

Transcript Details

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Investigating the Impact of Uncontrolled Asthma: What Treatment Strategies Can Help?

Announcer:

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Dr. Martinez:

Poor asthma control can lead to an increase in medication, health care use, a decrease in work attendance, and quality of life for our patients with asthma.^{1,2} On today's program we're going to explore the impact of uncontrolled asthma and discuss a treatment option that could better provide asthma control.

This is Deep Breaths: Updates from CHEST on ReachMD. I'm Dr. Fernando J. Martinez and joining me to discuss uncontrolled asthma and the potential LAMA therapy is Dr. Navitha Ramesh who is a Board Certified Pulmonologist and Critical Care Physician at the UPMC Pinnacle in Harrisburg, Pennsylvania. Dr. Ramesh, welcome to the program.

Dr. Ramesh:

Hi, Dr. Martinez. Very nice to meet you and thank you for having me.

Dr. Martinez:

No problem. So, to start off, Dr. Ramesh, we know that asthma is a heterogeneous disorder³ and that not all patients present the same. With that in mind, can you sort of give us a primer on how we properly diagnose this disorder?

Dr. Ramesh:

Sure, Dr. Martinez. So the diagnosis of asthma is based on characteristic respiratory symptoms as well as demonstration of variable expiratory airflow obstruction.³ So if a patient comes to us with wheezing, chest tightness, and minimally productive cough which is brought on by viral infections or known triggers or allergens, this increases the likelihood of diagnosis of asthma. However, if our patients have isolated cough with no other respiratory symptoms, cough with excessive sputum production, and shortness of breath associated with dizziness or lightheadedness, they tend to decrease the likelihood of the diagnosis of asthma.

Dr. Martinez:

Alright, so that's a nice summary of a very complex topic in a few bullets there. In your opinion, as you think about what we're dealing with in our health care system, give us a sense of what you think would be key unmet needs for our patients with asthma?

Dr. Ramesh:

So it's interesting to note that despite being on guideline-recommended therapy, at least 50% of our patients with asthma continue to experience uncontrolled asthma and they remain at risk of asthma exacerbations which could be serious, and this also decreases their quality of life as well.⁴

Dr. Martinez:

Yeah, it's really amazing - 50%! Given that information, can you give us a little bit of insights regarding the importance of assessing and trying to achieve asthma control?

Dr. Ramesh:

So, asthma control is very important for several reasons. So poor asthma control is usually associated with high rates of medication use, high health care utilization, increased absence from work, and last but not the least, poor quality of life in our patients.^{1,2}

Dr. Martinez:

Yeah, that's really interesting. So, given that construct and this idea of asthma control and what proportion of our patients remain uncontrolled, give us a sense regarding asthma symptoms, because I know that's a key component of how we assess control, and it is one of the key factors that remains a persistent problem despite our current treatments. What do we know about how to assess asthma control, the type of symptoms, and sort of give us that framework for our patients with asthma?

Dr. Ramesh:

Sure. Severe asthma or uncontrolled asthma, the patients have frequent exacerbations and their lung function tests, especially the FEV-1, tends to remain less than 80% of predicted.⁵ And we use something called an asthma control test score, or an ACT score, to help assess asthma control. So this is a patient's self-administered tool to identify those with poorly controlled asthma. It comprises of five questions with a four-week recall. So patients can take this test at home or they could do it in the office or on a telemedicine visit. It's very easy to do.

I'm just going to go over this asthma control test very briefly. So, it comprises of five questions. It assesses the asthma symptoms, the frequency of the patient's inhaler use, and also the subjective asthma control that the patients feel. So the final score is from 5 to 25; 5 means the asthma is uncontrolled and 25 means the asthma is very well controlled. So any score less than 20 would give us an indication that the patient has uncontrolled asthma.

Dr. Martinez:

Interesting. For those of you that are just tuning in, you're listening to Deep Breaths: Updates from CHEST on ReachMD. I'm Dr. Fernando J. Martinez, and I'm joined by Dr. Navitha Ramesh who has given us some background on asthma diagnosis, symptom assessment, and defining uncontrolled asthma.

Dr. Ramesh, we spoke a little bit earlier about the importance of asthma control. Now if we could transition to considering the therapeutic options that are available for our patients, particularly those for uncontrolled asthma, and specifically I wanted you to give us some insights regarding the Global Initiative for Asthma, or GINA, and their therapeutic strategy recommendations for patients and particularly those that continue to have symptoms despite inhaled steroid long-acting beta-agonist, the ICS/LABA therapy, which for me would be that sort of step 3 when the person, who is on ICS/LABA, and how you would consider moving into steps 4 and 5 and give us a sense of what therapeutic options are within those categories?³

Dr. Ramesh:

Sure. So, GINA gives us recommendations for asthma control ranging from step 1 to step 5.³ So once a patient is on a low-dose inhaled corticosteroid LABA combination, they're usually in step 3. And if the asthma remains uncontrolled despite this therapy, we move on to step 4 therapy which is medium-dose inhaled corticosteroid and LABA combination, and sometimes LAMA can be used as alternative agents in this step. However, if the patient's symptoms remain uncontrolled on step 4 therapy, we move on to step 5 where the patients are placed on a high-dose inhaled corticosteroid and LABA combination.

Dr. Martinez:

Yeah, that's really interesting because I've seen the evolution of these guidelines as therapies have become available. So, given that there is this sort of comprehensive approach to evaluation and a comprehensive approach to stepping up therapeutic approaches in our patients, give us a sense of what you recommend would be the model of reviewing adjustment treatment for our asthma patients?

Dr. Ramesh:

So once a diagnosis of asthma is confirmed, the treatment is initiated, and ongoing treatment decisions are based on personalized cycle for each patient.³ So, we assess, adjust, and review the response for each of our patients. At the assessment stage, we confirm the diagnosis of asthma and assess if the patients are using the right inhalers and with the right inhaler technique, they have good inhaler adherence, and also they're avoiding their triggers, or their environmental allergens, we identify and treat the comorbidities that could lead to poor asthma control, and then adjust the pharmacological and the nonpharmacological therapies based on this, and every visit we review the response as well.

Program update:

Since this podcast recording, the GINA 2021 report was published and was updated to include two Tracks for treatment options for Steps 1 to 5.⁶ The key difference for each track is the type of reliever therapy recommended. In Track 1, as-needed low-dose ICS-

formoterol is the preferred reliever, while in Track 2, as-needed SABA is the alternative reliever. GINA suggests that Track 1 is preferred if the patient is likely to be poorly adherent with their daily controller therapy. The recommendations for use of LAMA have been updated, and now in Step 5, LAMA is listed as add-on to medium or high dose ICS/LABA, and in Step 4 LAMA can be added as an “other” controller option. The GINA report has also been updated to include ICS/LABA/LAMA combination “triple” inhalers that are now available and approved for patients 18 years of age and older.

Dr. Martinez:

Yeah, that is really interesting. You mentioned a couple of times in your discussion there a few minutes ago that the long-acting anti-muscarinics, or the LAMAs, are increasingly being used in asthma. Can you give us a sense of the rationale for the use of that therapeutic class in these patients?

Dr. Ramesh:

Sure, Dr. Martinez. It's important to understand the mechanism of action of these medications to know why we use them. For example, inhaled corticosteroids have anti-inflammatory effect on the airways.⁷ LABAs, they work through stimulating the beta-2 adrenergic receptors and hence cause airway smooth muscle relaxation and bronchodilatation, while LAMA inhibit the M3 muscarinic receptors, and hence they reduce airway smooth-muscle contraction and prevent bronchoconstriction.^{8,9} So when you put them all together, an ICS/LABA and LAMA we get dual benefit by bronchodilatation as well as anti-inflammatory effect on the airways, which is beneficial in most patients.

Dr. Martinez:

Can you give us a sense of how you would summarize these last few minutes for our listeners?

Dr. Ramesh:

Sure. So for asthma, the key starting point is confirming the diagnosis of asthma based on characteristic respiratory symptoms, as well as objective evidence of airflow limitation, and then using the guideline-defined therapies to personalize the therapy for each patient while assessing, adjusting, and reviewing the treatment at every point of contact that the health care providers have with our patients.³

Dr. Martinez:

Yeah, so let me summarize the way that I heard this. I think that you have really impressed upon all of us the importance of uncontrolled asthma and the symptomatic nature of that disorder for our patients. I think you've also given us a really nice stepwise approach to ensuring that we have appropriate diagnosis format for symptomatic assessment for how we characterize uncontrolled asthma, and I think you've really given us a good comprehensive view of how we use multiple therapeutic options including some of the evolving ones like LAMAs as we manage our patients.

I wanted to thank you, Dr. Ramesh, for joining me to define all of this approach to minimizing the burden of uncontrolled asthma for our patients, and it's been great having you on the program.

Dr. Ramesh:

Thank you very much, Dr. Martinez. Thanks for having me.

Announcer:

This was Deep Breaths: Updates from CHEST produced in partnership with the American College of Chest Physicians. To access other episodes of this series, visit ReachMD.com/CHEST, where you can be part of the knowledge. Thanks for listening!

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