

Transforming Care in Asthma and Chronic Obstructive Pulmonary Disease: An Expert View



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Interview Summary

Across the globe, millions of people live with chronic respiratory diseases, including chronic obstructive pulmonary disease (COPD) and asthma. Despite treatment advances, many patients do not always receive a timely diagnosis, impacting optimal care for their condition, which is a situation that must be addressed.

Scientific and medical innovation has brought patients a variety of treatments, such as combination therapies and biologics. In clinical practice, this translates to healthcare professionals being able to offer patients more options to manage their condition, including therapies that treat the underlying biology of the disease.

While there has been progress in the respiratory community in achieving earlier diagnosis and initiating appropriate treatment, there is still more to be done. EMJ interviewed Celeste Porsbjerg, Professor of Severe Asthma in the Department of Respiratory Medicine at Bispebjerg Hospital, Copenhagen, Denmark, where they head the severe asthma clinic, and chair the Respiratory Research Unit; and COPD expert John Hurst, Professor of Respiratory Medicine at University College London (UCL), UK, to hear their perspectives on where the respiratory community is going in terms of aiming for asthma remission and more proactive treatment of COPD, and what the focus should be in the future.

INTRODUCTION

Nearly 550 million people worldwide live with chronic respiratory diseases.¹ One of those diseases is asthma, which is one of the world's most common non-communicable diseases, affecting 262 million people globally.² It is estimated that approximately 3–10% of that population (up to 26 million patients) have severe asthma,^{3,4} which can cause frequent exacerbations, significant limitations on lung function, and a reduced quality of life.³⁻⁶

Compared with those with mild asthma, patients with severe asthma have twice the risk of asthma-related hospitalisations, and are at an increased risk of mortality.⁷

Similarly, COPD is a major public health problem. It affects 391 million people worldwide,⁸ and is the third leading cause of death globally.⁹ COPD is one component of a group of lung diseases, including chronic bronchitis and emphysema, that cause airflow obstruction and breathing-related problems. Many patients who live with the condition lose years of productive life due to disability and poor quality of life.^{10,11}

THE CURRENT STATUS OF SEVERE ASTHMA CARE

Celeste Porsbjerg

Porsbjerg shared their thoughts on the treatment of asthma, and shifting the focus from disease control to remission.

The Term Asthma Conjures Up Images of Children Coughing and Wheezing on Sports Pitches. People Often Assume That It Is a Minor Ailment That Can Be Managed With Occasional Use of an Inhaler. The Reality Is That It Significantly Affects the Lives of Millions of People Globally. Can You Tell Us More About How Asthma Can Impact People's Lives, and Why It Is so Hard to Treat?

The misconceptions about asthma are often a barrier to effective treatment for all patients with the condition. Symptoms include coughing, wheezing, and shortness of breath, which vary over time, and in severity and frequency.^{12,13} Exacerbations (or asthma attacks) are physically

threatening, and emotionally significant for many patients with asthma;¹⁴ severe asthma, however, can be more complex, and have an even greater impact on quality of life.^{3,5,15} Most patients with severe asthma are in the middle of their lives. They have full-time jobs, families, and a lot of commitments. Symptoms limit their ability to work and lead a normal, active, and socially engaged life.^{7,16} It is also under-recognised that if patients with severe asthma are not treated early, they can lose lung function, which could be fatal.⁶

Another barrier to patients receiving appropriate treatment is awareness. In my experience, many patients and some general practitioners do not know that not all asthma is mild, and that severe asthma has serious implications for a patient's health. At Severe Heterogeneous Asthma Research collaboration, Patient-centred (SHARP), which I co-chair, we hear from patients across Europe that it is difficult to find a respiratory physician who is knowledgeable about how to manage severe asthma.

How Do You Go About Treating Such a Complex Disease With So Many Different Parameters?

Classically, healthcare professionals focus on suppressing inflammation early by using inhaled steroids.^{3,17} In patients with severe asthma, we increase the dose of steroids, and give additional drugs to dilate the airways. Now, we are moving from general suppression of inflammation with inhaled steroids to targeted anti-inflammatory biologics. This mirrors the previous shift in treatment from systemic to inhaled steroids, which enabled us to give anti-inflammatory treatment at the site of the disease. Similarly, with biologics, we can have a much more precise effect on the pathway we want to target.

In the clinical setting, the patients we consider for a biologic need to have tried the standard inhaled treatment first, and despite taking their medication correctly and having comorbidities managed, they still have recurrent exacerbations, or need to be on oral steroids.³

Unfortunately, despite advancements in therapies, oral steroids are overused. More than one-third of patients with severe asthma globally rely on the maintenance use of oral steroids to manage their symptoms, and reduce the

risk of exacerbations.^{3,16,18} While they can help in emergency settings, over-reliance on these medications can cause significant health risks for patients with severe asthma, including weight gain, diabetes, osteoporosis, cataracts, hypertension, adrenal suppression, depression, and anxiety.¹⁹⁻²¹

The problem is that there is no standardised diagnostic pathway, so patients with severe asthma are often not referred to the appropriate specialist. Meanwhile, they are prescribed multiple courses of oral steroids for repeat exacerbations. If we had accredited severe asthma clinics, that would help us to convey the simple message that if patients are on the maximum dose of standard medications and have had two exacerbations, they should be referred to a severe asthma clinic. Defined quality standards for severe asthma clinics could also help us to move towards more ambitious, yet attainable, goals, like remission, instead of just aiming for control.

Being Able to Shift From Asthma Control to Asthma Remission Would Have Considerable Impact on Patients. Why Is the Global Respiratory Community Aiming to Make the Shift Now?

Because we see that we can make the shift, both in the clinic and in studies.²²⁻²⁵ It is good to remember that patients with severe asthma receiving standard treatments still have poorly controlled disease, with frequent exacerbations and hospitalisations.²⁴ We are seeing now that when we give them a biologic, the impact on their symptoms and quality of life reduces the burden of disease, and gets closer to what we would consider clinical remission.

Remission is a common concept with other diseases, but it is still being established in asthma. What other disease states have had, that asthma is now catching up to, is the widespread availability of effective, targeted therapies that are being studied against defined remission criteria.²⁶⁻²⁸

Now that we have targeted therapies like biologics, and are seeing that remission is attainable, our focus is on the best timing to initiate a biologic to achieve remission in each individual patient. I would imagine that, in the future, we will be able to identify patients at risk of severe asthma, who should start biologic treatment earlier in their disease course than

currently occurs. In fact, we have just published results from NORDSTAR, describing distinct trajectories of development of severe asthma, which brings us one step closer to detecting patients at risk earlier in the course of their disease.²⁹

In Your Opinion, What Are the Key Areas That Physicians Should Be Thinking About to Create Better Outcomes for Patients With Severe Asthma?

We need to proactively listen to our patients with asthma because they will not necessarily tell us how sick they really are. Instead of managing their disease so they can maintain their quality of life, we often find many patients adapt their life to the disease by becoming inactive, meaning they stop exercising and recede from productivity. We have to be proactive, and look for signs of instability. That means asking patients if they have periods where things get worse, and whether they often have infections. We can also use technology, like smartphones or watches, to ask patients to tell us their step count, and measure their activity before and after treatments to get additional context on when and why they might be feeling breathless. Sometimes, we have to help our patients to realise that their disease is uncontrolled, and that we can do something about it. It is only when they are effectively treated that some patients realise how ill they were.

Clinical trials have shown that biologic therapies have the potential to help patients achieve clinical remission, prevent exacerbations, reduce dependence on maintenance systemic corticosteroid therapy, and improve symptoms and quality of life.^{22,30,31} Physicians need to be aware that they can make a huge difference to the lives of these patients when they identify those with exacerbations and treat them appropriately.

THE CURRENT STATUS OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE CARE

John Hurst

Hurst outlined their views on current treatment practices in COPD, and how to move towards more proactive management to prevent premature mortality.

How Would You Describe the Treatment and Diagnosis of Chronic Obstructive Pulmonary Disease Today? Why Is There an Urgency to Improve Care for Patients?

The clinical mindset of treating COPD is different to that of other chronic diseases, like diabetes. In many places around the world, a diabetes diagnosis results in a multidisciplinary approach, and a patient education programme that highlights the future risk of poor outcomes, including cardiorenal events, and empowers patients to look after their health to reduce those risks. In contrast, it is unusual to get this type of approach when COPD is diagnosed, and we do not use the language of risk, even though we know that many patients will be at risk of disease progression and cardiopulmonary events. This needs to change.

The Global Initiative for Chronic Obstructive Lung Disease (GOLD) report highlights prevention of mortality in patients with COPD as an achievable treatment goal.³² However, there is insufficient action towards this goal because of deficiencies in management, and in public awareness.

If you are fortunate enough to receive a diagnosis in a timely way, when it comes to therapies, treatment was historically aimed at relief of symptoms, principally breathlessness. However, over the course of my 20 years of professional life, there has been a shift from symptom control to recognising the risks associated with exacerbations, including rapid lung function decline, poor quality of life, and increased risk of mortality. Now, there is an emerging emphasis on reducing the risk of cardiopulmonary events and premature death as a result of COPD too, and that is partly because of new evidence coming forward. We have traditionally tried to prevent mortality by addressing smoking cessation, providing long-term oxygen therapy or pulmonary rehabilitation, but we now have expert groups like GOLD recognising mortality as a treatment goal,³² and evidence that appropriate intervention to prevent COPD exacerbations may reduce the risk of cardiovascular events, respiratory events, and death.^{33,34} That is starting to reframe the conversations around COPD-driven mortality.

As a Respiratory Clinician, What Are Your Thoughts on Earlier Diagnosis and Preventive Therapies?

A greater focus on proactive identification of people with COPD is crucial. Most people who

have been diagnosed with COPD are identified relatively late in the disease course,³⁵ but a more proactive approach to diagnosis can drive prompt intervention in those with milder disease. At that point, there is real opportunity to intervene before the development of permanent structural lung damage, which limits people's activities, and reduces their health status. To do this requires a lot of education for the public, policymakers, and healthcare practitioners, and this is where efforts like CT-based lung cancer and spirometry screening programmes fit in.

We need to work together through multidisciplinary teams, including primary care, cardiologists, pulmonologists, nurses, and respiratory therapists, to identify patients at risk, and take action to prevent flare-ups. Supranational organisations, such as the International Respiratory Coalition (IRC), bring together respiratory societies, industry, and patient groups, in the hope that together we are louder than we are individually about voicing the need for prompt and risk-based intervention in COPD.

What Do Recent Data We Are Seeing on the Link Between a Chronic Obstructive Pulmonary Disease Exacerbation and Cardiovascular Events Tell Us Needs to Change in Chronic Obstructive Pulmonary Disease Clinical Practice?

There is a strong connection between COPD exacerbations and cardiovascular events. Up to 32% of deaths in patients with COPD are due to cardiovascular causes.³⁶ Further insights on the link between COPD exacerbations and cardiovascular events were provided by the EXACOS-CV study, presented at the American Thoracic Society (ATS) 2023 International Conference, which found a 32% increase in the risk of acute cardiovascular events in the 30 days following a moderate or severe acute exacerbation of COPD, even in those newly diagnosed.³⁷ This risk stayed elevated for 1 year.³⁷ More data on this topic were presented at the European Society of Cardiology (ESC) congress, and further information is expected at the European Respiratory Society (ERS) congress.

These data add to the evidence mandating the need to consider cardiopulmonary risk, meaning the risk both to the lung and the heart, as part of standard COPD assessment. In particular, we

need to break inertia, and take a preventative approach that will improve quality of care, and prompt treatment. We have to ask ourselves: what has gone wrong, and what can we do better? Although more evidence is needed, interventions that reduce the risk of COPD exacerbations may also reduce the risk of cardiovascular events.³⁸

The connection with cardiovascular events might provide an avenue to look at COPD differently. For example, the general public recognise that heart attacks are serious, and are aware of the symptoms. Pointing out that appropriate intervention for COPD can also reduce cardiopulmonary risk could be a way to empower people with COPD to expect better care. Another area that needs to change is the way cardiovascular risk is estimated in people with COPD by cardiologists and primary care physicians. Education around cardiopulmonary risk in COPD is needed to effect change in all of these areas.

How Do We Shift Toward More Proactive Treatment in Chronic Obstructive Pulmonary Disease to Prevent Mortality?

To shift to a more proactive approach, we need to be focused on identifying patients with COPD, so we can work to prevent exacerbations and, based on recent evidence, reduce cardiopulmonary risk with a focus on mortality reduction.

Unfortunately, there has been a tolerance in the respiratory community to the occurrence of exacerbations, and treatment is sometimes withheld because the risk/benefit conversation has not happened, or is not properly understood.

The mindset around COPD stems from the way respiratory clinicians have been trained to think. The development of new data is inviting us to ask ourselves whether the current approach is the most effective one. We now have biomarkers, such as blood eosinophils, to guide the likelihood of benefit from inhaled corticosteroids,³⁹ which can be added to estimation of pneumonia risk,

and feeds into the concept of treatable traits or phenotyping in COPD. Too often outside of specialist care, COPD is seen as a 'one-size-fits-all' condition, whereas actually, one of the reasons it is an amazing job to be a COPD clinician is that COPD is endlessly varied, and no two patients are the same.

WHAT EXCITES YOU ABOUT THE FUTURE OF RESPIRATORY CARE?

Celeste Porsbjerg and John Hurst

Interviews with both doctors shone a light on the high level of activity in respiratory care. They were each excited about different things. When asking Hurst, they said: "I work in the field of COPD care because I am excited about the possibilities. New developments have made me even more optimistic about the future. The respiratory community is moving its thought processes to earlier diagnosis and treatment; there are policy pushes involving lung cancer that are helping us to identify patients early; and we have seen innovations in pharmacotherapy, with the potential to transform how we treat COPD. We have a golden opportunity to join those three aspects, and really change the prognosis of patients with COPD."

Porsbjerg commented on the move towards personalised treatment: "Therapies are becoming more precise, and we have new biomarkers. We are going to be able to say a lot more within the next few years around how to best target individual drugs. I think we are looking into a future where biologics will be the core treatment, rather than inhaled steroids. And because of that, we all need to focus on the phenotypes of asthma patients, and where they are in their trajectory of asthma development. We are on the threshold to a new treatment paradigm, and all physicians need to understand how to use biologics."

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