Allergy & Asthma Network
UPCOMING WEBINARS

Partners in Care: Allergy & Asthma Network Overview
September 16th – 4:00 PM ET

Asthma in the Yellow Zone: Medications & Management
September 23rd – 4:00 PM ET

Allergies & Asthma: Indoor Air & Cleaning for Home, School & Work
October 20th – 3:00 PM ET

Register for events at allergyasthanetwork.org Webinars (at bottom of home page)

COVID-19 WEBINAR SERIES

The Latest Impact of COVID-19:
Asthma, Allergies and the Long Haul
Our Speakers

Dr. Vickram Tejwani
Assistant Professor of Pulmonary and Critical Care Medicine
Cleveland Clinic Lerner College of Medicine

Tonya Winders
President & CEO, Allergy & Asthma Network
President, Global Allergy & Airways Patient Platform

Program
OUTLINE

• Current State of COVID-19
• Vaccination & Variant Update
• Allergies and Asthma – COVID-19
• Long Haul Consequences of COVID-19
Poll Question

- We’d like to know who is with us today!
- What category best describes you? (we have a limited number of answers or would offer more!)

Current State of COVID-19

Tonya Winders
Johns Hopkins Global Map

US Data Report – CDC
In the News

- FDA approves the first COVID-19 vaccine
  - Pfizer-BioNTech COVID-19 Vaccine
  - More about this in our next section
- Child COVID hospitalizations reach new high as schools open
- Protecting unvaccinated children:
  - "The way you protect children who, because of their age, cannot get vaccinated yet is to surround the children -- be it friends, family, school teachers, personnel in the school -- surround the children with vaccinated people." - Dr. Anthony Fauci

In the News

- Dr. Fauci:
  - U.S. will likely start to widely distribute Pfizer Covid-19 booster shots during the week of Sept. 20
  - The rollout for Moderna’s vaccine could be delayed - company is waiting for regulators to sign off on a third dose
  - The U.S. announced plans to give additional Pfizer and Moderna shots eight months after a second dose, which has sparked criticism as many countries struggle to vaccinate their populations
  - President Biden to give speech today @ 5:00 PM outlining 6-prong COVID plan – to include vaccine & mask mandates
In the News

• The Surgeon General says misinformation on social networks is damaging Americans’ health

“The speed, scale and sophistication with which COVID-19 is spreading and impacting our health is really unprecedented. And it’s happening largely, in part, aided and abetted by social media platforms.”

Dr. Vivek Murthy
Surgeon General

COVID-19 Cases in US by Date Reported
Poll Question

- Question -
- Do you think that you will get a COVID-19 booster vaccine when it is available?

Vaccination & Variant Update

Dr. Vickram Tejwani
CDC Vaccine Information

Total Vaccine Doses
Delivered 450,584,465
Administered 376,955,132

Learn more about the distribution of vaccines.

177.1M People fully vaccinated

1.51M People received an additional dose since August 13th, 2021

About these data

Vaccination by STATE

MayoClinic.org
At least one dose – followed by fully vaccinated
U.S. Food and Drug Administration approved the first COVID-19 vaccine. The vaccine has been known as the Pfizer-BioNTech COVID-19 Vaccine, and will now be marketed as Comirnaty (koe-mir’-na-tee), for the prevention of COVID-19 disease in individuals 16 years of age and older.

Continues to be available under emergency use authorization (EUA), including for individuals 12 through 15 years of age and for the administration of a third dose in certain immunocompromised individuals.
**Vaccine UPDATE**

The FDA’s approval of this vaccine is a milestone as we continue to battle the COVID-19 pandemic. While this and other vaccines have met the FDA’s rigorous, scientific standards for emergency use authorization, as the first FDA-approved COVID-19 vaccine, the public can be very confident that this vaccine meets the high standards for safety, effectiveness, and manufacturing quality the FDA requires of an approved product.

While millions of people have already safely received COVID-19 vaccines, we recognize that for some, the FDA approval of a vaccine may now instill additional confidence to get vaccinated.

Today’s milestone puts us one step closer to altering the course of this pandemic in the U.S.

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**COVID-19 VARIANTS**

**Delta Variant**

- The variant now causing concern around the world is the “delta” variant. Experts say a particular strain of the delta variant (a mutated version of the variant that is more infectious) is responsible for the recent surge of cases in the United Kingdom.
- This strain, B.1.617.2, is currently the dominant one in the U.K. and is labeled as a “variant of concern” by the World Health Organization (WHO). The main reason for the concern: Experts believe it to be up to 60% more transmissible than the original strain of COVID-19.

**Lambda Variant**

- One variant of interest is the lambda variant (C.37). The earliest documented samples of this variant were recorded back in December of 2020 in Peru. It has since been reported that this variant is more resistant to vaccines and highly infectious.
- The WHO made it a “variant of interest” on June 14 and it has been detected in 29 countries so far. However, there are still many unknowns when it comes to the lambda variant.
Variant
UPDATE – Variants of Interest

Currently designated Variants of Interest:

<table>
<thead>
<tr>
<th>WHO label</th>
<th>Pango lineage*</th>
<th>GISAID clade</th>
<th>Nextstrain clade</th>
<th>Earliest documented samples</th>
<th>Date of designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ela</td>
<td>B.1.525</td>
<td>G/484K.V3</td>
<td>21D</td>
<td>Multiple countries, Dec-2020</td>
<td>17-Mar-2021</td>
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<tr>
<td>Iota</td>
<td>B.1.526</td>
<td>GH/253G.V1</td>
<td>21F</td>
<td>United States of America, Nov-2020</td>
<td>24-Mar-2021</td>
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<tr>
<td>Kappe</td>
<td>B.1.617.1</td>
<td>G/452R.V3</td>
<td>21B</td>
<td>India, Oct-2020</td>
<td>4-Apr-2021</td>
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<tr>
<td>Lambda</td>
<td>C.37</td>
<td>GR/452O.V1</td>
<td>21G</td>
<td>Peru, Dec-2020</td>
<td>14-Jun-2021</td>
</tr>
<tr>
<td>Mu</td>
<td>B.1.621</td>
<td>GH</td>
<td>21H</td>
<td>Colombia, Jan-2021</td>
<td>30-Aug-2021</td>
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Allergies and Asthma – COVID-19

Tonya Winders
Asthma & COVID-19

Are people with asthma at increased risk for COVID-19?

- Asthmatic patients are generally at higher risk for respiratory infections & severe infections
- Study – COVID Positivity Rate:
  - 69.2% in people with asthma
  - 81.9% in nonasthmatic people
  - Disease severity is similar
- Sometimes it’s hard to tell what’s going on – COVID-19 symptoms are similar to asthma

Asthma & COVID-19

Do people with asthma and high eosinophils have a COVID-19 advantage?

- 53% of asthmatic COVID-19 patients had a previously elevated absolute eosinophil count
  - This group had a significantly lower likelihood of hospital admission
- Pre-existing eosinophilia may have a protective effect against hospitalization for COVID-19
- Asthmatic COVID-19 patient who develop eosinophilia while in the hospital have a lower mortality rate
Allergies & COVID-19

What should people do if they have an allergic reaction to the COVID-19 vaccine?

- If you have had a severe allergic reaction or an immediate allergic reaction—even if it was not severe—to any ingredient in an mRNA COVID-19 vaccine, **you should not get either of the currently available mRNA COVID-19 vaccines** (Pfizer-BioNTech and Moderna).
- If you have had a severe allergic reaction or an immediate allergic reaction to any ingredient in Johnson & Johnson’s Janssen (J&J/Janssen) COVID-19 vaccine, **you should not get the J&J/Janssen vaccine.**
- If you aren’t able to get one type of COVID-19 vaccine because you are allergic to an ingredient in that vaccine, **ask your doctor if you should get a different type of COVID-19 vaccine.**

Allergies & COVID-19

How can people tell the difference between COVID-19 and seasonal allergies?

- COVID-19 disease tends to have a fever as a part of the symptoms - seasonal allergies do not
  - May experience diarrhea with COVID
  - Muscle of body aches
  - Loss of taste or smell
  - Chills
- Seasonal allergy symptoms tend to be worse after being outdoors
  - Itchy eyes, post-nasal drip
- Shared symptoms:
  - Cough
  - Shortness of breath
  - Chest tightness
What is Long COVID?

- Generally considered to be effects of COVID-19 that persist for more than four weeks after you’ve been diagnosed with the COVID-19 virus
  - Includes both ongoing symptomatic COVID & Post COVID-19 Syndrome

Who gets Long COVID?

- Older people
- People with serious medical conditions
- Young, otherwise healthy people
- Severity of acute infection is not a good predictor
Symptoms that linger or new symptoms after four weeks

Most commonly reported

• Fatigue
• Shortness of breath or difficulty breathing
• Cough
• Memory, concentration or sleep problems
• Anxiety or depression

Huang, et al. Lancet. 2021

COVID-19 Long Haul – Lost in the “mortality data”

Is this the next national health disaster?

• 10 – 30% are still experiencing debilitating symptoms months after being infected with COVID-19
• Current numbers and trends indicate that this could be our next health disaster in the making

Scope of Problem

114 million Americans infected with COVID through March 2021

Can conservatively expect more than 15 million cases of long COVID

- Average age – 40
- Prime working years
- Effects health care system and economic recovery


Organ Damage Caused by COVID-19

- **Heart**
  - Lasting damage to the heart muscle, risk of cardiac failure or complications in the future

- **Lungs**
  - Long-standing damage to tiny air sacs (alveoli)
  - Scar tissue = breathing problems

- **Brain**
  - Strokes, seizures, Guillain-Barre syndrome
Case Study

• 53 YOF employed in home health services and contracted Covid in January, 2021
• Suspected asthma diagnosis
• Brief hospitalization for two days with mild symptoms and received dexamethasone and doxycycline

CXR of our patient

CXR of severe COVID patients

March, 2021: Pulmonary embolism
• Visited with our ReCOVer Clinic and endorsed:
  • Fatigue
  • “Brain Fog”
  • Headache
• April, 2021: Neuropsychological evaluation demonstrated severe fatigue and limited attention
• July, 2021: Some improvement but continued challenges with work-related activity
• August, 2021: Admitted for gastrointestinal bleed
Urgent Need

- Coordinated national health policy action & response
- Built on 5 pillars:

1. Primary Prevention
2. International Research Agenda
3. Prior Post Infection Management
4. Holistic Response
5. Supportive Care to Patients


Prevention

The best way to prevent post-COVID conditions is by getting vaccinated against COVID-19 as soon as you can.

COVID-19 vaccination is recommended for all people ages 12 years and older, including if you had COVID-19 or a post-COVID condition

Antonelli, et al. Lancet Infectious Disease. 2021
Poll Question

- Question -
- Do you or someone you know suffer from Long COVID-19?

TIME FOR QUESTIONS

Record your questions in the question box
We’ll get to as many as we can!
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Asthma in the Yellow Zone – Management & Medication
September 23, 2021 – 4:00 PM ET
Dr. Leonard Bacharier

Partners in Care: Allergy & Asthma Network Overview
September 16, 2021 – 4:00 PM ET
Tonya Winders & Network Staff

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