Vaccines for COVID-19

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*Opinions in this talk are mine and are not necessarily positions of the FDA

History of vaccines that have changed our lives (for the good)

- 1796 smallpox
- 1885 rabies
- 1890 tetanus
- 1896 typhoid fever
- 1906 TB
- 1923 diphtheria
- 1926 whooping cough
- 1932 yellow fever
- 1937 flu
- 1952 polio
- 1963 measles
- 1967 mumps
- 1969 rubella
- 1974 chickenpox
SARS-CoV-2 Pandemic

• As of Sept 10, 2021, has caused approximately 219 million cases of COVID-19 and 4.55 million deaths worldwide.
• In the United States (US), more than 40.8 million cases have been reported to the CDC with 658 thousand deaths.

SARS-CoV-2 Variants

<table>
<thead>
<tr>
<th>WHO label</th>
<th>Lineage</th>
<th>First documented samples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>α</strong> Alpha</td>
<td>B.1.1.7</td>
<td>UK Sep. 2020</td>
</tr>
<tr>
<td><strong>β</strong> Beta</td>
<td>B.1.351</td>
<td>South Africa May 2020</td>
</tr>
<tr>
<td><strong>γ</strong> Gamma</td>
<td>P.1</td>
<td>Brazil Nov. 2020</td>
</tr>
<tr>
<td><strong>δ</strong> Delta</td>
<td>B.1.617.2</td>
<td>India Oct. 2020</td>
</tr>
</tbody>
</table>

**Variants of interest**

<table>
<thead>
<tr>
<th>Variant</th>
<th>Lineage</th>
<th>Country/Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ε</strong> Epsilon</td>
<td>B.1.427</td>
<td>USA Mar. 2020</td>
</tr>
<tr>
<td><strong>ζ</strong> Zeta</td>
<td>P.2</td>
<td>Brazil Apr. 2020</td>
</tr>
<tr>
<td><strong>η</strong> Eta</td>
<td>B.1.525</td>
<td>Multiple Dec. 2020</td>
</tr>
<tr>
<td><strong>θ</strong> Theta</td>
<td>P.3</td>
<td>Philippines Jan. 2021</td>
</tr>
<tr>
<td><strong>ι</strong> Iota</td>
<td>B.1.526</td>
<td>USA Nov. 2020</td>
</tr>
<tr>
<td><strong>κ</strong> Kappa</td>
<td>B.1.617.1</td>
<td>India Oct. 2020</td>
</tr>
<tr>
<td><strong>λ</strong> Lambda</td>
<td>C.37</td>
<td>Peru Aug. 2020</td>
</tr>
</tbody>
</table>
Mu variant

• AKA B.1.621
• Added to the WHO’s watchlist on 30 August
• It was detected in 39 countries
• Found to possess a cluster of mutations that may make it less susceptible to the immune protection many have acquired.

Phases of clinical trials

Source: https://covid19community.nih.gov/resources/understanding-clinical-trials
Emergency Use Authorization (EUA)

- The FDA may issue an EUA after determining that certain statutory requirements are met (section 564 of the FD&C Act (21 U.S.C. 360bbb-3))
- FDA can authorize unapproved medical products (or unapproved uses of approved medical products) to be used in an emergency to diagnose, treat, or prevent serious or life-threatening diseases or conditions caused by threat agents.

Current EUAs

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Regimen</th>
<th>Indicated Population</th>
<th>Date of EUA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pfizer</td>
<td>2 doses 3 weeks apart</td>
<td>Individuals ≥16 years of age</td>
<td>December 11, 2020</td>
</tr>
<tr>
<td>Moderna</td>
<td>2 doses 4 weeks apart</td>
<td>Adults ≥18 years of age</td>
<td>December 18, 2020</td>
</tr>
<tr>
<td>Janssen</td>
<td>Single dose</td>
<td>Adults ≥18 years of age</td>
<td>February 27, 2021</td>
</tr>
<tr>
<td>Pfizer (amendment)</td>
<td>2 doses 3 weeks apart</td>
<td>Individuals ≥12 years of age</td>
<td>May 10, 2021</td>
</tr>
</tbody>
</table>

These COVID-19 vaccines are considered unapproved products for purposes of the emergency use standard. In addition, there is no adequate, approved, and available alternative to the product for diagnosing, preventing, or treating the disease or condition for the pediatric population less than 12 years of age.
How mRNA vaccines work

The genetic sequence of the virus spike is used to make a synthetic mRNA sequence - the instructions to make the spike protein.

The mRNA is packaged into a nanoparticle - the vaccine - which can deliver the mRNA to immune cells.

The immune cells follow the mRNA code to produce spike protein, which is displayed on the cell surface. This stimulates an immune response.

- mRNA vaccines do not affect our DNA; mRNA does not enter the cell nucleus.
- mRNA vaccines cannot give someone COVID-19.
- mRNA vaccines are new, but the technology is not. mRNA vaccines have been studied for influenza, Zika, rabies, and cytomegalovirus (CMV).


About these COVID-19 mRNA vaccines

- At least 8 weeks of safety data were gathered after participants received their 2\textsuperscript{nd} dose in the trials.
- It is unusual for side effects to appear more than 8 weeks after vaccination.
- These mRNA vaccines produce common side effects after vaccination, especially after the 2\textsuperscript{nd} dose.
  - Fever
  - Headache
  - Muscle aches
- No significant safety concerns were identified in the clinical trials.
- A small number of severe allergic reactions were reported during the initial phases of rollout.

https://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/covid-19/clinical-considerations.html
Vaccine development was accelerated. How was safety ensured?

- Researchers used existing clinical trial networks to conduct COVID-19 vaccine trials
- Manufacturing was started while the clinical trials were underway. Normally, manufacturing doesn’t begin until after completion of the trials.
- mRNA vaccines are faster to produce in large amounts than traditional vaccines.
- FDA and CDC prioritize review, authorization and recommendations of COVID-19 vaccines.

https://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/covid-19/clinical-considerations.html

The Challenge: Need to instill vaccine confidence

- Only 58% of the general public said they would receive a COVID-19 vaccine (Data from October 2020 Harris poll)
- Factors weighing on acceptance
  - Are there side effects?
  - Does it work?
  - Is it safe?
  - How much does it cost?
Vaccine hesitancy among healthcare providers

- American Nursing Foundation Survey (Oct 2020)
  - 63% were somewhat or very confident that the vaccine will be safe and effective.
  - 34% would voluntarily receive COVID-19 vaccine.
  - 57% are comfortable discussing COVID-19 vaccines with patients.
- CDC web survey of healthcare providers (Sept-Oct 2020)
  - 63% said they would get a COVID-19 vaccine.

Sources:
Vaccine confidence starts with you!

- As part of the healthcare team, **you** will likely be in the first phase to receive a COVID-19 vaccine.
- **Get a COVID-19 vaccine**, when it is available to you.
- **Share** your experience and your personal reasons for getting vaccinated with your patients, family, and friends.
- **Visibly show** you received the vaccine, by wearing a sticker, button, or lanyard and sharing on social media or other communication channels.

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Know the elements of effective vaccine conversations

- Start from a place of empathy and understanding.
- Assume patients will want to be vaccinated but be prepared for questions.
- Give your strong recommendation.
- Address misinformation by sharing key facts.
- Listen to and respond to patient questions.
- Proactively explain side effects.

“I strongly recommend you get a COVID-19 vaccine once it is widely available…”
“...This shot is especially important for you because of your [job or underlying health condition].”
Address misinformation about COVID-19 vaccination by sharing key facts

COVID-19 vaccines can not give you COVID-19

People who have already gotten sick with COVID-19 may still benefit from getting vaccinated

Getting vaccinated can help prevent getting sick with COVID-19

COVID-19 vaccines will not cause you to test positive on COVID-19 viral tests*


Q: How do we know if COVID-19 vaccines are safe?

- Explain:
  - FDA carefully reviews all safety data from clinical trials.
  - FDA authorizes emergency vaccine use only when the expected benefits outweigh potential risks.
  - ACIP reviews safety data before recommending any vaccine for use.
  - FDA and CDC will continue to monitor the safety of COVID-19 vaccines to make sure even very rare side effects are identified.

“COVID-19 vaccines were tested in large clinical trials to make sure they meet safety standards. Many people were recruited to participate in these trials to see how the vaccines offer protection to people of different ages, races, and ethnicities, as well as those with different medical conditions.”
Q: Is it safe to get a COVID-19 vaccine if I have allergies?

- Ask what kind of allergies they are concerned about.
- Explain that people should not get vaccinated if they are allergic to any ingredient in COVID-19 vaccines.
- Explain that people with other types of allergies may still be vaccinated, and that you can help determine if it is safe for them.

If you have ever had a severe allergic reaction to any ingredient in a COVID-19 vaccine, you should not get that vaccine. If you have had an immediate allergic reaction of any severity to other vaccines or injectable therapies, I will help you decide if it is safe for you to get vaccinated. You may still get vaccinated if you have severe allergies to oral medications, food, pets, insect stings, latex, or environmental irritants like pollen or dust.

Q: Is it safe to get a COVID-19 vaccine if I am pregnant or breastfeeding?

- Explain that there is limited data about the safety of COVID-19 vaccines during pregnancy and breastfeeding, but that experts do not believe it poses a risk.
- Clarify that patients may choose to get vaccinated if they are part of a recommended group.
- Emphasize that vaccination is a personal decision and offer to discuss it in more depth.

There is limited information about the safety of COVID-19 vaccines during pregnancy. However, based on what we know about how these vaccines work, experts believe they are unlikely to pose a risk for pregnant patients. You may choose to get vaccinated if you are part of a group that is recommended for COVID-19 vaccine. We can talk through this decision together.
Q: Have these vaccines been tested in all populations?

- Explain that the clinical trials recruited a diverse mix of participants.
- Be specific and provide the percentages of people from communities of color, people with underlying health conditions, and older adults included in the trials.
- Reiterate that no serious safety concerns were identified.

“...The first two mRNA vaccines in line for FDA authorization were tested in a diverse group of people. About 30% of U.S. participants were Hispanic, African American, Asian or Native American. About half were older adults. There were no significant safety concerns identified in these or any other groups.”

Q: Is it better to get natural immunity rather than immunity from vaccines?

- Explain the potential serious risk COVID-19 poses to them and their loved ones if they get the illness or spread it to others, adding that the disease can be serious even if they are not in a high-risk group.
- Explain that scientists are still learning more about the virus that causes COVID-19. It is not known whether getting COVID-19 disease will protect everyone against getting it again or, if it does, how long that protection might last.

“...Both this disease and the vaccine are new. We don’t know how long protection lasts for those who get infected or those who are vaccinated. What we do know is that COVID-19 has caused very serious illness and death for a lot of people. If you get COVID-19, you also risk giving it to loved ones who may get sick. Getting a COVID-19 vaccine is a safer choice.”
Q: Will the shot hurt? Will it make me sick? What about the side effects?

- Explain that they cannot get COVID-19 from the vaccine.
- Explain what the most common side effects from vaccination are, how severe they may be, and that they typically go away on their own within a week.
  - Make sure patients know that a fever is a potential side effect.
- Provide a comparison if it is appropriate for the patient (for example, pain after receiving the shingles vaccine for older adults who have received it).

“These side effects are signs that your immune system is doing exactly what it is supposed to do. It is working and building up protection to disease.”

“Most people do not have serious problems after getting a vaccine. However, your arm may be sore or swollen. These symptoms usually go away on their own within a week. Some people report getting a headache, fever, fatigue, or body aches after getting a vaccine.”

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Q: Do I have to continue to wear a mask and avoid close contact with others after I have been vaccinated?

- Explain that there is not enough information currently available to say if or when CDC will stop recommending that people wear masks and avoid close contact with others. Factors that are being considered include how many people get vaccinated and how the virus is spreading in communities.
- Explain that we don’t yet know if the vaccine reduces transmission of SARS-CoV-2.
- Emphasize that these precautions will need to be observed until the vaccine is in widespread use and disease rates start to decline.

Right now, experts don’t know how long the vaccine will protect you, so it is important to keep covering your mouth and nose with a mask, washing hands often, and staying at least 6 feet away from others after getting each dose of the vaccine. We also know not everyone will be able to get vaccinated right away, so it’s still important to protect yourself and others. Everyone who gets vaccinated should continue taking these precautions until the vaccine is in widespread use and COVID-19 rates have declined.”
**Proactively explain side effects**

- Extremely important because:
  - New COVID-19 vaccines are reactogenic. They are likely to cause side effects, especially after the 2nd dose.
  - Patients may confuse these side effects with COVID-19 or flu symptoms.
  - Patients may worry that the vaccine gave them COVID-19.

- Things to emphasize:
  - Side effects indicate a good immune response.
  - Side effects are generally short-lived.
  - It is important to return for second dose, even if the first dose has unpleasant side effects.

**Wrapping up the conversation**

- Encourage patients to take at least one action. For example:
  - Schedule the second-dose appointment (if they got vaccinated that day).
  - Read additional information you provide them (if they declined vaccination).

- If they decline, continue to remind them about the importance of getting a COVID-19 vaccine during future routine visits.

- Wrap up the conversation by letting your patient know that you are open to continuing the discussion and answering any additional questions they may have.
If your patient can get an allergy shot, they can get a COVID-19 vaccine

Stay safe and get vaccinated

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How Has COVID-19 Changed Our Practice

Overview

• Healthcare was forced to rapidly change in response to the COVID-19 pandemic.
• Early on patients were not coming to the office
  • Almost 60% decrease in visits on average
• Providers were forced to create a safe environment for patient and for the staff in the office
• Operational efficiency became paramount
  • Limited time
  • Limited staff
• Use of Digital Technology Accelerated
Employee Health Screening

- Apps for employees to screen before entering the office
- Temperature Checks in the Office
- Routine COVID-Testing
- Exclusion from work

PPE

- Masks at all times
- N95
  - Aerosol Generating Procedures (AGP) or patient with cough
- FIT Testing
- Eye protection
  - AGP or patient with cough
- Gowns/Gloves

[Image: CDC guidelines for PPE]
Patient Screening

- Pre-Visit Questionnaire
- Temperatures at the door
- COVID Testing

Limit the Amount of People in the Office

- E-check in
- Waiting in cars pre-appointment
- No one can accompany patient
  - Children
  - Disabled
  - Translator
- No drug reps
- Telecommuting, when possible, for admin staff/days
- Telehealth/Virtual Visits when possible
- Limiting patient per hour
- Remove chairs in waiting room
Patient Visits

- Do you see patients with COVID Symptoms?
  - Long Haulers
- Limit in room time with patient to under 10 minutes
- Who can wait?
  - Non-essential testing
  - Food challenges
  - Drug challenges
  - Venom testing
- Handling the anti-mask crowd

Allergy Immunotherapy

- Spacing out dose intervals
- Drive Thru Shot Clinics
- Post Shot Patients
  - Spacing out chairs
  - Waiting in cars
    - Another person with them
    - Epi-pen on hand
- Restarting patients who did not come in
Pulmonary Function Testing/Spirometry/NIOX

- Some offices stopped doing them
- Some require a COVID test before
- End of day only
- Use tablets in the exam room to coach patient from outside the room
- Leave room empty to let aerosols settle before cleaning

Cleaning & Supplies

- More intensive cleaning between patients
- Is it EPA/FDA approved?
- Hand sanitizer everywhere
- Trying no to run out vs trying not to hoard
- Pivoting with supply shortages
Staffing Issues

- Staff shortages
- Cross train
- Eliminate redundancies
- Increase patient portal use to reduce calls
- No Eating in the Office/Communal Foods
- Staggered breaks
- No “parties”

New Rules & Regulations

- Monitor CDC and local health dept rules for ever changing testing, isolation, & quarantine guidance
- OSHA COVID ETS
  - Almost $4 million in fines through 12/31/20 (www.osha.gov)
- State Laws
  - i.e. NY Hero Act
- Mandatory Vaccinations for HCW
Telemedicine in the Covid-19 Era
Amanda Michaud, MMS, PA-C

Telemedicine

• Adoption of telehealth significantly increased since Covid-19 pandemic began
• A/I practices have needed to quickly adjust
Telehealth Usage Increased Substantially in 2020

Change of In-person vs Telehealth visits
Change in Telehealth Visits

Telemedicine Trends

• As of July 2020, >95% of health centers provided telemedicine services
• Highest use: Urban areas, western US
• Lowest use: Southern US, rural areas
• Telehealth visits generally increase when Covid-19 cases increase in the community, and decrease when cases decrease
Pre-Pandemic

- Convenient care & increased access
  - Elderly, poor, disabled, rural
  - Improved compliance
- Cost savings
  - Limit hospital/ER transfers
  - Reduced burden of no-show visits and cancelled appointments
  - Decreased travel cost (time & money)
  - Less time off from work/school

Benefits of Telemedicine in Covid-19 Era

- Workforce sustainability
- Limiting direct contact of clinician/staff with sick patients
- Decrease need for PPE
- Reduced burden on hospitals
- Reduced clinician burnout
- Caring for patients while following social distancing/quarantine guidelines
Telemedicine in the A/I Practice

• Improved asthma control and quality of life in adults
  • Shown to be non-inferior to in-person asthma care
  • Reduced unscheduled visits for asthma
• Asthma education in underserved areas
• Evaluating PCN allergy
  • High patient satisfaction, cost savings & antibiotic stewardship
• Routine follow-ups for refills, annual visits, discuss labs/diagnostics
• EoE follow-ups


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Telemedicine in the A/I Practice

<table>
<thead>
<tr>
<th>Patient Problem</th>
<th># Responses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>New asthma</td>
<td>64</td>
<td>28%</td>
</tr>
<tr>
<td>Follow up asthma</td>
<td>117</td>
<td>51%</td>
</tr>
<tr>
<td>New food allergy</td>
<td>117</td>
<td>51%</td>
</tr>
<tr>
<td>Follow up food allergy</td>
<td>210</td>
<td>91%</td>
</tr>
<tr>
<td>New allergic rhinitis</td>
<td>119</td>
<td>56%</td>
</tr>
<tr>
<td>Follow up allergic rhinitis</td>
<td>221</td>
<td>96%</td>
</tr>
<tr>
<td>New eczema</td>
<td>102</td>
<td>44%</td>
</tr>
<tr>
<td>Follow up eczema</td>
<td>197</td>
<td>86%</td>
</tr>
<tr>
<td>New drug allergy</td>
<td>127</td>
<td>55%</td>
</tr>
<tr>
<td>Follow up drug allergy</td>
<td>113</td>
<td>80%</td>
</tr>
<tr>
<td>New immunodeficiency</td>
<td>76</td>
<td>33%</td>
</tr>
<tr>
<td>Follow up immunodeficiency</td>
<td>163</td>
<td>71%</td>
</tr>
<tr>
<td>Patient education</td>
<td>146</td>
<td>66%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>17</td>
<td>7%</td>
</tr>
</tbody>
</table>

Takeaway: allergists are most comfortable using telemedicine for follow-up appointments and patient education.

Source: ACAAI COVID Member Survey 7/30/20 – 8/16/20. Copyright 2020. Data is protected by ACAAI copyright and is prohibited to be shared or published without ACAAI’s consent.
Getting started with Telemedicine

• Determine what types of patients/problems will be seen
  • Awareness of the limitations of telemedicine (skin testing, drug food challenges, etc)

• Synchronous or asynchronous
  • DTC or Facilitated Visits

• Where clinician will conduct visits

• Platform and necessary equipment

• Scheduling and patient instruction

Getting started with Telemedicine

• Flexibility/buffer time incase of technology issues

• What to do if technology issues come up
  • Dropped calls, poor connection

• Obtain consent

• EMR open

• Use of standardized questionnaires (ACT, UAS, etc)

• History and physical exam

• Assessment and Plan
  • Orders, Rx’s, education
Barriers to Telehealth

- Patient preference for their own provider
- Preference for traditional in-person visits
- Unaware that TM is an option
- Reimbursement/coverage
- Unclear instructions/education for patients
- Technology/internet access
- Limited testing (skin testing, spirometry, FeNO, etc)

Physical Exam

Vital Signs: T 98.5   Wt. 180 lbs   BP 125/75   HR 65
Constitutional: Appears healthy, alert and oriented, cooperative, and in no acute distress
Head: Normocephalic, atraumatic
Eyes: Conjunctiva clear, without redness or drainage
Nose: External nose normal, no drainage
Pulmonary/Chest: No tachypnea, no retractions, no cyanosis. Speaking in full sentences without distress
Neurological: Grossly normal without focal findings based on what could be seen
Skin: Color normal, no visible rashes or lesions
Psychiatric: Normal mood and affect.

Physical Exam

- Patients can take temperature, BP, pulse ox, weigh themselves if they have equipment
- Heart rate and respirations can be measured
- Presence or absence of cough, drainage, sneezing, itching, etc.
- Additional PE items can be done with patient assistance
  - Sinus tenderness
  - Oropharynx
  - Lymphadenopathy
  - Extremities
- Other equipment such as wearables, digital medical equipment, peak flow meters, etc.
Essential Documentation

- Any additional work-up
- Orders & Prescriptions
- Time spent
- Mode (video or audio)
- Location of provider and patient
- Documented like a normal, in-person visit


Billing/Reimbursement

- Covid-19 PHE: increased access but standardization still lacking
  - Relaxed need for use of HIPAA-compliant platform in good faith
- Know your state’s rules/regulations
  - Center for Connected Health Policy
    - [www.cchpca.org](http://www.cchpca.org)
  - Federal State Medical Boards
    - [www.fsmb.org](http://www.fsmb.org)
Billing/Coding

• Can be billed via E/M or time

<table>
<thead>
<tr>
<th>Action</th>
<th>Physician Evaluating/ C/A or Telehealth/Telephone Visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT Code(s)</td>
<td>E/M, Telehealth, Telephone Visit</td>
</tr>
<tr>
<td>Applicable CPT Codes</td>
<td></td>
</tr>
<tr>
<td>A/EP</td>
<td>E/M Telehealth (99401)</td>
</tr>
<tr>
<td>Apply for patient</td>
<td>Establish a new or established patient</td>
</tr>
<tr>
<td>New patient</td>
<td>99401</td>
</tr>
<tr>
<td>Established patient</td>
<td>99402</td>
</tr>
<tr>
<td>Place of Service</td>
<td>Physician Office or other applicable site of the practitioner's normal office location</td>
</tr>
</tbody>
</table>

**Telehealth Visits**

Synchronous audio/visual visit between a patient and clinician for evaluation and management (EMM)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT Code 99201-99205</td>
<td>Office or other outpatient visit for the evaluation and management of a new patient</td>
</tr>
<tr>
<td>CPT Code 99211-99215</td>
<td>Office or other outpatient visit for the evaluation and management of an established patient</td>
</tr>
</tbody>
</table>

*A list of all available codes for telehealth services can be found here:*
https://www.cms.gov/Medicare/Medicare-fee-for-service-payment/Telehealth-Benefits|Telehealth Visits

**Telemedicine Evaluation and Management Service**

Evaluation and management visits via audio-only telephone communications

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT Code 99451</td>
<td>Telephone evaluation and management service by a physician or other qualified health care professional who reports evaluation and management services provided to an established patient, or guardian, not originating from a related E/M service provided within the previous 7 days nor leading to an E/M service or procedure within the next 24 hours or sooner available appointment; 5-10 minutes of medical discussion</td>
</tr>
<tr>
<td>CPT Code 99442</td>
<td>11-20 minutes of medical discussion</td>
</tr>
<tr>
<td>CPT Code 99443</td>
<td>21-30 minutes of medical discussion</td>
</tr>
</tbody>
</table>

**ACAAI Telehealth Toolkit**

Learn about the benefits and challenges of telemedicine, how to select the best telemedicine platform and get info about state laws and reimbursement.

**Access Toolkit**

**Telemedicine for the Allergist: Now and in the Future**

**Video**

How to bill and code for a telemedicine visit during the COVID-19 pandemic

July 12, 2020

This video describes how to appropriately code for telemedicine visits, including telephone only visits and face to face visits.

Watch

**Video**

How to conduct a professional telemedicine visit using website manner

May 6, 2020

This video shows best practices for communicating effectively during a telemedicine visit.

Watch

**Video**

Keeping up with the changes in coding for telehealth

April 15, 2020

This video gives an overview of our alliance’s journey implementing telemedicine visits during the COVID-19 pandemic. Learn about what went right, what went wrong...
Post-Pandemic

- ACAAI Survey: 91% of allergists using telehealth plan to continue offering telehealth post-pandemic
- Consideration for including telemedicine in A/I curriculums
- Reimbursement decreasing = less telemedicine
- Further enhancement and user-friendly interfaces
- How do we best utilize and optimize telehealth long-term?
COVID-19: What Did We Learn?

Psychosocial Implications

Lisa B. Rosenberg, M.Ed, MSW, LCSW
Safe and Included, LLC
Food Allergy Counseling and Consulting
Cherry Hill, NJ

Objectives

1. Examine the psychosocial implications of COVID 19 on patients and healthcare practitioners

2. Identify ways to address psychosocial implications for patients and practitioners
Psychosocial Impact of COVID on Food Allergic Patients

• Initially saw a general decrease in food-related anxiety

Recent Study:
• Mothers of children with food allergy reported high anxiety and poor health-related QoL. Yet, qualitatively, day-to-day food allergy management was better during the pandemic.¹

Psychosocial Impact of COVID on Food Allergic Patients

- **Increased** anxiety due to an increase in “ordering out” food for pick-up/delivery

- Unexpected challenges of food shopping and access to “safe” food

- Increased anxiety because everything is re-opening and caretakers/kids are “out of practice”

Psychosocial Impact of COVID on Asthmatic Patients

- Increased anxiety

- Concerned they were "high risk" for Covid19 complications.

- Recent Study:
  - large Boston-based healthcare system, asthma was associated with comparable risk of hospitalization and mechanical ventilation but a lower risk of mortality.\(^1\)

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Other Implications of COVID-19 on Food Allergic and Asthmatic Patients

- Differences and delays in food allergy and asthma testing and therapies
- Vaccine hesitancy
  - Increased anxiety after the “Summary of Allergic Reactions Following release of Pfizer Vaccine” was published (January 2021).
    - 104 cases of allergic reactions
    - 21 cases of anaphylaxis after administration of 1,893,360 first doses
    - 10 times the anaphylaxis rate of the flu vaccine
    - 17 cases occurred in persons with a documented history of allergies or allergic reactions
    - 7 of these had a history of anaphylaxis

Other Implications of COVID-19 on Food Allergic and Asthmatic Patients

- An increase in psychosomatic symptoms\(^1\) quarantined persons exhibited a higher prevalence of symptoms of:
  - posttraumatic stress disorder (PTSD) (28.9%)
  - depression (31.2%)
  - longer duration of quarantine
    - increased prevalence of PTSD symptoms

- Possible financial implications for allergy patients who have a documented medical exemption from receiving the vaccine
  - Ex: United Airlines Policy (September 8, 2021)

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The Impact of COVID on Practitioners

• Physician/provider burnout
• Increased stress and anxiety amongst staff/providers
• Pivot to telehealth-based services (and learning curve associated with tech changes)
• Frequent changes in protocol in practice settings
• Pay cuts & reduced schedules
• Pandemic fatigue
• Missed work due to quarantining or when home with sick family member
• Understaffing

Were There Any Benefits?

• Greater awareness and acceptance of shared decision-making
• Reduced spread of common respiratory viruses
  • lower the incidence of viral-associated wheezing episodes
• Increased access to high-quality allergy/immunology specialty care.

What Can We Do?

• Provide reliable/valid psychoeducation (at appropriate health literacy levels) to patients about:
  • COVID vaccine safety
  • Behavioral Health Resources (Apps, websites, etc.)
  • Behavioral Health Referrals (network within your communities)

• Practice what you preach
  • Self-care/wellness activities as a staff
    • Promotes positive staff morale
    • Promotes team and validates collective feelings of burnout and pandemic fatigue

Summary:

• COVID-19 continues to impact patients, practitioners, and practice protocols in various ways on a daily basis.

• COVID-19 has resulted in a myriad of negative AND positive implications.

• COVID-19 has affected EVERYONE’s mental health in some way, shape, or form. It is important to recognize the impact it has on one’s physical well-being and to address it accordingly.