**Podcast 1**

**The use of ICS in COPD: Discussing new European Respiratory Society Guidelines**

Richard ([00:04](https://www.rev.com/transcript-editor/Edit?token=QTeAzqObHK8ZuYUQbLhrYEhkddZBIimblGHdpyM4IJy8Z7UGPOmi5Ak7eAxg0iLXOdnbXfNKd1d7vnrrn8M0-0zwANM&loadFrom=DocumentDeeplink&ts=4.08)):

This podcast is intended for healthcare professionals outside the United Kingdom only. Welcome to the Medical Insider COPD by Boehringer Ingelheim, a podcast offering a breath of fresh air to clinicians treating COPD across the globe. My name is Dr. Richard Russell, and I'm delighted to be your moderator for this edition of the podcast. I'm a consultant chest physician at Lymington New Forest Hospital in the United Kingdom, a senior clinical researcher at the University of Oxford, and I'm the editor-in-chief of the International Journal of COPD. I'm here to bring you news and insights in COPD right from the source to you. Thank you for joining us today. If you enjoy what you hear, please be sure to subscribe and follow Medical Insider COPD to ensure that you do not miss out any of the exciting podcasts in this series.

Richard ([01:03](https://www.rev.com/transcript-editor/Edit?token=4tBElfv77LOKkVJWxdGgnBJvRcV2sqheDmDfLGM0JOnxUUgdBCWxmJkq_gFdGz0QdVa27xiyaovd7E0Ny7vZBmbkTKc&loadFrom=DocumentDeeplink&ts=63.57)):

Today, we're going to delve into a publication which we believe is worth reading and exciting. This is going to look at the healthcare encounters of COPD patients before they're diagnosed with COPD. We're also going to look at an emerging and important topic from social media. Today, we’re going to look at the importance of diet to COPD patients and the role diet plays in their disease. But firstly, I am proud to introduce today's guest who'll be here with me to discuss the topic of the ERS guidance on withdrawal of inhaled corticosteroids. Welcome my friend, Professor James Chalmers. Hello, James.

James ([01:35](https://www.rev.com/transcript-editor/Edit?token=E_Dp5pGjMVxwekvIUW_pkhIQFWtQ1K1By0VklOGxL9XVBn-Zw26DcPg_HKLdR1srW0sk6U3KbmE0xG_UCk32cQwNUFg&loadFrom=DocumentDeeplink&ts=95.12)):

Hi Richard, it's very nice to be joining you for this podcast.

Richard ([01:38](https://www.rev.com/transcript-editor/Edit?token=Kf7dQDcWn6P5UXtsF9v31QmQZQejmkYFvctUQXigSl3gA5usOdzlBIPZrwnn3MeRTzcs14OdfknRNqh9uXEHgxTqKUc&loadFrom=DocumentDeeplink&ts=98.44)):

So we're going to look at today, the topic of the ERS withdrawal of inhaled corticosteroids guidelines, which you've been very much involved with. James, tell the audience a little bit about yourself first of all, and how you came to be involved in this guideline.

James ([01:54](https://www.rev.com/transcript-editor/Edit?token=t4FgTM7LP0ZPNhCmqRZVZa7IUijbB7r94amoxYs10z12mB8OxqnpFMtfnvCINSOyhRjQFK8_prveyXVtH25-GsC0RNE&loadFrom=DocumentDeeplink&ts=114.02)):

Thank you, Richard. My name's Professor James Chalmers, I'm the British Lung Foundation Chair for Respiratory Research at the University of Dundee in the UK and a consultant chest physician. I've been managing COPD patients for many years as part of our difficult airways disease service here in the East of Scotland, and particularly have been struck by the issue of overprescription of inhaled corticosteroids, which we know is a problem across the UK and across the world, but is a difficult issue for us to tackle. How do we identify which patients will benefit from inhaled steroid? How do we know which patients won’t benefit with inhaled corticosteroid? And we noted that there was a lack of clear guidance in most European countries. And so that was the driver for this new short guideline from the European Respiratory Society to provide a bit of practical information about how to withdraw ICS.

Richard ([02:50](https://www.rev.com/transcript-editor/Edit?token=s8npfvN4krt32CwYxM7dBVtjFbjywOCZ2Uf9kWol23r6jRDs5yCgcDpb0sjsAtT7V6957sHjNPVU9wjono1eTVhy8Ho&loadFrom=DocumentDeeplink&ts=170.37)):

So James, before we get into the detail of the guidance on the withdrawal of ICS, tell us a little bit about why we need guidelines and how they help us in the treatment of COPD.

James ([02:59](https://www.rev.com/transcript-editor/Edit?token=ZkfwUn0lKQ1yqtbk0OWvaJDIFTSHHzWt3MlMFJ_DdEX5IKBkrJ3NCGnx6ovmU7swEYyYMB37-1z5ZIo_sQL3b1pJS2o&loadFrom=DocumentDeeplink&ts=179.71)):

I think we recognize that COPD is a complex disease. It's a heterogeneous disease, and finding the best treatment for the patient at a particular time, we do need guidance and we do need a synthesis of all of the available evidence because there's a lot of evidence in COPD. And so what guidelines do is providing a systematic literature review and then expert, information expert guidance, tell us what to do at a particular time in the majority of cases. And of course, guidelines are only guidelines. They tell you what the majority will benefit from, not what you should do in every particular case.

Richard ([03:36](https://www.rev.com/transcript-editor/Edit?token=76k5iPWJ3VV-C49HS7kenjRVLabMJ2QY05FtPS9ceNycx0G6bx5_mXSTB8esqFJvDGkWkfjbnj7TYUdEyh5DA-VZva4&loadFrom=DocumentDeeplink&ts=216.8)):

And these particular guidelines, why are they a little bit different?

James ([03:39](https://www.rev.com/transcript-editor/Edit?token=jYowbPLWSLfF12M42okptzOdVfov7gIO4EfbBV0hBk5F5nrt7gkiWlyQe2Qlf3xKO9TnX-0xFXagkmd0bP0qKzyUOpU&loadFrom=DocumentDeeplink&ts=219.19)):

So, this is the first short guideline from the ERS. Now, guidelines normally take about two years to develop, normally involve a panel of 20 or 30 people, but for some clinical issues, the evidence is changing very fast and you can't wait two or three years for a guideline. And so the ERS has introduced this concept of short guidelines, which take between six months and a year to reach a consensus, address a very small question rather than the management of an entire condition, and therefore, provide very practical advice for clinicians. And the inhaled steroid withdrawal was the first such guideline to be published in September of this year.

Richard ([04:18](https://www.rev.com/transcript-editor/Edit?token=p217hStyTQ4GGUFwiSPj1pfhFbnKTohjIY8y5nNM9ZxuBUAWce_HrvupanCgQe3F4raLapQQugHn6OAqRp2mCNZ5w3Q&loadFrom=DocumentDeeplink&ts=258.61)):

Thank you for that. So let's talk about inhaled corticosteroids in COPD. This has been a controversial area ever since I've been managing COPD patients. What are your views on appropriate and inappropriate use of inhaled corticosteroids in COPD?

James ([04:33](https://www.rev.com/transcript-editor/Edit?token=xpskYebYbjyrK5N31fj31yiDmQxuM4hDmLnBByaNahv4wBbvKRPStvAuU7FvNy1LCzSfeyhoMuKUMEQPg0mDzUH2SLE&loadFrom=DocumentDeeplink&ts=273.49)):

So I think we recognize that this is a problem. We've certainly done some research using the UK Clinical Practice Research Datalink, which shows that for those patients in GOLD A and B, which are patients without a history of frequent exacerbations, going back to 2005, up to 80% of those patients would get their first prescription being an ICS, whereas none of them really should be receiving an ICS as the first drug they get. That's gradually decreased over time, and we recognize that practice has improved. We're getting better at targeting ICS, but even at the last year in 2015 that we had data, around half would receive an inappropriate ICS as their first prescription. So this remains a big problem and we do need to provide guidance to primary care about when to start an ICS and which patients don't need an ICS.

Richard ([05:24](https://www.rev.com/transcript-editor/Edit?token=NiXU5RXBp9zwkixKMZt6om--SsnaCzL9GBuXQjlH9FmYPFTqX3DNnb85zhEklwAq24jYZbJQY8mJjRAxp6X8aWovj5A&loadFrom=DocumentDeeplink&ts=324.92)):

I think you've hit the nail on the head there. For me, inhaled corticosteroids are about who needs it before we talk about withdrawal and getting that right. So James, are there recommendations or are there patients that would particularly benefit from inhaled corticosteroids so we start the people on the right treatments?

James ([05:41](https://www.rev.com/transcript-editor/Edit?token=3Z9W94uGx0ISJqLt0lhG0YcAiMm06ZrJ9Bg14hXRVhhu7Pa8ECFBXE_F78fkK0N3LdZ6zpQULUYFaxsW-gP9W3vuDcA&loadFrom=DocumentDeeplink&ts=341.63)):

I think that's spot-on Richard. Prevention is better than cure. And if we can avoid inappropriate prescribing, that's better than trying to address the consequences of it. For me, I think the data that's emerged over the last few years around blood eosinophil counts, to me is very compelling and gives us a personalized medicine approach for the use of ICS. We now recognize that ICS's primary benefit is preventing exacerbations. So your first question is, is my patient somebody that suffers exacerbations? If the answer's no, they probably don't need an ICS unless they've got underlying asthma. And then your second question is, do they have the biology that I'm trying to treat with a steroid? And that biology is eosinophilic airway inflammation. And so for me, the combination of a history of exacerbations and the presence of significant eosinophilic inflammation is when ICS starts to go through your head. And the other thing for me is, has the patient been trialled on a dual bronchodilator? Because the vast majority of our patients can be controlled with dual bronchodilator therapy.

Richard ([06:50](https://www.rev.com/transcript-editor/Edit?token=06P_F49eQ4RqbHI3v0Ayfe6o1MgnHjK-DOUVBuzR3KP8Jr2YJTEMkW_wcT9PbACgjzx9Z0K_8c-IvCTHB3qRXO7nMzE&loadFrom=DocumentDeeplink&ts=410.31)):

And that's really important. They optimize as well first, we've got to get the inhaler technique right, give them the right drugs. I've real problems actually with cutoffs of eosinophil counts because eosinophil is a continuous variable biologically. Is there any good way of managing that?

James ([07:06](https://www.rev.com/transcript-editor/Edit?token=D9U13OG3L3MAHJM0vPBmDfcOt2KeVpwQJbi43NjyIYfQrf9eabYfXrQGQgbt8oK5h5CQXCzC-7z-8DwTdGgLo7KNukk&loadFrom=DocumentDeeplink&ts=426.83)):

You're right, cutoffs are difficult. Human biology doesn't work in terms of cutoffs, but our minds need something to hang on to in terms of how do I apply this to my practice? And so there's a tension there between what we know is biological reality, that there isn't a difference between somebody who has an eosinophil count of 299 or 301, and the need for something that we can use in our practice. So for me, I think cutoffs are useful as long as they're used in the right way. So if we say above 300, the patient's at higher risk of exacerbations, a high risk of eosinophilic inflammation, likely to benefit from an ICS. I think that's okay as long as we recognize that the person with 299 probably has the same risk, and as long as we think about it as a continuum rather than an eosinophilic or not.

Richard ([08:00](https://www.rev.com/transcript-editor/Edit?token=vLE8Ks29Do_pMM8ZpwihUtMCVQuf4pi9IZA845EGoTY_Am-o9YAODhyEJuy7HIj9l5wHKdzziFH5OYZDhacx1m49XM0&loadFrom=DocumentDeeplink&ts=480.82)):

So what you're really saying is, which I completely agree with, is really to look at the individual patient, get personalized, look at their risk factors and look at their biomarkers and put them together.

James ([08:11](https://www.rev.com/transcript-editor/Edit?token=bhagBK290Wm_N82FPz9YDii0i36r5N-HM8Qoh4DK93AwAcIi342BavKwhA0hkY5fdxA0W3KwvNhG9LFD8wId_K9rwDs&loadFrom=DocumentDeeplink&ts=491.01)):

I think that's right. So, I worry that we will get into a mindset where an eosinophil count of 350 means an ICS regardless of the other factors, and an eosinophil count of 150 means no ICS regardless of the other factors. And I think that's wrong. So I think the patient with an eosinophil count of 350, you still have to ask, do they exacerbate? Have they tried dual bronchodilator? Have they had pulmonary rehabilitation? Are they taking their medications appropriately? What's their smoking status? All of those things have to be taken into account. We're not reducing COPD down to a couple of cutoffs of eosinophil counts.

Richard ([08:49](https://www.rev.com/transcript-editor/Edit?token=j0hSU8HctVZuVxwJ-EHCuuVaC0Wt10p7x2SpIRjqYVrEr437ERRWvc6qYA_dfMFjKEttPOjhJg_omKz2Lqdyqcn5kvY&loadFrom=DocumentDeeplink&ts=529.32)):

Absolutely right. I think that's fantastic. So let's talk about ICS withdrawal. We know who we want to give ICS to, but as you've said, globally, maybe 50% of patients are inappropriately on ICS. So do you think ICS should be withdrawn and how do we do it?

James ([09:04](https://www.rev.com/transcript-editor/Edit?token=wHMgugq0ogcDKUyN1IRq-ftAqmO7gXF_0YUI00fTD7fMCGWFM_3vKDOTcVQAeoF6pI_yghIw_Sl4JyPDi5Q_qeaudro&loadFrom=DocumentDeeplink&ts=544.28)):

So I think ICS should be withdrawn in the right patients at the right time. And that was the question that we addressed in the inhaled steroid guidelines from the ERS. We identified a number of studies that have performed ICS withdrawal in a randomized controlled fashion and found that on average, so in the pooled analysis of those studies, ICS withdrawal didn't result in an increase in exacerbations, it didn't result in an increase in symptoms, and it resulted in only a small change in lung function that wasn't on average, clinically significant. So it suggests ICS withdrawal is appropriate, but these studies were predominantly conducted in populations with a low frequency of exacerbations.

James ([09:44](https://www.rev.com/transcript-editor/Edit?token=sylNOMzcH-_JCwSiiBqAJYwKrsTH-brW-5E_krFZXmtwE3R1iZWCHL1st_8CMo_RvK_unRXHfkMcMBMQXNt1_ygsO2Q&loadFrom=DocumentDeeplink&ts=584.9)):

And when we looked at the subgroups, if you withdrew ICS in patients with a low eosinophil count below 300, it was nearly always safe. And if you withdrew inhaled corticosteroids with eosinophils above 300, there was a significant increase in exacerbations. And so that leads us to some very clear recommendations, which is in patients that have no history of frequent exacerbations, so that's less than two per year, and they don't have an eosinophil count above 300, it's reasonable to consider ICS withdrawal. And converse to that, if the eosinophil count is high, regardless of the history of exacerbations, there is an increased risk of exacerbations. And so for the majority of those patients, you would not withdraw the ICS.

Richard ([10:33](https://www.rev.com/transcript-editor/Edit?token=76e0nLDYxgrAItneV2hTooc_rKuCXUWhs39gl9HO4z23CDbUxM2hRvUgATmyOTw7ac7UbNkUk7YX2KOD0AjxgKM0Dy8&loadFrom=DocumentDeeplink&ts=633.03)):

And another aspect of the studies that have looked at ICS withdrawal in COPD has been whether to take them down as a single step or in multiple steps with monitoring, particularly of the lung function and exacerbation risk. What did the guidelines say about that?

James ([10:44](https://www.rev.com/transcript-editor/Edit?token=FZD80BcPfavlky8rwWLQXSmuJFtu4B6VwCrAS9jT5t18a4NqcOxIRYSSUA6bJO5D7aK6DOg_pH0BsGMHcbpQK7oDHhQ&loadFrom=DocumentDeeplink&ts=644.79)):

So we looked at that question specifically. There was one trial which was the WISDOM Study that did a gradual withdrawal of ICS over three months. There were three studies that did an abrupt withdrawal of ICS. We found no difference in the outcomes between those studies, suggesting that both approaches were equally effective. And so for simplicity, because it avoids having to see the patient every month for three months, we made a recommendation that you can withdraw abruptly.

Richard ([11:11](https://www.rev.com/transcript-editor/Edit?token=Kni-5mE9tEzU7MKg0k32NS9XY5Go_HzJMI-jaACBV0wkgwNQkhxf2W1WiAOA_elAjl1bQS1XlaGQ7iIg8Bw2EzIAh94&loadFrom=DocumentDeeplink&ts=671.68)):

And did you make a recommendation or do you think that patients should be reviewed at some time point after that withdrawal to see how they are and also to check they're on optimal therapy, inhaler therapies are correct, and the inhaler technique is correct, et cetera?

James ([11:24](https://www.rev.com/transcript-editor/Edit?token=p4ytMa5vinXMAND4qaf04xxEFzFiWxJlzrQUUYRXt698PKoQYqVqig7ys7V0Sd5GvUdR3MyCkX4sxxKqxdYjS5GZDGU&loadFrom=DocumentDeeplink&ts=684.21)):

Yeah, so your latter points are very important. So I think when you're withdrawing ICS, you have to think, what am I replacing it with? And you should be replacing it with long acting bronchodilators. And in my practice, that's a dual bronchodilator. And we should ensure that the rest of their COPD management is optimized just as you've mentioned. In terms of follow-up, in a guideline, it's difficult to mandate a specific type of follow-up because all of the healthcare systems in Europe are different. But I think in general, we recommended that we should follow patients up to ensure that they're getting on okay. When you look at the studies, most patients, if they didn't have problems within the first month, didn't have problems. And so my own practice and my own recommendation would be to arrange to have some sort of review with the patient, which might be virtual, might be over the phone within the first month after ICS.

Richard ([12:15](https://www.rev.com/transcript-editor/Edit?token=sogH4KIGv_POhj37MpLYwm8G5OI6h3wZTrZ-arkLRxBlU09QLKbJSxFcs_i1xgOSWoxHtoCglTAGJHdjQ2tm0aPVmEE&loadFrom=DocumentDeeplink&ts=735.17)):

I think that makes sense. And I do that certainly similarly in my more severe patients in case they get a more significant drop in lung function because of the steroid effect more than anything else. And that reassures me perhaps more than the patient, but it is a good check to do. Were there any other safety concerns about either the use of or withdrawal of inhaled steroids?

James ([12:36](https://www.rev.com/transcript-editor/Edit?token=6XAseEebqu5Dm9dlFw_sOshr7P5ucxUcWz3z6L-sBe9SCotE_wcQgAyoFwgkQJpXU1aGf-_yIbE0wmcKUrNp8anF3mg&loadFrom=DocumentDeeplink&ts=756.85)):

No. I mean, I think when you look at the studies and when we look in detail at the role of ICS, I think this idea of safety concerns has been overblown somewhat. We don't talk about safety concerns with withdrawal of other medicines, and you wonder why are ICS so unique that we have this safety concern? And I think it's probably a hangover from asthma where we know that ICS are really highly effective medicines and patients can run into serious problems when they withdraw. When you look at the numbers needed to treat for ICS in COPD, these are drugs that have a modest effect on exacerbation frequency and minimal effects on the other end points. And so I don't think we need to overplay this issue of safety. I think what we need to be clear with patients about is why we're withdrawing, what the possible consequences of withdrawing are, which includes small changes in lung function or exacerbations down the line, and then make an informed decision with our patients and follow up, as you've said.

Richard ([13:35](https://www.rev.com/transcript-editor/Edit?token=A03AW63Q99TWCSBDeoIT3nDAgh0p-ESjorn01Wir3dwkafQckPQl5Iim4ec8K6JJ2vXVX975Mlwl8wBjPi87Ssf3S4s&loadFrom=DocumentDeeplink&ts=820.46)):

Did the guideline at all consider the risk of pneumonia with inhaled corticosteroids as part of the decision making to withdraw that treatment?

James ([13:40](https://www.rev.com/transcript-editor/Edit?token=wUdVfQg35JkiKk7dJ5VN1U61bj_4xrBJ_EFCtVN3GPa_I3woWVpp7SNzRNpRadRiXoUEvlPTYimGjJB-leqhXPjwLNI&loadFrom=DocumentDeeplink&ts=828.48)):

We did. So I think the adverse effects of steroids, as well as the inappropriate use are part of the driver for having a guideline. We haven't specifically recommended to withdraw in patients that are having pneumonias, but clearly, it would shift the balance of risks and benefits if a patient is having a clear evidence of ICS related side effects, which isn't just pneumonia, it's also things like bruising and other side effects.

Richard ([14:06](https://www.rev.com/transcript-editor/Edit?token=DMl0MUx4rEhrjuktojhG7rBRp_6C4Xmap026IalScIE84Y8mYZICMxu4YH_PXFVWxud3ztZqpAuD82zSaorTvXp2gYA&loadFrom=DocumentDeeplink&ts=871.62)):

So James, thank you for talking about the withdrawal aspect of that. If we do withdraw people from inhaled corticosteroids, what options do we have to make sure they're optimized going forward, both from a symptom point of view and if they've got low eosinophils, reduction in exacerbation risk?

James ([14:23](https://www.rev.com/transcript-editor/Edit?token=G388OvzkZcYk1bIVWvZHXY_Y9nFXRiPGlmZNPCK9brpoUrVwbvZ3e_AfgabwmwnwOajOb_pf4wO167OuDthkPvcIL98&loadFrom=DocumentDeeplink&ts=887.55)):

So I think that's a great question. I think when we withdraw the ICS, it's important to be clear about what we're replacing it with. And that will almost always be a dual bronchodilator. And that's the best way to optimize patients from a bronchodilation point of view and a breathlessness point of view. If the patient's dominant problem is breathlessness, which it will be in the majority of these patients, it's important to remember that pulmonary rehabilitation is the most effective treatment we have for breathlessness. And it's also important to remember that for example, current smoking appears to reduce the benefit associated with ICS. And so if patients are still smoking, they need to be made aware that that will be reducing the effectiveness of their therapies and should be given every support to quit. And so I think it's about having a holistic approach to the management of our COPD patients, particularly around breathlessness and making clear that the inhaled steroid is not the appropriate treatment for the breathless patient.

Richard ([15:20](https://www.rev.com/transcript-editor/Edit?token=lG8hodL7tW3bxMSnJBVepiO4wNOgEH8RF5zqIigTONCU4F_EzpkiLUDzUmFkXYWKKRJCHqAEb6zIOBAQCz_hioCafy4&loadFrom=DocumentDeeplink&ts=945.35)):

Well, that's a great plug in, a really important plug for pulmonary rehabilitation, which we would want for all of our patients to have. And particularly in this post-COVID world, many of them were actually now deconditioned because of being shielded and isolated. So we need to really be pushing to get pulmonary rehab back going again and take that forward. So I think that's really important. James, what about any other drug therapies that may reduce exacerbations in people with low eosinophils? People use azithromycin sometimes.

James ([15:47](https://www.rev.com/transcript-editor/Edit?token=cqjXdl1USreUJtl9eO-5sGsq1jd_is1g81wTB2PE6dLdzgfYOU5iYkrWsVMQYp7AQUltodGjT9jGBdGyBbB7jO7GjWI&loadFrom=DocumentDeeplink&ts=972.39)):

Yeah, so the GOLD algorithm, I think now validates the approach that some of us have been taking over a number of years, which is that in those patients where they don't have raised eosinophil counts and you think the disease is primarily neutrophil driven, macrolides like azithromycin, have very powerful anti-inflammatory effects as well as antimicrobial effects because neutrophilic inflammation in COPD is often driven by bacterial colonization. And so I use azithromycin frequently in patients that have repetitive exacerbations without the eosinophilia, and it can be highly effective as demonstrated in a number of clinical trials.

Richard ([16:28](https://www.rev.com/transcript-editor/Edit?token=P89l2NAJ8JTt2hSVninVpY7qVuZokpB0_a2_0j2LDoTqJ0G6U2gJVo7vsU6UbizPIfJVTz-zm3NpBZpJeb_qc4MiAjA&loadFrom=DocumentDeeplink&ts=1012.99)):

And I guess the other thing which we've seen in the last six months and certainly has impacted my practice enormously with 85% reduction in exacerbation rate has been that social isolation reduces the impact of viruses humans give to humans in COPD. Have you seen the same?

James ([16:45](https://www.rev.com/transcript-editor/Edit?token=8SpCDS0DuHCwRymTUDpBZEVETq6_pxfAmHEONQLogUe9QKiTzajXa7S8jxFWwke0_3lFiwmWOZ_SBgVp25veHKyz7Y4&loadFrom=DocumentDeeplink&ts=1029.88)):

We have, and there's now published data coming from a number of countries suggesting that there's been a drop in COPD exacerbation and COPD hospitalizations associated with the lockdown. I've been saying partially in jest to my patients for many years that the grandchildren are the enemy, but it does seem to be true. We know that rhinovirus probably causes 50% of COPD exacerbations. So we shouldn't be surprised that measures to prevent viral transmission result in reduced exacerbations, but it does pose a challenge to us about how we use that knowledge now going forward, because you've already touched on the side effects of isolation are deconditioning and worsening breathlessness.

Richard ([17:29](https://www.rev.com/transcript-editor/Edit?token=33SZ4OTBgVRsaiMFcMUB93EW4ri4fslMEagvlRJnoEYrdcc6X8lpxzutJ8v6LFYHoUMhuea-5FSoyY662YCPXADwEOI&loadFrom=DocumentDeeplink&ts=1075.28)):

And that's exactly what my patients are telling me. So, yes. Before we move on to the second section of the podcast where we talk about a significant paper, the healthcare encounters before people are diagnosed with COPD, James, I wonder if you could just summarize the guidelines for us.

James ([17:44](https://www.rev.com/transcript-editor/Edit?token=bQqFDGV4hUOTTgRr_uHNs6UR7IH66pMQwWYkKtxNEmm1ZV7yEcqDAg71Pvd7OctAOgkbTxqR9JYt95o8Pe4BpmmHLY0&loadFrom=DocumentDeeplink&ts=1089.38)):

Absolutely, Richard. So, first, ERS short guideline inhaled corticosteroid withdrawal, our recommendations are in those patients that don't have a history of frequent exacerbations and don't have evidence of blood eosinophilia, consider inhaled corticosteroid withdrawal, changing the patient to a dual bronchodilator.

Richard ([18:04](https://www.rev.com/transcript-editor/Edit?token=ZO-xxyd_AmcZA1xqsV0S2PY_AcbsmKDYHVegD7gJWw2ZkyMtXN04xSnbzNrqHs9gCTvd-N0-3xehc5WWAT67c47_NEc&loadFrom=DocumentDeeplink&ts=1109.09)):

James, thank you very much. It's been an absolute pleasure talking with you today and I hope you'll stay with us while we discuss the paper on healthcare system encounters before the diagnosis of COPD. And thank you for your contribution again to the podcast.

James ([18:19](https://www.rev.com/transcript-editor/Edit?token=AXauZguz_Zos3vDi3YKdKyOIDM-FLE0DiSTxsQr96-R2nEtsrv1yldRSTjS2zKdEg4O73jMR72nLAQv-zO6uqZ_ysEM&loadFrom=DocumentDeeplink&ts=1123.98)):

Thank you Richard.

Richard ([18:24](https://www.rev.com/transcript-editor/Edit?token=GLzUJ8VSwbC6HFaqhEPJSFqDQ7q-zRHxGRU9QgmIV1By8nFu1T3aEwpe6valSkCRkoVmvopsVCBI2GCzZxsxqGl19_Q&loadFrom=DocumentDeeplink&ts=1129.75)):

Before I bring you the final part of our podcast, looking at hot topics in social media and COPD, particularly focusing on diet, I'm going to unpack for you a new paper, which I think is important and relevant to us and to our patients. This was published in Thorax this year, volume 75, pages 100 and 115, and was written by Kate Johnson and colleagues from the University of British Columbia in Vancouver. It was titled Healthcare System Encounters Before COPD Diagnosis: A Registry-Based Longitudinal Cohort Study. The question they're asking was, what are patients doing before we diagnose them with COPD? Are they actually seeing healthcare providers? And are we therefore missing opportunities for an earlier diagnosis? When we meet people with COPD now and we diagnose them, we often do this in an opportunistic way. There's no real screening. And therefore, we're missing out on early detection, smoking cessation, exercise encouragement, and of course, medication.

Richard ([19:20](https://www.rev.com/transcript-editor/Edit?token=_DfvPsWuThUK5OOXtS4sbx6h6edYnEn9lx1fHQyc7aHi1v8fYRRb2CX6jaGkoUdg55SxcoHHJivm7i_zAdaMKHarv3g&loadFrom=DocumentDeeplink&ts=1185.32)):

So what this group did was take a large Canadian database and match COPD patients with non-COPD patients for age, sex, and income. They looked at over 112,000 pairs and found some quite stunning research results. Particularly, patients go and see pharmacists. In the year before diagnosis, a COPD patient will go to see the pharmacist 17 times compared with 10 for the non-COPD patient.

Richard ([19:45](https://www.rev.com/transcript-editor/Edit?token=b5TA_AYz4gF6U_E8yLsfzOsE5tylGrpZoHsFKMa-_2Rf8BUYojJ3db0vkidshD0Z0__hwkh_qA_urMRyIBzcfrWq_BU&loadFrom=DocumentDeeplink&ts=1265.85)):

So they found that 85% of patients had visited primary care with a respiratory disease problem in the five years prior to diagnosis. So what does this mean? It means we're missing diagnostic opportunities. We need to look at questionnaires, symptom scores, and maybe even spirometry, and particularly focus perhaps on the pharmacy-led encounters, with COPD patients clearly going there many times more than non-COPD patients. So I hope this paper's interested you. I hope it has encouraged you to look harder and better for your COPD patients and set up new COPD diagnostic services.

Richard ([20:27](https://www.rev.com/transcript-editor/Edit?token=7S-G6PSzAGO3P9RrLOrTnnExvbQsMdZGzX9BieF39eTIcHX0QbEKwwgj7GRjLeG094OHccBpXiy4hwFWsrvETXCeftU&loadFrom=DocumentDeeplink&ts=1307.24)):

So now, let me talk to you about a hot topic that's currently trending on social media in the world of COPD. This is particularly relevant to patients. We're going to talk about diet. Do we perhaps neglect that a little bit in COPD and COPD management? I think we perhaps do. If you look at social media though, this is a very hot topic for our patients. One of the people I follow on Twitter is COPD Athlete. This is Australian gentleman who's got severe COPD who has transformed his life when he got the diagnosis and has run three Iron Mans and six marathons. His motto is never let a disease define you. And one of his key issues is diet. He had to lose weight, and so he changed his diet to do that. We need to understand what's important to patients. And actually, by doing that, we can actually engage with them to improve structure and adherence to consultations and better outcomes for our patients.

Richard ([21:18](https://www.rev.com/transcript-editor/Edit?token=ClacDJBib3v0JtYfruAc0kFa475Re3zpQ89OZP0KAGzPAo1-CKO6HoiUysI2vMjxdI8il5I6pAjS8k2XWe5v1wl3RIc&loadFrom=DocumentDeeplink&ts=1358.16)):

So if they think nutrition is important, don't we need to? I think we need to understand what to eat, when to eat, and also how to eat. And there's been evidence about this both particularly on lowering carbohydrates in diets, increasing fat and protein content can actually reduce carbon dioxide production, improve muscle function, and improve lung function. This has been shown as far back as 1987 in a paper in the Journal of the American Medical Association. There's also evidence that if you do use a so-called ketogenic diet, the ketone metabolites can block proinflammatory pathways in COPD, and that's perhaps reduce exacerbation rate. So is this something we should be looking into? Yes, I think it is. It's important to our patients, so I think we need to take it seriously too.

Richard ([22:06](https://www.rev.com/transcript-editor/Edit?token=oLAHH9FP3t3liELBS7Ms63_Cwzs5qsV811hRU7TKd8UbQQCP7P4xGKT2_PvxZ21Y1sfDZvGueKaZW1fGCsV5EtPC03s&loadFrom=DocumentDeeplink&ts=1406.52)):

Thank you for joining me on this podcast today. I hope you've enjoyed listening to this as much as I have making it. I want to thank Professor James Chalmers for unpacking the new guidance into withdrawal of inhaled corticosteroids in COPD, and I hope you’ll subscribe to the rest of the series. We'll be bringing you more highlights from congresses, important papers, and hot topics on social media. Thank you for being a part of the COPD world and contributing to the care of our patients.