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ReachMD
www.reachmd.com
info@reachmd.com
(866) 423-7849

Addressing COPD Exacerbations With Urgency

Announcer:
Welcome to ReachMD. This medical industry feature, titled “Addressing COPD Exacerbations With Urgency,” is sponsored by AstraZeneca. Here’s your host, Dr. Charles Turck.

Dr Turck:
This is ReachMD, and I'm Dr. Charles Turck. Joining me today to discuss the importance of preventing exacerbations in patients with chronic obstructive pulmonary disease, otherwise known as COPD, are Drs Nina Maouelainin and Jeffrey Barry. Dr Nina is an interventional pulmonologist, and she serves as the CEO and president of Lung Health Services in Lansdale, Pennsylvania.

Dr Nina, welcome to the program.

Dr Nina:
Thanks for having me.

Dr Turck:
Also with us is Dr Barry, who’s an Assistant Clinical Professor of pulmonology and critical care at the University of California San Diego School of Medicine and a pulmonologist at UC San Diego Health.

Dr Barry, thanks for joining us today.

Dr Barry:
It’s wonderful to be here with you both.

Dr Turck:
So let’s start our discussion with a little background on the burden of COPD exacerbations. Dr Nina, would you care to start us off?

Dr Nina:
Sure. Absolutely. So first and foremost, it’s critical to recognize the profound consequences that every exacerbation can have on our patients with COPD.[1–3]

In fact, a retrospective analysis of a trial called UPLIFT® looked at the impact of a single—and the only—moderate-to-severe exacerbation in patients’ lung function. This was assessed by the annual rates of decline in postbronchodilator forced expiratory volume per second, or FEV_1 for short. And in this study, moderate exacerbations were defined as those requiring treatment with an antibiotic or a systemic corticosteroid, and severe as requiring hospitalization.[1]

The annual rates of decline in FEV_1 in patients who experienced a single—and the only—moderate-to-severe exacerbation were compared to those of patients who didn’t experience an exacerbation between the first and second half of the study.[1]

The results showed a statistically significant increase in the mean rate of decline in postbronchodilator FEV_1 in the 579 patients who had a moderate-to-severe exacerbation during the UPLIFT trial. No significant change in the mean rate of decline in postbronchodilator FEV_1 was observed in the 1,035 patients who didn’t experience an exacerbation between the first and second half of the study.[1]

This data showed that even a single exacerbation can lead to an accelerated decline in lung function in our patients with COPD.[1]

Dr Turck:

Thank you for that insight, Dr Nina. And if we turn to you now, Dr Barry, could you tell us about the risks associated with exacerbations in your patients with COPD?

Dr Barry:
Yes, and building on Dr Nina's discussion about these far-reaching impacts, it's important to point out that COPD exacerbations may also put our patients at increased risk of cardiovascular events.[2] A post hoc analysis of the SUMMIT trial assessed whether the risk of cardiovascular events increased after a moderate-to-severe COPD exacerbation in nearly 16 and a half thousand patients. The baseline was defined as the period before a patient experienced an acute exacerbation of COPD, or AECOPD for short.[2]

Compared to pre-exacerbation baseline periods, the hazard ratio of cardiovascular events after an AECOPD was increased. More specifically, patients with COPD and existing, or risk factors for, cardiovascular disease had a 280 percent increased risk of a cardiovascular event—including MI, stroke, unstable angina, transient ischemic attack, and even cardiovascular death—within the first 30 days following a moderate or severe exacerbation. Even one year after such an exacerbation, their risk of a cardiovascular event remained elevated by 90 percent compared to their pre-exacerbation baseline period.[2]

So, I can't overstate the importance of handling exacerbations with the utmost seriousness for our patients with COPD.

Dr Nina:
And just to add to what Dr Barry said, what's particularly alarming is that an analysis that included about 1.3 million Medicare patients revealed that one in four patients died within one year of hospitalization due to a COPD exacerbation. These were patients:
- who are at least 65 years old,
- were admitted to acute care hospitals with a principal diagnosis of COPD,
- or had a principal diagnosis of acute respiratory failure combined with a secondary diagnosis of COPD with acute exacerbation.[3]

It is also worth noting that patients were excluded from the study if they:
- experienced an in-hospital death,
- had less than one year of enrollment in Medicare fee-for-service without a subsequent death,
- or were transferred to another acute care facility,
- or were discharged against medical advice.[3]

So to summarize, exacerbations can lead to higher mortality rates in patients with COPD,[3] which is why I think it is absolutely important that we as healthcare providers continue to explore additional opportunities to manage these exacerbations.

Dr Turck:
Thank you both for your valuable perspectives.

And given the importance of early action, Dr Nina, what are the barriers or gaps you've seen delaying the use of maintenance therapies for COPD?

Dr Nina:
One of the biggest challenges I see is the delayed diagnosis of COPD.[4] In my clinical experience, many patients who present with dyspnea, or even with an exacerbation, didn't realize that they have an underlying pulmonary condition. Oftentimes, they'll go to urgent care, receive a quick course of steroids and antibiotics, feel better for a short time, and then they go back a few weeks later. It becomes a recurring cycle for them that continues until they end up in the ED or end up hospitalized. So, in my opinion, being more proactive with employing diagnostic tools like spirometry and full pulmonary function testing is necessary.

Second, I think we need to raise greater awareness that COPD isn't limited to people who smoke. While smoking is certainly a risk factor, it's not the only one. The factors that can contribute to COPD may go beyond individuals with a history of smoking or exposure to high-risk environments.[5]

And finally, even when COPD is diagnosed, there's often not enough awareness around treatment strategies.[4]

Dr Turck:
For those just tuning in, you're listening to ReachMD. I'm Dr. Charles Turck, and today I'm speaking with Dr. Nina Maouelainin and Dr. Jeffrey Barry about managing COPD exacerbations with maintenance therapies.

Now coming back to you, Dr Barry, how can healthcare teams work together to optimize the management of COPD and improve patient outcomes?

Dr Barry:
So ideally, the goal of management plans would be to reduce symptoms and risks of COPD. Lifestyle modifications to improve exercise tolerance and health status are important components of COPD management, along with identifying and minimizing the risks of exacerbations.[5]

To complement these modifications, initiating a pharmacotherapy regimen may also be essential. It's important to individualize management plans that consider the severity of symptoms, risk of exacerbations, side effects, the patient's comorbidities, and incorporate patient preferences. For some patients, this may be a mono-, dual, or triple therapy.[5]

But regardless of which management strategy is selected, ensuring proper inhaler technique is key. From my clinical experience, when multiple agents are necessary, using a single inhaler option for all agents may improve treatment adherence.[5]

And it's not enough to just get patients started on pharmacotherapy, but to regularly monitor and escalate or de-escalate treatment based on the patient's symptoms and assessments.[5]

Dr Turck:
Those are some important points to consider.

And what about you, Dr Nina, how can we raise the standards of care for our patients with COPD?

Dr Nina:
Well, I think optimizing the standards of care starts with overcoming therapeutic inertia,[4] and we might achieve this by leveraging Dr Barry's approach.

So first, it's essential to identify patients who are at risk.[4,6] For example, these may include symptomatic individuals who, regardless of their recent exacerbation history, exhibit increased dyspnea—in other words, those scoring at least a grade 2 on the modified British Medical Research Council questionnaire—and/or have a frequent productive cough.[5,7,8] So, these are patients who've had a cough or sputum production several or most days of the week over the past three months.[8] Additionally, patients with COPD who have a recent history of exacerbations should also be closely monitored.[7]

And next, to optimize the management of these patients, we need to prevent exacerbations and cardiovascular complications. To add on to Dr Barry's earlier point, this may be done through non-pharmacological interventions and the appropriate initiation and escalation of pharmacological treatments.[5,6]

And finally, we should focus on the timing of our care. We may be able to improve clinical outcomes using a more proactive disease management approach. An example of this includes early follow-up of a patient after hospital discharge in an effort to help optimize treatment in accordance with evidence-based recommendations.[5]

From my perspective, better follow-up also requires improved communication between the hospital discharge team and outpatient providers. Too often, my patients are sent home on therapies driven by inpatient formularies, which can differ from their outpatient regimen. And without clear coordination, continuity of care gets lost, and so does the opportunity of proactive disease managements.

Dr Turck:
Thank you, Dr Nina.

So given everything we've discussed today, I'd like to hear each of your experiences managing patients with COPD. Dr Barry, what does a patient-centered approach to maintenance therapy look like in your daily practice?

Dr Barry:
In my experience, effective COPD management requires a multidisciplinary approach. Pharmacologic therapy is certainly foundational, but it's just one part of the picture. I also focus on pulmonary rehabilitation. For example, I help patients adjust their lifestyle to reduce exposure to inhaled irritants and, in malnourished patients with COPD, I reinforce the importance of nutritional support to build respiratory muscle strength.[5] When combined, these elements can make a difference in how my patients feel and how well they can perform their daily activities. It really comes down to taking a holistic approach to care.

Dr Turck:
Now let's turn to you, Dr Nina, for the final word. How do you approach conversations with your patients around the importance of maintenance therapy?

Dr Nina:
So, I make it a priority to discuss how we may escalate or de-escalate therapy based on their level of symptoms and risk for exacerbations. I also emphasize that maintenance therapy may be essential and that, they should be on a short- or long-acting bronchodilator, if appropriate. Finally, I explain that, in some cases, we may need to tailor their regimen more carefully, but regardless, initiating maintenance therapy is one of the initial management steps.[5]

Additionally, what I often see are patients who've been treated multiple times with oral steroids and antibiotics. And, because they start to feel better short-term, they assume that's all they need. But that kind of relief may be misleading, so I focus on educating my patients about why it matters to prevent exacerbations. Ultimately, it's really about partnering with patients, helping them navigate their care journey, and making informed treatment decisions together based on their symptomatology.

Dr Turck:
Excellent. And with those final perspectives in mind, I want to thank my guests, Drs Nina Maouelainin and Jeffrey Barry, for sharing their insights on managing COPD exacerbations and the utility of maintenance therapies.

Dr Nina, Dr Barry, it was great speaking with you both today.

Dr Nina:
Thank you so much for having me.

Dr Barry:
Thank you for having me.

Announcer:
This medical industry feature was sponsored by AstraZeneca. If you missed any part of this discussion, visit Industry Features on ReachMD.com, where you can Be Part of the Knowledge.

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