information, advice on mitigation and public health protection including local and personal risk factors. *<https://www.ipcrq.org/howwebreathe> and [helping people quit](#).*

## People with COPD deserve...

### Diagnosis and communication about the diagnosis

- 2 A primary care service that is competent and confident in diagnosing COPD including timely, accurate and objective tests, and information about COPD, its causes, the likely timeline, how it can be managed but not cured, and the consequences of decisions about treatment and self-management. *Desktop helper 14 (spirometry), [desktop helper on earlier diagnosis](#), [COPD Right Care wheel](#).*

### Management

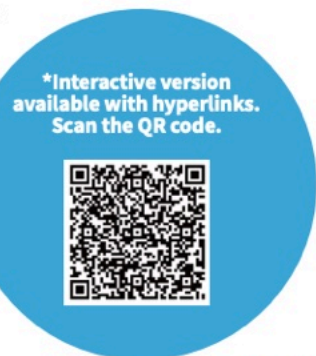
- 3 A primary care team competent to classify the stage and type of their link to disease over time using spirometry, quality of life and exacerbation history and competent to assess other morbidities.
- 4 Long term holistic management according to the guidelines including vaccination, counselling and treatment if they are tobacco dependent, pharmacological and non-pharmacological treatment and referral eg to pulmonary rehabilitation, end of life care. *Desktop helpers 3 (supportive & palliative approach), 4 (quit smoking), 6 (ICS and ICS withdrawal), 7 (pulmonary rehabilitation), 8 (women & COPD), 10 (multi-morbidity) and 12 (mental health), [www.ipcrq.org/copdwheel](http://www.ipcrq.org/copdwheel)*
- 5 To be offered appropriate inhaler(s) according to their physical and cognitive abilities and characteristics and appropriate inhaler technique training by a primary care professional who knows the importance of eosinophil count and that bronchodilation is the basis of treatment. eg [www.rightbreathe.com](http://www.rightbreathe.com)
- 6 Yearly flu vaccination, pneumococcal, Tdap, herpes zoster and COVID-19 vaccinations according to their history and national schedule.
- 7 To agree an individualised self-management plan including recognition of exacerbations, smoking cessation, breathing exercises, nutrition, and physical activity taking into consideration mental and physical health, health literacy and access to care. *[www.ipcrq.org/copdmagazine](http://www.ipcrq.org/copdmagazine)*
- 8 To be asked in a culturally appropriate way about exacerbations, to receive reassurance and appropriate treatment and to be followed up to ensure they have adequate support.

### Review

- 9 A structured assessment of their symptoms, wellbeing, inhalation technique, future risk and support needs at acceptable intervals with additional follow-up after an exacerbation or a change in management. *Desktop helper 3.*

## When their COPD cannot be managed in their usual primary care

- 10 To have easy and timely access/referral to a primary or secondary health care professional who is skillful in COPD management whenever their COPD cannot be managed in their usual primary care.



\*Interactive version available with hyperlinks. Scan the QR code.

## People with COPD deserve

3. A primary care team competent to classify the stage and type of their disease over time using spirometry, quality of life and exacerbation history and competent to assess other morbidities.



## Modified MRC Dyspnea Scale

Table 2.7

PLEASE TICK IN THE BOX THAT APPLIES TO YOU | ONE BOX ONLY | Grades 0 - 4

mMRC Grade 0	mMRC Grade 1	mMRC Grade 2	mMRC Grade 3	mMRC Grade 4
I only get breathless with strenuous exercise	I get short of breath when hurrying on the level or walking up a slight hill	I walk slower than people of the same age on the level because of breathlessness, or I have to stop for breath when walking on my own pace on the level	I stop for breath after walking about 100 meters or after a few minutes on the level	I am too breathless to leave the house or I am breathless when dressing or undressing
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reference: ATS (1982) Am Rev Respir Dis. Nov;126(5):952-6.



CAT™ Assessment

Figure 2.2

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

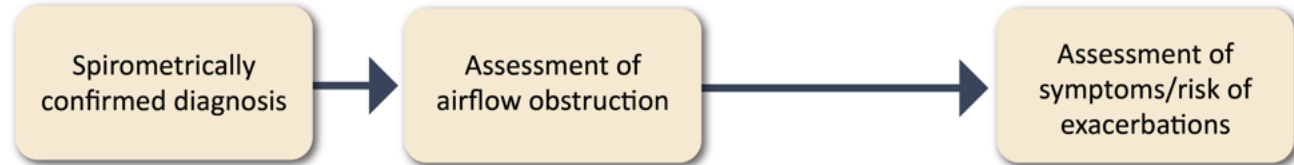
Reference: Jones et al. ERJ 2009; 34 (3); 648-54.

**TOTAL SCORE:**



**GOLD ABE Assessment Tool**

Figure 2.3



Post-bronchodilator FEV1/FVC < 0.7	GRADE		FEV1 (% predicted)	EXACERBATION HISTORY (PER YEAR)		SYMPTOMS	
	<b>GOLD 1</b>		≥ 80	≥ 2 moderate exacerbations or ≥ 1 leading to hospitalization		<b>E</b>	
	<b>GOLD 2</b>		50-79	0 or 1 moderate exacerbations (not leading to hospitalization)		<b>A</b>	<b>B</b>
	<b>GOLD 3</b>		30-49			mMRC 0-1 CAT < 10	mMRC ≥ 2 CAT ≥ 10
<b>GOLD 4</b>		< 30					



# What does good quality COPD care look like?

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## When their COPD cannot be managed in their usual primary care

- 10 To have easy and timely access/referral to a primary or secondary health care professional who is skillful in COPD management whenever their COPD cannot be managed in their usual primary care.



## 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 expected disease 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.<sup>1</sup> From beginning to end, COPD must be treated using all available appropriate therapies to 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 evaluation and knowledge of the person's functional status and personal goals at each stage of COPD stabilisation or progression (eg, evaluated at least annually). Variations will depend on the local availability of healthcare and therapies, cultural norm 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 late months or years of people reducing a 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 factor including common comorbidities such as heart disease or anxiety.<sup>2,3</sup> COPD lower overall QoL including social interactions mood, work, family life and self-care (Figure 1).<sup>4</sup>

- The purpose of this desktop helper for the appropriate use and withdrawal of inhaled corticosteroids (ICS) is to:
1. Help primary care clinicians identify patients with chronic obstructive pulmonary disease (COPD) who would benefit from ICS treatment compared to those in whom it may not be appropriate, and
  2. Provide guidance on how to withdraw ICS in patients with COPD in whom it is not needed.

**THE ROLE OF ICS IN THE TREATMENT OF PATIENTS WITH COPD**  
In COPD, evidence supports the use of an inhaled corticosteroid (ICS) in combination with a long acting beta-agonist (LABA) or as part of a triple therapy regimen with the addition of a long acting muscarinic



## A Referrer's Guide: The essential things you need to know about pulmonary rehabilitation to help breathless people breathe better, feel good and do more!



## Appropriate use and withdrawal of inhaled corticosteroids (ICS) in patients with chronic obstructive pulmonary disease (COPD)

**CURRENT RECOMMENDATIONS ON ICS USE FOR PATIENTS WITH COPD**  
For all patients with COPD, LABDs are recommended as first-line treatment. For patients whose disease is classified as GOLD 'D' (i.e., symptomatic with exacerbations) with a history of asthma or

**nary Rehabilitation?**  
structured programme tailored to an reathlessness, improve their quality of (stress), and improve their exercise e improves people's ability to rise-based programme accompanied help people live better with chronic ind should be integrated into, their in to reduce the use of expensive care. It can be delivered safely in the spite its proven clinical and cost-ed.<sup>1,2</sup>

functionally limited by their nagement.

s like COPD become breathless with lightening for them and their families void activities which make them onditioning, demotivation and o communicate, even if difficult for and healthcare professionals to

around is NORMAL," to feel short of breath whilst moving."

**IPCRG GUIDANCE ON WHEN TO BEGIN ICS IN PATIENTS WITH COPD**  
1. Consider ICS combined with bronchodilators as initial treatment in a recently diagnosed patient and/or a patient who is pharmacological treatment "naïve" based on the history of asthma, risk of

"That is an important decision, well done. I will now refer you..." either "...to the Pulmonary Rehabilitation programme" or"... to see an expert who can assess your breathlessness and decide on the right programme for you." or **ACT: if they say no/not yet** "It is your choice of course so let me know if you change your mind and I will ask again when we next meet. It is a great opportunity to meet others with a similar experience, to learn to control your breathlessness and to reduce the impact of your breathlessness on your life." Provide information and education about their condition and how they can best live with and manage their problems and medications e.g. [Living Well](#) and [IPCRG](#). This will be reinforced in the programme.

**Your role in optimising use of PR: planning**  
**Highlighted examples at [www.ipcrq.org/PR](http://www.ipcrq.org/PR)**  
As a referrer you can contribute to getting improved outcomes and programme efficiency because there can be obstacles:<sup>3</sup>

<b>Diagnosis</b> Person is not diagnosed or receives wrong diagnosis	<b>GP referral</b> GP does not believe in or communicate the importance & benefits of PR	<b>Assessment</b> Person does not present for their assessment
<b>Maintenance</b> Person does not maintain activity after the	<b>Ongoing Programme</b> Person does not complete the	<b>Start of Programme</b> Person does not turn up to begin

## Initial Pharmacological Treatment

Figure 4.2



\*single inhaler therapy may be more convenient and effective than multiple inhalers  
Exacerbations refers to the number of exacerbations per year





# ICS?



## DESKTOP HELPER

No. 6 2nd edition May 2020

### Appropriate use and withdrawal of inhaled corticosteroids (ICS) in patients with chronic obstructive pulmonary disease (COPD)

The purpose of this desktop helper for the appropriate use and withdrawal of inhaled corticosteroids (ICS) is to:

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2. Provide guidance on how to withdraw ICS in patients with COPD in whom it is not needed.

#### THE ROLE OF ICS IN THE TREATMENT OF PATIENTS WITH COPD

In COPD, evidence supports the use of an inhaled corticosteroid (ICS) in combination with a long acting beta-agonist (LABA) or as part of a triple therapy regimen with the addition of a long acting muscarinic antagonist (LAMA) to reduce the risk of symptomatic exacerbations.<sup>1</sup> The effect of these regimens (ICS/LAMA/LABA and ICS/LABA vs LABA/LAMA) is greater in patients with high exacerbation risk (≥2 exacerbations and/or 1 hospitalization in the previous year).<sup>2-4</sup> However, until recently there has been no consistent evidence on the long-term effects of ICS on mortality or the group of patients who would benefit most.<sup>1</sup>

Recent studies have shown that blood eosinophil counts predict the effect of ICS in preventing future exacerbations in COPD,<sup>5</sup> and they can be used as a biomarker to estimate the benefits of adding ICS to regular bronchodilator treatment for individual patients.<sup>1</sup>

#### ADVERSE EFFECTS ASSOCIATED WITH ICS THERAPY

There is high quality evidence from randomized controlled trials (RCTs) that ICS use is associated with many adverse effects including oral candidiasis, hoarse voice, skin bruising and pneumonia and results of observational studies suggest that ICS treatment could also be associated with increased risk of diabetes/poor control of diabetes, cataracts, osteoporosis, fracture and mycobacterial infection including tuberculosis.<sup>1</sup>

#### CURRENT RECOMMENDATIONS ON ICS USE FOR PATIENTS WITH COPD

For all patients with COPD, LABDs are recommended as first-line treatment. For patients whose disease is classified as GOLD 'D' (i.e. symptomatic with exacerbations) with a history of asthma or with blood eosinophil counts ≥300 cells/μL, initial therapy with LABA/ICS combination may be the first choice.<sup>1</sup> Patients with concomitant asthma should be treated with ICS combined with a LABA.<sup>6</sup> After initial therapy, clinical response should be reviewed and adjustments made to pharmacological treatment, increasing or decreasing therapy, to obtain optimal symptom control. When patients with COPD are experiencing increased breathlessness and other symptoms, adjustment of therapy to ensure maximal bronchodilation is warranted. Current guidelines do not recommend ICS therapy if deterioration is driven by symptoms.<sup>1</sup>

In COPD patients who continue to experience frequent exacerbations despite appropriate bronchodilator therapy and have blood eosinophils <100 μL<sup>-1</sup>, ICS are not recommended unless the individual patient has a history of asthma; alternative treatments such as roflumilast and azithromycin can be considered.

In patients with blood eosinophils >300 μL<sup>-1</sup>, the addition of ICS to LABA therapy is recommended. For patients with blood eosinophils of 100-300 μL<sup>-1</sup>, careful consideration of the potential benefits and risks of ICS therapy should be undertaken.<sup>7</sup>

#### IPCRG GUIDANCE ON WHEN TO BEGIN ICS IN PATIENTS WITH COPD

1. Consider ICS combined with bronchodilators as initial treatment in a recently diagnosed patient and/or a patient who is pharmacological treatment "naive" based on the history of asthma, risk of exacerbation, and eosinophils as shown in Table 1.
2. Consider ICS after reassessment of patients with COPD not previously treated with ICS based on risk of exacerbations and eosinophils as shown in Table 1.

#### CURRENT USE OF ICS FOR PATIENTS WITH COPD

Despite recent recommendations that ICS use should be reserved for a small proportion of patients with COPD, there is evidence of continued inappropriate use of ICS in these patients. Guidelines implementation has been inconsistent as evidenced by numerous studies showing inappropriate prescription or over-prescription of ICS by up to 50%, a situation that has also been shown in the IPCRG UNLOCK study.<sup>8</sup>

#### EVIDENCE FOR ICS WITHDRAWAL IN PATIENTS WITH COPD

Updated COPD guidelines support ICS withdrawal<sup>1</sup> and recent studies indicate ICS can be withdrawn in both low- and high-risk patients, provided adequate bronchodilator therapy is in place.<sup>9,17</sup>

**TABLE 1. IPCRG GUIDANCE ON WHEN TO BEGIN ICS IN PATIENTS WITH COPD. FIRST OPTIMISE BRONCHODILATION.**

<p><b>1. Initial treatment</b></p>	<p>a. Well documented previous history of asthma, especially if diagnosis under 40 years' old</p> <p>b. ≥2 moderate exacerbations or 1 hospitalization in the previous year and &gt;300 eosinophils μL<sup>-1</sup></p>
<p><b>2. Reassessment†</b></p>	<p>a. ≥2 moderate exacerbations or 1 hospitalization in the previous year* and &gt;300 eosinophils μL<sup>-1</sup>*</p> <p>b. ≥2 moderate exacerbations or 1 hospitalization in the previous year* and eosinophils μL<sup>-1</sup> &gt;100 but &lt;300 after carefully balanced risk-benefit considering:</p> <ul style="list-style-type: none"> <li>○ Recent pneumonia</li> <li>○ Confirmed bacterial colonization</li> <li>○ Bronchiectasis</li> <li>○ Comorbidities, especially diabetes and osteoporosis or those at risk for these conditions</li> </ul>
<p>† Patient not previously on ICS</p> <p>* Or since previous assessment if less than 12 months</p>	

# Multimorbidity



## DESKTOP HELPER

No. 10 December 2019

### Rational Use of Inhaled Medications for the Patient with COPD and Multiple Comorbid Conditions: Guidance for Primary Care

This desktop helper describes the challenges associated with the pharmacological management of the patient with COPD and multiple comorbid conditions with a particular focus on the rational use of inhaled corticosteroids and provides guidance for the holistic care of such patients in the primary care setting.

#### INTRODUCTION

Chronic obstructive pulmonary disease (COPD) is typically accompanied by multiple comorbid conditions. However, guidelines for the management of patients with COPD focus on the disease itself, providing little practical guidance on the routine management of comorbidities. Our objective is to review the impact of comorbidities on treatment choices for patients with COPD, especially with regard to the risks and benefits of inhaled medications including long-acting beta-agonists (LABA) and long-acting muscarinic antagonists (LAMA) and with a special focus on inhaled corticosteroids (ICS).

#### MULTIMORBIDITY IN COPD

Patients with COPD typically present with multiple comorbid conditions which require long-term management alongside their COPD.<sup>1</sup> An additional challenge is that concomitant conditions, such as asthma or bronchiectasis, can be overlooked because signs and symptoms may overlap with those associated with COPD. Over 85% of adult patients with COPD will have at least one comorbid condition of clinical relevance, half of them have three or more.<sup>1,2</sup> The prevalence of comorbidities increases with worsening COPD severity in both men and women and women appear to have a greater susceptibility to asthma, osteoporosis, anxiety and depression but appear less likely to have cardiovascular disease than men.<sup>3,4</sup>

Comorbidities often appear in clusters which suggests common risk factors (smoking and inactivity are risk factors for both COPD and lung cancer), shared underlying pathobiological mechanisms (accelerated ageing is associated with both

COPD and hypertension) and side effects of COPD treatment (development of diabetes).<sup>5,7</sup>

#### MANAGING THE PATIENT WITH COPD

According to the latest recommendations of the Global Initiative for Chronic Obstructive Lung Disease (GOLD), bronchodilation remains the mainstay of treatment for patients with stable COPD. Patients should be initiated on single or dual long-acting bronchodilator therapy.<sup>8</sup> ICS/LABA can be considered as an initial therapy for patients in GOLD D with blood eosinophil counts  $\geq 300$  cells/ $\mu$ l.<sup>8</sup> However, as ICS treatment may be associated with an increased risk of pneumonia, a risk-benefit evaluation is warranted for individual patients and withdrawal of ICS must be considered in case of emergent pneumonia.

#### MANAGING THE MULTIMORBID PATIENT WITH COPD

The management of individual patients with COPD and multimorbidity is often complex requiring the simultaneous application of several disease-specific treatment guidelines. These guidelines are rarely aligned with regard to treatment recommendations.<sup>9</sup> Therefore a holistic approach is of particular importance for patients with multimorbidity. We would encourage primary care physicians to undertake regular (at least annual) (re)assessment and treatment adjustment for patients with COPD. Emergence of multimorbidity should be regarded as a signal and call to action to undertake a review of COPD treatment with a focus on

the interface between symptoms of their comorbid diseases, treatment adherence and side effects of medication.

For patients with COPD, multimorbidity is associated with a high level of polypharmacy and an increased risk for adverse drug reactions and interactions as well as an increased risk of hospitalisation and premature death.<sup>1,3,10,14</sup> Polypharmacy is of particular concern when drugs with potential for similar adverse reactions are combined.<sup>15</sup>

In general, multimorbidity should not delay or alter the treatment of COPD and comorbidities should be managed according to usual standards; attention should be directed to ensure treatment simplicity and to minimise polypharmacy.<sup>8</sup>

#### COMORBIDITIES OF SPECIAL INTEREST

The management of patients with COPD and multimorbid conditions requires a personalised approach. Primary care physicians should adopt systematic ways to monitor patients with COPD. The interface between symptoms of comorbid diseases and side effects of medication should also be considered with special attention paid to the following comorbidities:

- Asthma
- Osteoporosis/fractures
- Diabetes
- Pneumonia and tuberculosis
- Atrial fibrillation
- Chronic pain
- Chronic kidney disease
- Prostate disease
- Gastroesophageal reflux
- Anxiety and/or depression
- Obstructive sleep apnoea

## Additional essential action points

1. Increase awareness of COPD multimorbidity and screen and monitor patients for the most common comorbidities
2. Ensure at least yearly patient (re)assessment and treatment adjustment in the primary care setting, including stopping of inappropriate medication. Don't forget lung cancer.
3. Review inhalation technique and adherence to medication
4. Empower multimorbid patients with COPD and caregivers to help them cope with potentially overwhelming amounts of information and associated depression and anxiety
5. Carefully evaluate the indication before initiating ICS treatment. With regard to ongoing ICS treatment, consider
  - o Asthma: ICS treatment must be continued
  - o Diabetes: reconsider if ICS treatment is needed; if ICS is continued, close follow up, glucose monitoring and titration of antidiabetic treatment are required
  - o Osteoporosis: reconsider if ICS treatment is needed; if ICS is continued, close follow up for loss of bone mineral density and risk of fractures is required. Screening for osteopenia or osteoporosis is recommended in patients receiving high dose of ICS or low to medium dose ICS with frequent use of oral corticosteroids
  - o Infections (pneumonia or tuberculosis): consider withdrawal of ICS and maximize bronchodilation
6. Closely monitor for cardiac rhythm disorders, including atrial fibrillation, when initiating patients on a LABA
7. Monitor for emergent urinary symptoms when initiating patients with chronic kidney or prostate disease on LAMA



# Multimorbidity

## Treatment considerations for the multimorbid patient with COPD

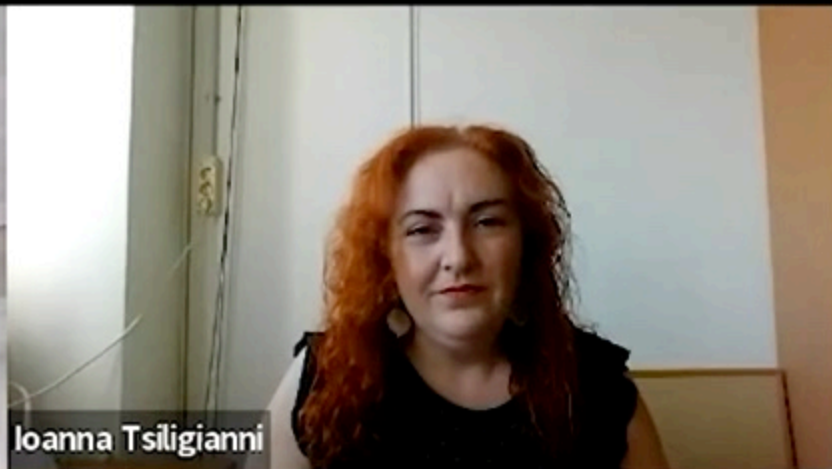
Comorbidity	COPD treatment-associated risks		
	ICS	LABA	LAMA
Asthma	Recommended; LABA/ICS may be first line in patients with COPD and a history of asthma and asthma-COPD overlap		Recommended in selected patients
Pneumonia	Increased risk of pneumonia; consider withdrawal of ICS and maximize bronchodilation		
Osteoporosis/fractures	Increased bone loss and fracture risk; of particular concern in women		
Diabetes and pre-diabetes	Associated with onset and progression of diabetes, especially at higher doses		
Bronchiectasis	Not indicated in patients with bacterial colonization or recurrent lower RTI		
Tuberculosis	Increased risk for TB, particularly at high doses		
Chronic kidney disease			Associated with urinary symptoms
Prostate disease			Associated with urinary symptoms
Atrial fibrillation		Associated with tachycardia and rhythm disturbances (in susceptible patients)	
Glaucoma	Associated with glaucoma and cataracts		Associated with cataracts if used with face mask

COPD, chronic obstructive pulmonary disease; ICS, inhaled corticosteroid; LABA, long-acting beta-agonist; LAMA, long-acting muscarinic antagonist; RTI, respiratory tract infection; TB, tuberculosis.

■ Recommended   
 ■ Use with caution   
 ■ Use as per COPD guidelines



Björn Ställberg



Ioanna Tsiligianni



Catalina Panaitescu



Steph Taylor



Izolde Bouloukaki



Claudia Avicente

# Women

## Some of the validated questionnaires commonly used in primary care

mMRC	<a href="http://goldcopd.org">http://goldcopd.org</a>
MRC	<a href="https://www.mrc.ac.uk/research/facilities-and-resources-for-researchers/mrc-scales/mrc-dyspnoea-scale-mrc-breathlessness-scale/">https://www.mrc.ac.uk/research/facilities-and-resources-for-researchers/mrc-scales/mrc-dyspnoea-scale-mrc-breathlessness-scale/</a>
CCQ	<a href="http://ccq.nl/">http://ccq.nl/</a>
CAT	<a href="http://www.catestonline.org/">http://www.catestonline.org/</a>
PHQ4	<a href="http://gihep.com/phq4/">http://gihep.com/phq4/</a>
PHQ9	<a href="https://patient.info/doctor/patient-health-questionnaire-phq-9">https://patient.info/doctor/patient-health-questionnaire-phq-9</a>
GAD7	<a href="https://patient.info/doctor/generalised-anxiety-disorder-assessment-gad-7">https://patient.info/doctor/generalised-anxiety-disorder-assessment-gad-7</a>



### DESKTOP HELPER

No. 8 January 2018

## Improving care for women with COPD: guidance for primary care

The scope of global primary care includes not only disease management, but also prevention and early risk identification, finding those people in the community who need special attention, diagnosis, treatment and management. One such challenge is to identify early, diagnose, and treat women with chronic obstructive pulmonary disease (COPD). The main challenges of COPD in women and the reasons that they need special attention, are depicted in Figure 1.

**Figure 1** The impact of COPD in women.

Reprinted from Chest, 151(3), Jenkins CR, Chapman KR, Donohue JF, Roche N, Tsiligianni I, Han MK. Improving the management of COPD in women, 686-696, Copyright (2017) with permission from Elsevier



### THE NEED FOR INCREASED AWARENESS OF COPD IN WOMEN

Prevention and early diagnosis strategies for women usually focus on early cancer detection, despite the fact that women are more likely to die from COPD than from breast and lung cancer combined.<sup>1,2</sup> Until recently, COPD diagnosis in women has been considered predominantly a disease of men.<sup>3,4</sup> However, because of an increase in smoking and/or ongoing exposure to biomass smoke in many countries, COPD prevalence now seems to be similar between women and men. Indeed, data suggest that women could be at greater risk of smoking-induced lung function impairment, and could suffer from more severe symptoms for the same level of tobacco exposure than men.<sup>5,6</sup> Non-smokers with COPD are also more likely to be female. Women bear a disproportionate burden of exposure to risk factors such as biomass smoke, due to a

greater role in cooking and domestic responsibilities, occupational exposure in specific industries that generate smoke and dust, and from second-hand smoke.<sup>7</sup>

### WOMEN HAVE DIFFERENT PHENOTYPES AND SOCIOECONOMIC STATUS<sup>1,3</sup>

Globally, women with COPD are usually younger, have a lower BMI, less first-hand tobacco smoke exposure, greater risk of significant lung impairment, more severe symptoms with the same level of exposure and a lower socioeconomic status (SES) which affects their access to care. They often disregard their symptoms and tend to be more reluctant to seek care, therefore diagnosis is delayed and they often have more severe disease by the time they are identified. Therefore, we need to support initiatives and campaigns to increase awareness amongst individuals and communities. Women with low socioeconomic status are particularly vulnerable

and may need special social support.

Women experience more symptoms (especially breathlessness), have a more impaired quality of life and suffer from more exacerbations than men.<sup>8,9</sup> This means that women may benefit from closer monitoring of their exacerbation risk, symptoms and quality of life. Primary care professionals need to be aware of these differences and use validated tools to assess breathlessness and impaired quality of life. Practical tools such as Medical Research Council (MRC) and modified Medical Research Council (mMRC) Breathlessness Scale, Clinical COPD Questionnaire (CCQ) and COPD Assessment Test score (CAT)<sup>10</sup> have been suggested for use in primary care. See the IPCRG COPD wellness assessment tools desktop helper for more information.<sup>11</sup>

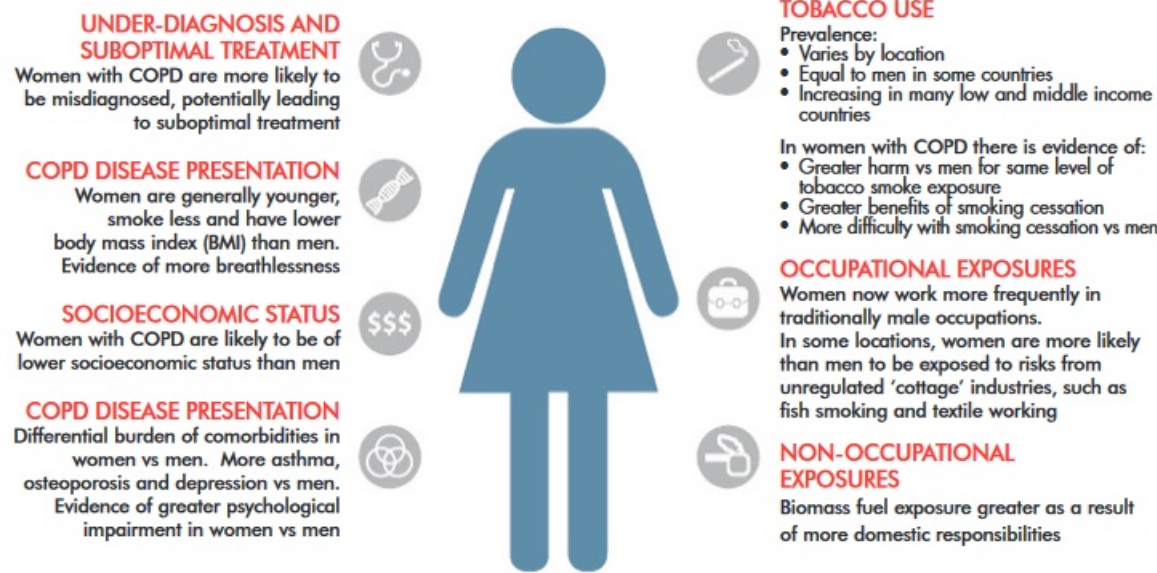
Asthma is more common in women,<sup>12</sup> so Asthma-COPD overlap (ACO) is also more prevalent in women than in men and both diagnoses need to be considered in order to institute correct treatment.

### DIFFERENT COMORBIDITIES: MORE DEPRESSION, ANXIETY AND OSTEOPOROSIS<sup>13</sup>

Women are more likely to suffer from depression and anxiety than men.<sup>14</sup> This is important as anxiety influences breathlessness, and depression and/or anxiety are strong determinants of quality of life. A prompt diagnosis enables the depression and/or anxiety to be appropriately managed and will improve quality of life. Simple questionnaires like PHQ4 and PHQ9 have been tested and validated in primary care. Osteoporosis, which may be a side effect of high dose inhaled and/or frequent oral corticosteroid use, is also more prevalent in women than

## Figure 1 The impact of COPD in women.

Reprinted from Chest, 151(3), Jenkins CR, Chapman KR, Donohue JF, Roche N, Tsiligianni I, Han MK. Improving the management of COPD in women, 686-696, Copyright (2017) with permission from Elsevier



### UNDER-DIAGNOSIS AND SUBOPTIMAL TREATMENT

Women with COPD are more likely to be misdiagnosed, potentially leading to suboptimal treatment

### COPD DISEASE PRESENTATION

Women are generally younger, smoke less and have lower body mass index (BMI) than men. Evidence of more breathlessness

### SOCIOECONOMIC STATUS

Women with COPD are likely to be of lower socioeconomic status than men

### COPD DISEASE PRESENTATION

Differential burden of comorbidities in women vs men. More asthma, osteoporosis and depression vs men. Evidence of greater psychological impairment in women vs men

### TOBACCO USE

Prevalence:

- Varies by location
- Equal to men in some countries
- Increasing in many low and middle income countries

In women with COPD there is evidence of:

- Greater harm vs men for same level of tobacco smoke exposure
- Greater benefits of smoking cessation
- More difficulty with smoking cessation vs men


### OCCUPATIONAL EXPOSURES

Women now work more frequently in traditionally male occupations. In some locations, women are more likely than men to be exposed to risks from unregulated 'cottage' industries, such as fish smoking and textile working

### NON-OCCUPATIONAL EXPOSURES

Biomass fuel exposure greater as a result of more domestic responsibilities

# COPD and mental health

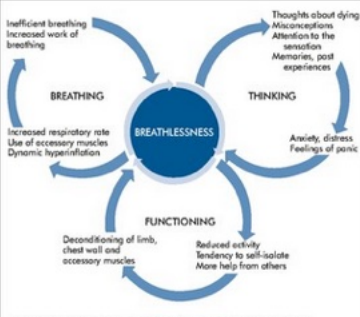

**DESKTOP HELPER**  
 No. 12 March 2022

## 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 50% with increasing COPD severity), and between 10% and 50% have comorbid anxiety.<sup>1-3</sup> Prevalence increases with age and as symptoms of COPD worsen, and they can co-exist.<sup>4-6</sup> Globally, about 20% of people smoke tobacco,<sup>7</sup> although this varies by country, and about 20% of them will develop COPD.<sup>8</sup> Despite this increased risk, smoking rates remain high following a diagnosis of COPD.<sup>9,10</sup> Many disease guidelines that focus on only one element are inadequate and guidance for PCPs is lacking.

**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.<sup>11</sup> Indeed, breathlessness, depression, anxiety and exercise tolerance are more correlated with health status than the widely used spirometric values.<sup>12</sup> People with COPD often report feelings of isolation and mental illness can increase this isolation due to social and self-imposed stigma resulting



**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.<sup>13</sup> 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.<sup>14</sup>

**TOBACCO USE AND POOR MENTAL HEALTH**  
While smoking rates are not high among people with COPD in all countries, there

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.

in a cycle of decline which can impact QoL and impair adherence to COPD treatment.<sup>13,14</sup>

Click on image to download the English version of the pdf.

With special thanks to Anna Spathis (contributor) and Steve Holmes, Nazim Uzzaman and Oscar Flores-Flores (reviewers)

Breathing and feeling well through universal access to right care

## COPD and Mental Health Slide set

## COPD and Mental Health Film - Amanda Barnard interviewing Ioanna Tsiligianni

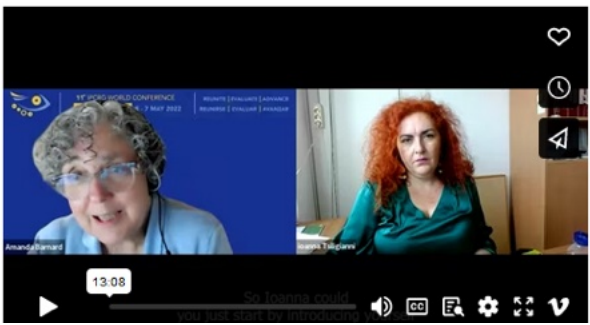


Table 1: Assessment of mental health problems in people with COPD

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](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.

## Remote respiratory consultations

### INTRODUCTION

Remote consultations have become a normal, and in some regions, the only, method of contact for routine visits for respiratory conditions during the COVID-19 pandemic. This has arisen to protect both patients and healthcare professionals. Our expectation is that this situation will influence future provision: new "desire lines" have been created and we anticipate both face to face and remote consultations will become a normal part of the model of respiratory care globally. Questions remain about the balance, how to protect patient choice, clinician and patient safety and how to reduce inequity. This desktop helper provides some answers. Policy implications are described separately.

### WHAT, WHERE, WHEN?

Remote respiratory consultation is any consultation without physical contact between the HCP and the patient, for example via videocall, telephone or web-based devices. It may also include consultations where patients are in a separate room and communication is via a telephone or intercom for viral infection control.

Telephone consultations have been a common feature of primary care (typically not reimbursed), usually accompanied by face to face later, the use of video-consultation was previously rare but has accelerated during the COVID-19 pandemic.

Primary care relies on developing close, continuous relationships with patients, using talk, eye contact and touch; where the way the patient behaves, walks and coughs drives the diagnosis. These and "doorknob"/secondary agenda moments can be hard to replicate remotely. In addition to patient choice, sustainability may be a challenge.

#### Use remote respiratory consultations for:

- Routine reviews
- Medication review, including polypharmacy
- Inhaler technique training and evaluation (single or group)
- Triage of known patient with new onset breathlessness
- Education and support (individual or group)
- Pulmonary rehabilitation (individual or group)

HCPs report online consultation fatigue and cognitive stress as well as a loss of connection, satisfaction and identity when the rituals of face to face contacts are lost.<sup>1</sup> But remote consultations reduce travel, improving the carbon footprint.

### Routine management & review

This is the best opportunity for remote consultations, with appropriate preparation by both HCPs and patients. However, consider:<sup>2-5</sup>

#### Suggests remote consultation:

- Patient preference eg neutral location
- Their comfort with technology, e.g. apps for monitoring; note-taking; record-keeping
- Access to smartphone or webcam
- Travel or parking difficulties, financial issues
- Value of involving family living apart from patient
- Opportunity to gain insight into home situation
- Has equipment for observations: O<sub>2</sub> saturation, temperature, blood pressure, peak flow
- Where face to face puts individual at risk

#### Suggests face to face:

- Preference for the traditional approach
- Complex needs
- Hearing or sight problems
- Low digital literacy
- No access to internet
- Low trust for accuracy, safety or confidentiality of remote consultation
- Lack of privacy at home

**Be conscious of how the community might perceive any variation in approach between patients. Avoid increasing inequity for those who cannot use or afford apps or other home-based technology.**

### Multidisciplinary consultations

Patients with multiple comorbidities may benefit from a joint remote consultation with their primary HCP and other specialists. However, be mindful that speaking with several people at the same time remotely can be overwhelming. Check understanding during the call, or in a follow-up call.

### Telephone triage<sup>6,7</sup>

This can be used to decide which patients need face to face contact. However, there

is currently limited evidence on value beyond infection control. If a patient reports any red flag symptoms during a remote consultation, conduct a usual urgent review either face to face or via video, or direct them to emergency care.<sup>8</sup>

### Assessment of exacerbations

If a patient is already under the care of a community respiratory service and is well-known to you, assessment of new onset breathlessness and decisions about the diagnosis, whether to escalate treatment and action may be possible remotely even using the telephone alone. Provide self-management tips; check these are understood.

### Diagnosis

IPCRG colleagues advise remote consultations for diagnosis are only appropriate when the need for infection control is paramount. They may be sufficient to assess probability of diagnosis and inform a trial of treatment alongside mitigation of any risk factors.<sup>9</sup> Video offers the closest match to a face-to-face consultation that employs looking and listening. Include a structured clinical assessment with a focus on meticulous history taking. If the patient has a peak flow meter, diaries can be useful. Questionnaires may help. Defer referral for additional testing such as spirometry (if this is available safely), chest X-ray or computed tomography but follow up later if circumstances allow. Asthma is a variable disease therefore several consultations will probably be needed to confirm the diagnosis and perhaps with more than one HCP if additional tests are needed.

Communicate this to the patient in terms of probability, explaining the diagnosis has been reached by their clinical team who 'suspect that' it is, for example, asthma. Help your patient navigate to approved information and ensure they are clear what to do if their symptoms do not improve or worsen. Be sure to spend time on your patient's understanding of the situation.

### Group consultations

Effective group and supportive consultations can be carried out remotely and offer the opportunity to gain from several experts in

one session. They may help the patient feel in the epicentre of care, and also give them confidence to ask more questions. This may spark support between the patients themselves, facilitated and guided by the HCP.

### PROVIDING THE REMOTE RESPIRATORY CONSULTATION

Prepare well: use checklists (green boxes). Follow a structured approach, noting types of talk (Figure 1), and need for "tidying up" after the consultation e.g. email or messaging with links to further information. Consider that the consultation may take longer than a face to face consultation when you might talk with the patient while simultaneously taking observations or evaluating their overall health status.

#### App-based technology: examples

- MyHealth (UK; paid for) eg myCOPD and myASTHMA
- SanIQ (Germany; paid for)
- Hailey™ (free): medication monitoring for asthma and COPD
- Smart Peak Flow (free): Smart sensor technology to track PEF
- AsthmaTuner (Swedish and English)
- MASK Air (for allergic rhinitis)

#### Checklist for HCPs (some could be done by trained receptionist/administration)

- Am I aware of this patient's needs?
- Can I access their medical history?
- Do I know the patient's goals?
- What is their physical, smoking and mental health status?
- Do they have access to a phone, smartphone, tablet or computer?
- Should I be expecting any questionnaire results or peak flow diary?
- Do they have access to respiratory function testing equipment?
- Can they use it correctly?
- Do I need to see them – if so, is a video-consultation possible?
- Is the family/home condition supportive?

#### Checklist for patients

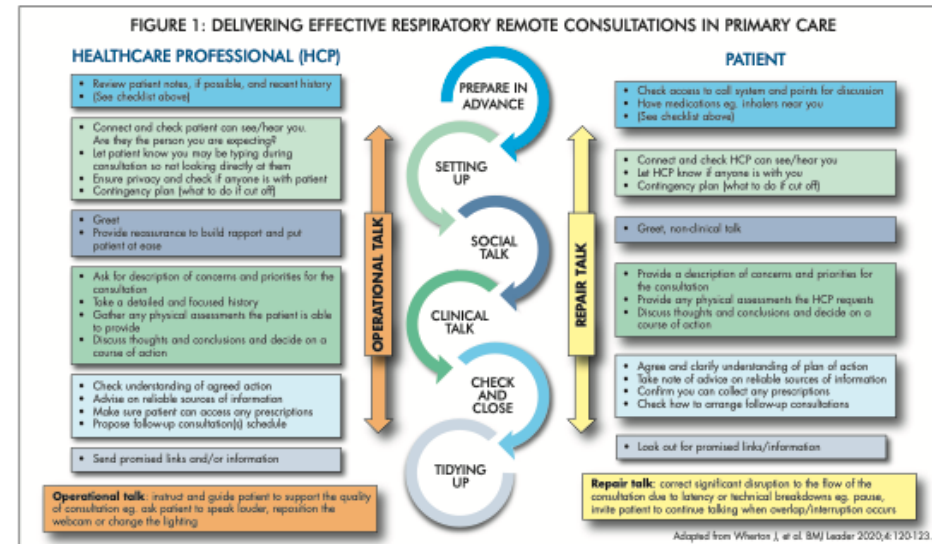
- Have I completed any tests, diary or questionnaires my HCP has sent?
- Have I prepared a list of questions for my HCP?
- Am I in a quiet and private place?
- Which symptoms are bothering me most at the moment?
- Do I have my medications to hand, including my inhaler(s)?
- Do I have a pen and paper to hand to make notes?
- Do I have my glasses with me (if I need them)?

\*You may prefer to complete these with your HCP during the consultation

#### Useful tests that can be done remotely\*

- **Vital signs** – temperature, pulse and respiratory rate - <https://www.youtube.com/watch?v=YCWtqKihQ>
- **Peak flow test** – <https://www.asthma.org.uk/advice/manage-your-asthma/peak-flow/>
- **1 minute Sit to stand**
- **Inhaler technique** – <https://www.asthma.org.uk/advice/inhaler-video/>
- **Pulse oximetry** – <https://www.youtube.com/watch?v=YCWtqKihQ>
- **Breathlessness questionnaires** – MRC Breathlessness Scale - [www.pcrs-uk.org/mrc-dyspnoea-scale](http://www.pcrs-uk.org/mrc-dyspnoea-scale) – Modified MRC - <https://academic.oup.com/acmed/article/67/6/496/4095219>
- **COPD questionnaires** – COPD Assessment Test - <https://www.catestonline.org/> – Clinical COPD Questionnaire (CCQ) - [www.cqj.net](http://www.cqj.net)
- **Asthma questionnaires** – Asthma Control Test - <https://www.asthmacontroltest.com> – CARAT - <https://core.ac.uk/download/pdf/62692897.pdf> – RCP 3 questions - <https://dx.nice.org.uk/topics/asthma/management/follow-up/#the-royal-college-of-physicians-3-questions>
- See IPCRG guide to tools here: [asthma](https://www.ipcr.org/resources/search-resources/users-guide-to-asthma-control-tools-2016) <https://www.ipcr.org/resources/search-resources/users-guide-to-asthma-control-tools-2016> and [COPD](https://www.ipcr.org/sites/ipcr/files/content/attachments/2019-10-23/ipcrg_users_guide_to_copd_wellness_tools.pdf) [https://www.ipcr.org/sites/ipcr/files/content/attachments/2019-10-23/ipcrg\\_users\\_guide\\_to\\_copd\\_wellness\\_tools.pdf](https://www.ipcr.org/sites/ipcr/files/content/attachments/2019-10-23/ipcrg_users_guide_to_copd_wellness_tools.pdf)

\* Links are to some open source videos and instructions – note none were designed specifically for remote consultations



References: 1. Hyman P. JAMA Intern Med. 2020;160(11):1417-1418. 2. Hold E, et al. JNR Med Inform 2019;7:e13042. 3. Chanin MA, et al. BMJ Global Health 2019;4:e001629. 4. Thyagarajan A, et al. BMC Open 2020;4:eggsppm20101020. 5. Iyengar K, et al. Clin Res New 2020;14:797-799. 6. McNulty B, et al. BMJ 2017;358:j1197. 7. Newbold J, et al. BMJ 2020;369:m1182. 8. Bearey T, et al. BMJ 2020;369:m2092.

Authors: **Sin Williams** (International Primary Care Respiratory Group, London), **Taney Lovagran** (International Primary Care Respiratory Group, London) supported by an expert panel of clinicians and patients. Reviewers: **Joseph Wherton** (University of Oxford, Oxford, UK), **Sandeep Sahi** (PURE Foundation, Pune, India).

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# PR

## DESKTOP HELPER No. 7 July 2017 Pulmonary Rehabilitation in the community

### A Referrer's Guide: The essential things you need to know about pulmonary rehabilitation to help breathless people breathe better, feel good and do more!

#### What is the essence of Pulmonary Rehabilitation?

Pulmonary rehabilitation (PR) is a structured programme tailored to an individual's needs to reduce their breathlessness, improve their quality of life (including their fear of breathlessness), and improve their exercise capacity. The interventions therefore improve people's ability to participate in daily life. It is an exercise-based programme accompanied by self-management education to help people live better with chronic lung disease. It is fundamental to, and should be integrated into, their overall care. PR has also been shown to reduce the need of expensive services such as hospital inpatient care. It can be delivered safely in the community, outside of hospital. Despite its proven clinical and cost-effectiveness, PR is widely underused!<sup>1</sup>

#### Who is PR for?

PR is for adults of all ages who are functionally limited by their breathlessness despite current management.

#### Why is it important?

People with chronic lung conditions (like COPD) become breathless with little exertion and this can be very frightening for them and their families or carers. As a result, people may avoid activities which make them breathless, leading to physical deconditioning, demoralisation and potentially social isolation.

There are two essential messages to communicate, even if difficult for many breathless people to understand and healthcare professionals to convey:

**"Breathlessness whilst moving around is NORMAL."**  
**"It is not harmful or dangerous to feel short of breath whilst moving."**



"This has given me a new lease of life. I go out again. You can combine having a lung condition with living a normal life. I no longer feel 50 years old, I feel 20 again!"

"When you learn to control your breathing, you can learn how to exercise properly."



"Until you [group facilitators] came along, my life was purgatory. I didn't know what was going on or how to cope. Now I know what to do when I'm breathless. I no longer go into a blind panic. I am in control of my breathing."

#### Your role in optimising acceptance and use of PR:

consultations: see the examples at [www.ipcrp.org/PR](http://www.ipcrp.org/PR)  
**ASK** about breathlessness: "How has breathlessness changed your life?"  
**What** troubles you most about being breathless? Use a Breathlessness Scale or MRC  
**ADVISE:** "PR helps you breathe better, feel good, do more/return to work (if applicable) and I strongly recommend it. Have a look at what other breathless people say about it."  
**ACT:** Patients interested in going to PR will require support. What you say to them will depend on what support is available and accessible. But every patient can be congratulated and informed about the next step.

"That is an important decision, well done. I will now refer you..." either "...to the Pulmonary Rehabilitation programme" or "...to see an expert who can assess your breathlessness and decide on the right programme for you." or  
**ACT:** "If they say no/just yet" "It is your choice of course so let me know if you change your mind and I will ask again when we next meet. It is a great opportunity to meet others with a similar experience, to learn to control your breathlessness and to reduce the impact of your breathlessness on your life."  
Provide information and education about their condition and how they can best live with and manage their problems and medications e.g. Using Wej and IPCRG. This will be reinforced in the programme.

#### Your role in optimising use of PR: planning

Highlighted examples at [www.ipcrp.org/PR](http://www.ipcrp.org/PR)

As a referrer you can contribute to getting improved outcomes and programme efficiency because there can be obstacles:

Diagnosis	GP referral	Assessment
Person is not diagnosed or receives wrong diagnosis	GP does not believe in or communicate to the person the importance & benefits of PR	Person does not consent for their assessment
Maintenance	Ongoing Programme	Start of Programme
Person does not maintain activity after the programme	Person does not complete the programme	Person does not turn up to begin their PR programme

1. Know the pathway and how to refer. Advocate for inclusive referral criteria and apply them.
2. Use "handoffs" between clinicians: e.g. refer to an expert to assess breathlessness or refer directly to a PR programme.
3. Take a systematic approach to assessment of breathlessness: MRC, breathlessness scales, etc.
4. Clarify the payment - know who will pay and how to get their commitment.
5. Be aware of what PR is available, go and see a session.
6. Anticipate individual concerns about perceived lack of benefit/feasibility: collect evidence of successes e.g. has adviser testimonials and photographs (with consent) or ask the provider for these. Be confident and enthusiastic.
7. Inform the wider community of its benefits and promote it using familiar and accessible language and stories.
8. Get feedback from the providers about an individual's progress and challenges (they will have 24 hours or more of direct contact).
9. Think about offering psychological support, which may be a psychologist in the programme or peer support, or direct care or referral to a psychology service.
10. Participate in audit to identify non-adherence. Modify your advice accordingly.
11. Plan for drop-outs and allow re-entry into the programme.

#### What marks out a good programme?

If there is a choice or you have the authority to influence provision, select a service that:  
+ Has trained staff with expertise in chronic lung disease  
+ Tailors the programme to the individual's specific physical, social, cognitive and psychological needs  
+ Offers on-the-spot personal advice on breathing techniques, and the psychological management of fear of breathlessness  
+ Prescribes and adjusts exercising using FITT principles (see over page).

programme of prescribed exercises preferably face-to-face but possibly structured home-based with telephone or internet support, and flexible educational approaches.<sup>4</sup> We have used our network's experience to offer guidance on how they do it.

## The basic elements can be relatively easy to set up:

1. **Location:** accessible. Assessment sites and group classes can be held in different locations. If transport is unavailable, consider home-based. Spread of locations may increase uptake.
2. **Facilities:** a. For assessment: space for initial walk test.  
b. For programme: aim for a space for groups of 6 or more, available for a minimum of 1.5 hours twice a week (1 hour exercise, 30 mins education) for a minimum of 6 weeks. Replicate normal life as far as possible e.g. air-conditioning is not necessary; run programmes outdoors. Non-healthcare environments are acceptable. Consider including induction in a facility participants might use afterwards.
3. **Timing:** should be flexible based on the needs of the participants to ensure maximum participation. Allow a rest day between exercise classes.
4. **Equipment:** can be varied and low-tech as long as it delivers aerobic and strength training e.g. walking aids, dumbbells, bottles with sand, resistance bands, ankle weights; a phone or clickers for timing and to count; printed scoring systems for perceived difficulty of exercise, self-recording sheets and diaries for home sessions. Add pulse oximeters for assessment. For the education sessions: inhalers and inhaler technique training devices.
5. **Referral and feedback processes:** negotiate this locally and aim for as many referral sources as possible. Write down the referral process and educate referrers about who, how and when to refer individuals (include current smokers and people using portable oxygen). Request referrer's direct phone number/email to enable easy communication especially about attendance and post PR performance.
6. **Templates and tools:** have simple templates and tools to support the assessment, prescription and progression of exercise and education for patients. More here
7. **Staff:** use trained, knowledgeable staff e.g. physical therapist, nurse specialist, family physician. There is no right answer to the skillmix required to assess, deliver and support ongoing rehabilitation safely. It will depend on the local context and standards. Aim to create a team who can travel to different locations.

## Importance of Exercise

The prescribed exercise programme must be personalised to gain benefit from the programme.

Exercise programmes should be designed according to the **FITT principle** and be as specific as a drug prescription:

**F**requency (dose) e.g. minimum 6 weeks; aerobic exercise 5 days a week: 2 in a PR programme, 3 at home

**I**ntensity (dose): use the initial test for endurance (minimum 60% VO<sub>2</sub> max) supported by a perceived exertion scale and repetitions for strength (e.g. 10 rep max, or 50-80% of 1 Rep max or OMNI) e.g. 3 x 10 with a rest between sets

**T**ime (duration): Aim for 30 minutes of continuous aerobic exercise (this doesn't include warm up and cool down). If 30 mins is not possible aim to accumulate 30 mins and try to reduce rests.

**T**ype (modality) e.g. aerobic: walking or cycling; strength: upper and lower limb exercises with weights (e.g. step-ups, sit to stand, biceps curls). Consider inclusion of flexibility, stretching and balance exercises as people with COPD are at risk of fracture due to osteoporosis and falls.

## Delivering the programme

- Create a positive, fun, supportive environment.
- Exercise should be progressed weekly aiming for 5 sessions per week of 30 mins.
- Home exercise should be prescribed and monitored. The home programme should be based on the centre-based model of delivery.

## Education: examples at [www.ipcrp.org/PR](http://www.ipcrp.org/PR)

Teach breathing control techniques to be used during and after exercise. Offer psychological support to enhance coping (e.g. with fear of breathlessness, illness exacerbations, adjustment to lifestyle and identify changes) and to address barriers to adherence and completion, e.g. Cambridge model. Also include: What is the condition and its cause(s); how to protect your lungs: smoking cessation and avoiding indoor biomass smoke, the role of physical activity; goal setting; relaxation; diet and nutrition; medicines optimisation; exacerbation plans; communication with the health team; advanced care and end of life; relapse prevention and maintaining changes.

## A Prescription for Success: examples [www.ipcrp.org/PR](http://www.ipcrp.org/PR)

- Run 6-week programme with 2 sessions a week. Groups tend to be for 6-

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## People with COPD deserve...

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### Management

- 3 A primary care team competent to classify the stage and type of their link to disease over time using spirometry, quality of life and exacerbation history and competent to assess other morbidities.
- 4 Long term holistic management according to the guidelines including vaccination, counselling and treatment if they are tobacco dependent, pharmacological and non-pharmacological treatment and referral eg to pulmonary rehabilitation, end of life care. [Desktop helpers 3 \(supportive & palliative approach\)](#), [4 \(quit smoking\)](#), [6 \(ICS and ICS withdrawal\)](#), [7 \(pulmonary rehabilitation\)](#), [8 \(women & COPD\)](#), [10 \(multi-morbidity\)](#) and [12 \(mental health\)](#), [www.ipcrq.org/copdwheel](http://www.ipcrq.org/copdwheel)
- 5 To be offered appropriate inhaler(s) according to their physical and cognitive abilities and characteristics and appropriate inhaler technique training by a primary care professional who knows the importance of eosinophil count and that bronchodilation is the basis of treatment. eg [www.rightbreathe.com](http://www.rightbreathe.com)
- 6 Yearly flu vaccination, pneumococcal, Tdap, herpes zoster and COVID-19 vaccinations according to their history and national schedule.
- 7 To agree an individualised self-management plan including recognition of exacerbations, smoking cessation, breathing exercises, nutrition, and physical activity taking into consideration mental and physical health, health literacy and access to care. [www.ipcrq.org/copdmagazine](http://www.ipcrq.org/copdmagazine)
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### Review

- 9 A structured assessment of their symptoms, wellbeing, inhalation technique, future risk and support needs at acceptable intervals with additional follow-up after an exacerbation or a change in management. [Desktop helper 3](#).

## When their COPD cannot be managed in their usual primary care

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People with COPD deserve

\*Interactive version available with hyperlinks. Scan the QR code.



# Right Breathe



## Inhaler prescribing information



### Inhalers

Search, filter and find the right inhaler from all those currently available

[➔ Inhalers](#)



### Spacers

Start your search for the right inhaler by choosing a spacer

[➔ Spacers](#)



### Pathways

Find the right inhaler by choosing a point on a local, national or global pathway

[➔ Pathways](#)



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## People with COPD deserve

7. To agree an individualised self-management plan including recognition of exacerbations, smoking cessation, breathing exercises, nutrition, and physical activity taking into consideration mental and

# COPD Magazine: edition 1

## [www.ipcrg.org/copdmagazine](http://www.ipcrg.org/copdmagazine)

- Now in English, Spanish, French, German, Italian, Portuguese, Bengali, Georgian
- Tested at Scientific Meeting Conversation Café Munich May 2023
- Further focus groups in UK and Netherlands



Click the image to open the magazine

IPCRCG is proud to present a new online magazine for people with COPD to support them to self manage their breathing and physical activity. It embeds links to videos our expert team has curated to educate, motivate and inspire.

**We encourage clinicians to recommend it to anyone diagnosed with COPD.**

IPCRCG hosted an international Steering Group of practising and academic physiotherapists with a special interest in COPD and a representative of European Lung Foundation. They developed the search strategy to guide Teesside University, UK, that IPCRCG commissioned to undertake the searches. The Steering Group also reviewed all the resources found by the search team to select those that they judged to be most clinically accurate and appropriate for a global audience of people with COPD.

The text was co-created by the Steering Group and IPCRCG. Images were sourced by IPCRCG from its network.

Please share this as widely as you can and recommend it to as many people with COPD as you can to help them Breathe well, move more and live better. If you are interested in translating this resource, please [contact us](#).

[Click here](#) to view the magazine.

### Edition 1 Translations

28 Nov 2023

COPD Magazine: Breathe Well, Move More, Live Better Edition 1 (Bengali/বাংলা)

[Other](#)

13 Apr 2023

COPD Magazine: Breathe Well, Move More, Live Better Edition 1 (French/Français)

[Other](#)

19 Jul 2023

COPD Magazine: Breathe Well, Move More, Live Better Edition 1 (Georgian/ქართული)

[Other](#)

13 Apr 2023

COPD Magazine: Breathe Well, Move More, Live Better Edition 1 (German/Deutsch)

[Other](#)

13 Apr 2023

COPD Magazine: Breathe Well, Move More, Live Better Edition 1 (Italian/Italiano)

[Other](#)

19 Jul 2023

COPD Magazine: Breathe Well, Move More, Live Better Edition 1 (Portuguese/Português)

[Other](#)

18 Sep 2023

COPD Magazine: Breathe Well, Move More, Live Better Edition 1 (Spanish/Español)

[Other](#)



# COPD Magazine: video diaries

- Response to feedback from edition 1 users
  - more videos of people with COPD talking about managing their condition everyday
- Participants will record a 10-minute video every day for 14 days talking unprompted about their condition for 5 minutes and responding to a prompt each day for 5 minutes, on topics including food, tobacco & alcohol, mood, travel, physical activity, sleep, use of technology, sex and relationships, everyday tasks, exacerbations, medicines
- Recruiters approached in 17 countries
- Recording planned for Jan-Feb 2024
- Videos will be analysed by Teesside University – been approved by Ethics.
- Also used as content for editions 2+3

# COPD Magazine: mood and mental health emojis

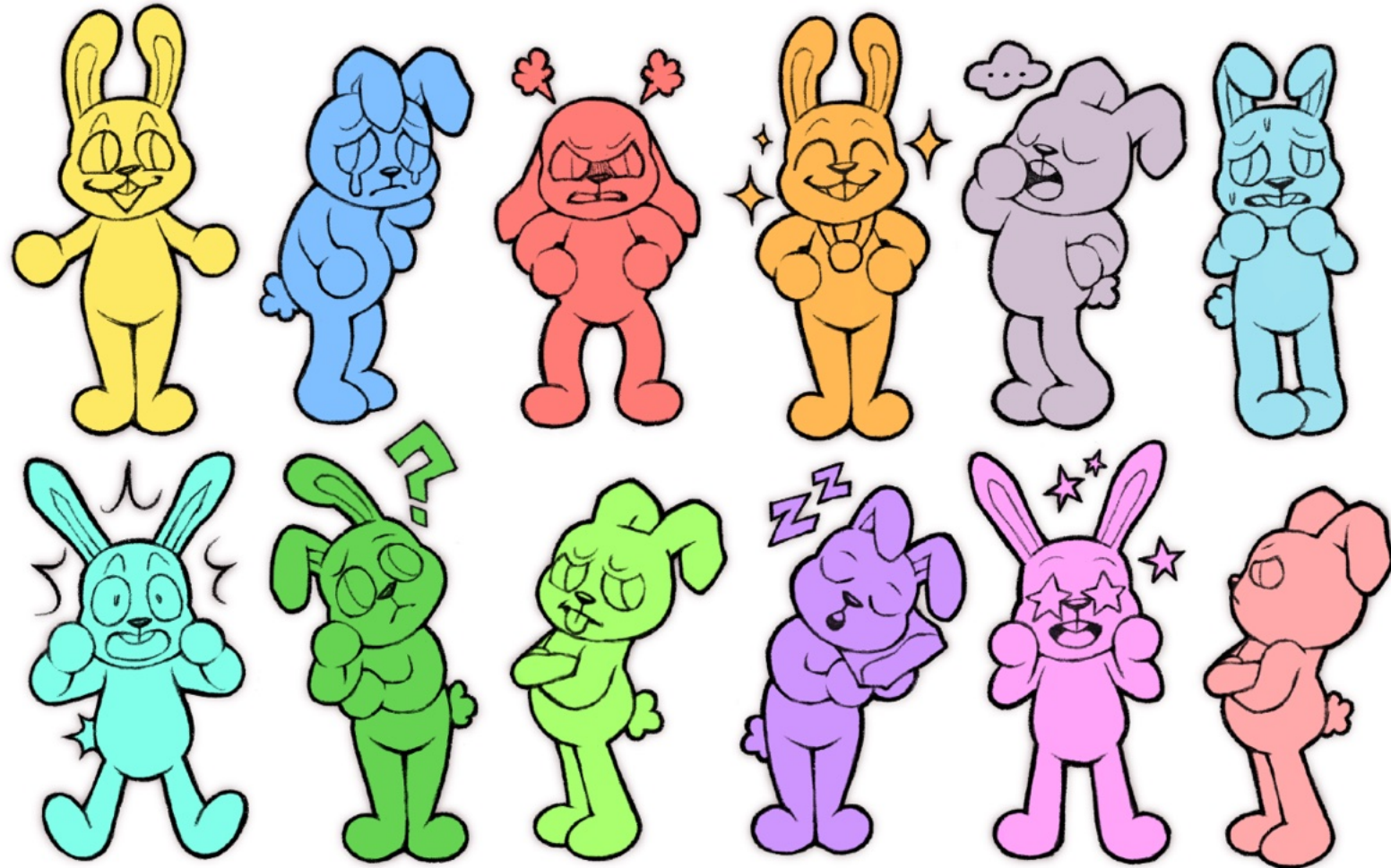


- Edition 2: address need for people with COPD to regularly assess their emotional wellbeing.
  - Feedback has suggested its easier to point to something rather than think about this unprompted
- IPCRG produced a brief based on the literature on taxonomy of emotions and identified selection criteria: readability, consistency and layout, ease of distinction, global health applicability and adherence to evidence base
- Reviewed drafts produced by class of cartooning MA students at Teesside University supervised by Julian Lawrence, providing 3 rounds of feedback to develop their designs

# COPD Magazine: mood and mental health emojis



- Rabbit cartoons selected due to positive feedback from users and global primary care contacts
- Ears and tails allow clear presentation of wide range of emotions
- Currently editing to align with taxonomy of emotions literature
- Process will create full set of 25 emotions for use in magazine and to be used in primary care.



# COPD Magazine: edition 2



1. **Digital literacy guide** (based on feedback)
2. **Edition 1 reflections, video diaries**
3. **Mood and mental health:** understanding emotions and breathlessness; identifying emotions; identifying depression and anxiety; coping and acceptance
4. **Energy, breathlessness and fatigue;** energy conservation/pacing; physical activity and energy expansion
5. **Sleep and COPD:** positioning for sleep; sleep hygiene; focus on quality of sleep
6. **Sex life**
7. **Nutrition:** relationship with COPD; food as fuel; identifying malnutrition and getting the right nutrition; what practically stops you from eating well (e.g. cost, effort, availability, difficulty eating)
8. **Glossary of terms**



# COPD Magazine: edition 3

1. Relationship with healthcare system
2. What can life look like with well-managed COPD?
3. Tobacco dependence
4. Staying safe and taking your medicines
5. Recognising flare-ups - 'bad day' or exacerbation? Key differences.
6. Action plans
7. When to seek medical help and how to explain your condition
8. Checklist for GP appointments and going into/out of hospital
9. Recovering from an exacerbation - how to get 'back on track'



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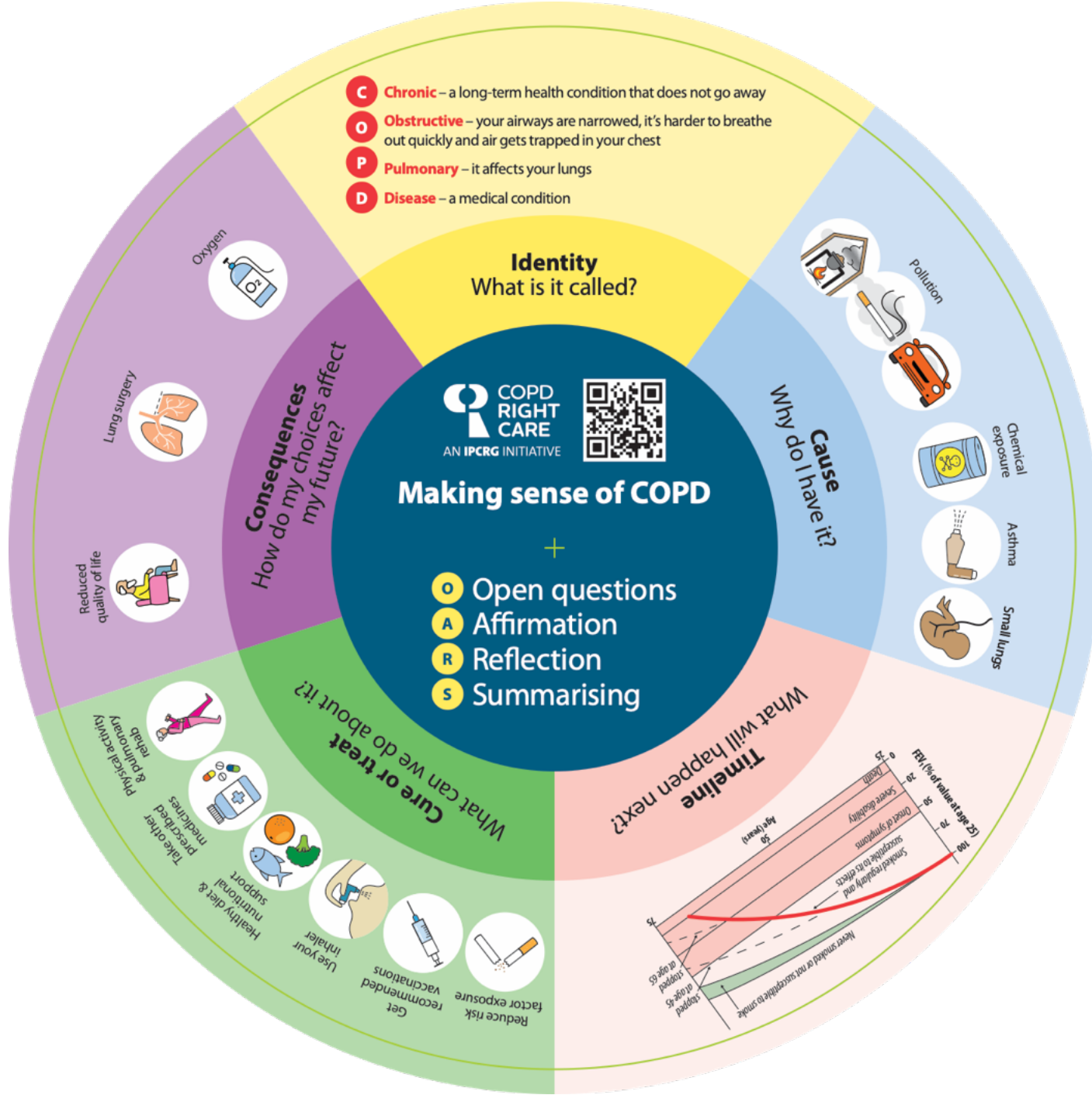


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\*Interactive version available with hyperlinks. Scan the QR code.





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

# Palliative approach



## DESKTOP HELPER

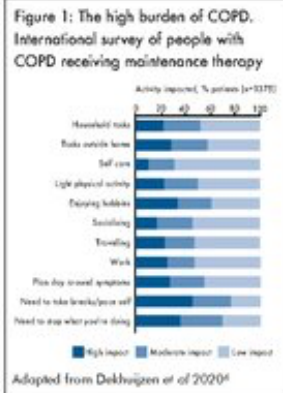
No. 3 April 2022

### 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.<sup>1</sup> 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



#### 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

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 – 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](http://www.ipcrg.org/dth12)) that helps establish and maintain rapport, assess the individual's needs and personalise your counselling and education responses.<sup>5</sup>

#### LEARNING ABOUT COMMUNITY

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 conversations 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:

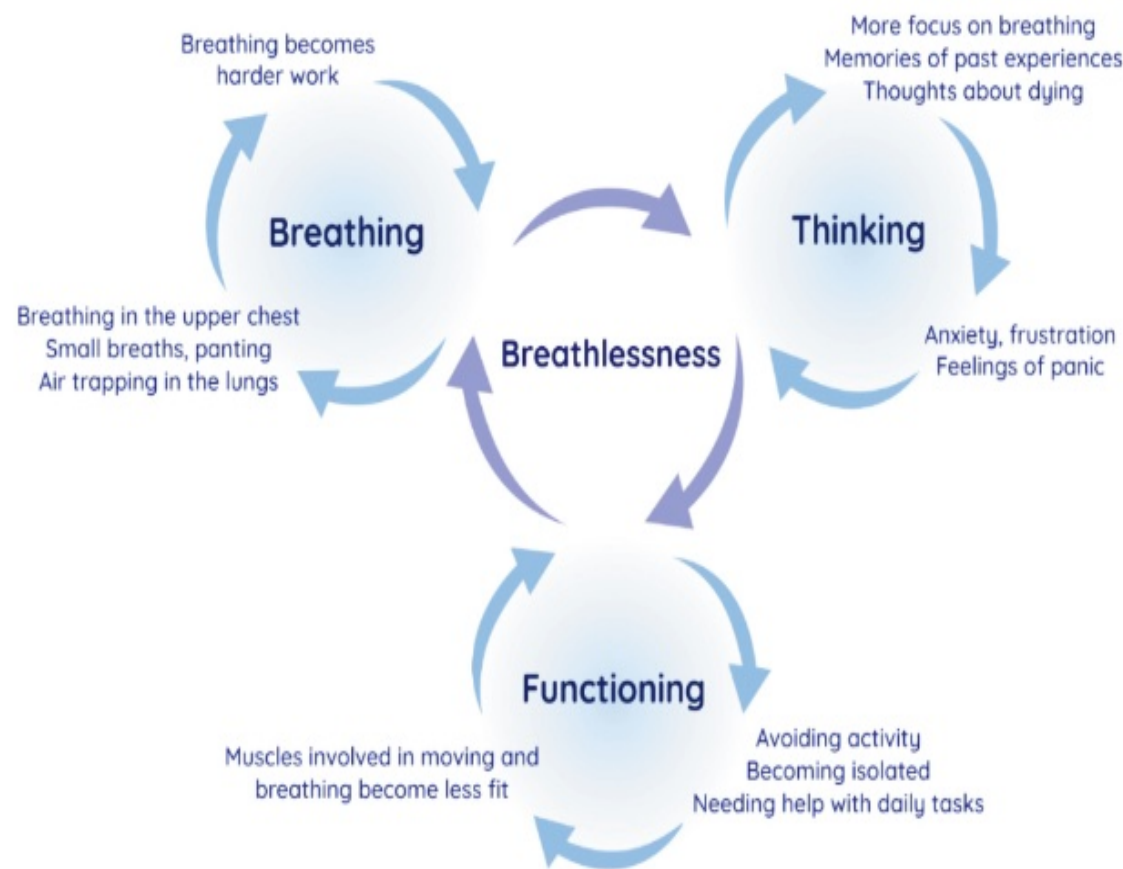
- What is your understanding of where you are with your COPD at this time?
- What are your fears and worries for the future?
- What are your goals.....if time is short?
- What outcomes/consequences/results would be unacceptable to you?

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>

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

Intervention	Purpose/aim
<b>Pulmonary rehabilitation</b>	Can relieve breathlessness and fatigue, improves emotional state and enhances person's sense of control over their condition – moderately large and clinically significant improvements
<b>Facial cooling with a fan or cool flannel.</b> See this video: <a href="https://www.youtube.com/watch?v=y5tBC5R8DYs">https://www.youtube.com/watch?v=y5tBC5R8DYs</a>	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
<b>Mindfulness/meditation</b>	20-minute mindful breathing reduces breathlessness in lung disease, and anxiety/depression in advanced disease; enhances non-evaluative attention and may increase self-efficacy
<b>Relaxation techniques</b>	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
<b>Pacing</b>	May help breathlessness as a component of an evidence-based complex intervention
<b>Walking aids</b>	Can improve exercise capacity
<b>Cognitive behavioural therapy</b>	Problem-solving approach that challenges unhelpful thoughts/behaviours; reduces anxiety in COPD in short term; increases pulmonary rehabilitation attendance
<b>Breathing techniques</b>	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
<b>Acupuncture/pressure</b>	Improves breathlessness in advanced disease and may reduce anxiety
<b>Inspiratory muscle training</b>	Conflicting evidence for impact on breathlessness; people need to be carefully selected

Figure 2: The Breathing-Thinking-Functioning (BTF) model<sup>10</sup>



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

**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. <i>J Am Med Dir Assoc</i> 2017;18:1096.e1-1096.e17. Heslop-Marshall K, et al. <i>ERJ Open Res</i> 2018;4:0094-2018. Pumar MI, et al. <i>J Thorac Dis</i> 2019;11(Suppl 17):S2238-S2253.
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Acupuncture/pressure	Improves breathlessness in advanced disease and may reduce anxiety.	von Trott P, et al. <i>J Pain Symptom Manage</i> 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. <i>Int J Chron Obstruct Pulmon Dis</i> 2009;4:1-8. Lord VM, et al. <i>BMC Pulm Med</i> 2010;10:41. McNamara RJ, et al. <i>Cochrane Database Syst Rev</i> 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. <i>Thorax</i> 2019;74:270-81. Lovell N, et al. <i>J Pain Symptom Manage</i> 2019;57:140-155.e2.
Social presence	Experimental evidence in healthy volunteers for social presence reducing breathless perception; patients describe	Herzog M, et al. <i>Biol Psychol</i> 2019;140:48-54.

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## PUBLICATIONS - EDITOR'S CHOICE

npj | primary care respiratory medicine

### **GOLD 2023: Highlights for Primary Care**

*npj Primary Care Respiratory Medicine* volume 33, Article number: 28 (2023)

The Global Initiative for Chronic Obstructive Lung Disease (GOLD) has issued its 2023 annual report with significant updates compared with former versions. In this article, the authors summarise the most relevant changes for a Primary Care audience.



# Statement agreed with WONCA Europe

## We call for governments and payers to:

### 1 Right incentives for primary care to practise population respiratory health

Negotiate and fund the right **incentives** for primary care to practise **population respiratory health**: to go where the people in need are

### 2 Generation of real-life evidence

Fund the generation of **real-life evidence** to feed respiratory guidelines that are useful in primary care (e.g. implementation research)

### 3 Diagnosis of chronic respiratory diseases in primary care

Invest in primary care so that it can provide a timely, accurate and objective (e.g. using spirometry) **diagnosis** of chronic respiratory diseases such as COPD and asthma, tobacco dependence and exposure to indoor air pollution

### 4 Chronic respiratory diseases management in primary care

Invest in primary care to **manage** chronic respiratory disease, tobacco dependence and exposure to indoor air pollution applying 'right care' principles that include understanding what's right for the individual patient in their local context and removing administrative barriers (e.g. enable right to prescribe respiratory treatments in primary care)

### 5 Training and education for primary care by primary care

Prioritise practical respiratory **peer-led training and education** for primary care by primary care

### 6 Primary care as population health educators

Endorse primary care as **population health educators** (e.g. about physical activity, nutrition, substance use and how to breathe well)

### 7 Universal access to treatment and training

Fund **universal access** to good quality affordable and effective **vaccinations, inhaled medicines and tobacco dependence treatment and training** in how to use them

### 8 Integrated care systems for respiratory health

Support the development of **integrated care** systems for respiratory health, involving patients, their families, multi-disciplinary health and social care and secondary care

### 9 Primary care societies leveraging change

Endorse **primary care societies that can leverage major clinician-led change** working locally, collaborating globally

International Primary Care  
Respiratory Group

**IPCRG**

Est. 2001

work locally  
collaborate globally

# 12th IPCRG

International Primary  
Care Respiratory Group  
World Conference

SAVE THE DATE

9-11  
MAY  
2024

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INTERNATIONAL  
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CENTRE (MAICC)



[www.ipcrg.org/  
athens2024](http://www.ipcrg.org/athens2024)