Richard ([00:00](https://www.rev.com/transcript-editor/Edit?token=Ble_1aXo-lc-v0FGmvanzKfhz1sgv3gnz4vmMpwXr36AevMOelctIPIxUDGVGkrLD3q623kvE-N8VbUhd4gNtMkqhCw&loadFrom=DocumentDeeplink&ts=0.7)):

Welcome to the Medical Insider COPD by Boehringer Ingelheim, a podcast offering a breath of fresh air to clinicians treating COPD across the world. My name is Dr. Richard Russell. I'm a consultant chest physician at Lymington New Forest Hospital, a senior clinical researcher at the University of Oxford and the editor-in-chief of the International Journal of COPD. I've also been recently made the clinical lead for respiratory medicine for Southeast England. As your host for this season of Medical Insider COPD, I'm here to bring you news and insights in COPD, right from the very source directly to you. So thank you for joining us today. Make sure you follow Medical Insider COPD to ensure you do not miss any of our exciting podcasts in this series or in the ones we've done already.

Richard ([01:98](https://www.rev.com/transcript-editor/Edit?token=41TnXwSysHIU0sS5vAxX8-AlwAit2QcJSkr0wwtQZi6akR5dGCk0dabI_h1lRtheloxdfS5R51njLziTJJOK9I941Ao&loadFrom=DocumentDeeplink&ts=46.11)):

Today we will delve into a publication we believe is well worth reading, and I think will change your practice. It's titled, "The prevalence of pulmonary embolisms amongst patients with COPD hospitalized with acute worsening of respiratory symptoms." I found this challenging and interesting, and I'm also going to look into an exciting and emerging topic from social media, especially in these times of COVID, which is singing in COPD and singing for breathing. This is really hot at the moment on social media. But first I am delighted to introduce you to today's guest who will be with me to discuss the topic of inhaled corticosteroids, ICS, in COPD. So welcome Dr. Marc Miravitlles from Barcelona, Spain.

Marc ([01:48](https://www.rev.com/transcript-editor/Edit?token=RggPXTShETHISPfJko4sF9lgOYE8yts_onxauZG-xM6v3Cc2VxVEFiPvZbWaWUIo9Zsk8svfOZxSMKbMFKCfDR2nfEs&loadFrom=DocumentDeeplink&ts=86.94)):

Hello Richard. I'm Marc Miravitlles. I'm a chest physician working in Vall d'Hebron Hospital in Barcelona. My main interest is COPD and also Alpha 1 antitrypsin deficiency. And it is a pleasure to share this conversation with you today.

Richard ([02:03](https://www.rev.com/transcript-editor/Edit?token=goJHlN5DcKRWetXmrK0BhIceJZIYqbiqCNfXdvmYFU07EI3AYibZJwwcUE-ZF0dsmTdI1Sbn0wgM9_dLBykBnwgOSEo&loadFrom=DocumentDeeplink&ts=101.68)):

Marc is an expert clinician in COPD. He's also been leading on guidelines and how we define COPD and crossover syndromes in COPD both for Spain, but also for the European Respiratory Society and indeed the world. So it's been great to work with Marc in the past. We're going to discuss the role of inhaled corticosteroids, ICS, in real world settings and how we use them. And can we use evidence to help us use them in a better way? So perhaps you can unpack for us briefly how patients are currently treated with ICS in COPD and why.

Marc ([02:34](https://www.rev.com/transcript-editor/Edit?token=OrchHavi4kVu4UIdv9ceC2jgZcwOa0vVBO5ghttIEObYgI422L6MMATwcnXxO7orgqJOMs0W2ER7sITTgJTlMmx6jC4&loadFrom=DocumentDeeplink&ts=137.55)):

Well, ICS are widely used in COPD, it is not difficult to understand the reason why. So many years ago we had not much, effective treatments, for patients with COPD and ICS were barely effective in asthma. And therefore, it was try to see if ICS could provide some benefits in our patients with COPD. And in fact, they do in some patients, but not as much as we see in asthma, what is clear is that not all patients with a COPD will respond to ICS, but in contrast, there are plenty of patients treated with these drugs all around the world. There are studies in Europe, in Asia, in Latin America, and in the US in which we see, a lot of patients are treated with these drugs, even without a clear indication.

Richard ([03:27](https://www.rev.com/transcript-editor/Edit?token=2m9K34LVvTraZFTysk4z9-94X8Pc0RdkOsBzCTlmJcSuyrHCjVjaNfw9UxFQb6JVik09-HGZwuIYaAE-kf69BRMMrEA&loadFrom=DocumentDeeplink&ts=192.45)):

So Marc, perhaps you can help us with this and describe to us who will do well with ICS, who needs ICS? And also those who'll do better with dual bronchodilators LAMA/LABA therapy.

Marc ([03:38](https://www.rev.com/transcript-editor/Edit?token=lT5YVGsKo-NNmgqzxyhWL8jszVnF9fihxA1hI99ckq4YmkqSZ87QOxoIR43WXvbZUYLiBz0BGlm9olsHPUCKsdks3Ro&loadFrom=DocumentDeeplink&ts=230.12)):

Well, this is a key question and we know that patients with COPD require bronchodilation and this is, I would say the treatment by default in COPD. So, patients with COPD should be provided with the optimal bronchodilation, but then there are some patients who despite optimal bronchodilation still have exacerbations. And a part of these patients have a particular phenotype, which is an eosinophilic phenotype characterized by these TH2, by this eosinophilic inflammation who respond very well to inhaled steroids. And therefore these are the target population for treatment with ICS. Patient, with exacerbation, despite optimal bronchodilation and an eosinophilic phenotype.

Richard ([04:27](https://www.rev.com/transcript-editor/Edit?token=VXeGUJqco6vqFG6XGe57c4StyzrHT5J61dx7ZNUKmK1v9MB0SZyKGRzRV0LtakvaGmXdMxqh1hBj9M4rnig3ZCbojY8&loadFrom=DocumentDeeplink&ts=197.92)):

Do you think we need to tailor treatments therefore to the population and to the patients we're seeing?

Marc ([04:30](https://www.rev.com/transcript-editor/Edit?token=QnXBI0WWc9Jg7TIwrMBikChMM3wo4jZYKwmSRURHrEGRU74eohpor0h9bTExIu05OiJsNXrd99p8MvsFxmpwR5lmK94&loadFrom=DocumentDeeplink&ts=208.62)):

Yes. I mean, we're now in the 21st century. And in the 21st century, we need to go for a more personalised approach to therapy. And fortunately, we have evidences now that allows us to really target the therapy to the patients that really respond to these drugs.

Richard ([04:45](https://www.rev.com/transcript-editor/Edit?token=x4Sf7b7oi4dfcWI8piAerBQCS6wsa9CYoS2xQrvbQJmxLkHQqenDKuPDSZg21cURVQYvApRS99jZLJ_iiQ6Z9tEHXg4&loadFrom=DocumentDeeplink&ts=276.18)):

So, do you think in real life, it's easy to identify these people?

Marc ([04:49](https://www.rev.com/transcript-editor/Edit?token=Sj6_b6zIHjDucQ0JNbdd1KJ7etajEVQPtxnrwKygEGfh4SBDvx6MNRfojz0yEuhnOxRLgNpMhygW72ZhHI2YucxVeVU&loadFrom=DocumentDeeplink&ts=279.78)):

Yes, fortunately we now know that patients who have these eosinophilic phenotype will respond. And the way that we can identify these patients is using a biomarker, which is the blood eosinophil. The clinical trials developed during the last decade have consistently shown how patients who have high blood eosinophils respond better to ICS in terms of reduction of exacerbations. In contrast, patients who have low or very low levels of eosinophils in blood, they show no respond to ICS and they may be at increased risk for side effects.

Richard ([05:28](https://www.rev.com/transcript-editor/Edit?token=dUGtiRGAb5H6PKTt-tcfg-bRDi7mfrUnUGvTkOM9Jc8VzIUELXQbHtg6b-poOCliGFI095zSXImcOzMJPUVlqgfhe94&loadFrom=DocumentDeeplink&ts=315.41)):

So why do you think we’ve overused ICS in the past in COPD?

Marc ([05:30](https://www.rev.com/transcript-editor/Edit?token=xkVUmiA-cMoh262geVLZu3DJKqKLpsdHwSdXlLGPXdSSxAnSoOFSDqm-g6qb1rMIsUe-h_gy6kS80r2S6WCIYlJEhqg&loadFrom=DocumentDeeplink&ts=323.04)):

Well, I think that there are two aspects. One is the lack of effective anti inflammatories. And the second is the previous experience of pulmonologists with ICS in asthma. So, we know that ICS changed the prognosis of asthma and all the outcomes in bronchial asthma. And therefore there was a tendency to say, "Well, this is also an obstructive disease, a bronchial disease, why not try ICS also in COPD?" And so I think these are the two factors. First, the lack of other anti-inflammatories. And second the previous experience, good experience with ICS in asthma.

Richard ([06:07](https://www.rev.com/transcript-editor/Edit?token=jJC31jjSR_CfHSYiQMy3mXqqanwm-XKR1CiEHrPuUWqH4bkFRJmEFGNwMzCslki2ZkuG_V0ts7U40_SOl-MpqlWPhMo&loadFrom=DocumentDeeplink&ts=364.95)):

I also think sometimes people are afraid that someone still may have asthma, they want to treat them with asthma. And I think we need to get the diagnosis right, and be really clear about that as well.

Marc ([06:16](https://www.rev.com/transcript-editor/Edit?token=iHCBTHmjnvnuMNo7ZioYkqjsV5oSHIZZGnG2gUifbw8Ll9tcj9vGboqlFliiAD0XPekjr255VqiAGg425YOQAr6ydoI&loadFrom=DocumentDeeplink&ts=375.13)):

That's true. There are also some patients that may share characteristics of COPD and asthma, and clearly these patients should receive an ICS, but these patients are probably not more than 15–20% of our patients with COPD.

Richard ([06:31](https://www.rev.com/transcript-editor/Edit?token=PCTtL0ofkiPdbepjs77DyVFXddBJTM6DxcKtz_4FS74qoSe00l8hDGBvD10YVt9oWq2Mfzbtm9LzpBX9ezmZokeZH6s&loadFrom=DocumentDeeplink&ts=391.67)):

Absolutely. So, coming on to how we can actually pick this biomarker, one of the things about measuring blood counts are they're very accurate and very easy to do, but do we actually have a cutoff value that we need to use when looking at the use of inhaled corticosteroids, ICS in COPD?

Marc ([06:48](https://www.rev.com/transcript-editor/Edit?token=DqXgCfUSnRVQWr2phlQVcostMSscXORCsLaJm1DvLMzGZ7j0Z-T7273Si-UWXT5hCy9wVubbJpwW40WWw4VW-6KK974&loadFrom=DocumentDeeplink&ts=409.69)):

This is a very important and frequent question. How can we use blood eosinophils in clinical practice? Well physicians like the cutoff saying, well, above this threshold, above this number, you have to do this and below this number, you have to do that. And probably is not that way. I mean, clearly patients who are just above or just below the cutoff are not so different, but what is clear and from different clinical trials, now we know that patients who have blood eosinophils higher than 300, they will show a very good respond to ICS. In contrast, patients with blood eosinophils below 100, they will probably show no response to ICS. And then there is a grey area between 100 and 300 in which we need to use other characteristics of the patients and other characteristics of the disease to help us decide which patient should be on ICS. But I think that this is the most accurate cutoffs that we can now provide for clinical practice.

Richard ([07:54](https://www.rev.com/transcript-editor/Edit?token=Sr9mnrlV6O13CGr-ZduqiqwyMz3eNltECEbHdd_rF9ha3Cz0gbiC-R7eJSh0GOYKW7LFg0CuWSknqWoyWKtoeVsh5zY&loadFrom=DocumentDeeplink&ts=477.61)):

So really what you're proposing and what's certainly been proposed in the guidelines, to a degree, is that we have two groups of patients, those who have the biomarkers and potential for response for inhaled corticosteroids ICS, and those who don't have those and would do better with dual bronchodilators.

Marc ([08:11](https://www.rev.com/transcript-editor/Edit?token=scg0fg_tshl9LelBKqJfUXfF3oVy569vHDYv3z9FE5hpJSC81kDgxcXUlk5JaCccqnPg3tgnU4BVzfq_gE3OOQPdCa8&loadFrom=DocumentDeeplink&ts=357.69)):

Well, optimal bronchodilation is the first step. Only after patients are on optimal bronchodilation, then we need to think about something else to add to the bronchodilators. But this should be the first step always in patients with COPD. And again, only those who, despite optimal or dual bronchodilation, still have exacerbations and have these eosinophilic phenotype are those who are required an inhaled corticosteroid.

Richard ([08:36](https://www.rev.com/transcript-editor/Edit?token=A9GIm84uQBn-Wkv-A1xNip2sQ1dozr7i-AmJPoIvUlVad-ZD5mChaquctvvJb_F01-xTFTah71_N8DyHTun5irgTlcI&loadFrom=DocumentDeeplink&ts=498.99)):

Do we have some studies which can help us unpack that a little further?

Marc ([08:40](https://www.rev.com/transcript-editor/Edit?token=A9GIm84uQBn-Wkv-A1xNip2sQ1dozr7i-AmJPoIvUlVad-ZD5mChaquctvvJb_F01-xTFTah71_N8DyHTun5irgTlcI&loadFrom=DocumentDeeplink&ts=498.99)):

Yes I mean we have large clinical trials conducted during the last years comparing triple therapy with dual bronchodilation, with LABA/LAMA. And in fact, they were quite consistent. What they show is that in general, I mean, when you use three drugs, you may get better results than with two. But if you look at the response, you will see that these better results with three drugs were driven by a subgroup that really responded very well to ICS. In contrast, there is another group in which you do not see this response and all these studies consistently show that patients with higher blood eosinophil counts were those that really did better with triple compared with dual bronchodilation. In fact, these are the basis for our guidelines that recommends the use of triple therapy or the use of ICS associated with bronchodilators in patients who have high blood eosinophil counts.

Richard ([09:34](https://www.rev.com/transcript-editor/Edit?token=iUZMqnShZBiz808zQ2PcVlB03EuM0aK1rBkgvdBezdJm5PJKmJhh1le9EhEkHdHl0FLI3sNU0-E9bU_dhbC74kf3Sbw&loadFrom=DocumentDeeplink&ts=556.63)):

Do you think these trials have got any limitations? I think sometimes we're worried about generalizability of such trials to the general population and also sometimes issues of withdrawal of drugs in the run in phase and in the early start of the trials, having a significant effect on the outcomes.

Marc ([09:52](https://www.rev.com/transcript-editor/Edit?token=l68GR15eC3FshM27EXyjEkyK0a8Ly7pPFZSI_sWHpgb8QkhLkTeJc751W9JU51-iQad_VTZUiC18wvS5X2RCxpYiMBA&loadFrom=DocumentDeeplink&ts=575.03)):

Well, these trials were conducted in patients who first had severe COPD and who had frequent or severe exacerbations despite treatment for COPD. So first they did not test initial therapy for COPD. These patients were all on inhaled therapies. And second, they were severe patients and with frequent exacerbations, which are not the majority of patients attended in primary care, for example. And second, as you mentioned, some of these trials, since these patients were already on treatment, some of these patients were already on ICS and they were randomized to dual bronchodilation and therefore they were discontinued from ICS and among these patients, there were some who had high blood eosinophil levels. In fact, some that, according to what we know now would respond to ICS and they were discontinued from ICS. So it is possible that the worst results observed in some patients with dual bronchodilation, may be due, or as a consequence of discontinuation of ICS in these patients.

Richard ([11:07](https://www.rev.com/transcript-editor/Edit?token=KpQU1d0uFmTdw4hGoEjXNx1oHT3Egq2bpVc3xjxWPc8cn8eDTY4r5KHL4aTiQ52UP5_SUOQCakrHQlnGBqcdxo630xc&loadFrom=DocumentDeeplink&ts=651.81)):

So it's really important to read these studies, particularly looking at the entry criteria and looking for early effects to see if these studies are generalizable and indeed are doing what we think they're doing. But I think in general, you're right. People who have the characteristics that predict response to ICS, so exacerbations and the eosinophils do better on triple therapy versus dual bronchodilator. Would you agree?

Marc ([11:30](https://www.rev.com/transcript-editor/Edit?token=NfMFqd-hVM4G0YlhKMKPnFtQAIHv-8sIUbznAeEhZjhVVrL5OrtHipRuDKp7H3cM6H-yVq2eOQxhy1U4BgSA_lQvKv8&loadFrom=DocumentDeeplink&ts=674.02)):

Yes, absolutely. I think that this is what we can now conclude from the results of the recent clinical trials.

Richard ([11:38](https://www.rev.com/transcript-editor/Edit?token=beUtlh3saypJ4ovWyw-Ubpu4p0vtt4jrL6TnZ932OlESC_QZwbEHN7fVsNIvlQh09iw2pH2UDCRuXnPFg8dV7SvgvVs&loadFrom=DocumentDeeplink&ts=683)):

So we've talked now about the benefits of therapy and who we need to give the right treatment to. But what about safety concerns? Because all drugs have side effects, Marc. Perhaps you could describe those for our ICS medications and also dual bronchodilators.

Marc ([11:54](https://www.rev.com/transcript-editor/Edit?token=pimJ0UuKWqTH73CjMAxIC5lDGMxnHcC_fqSKCS90lb_HvSgiAUldFN42QcxCT4q8KEoQtYDY3pZQCmRVXrhECiR5jGU&loadFrom=DocumentDeeplink&ts=719.91)):

You're right. I mean, all drugs may have side effects and we need to be aware of that. We need to be very aware of the safety profile of the drugs we are using. And in particular, in patients with COPD who used to be elderly with several comorbidities and poly-medicated. It is clear that the inhaled medications in general have a good safety profile, but there are some side effects. ICS may be associated with an increased risk of bacterial infections, respiratory bacterial infections, and with pneumonia, but also the long-term use of ICS may be associated with other side effects that usually are not observed in clinical trials because of the short duration of the clinical trials, such as osteoporosis, or of increased risk of diabetes. And even in some countries an increased risk of mycobacterial disease of tuberculosis. Therefore, it is important to identify the right patient to prescribe an ICS in order that the balance between benefits and risk is positive.

Richard ([13:03](https://www.rev.com/transcript-editor/Edit?token=qOH1BxT_P5ePHqYZhe7hKBhi8fbOHhnA812vD61-_C6W-HdkYaLsAZJxwj6D2QugwGX3lQRgBEdl8neg-NK_G5UHcLw&loadFrom=DocumentDeeplink&ts=793.72)):

Excellent. And I think it's really important as you just said, to give the right treatment to the right people, to maximize the benefit and minimize the risk, which is absolutely important. Marc, the other thing which occurs for those people that have been given ICS, maybe in error or not with the right indication is actually ICS withdrawal. There's been a recent ERS guideline on this. Perhaps you could tell us how you do this and what you think we can take away from the studies that help us about ICS withdrawal?

Marc ([13:35](https://www.rev.com/transcript-editor/Edit?token=7kELKwi2bUil0O3l1z60vlx6aUkbHq2Ox__4bVVlOs48ttA3r1Lb850oV6llV_tMNN-d_07rUHZ3Wzm_tdF_x1rR7ZI&loadFrom=DocumentDeeplink&ts=829.05)):

Yes, that's correct. There is a large number of patients in the community treated with ICS. Even patients with GOLD stages A and B who are infrequent exacerbators and therefore in which ICS are not indicated. And despite of that, obviously these patients may be at risk of developing side effects for the long-term use of these drugs. And this is why the European Respiratory Society developed this guideline evaluating the evidence from clinical trials on ICS discontinuation. After this careful evaluation of the evidence, there was a recommendation to consider ICS withdrawal in patients who had infrequent exacerbations and blood eosinophils below 300. So these patients with infrequent exacerbations and low eosinophilic profile, these patients should be discontinued from ICS to avoid, to prevent the development of side effects.

Richard ([14:38](https://www.rev.com/transcript-editor/Edit?token=vwnlruKk1Ip5kY7SVo7s_DxkYOn5OlPCqtuazhkOkGXz5s5lLHR5-sPu6TFDcfWNBd3SkvE1uKUYgFeh3mPN8a_R9fs&loadFrom=DocumentDeeplink&ts=899.42)):

Thank you, Marc. I'm now going to put you on the spot. Marc, perhaps you could summarize a couple of key takeaways from this discussion we've had about the role of ICS in COPD.

Marc ([14:48](https://www.rev.com/transcript-editor/Edit?token=L-MwFTekE83xJ-8OS7S_Q2yvHW-EtwbkdOFe6sw6eQFxl0aEhakQ1qu3p9a1jx8xyZeFIflh1Q0g8jBvKJ0AYb01jTw&loadFrom=DocumentDeeplink&ts=911)):

Well, I would say that ICS are the treatment by default in asthma, but long-acting bronchodilators are the treatment by default in COPD. We need to have this always in mind. ICS are very useful drugs for COPD, but for the patients who really respond to ICS. And now fortunately, we can identify these patients as patients who have frequent or severe exacerbations despite optimal bronchodilation and an eosinophilic phenotype. So fortunately, we now have a good biomarker and easy to use biomarker for clinical practice, and now it is our responsibility to use it and to identify patients who really require an ICS among our population with patients with COPD.

Richard ([15:35](https://www.rev.com/transcript-editor/Edit?token=m5cKTWl0asw5jkWOyNxvtAI3hP_h5lnd6N94_RRbsflS0ko8vSoR6atcncFxHVHgJHabz6t8ZHMqXpDBlw8N2UolaCA&loadFrom=DocumentDeeplink&ts=839.64)):

Thank you, Marc. In a moment, I'm going to be talking about the paper I've mentioned before, by Couturaud et al, a JAMA paper on the prevalence of pulmonary embolus in COPD. And then, I'm going to move on to the hot topic on social media, which is singing in COPD. But first, I must say thank you very much to Dr Marc Miravitlles, from Barcelona Spain, a guideline expert, and our expert for this discussion today. Thank you for an extremely interesting and helpful discussion, Marc.

Marc ([16:07](https://www.rev.com/transcript-editor/Edit?token=TiYLV_3NGNLx1RyJ7zUPHG_nxmwTs6s2ewdo5HuDSQBZOBqWdetVM1NQSlcTEzLK9Hc-KNnJU4Zh97CyyO0RMABBJY4&loadFrom=DocumentDeeplink&ts=987.78)):

Thank you Richard. It was my pleasure.

Richard ([16:10](https://www.rev.com/transcript-editor/Edit?token=eap9Z8owtpaqEyPb0zqCLIhN0eKwaC2IYln5jb6BpDuM_Bym_RBDpmE5uxJtInOofaoxCXP6riKq7xXmdYgp1iUj7jA&loadFrom=DocumentDeeplink&ts=993.71)):

Now I'm going to discuss an important paper. This is a paper I read recently, which challenged my practice and really made me think about how we look at COPD in acute exacerbations. This is by Couturaud et al, a French group, and is entitled "The prevalence of pulmonary embolism amongst patients with COPD hospitalized with acutely worsening respiratory symptoms." It was published in JAMA, the Journal of the American Medical Association this year, volume 325, number one, pages 59 to 68.

Richard ([16:39](https://www.rev.com/transcript-editor/Edit?token=OhRzh8GQ-kOz3W0hW1_eflLSZmW9REAQYqG8IOs4un5D3xxBC5Epk3_Hmm8OwjCo-akZPEDGSoDFJz8AvHCTOFHEdFM&loadFrom=DocumentDeeplink&ts=1023.77)):

They asked a really important question. "How common is pulmonary embolus in COPD patients admitted with breathlessness?" It's certainly been reported before, but do we really know what we're looking at here? They followed 740 consecutive patients in seven hospitals. Patients were admitted with acute exacerbations of COPD and underwent protocolized investigation for pulmonary embolus or PE. They looked at d-dimers, CTPA's, and also ultrasounded their legs. And their outcomes where the instance of pulmonary embolus in the first 48 hours, but also in the follow-up at three months. So in 740 patients, pulmonary embolus incidents was 5.9% in the 48 hours. So not insignificant.

Richard ([17:25](https://www.rev.com/transcript-editor/Edit?token=d1MltKSY4FP7JfgkytmonQ7IET_bJ0iD8eHwHOLjbUjWwbGH45zXiE5MKjT5lon8Rou8A466A9x9kqHo0o-uZqtp0po&loadFrom=DocumentDeeplink&ts=1069.55)):

In follow-up only another five patients had PEs. So a small number. However, the mortality of those people that had the PEs was 25.9% of that in admission and actually was only 5.2% in the follow-up figures. So this is a concern, should we systematically screen for pulmonary embolus in COPD at time of remission? Or maybe we should treat everyone for PE and maybe you rule it out. Certainly I think we need to think about this and consider doing some screening to pick up that significant number of people who, in spite of no extra symptoms, do have pulmonary embolus, as well as exacerbations of COPD.

Richard ([18:09](https://www.rev.com/transcript-editor/Edit?token=PygKvbhjwfBWrOhwkmAU4V6y484IeOlHNykQINaQsF_yG0oajx9LbzcgE-EFCAwTHq0yqBg0pEWxglbNWhO8PHJWiaY&loadFrom=DocumentDeeplink&ts=1116.1)):

And now, I'm really excited to share with you a little hot topic which I found on social media, which has got me interested. And indeed, I am now making changes to my practice to get my patients interested too. This is entitled Singing for Breathing. There are groups set up across the world in Germany, in UK, in New Zealand, Australia, Brazil, America, Scandinavia, China, and indeed Japan where patients with COPD are getting together to sing. This is all over social media. On Facebook, on Twitter. Patients are having fun and enjoying themselves, even in this COVID time, they're doing it safely using social platforms to actually get together and sing. We've known about this in research since 2005 and many papers have been published, showing benefits of singing. Improved wellbeing, decrease anxiety, improved exercise tolerance, and indeed a sense of community and wellbeing, which patients are really getting into.

Richard ([19:08](https://www.rev.com/transcript-editor/Edit?token=9VnVKEmvMl856GqMKEHNdd7WYE55tAqQcciYdyB28dl85t7a3uD_XB3CosjiW8Ec3VfFTZgVJ2KSSw6YqGEbQF0t1A0&loadFrom=DocumentDeeplink&ts=1174.97)):

And what's even better is that there are no side effects from singing together. The latest thing is harmonica bands and on social media now there are harmonica groups being set up by people with COPD. So I'm encouraging my patients to join these groups, to actually have some fun with singing together and indeed hopefully improve their lung function. So please encourage yours. I hope you've enjoyed this episode of Medical Insider COPD by Boehringer Ingelheim. And I look forward to welcoming you to our next podcast and hope you will enjoy the discussions we have on the interesting topics which are changing the lives of our patients with COPD.