NEW! ACG Institute Health Equity Research Award

APPLY: gi.org/research-awards  DEADLINE: December 3, 2021

Read the flyer at gi.org/research-awards to learn more!

ACG INSTITUTE RESEARCH GRANTS AND AWARDS 2022

EIGHT different award types; NEW Health Equity Research Award; Bridge Funding; GIQuIC Research funding; Med Resident and Student Awards

www.gi.org/research-awards

Grant System Opens: September 7, 2021

Deadline: December 3, 2021

Read the Grant Flyer, FAQs, or visit the webpage for the RFAs.
ACG Virtual Grand Rounds

Join us for upcoming Virtual Grand Rounds!

Visit gi.org/ACGVGR to Register

Week 37, 2021
Anorectal Disease for the Gastroenterologist
Waqaq Qureshi, MD, FACP
September 23, 2021 at Noon Eastern

Week 38, 2021
So a traveler and their microbiome get onto a plane... What’s new in the world of travelers’ diarrhea?
Mark S. Riddle, MD, DrPH, FISTM
September 30, 2021 at Noon Eastern

Participating in the Webinar

All attendees will be muted and will remain in Listen Only Mode.

Type your questions here so that the moderator can see them. Not all questions will be answered but we will get to as many as possible.
How to Receive CME and MOC Points

LIVE VIRTUAL GRAND ROUNDS WEBINAR

ACG will send a link to a CME & MOC evaluation to all attendees on the live webinar.

ABIM Board Certified physicians need to complete their MOC activities by December 31, 2020 in order for the MOC points to count toward any MOC requirements that are due by the end of the year. No MOC credit may be awarded after March 1, 2021 for this activity.

*ACG will submit MOC points on the first of each month. Please allow 3-5 business days for your MOC credit to appear on your ABIM account.*

MOC QUESTION

If you plan to claim MOC Points for this activity, you will be asked to: Please list specific changes you will make in your practice as a result of the information you received from this activity.

Include specific strategies or changes that you plan to implement. THESE ANSWERS WILL BE REVIEWED.
**ACG ENDOSCOPY RESUMPTION TASK FORCE**

**Co-Chairs:**
- Costas H. Kefalas, MD, MMM, FACG
- Neil H. Stollman, MD, FACG

**Members:**
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- Vonda G. Reeves, MD, MBA, FACG
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- Jeffry L. Nestler, MD, FACG
- Michael S. Morelli, MD, CPE, FACG
- Louis J. Wilson, MD, FACG
- Melissa Latorre, MD, MS
- Whitfield Knapple, MD, FACG

*All the relevant financial relationships listed for these individuals have been mitigated.*
COVID-19 Vaccines
Where are we today?

David A. Greenwald, MD, FACG
ACG President
Director of Clinical Gastroenterology and Endoscopy
Mount Sinai Hospital
New York, NY
Where We Are Today: Worldwide

- Total Cases: 228,635,141
- Total Deaths: 4,693,785
- Total Vaccine Doses Administered: 5,922,519,104

Where We Are Today: United States

- US Cases: 42,090,894
- US Deaths: 673,770
- Total Vaccine Doses Administered: 384,121,020
Where We Are Today

**Vaccine Distribution**

384,135,353 people have received at least one dose of a COVID-19 vaccine in US as of 9/20/2021

Fully vaccinated in USA 55% overall; 66% over 18 years; 83% over 65 years

5,923,046,283 people have received at least one dose of a COVID-19 vaccine worldwide as of 9/20/2021
Update on Virology: Variants

Harish K Gagneja, MD, FACG
Austin Gastroenterology, Austin, TX
ACG Governor for Southern TX
Past-President: TSGE
Physician Executive Board Member: GI Alliance
Medical Advisory Board: GI Alliance

Coronavirus Virology

• Enveloped positive-stranded RNA viruses
• Coronavirus that causes COVID-19 is:
  • A beta-coronavirus
  • Same subgenus as the SARS
  • MERS is more distantly related
  • Closest RNA sequence similarity is to two bat coronaviruses
• Designated as Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-COV-2)
SARS-CoV-2: Variants of Interest (VOI)

• A variant with genetic changes that are predicted or known to affect virus characteristics:
  • Transmissibility
  • Disease severity
  • Immune escape
  • Diagnostic or therapeutic escape AND

• Identified to cause significant community transmission or multiple COVID-19 clusters in multiple countries

SARS-CoV-2: Variants of Concern (VOC)

• Increase in transmissibility
• Greater risk of severe disease
• Significant reduction in neutralization by antibodies generated during previous infection or vaccination
• Reduced effectiveness of treatments or vaccines
• All variants share one specific mutation called D614G
• Viruses with this mutation spread more quickly than the viruses without this mutation
SARS-CoV-2 Variants of Concern: Nomenclature

- Two resources are used:
  - Pango lineage (Pangolin)
  - Nextstrain
- These resources compile reported SARS-CoV-2 genome sequences and assign them to a most likely phylogenetic lineage
- Each uses its own nomenclature

---

<table>
<thead>
<tr>
<th>WHO label</th>
<th>Name (Pango lineage*)</th>
<th>Name (Nextstrain*)</th>
<th>Spike protein subvariants (receptor binding domain substitutions in bold)</th>
<th>First detected</th>
<th>Known attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha</td>
<td>B.1.1.7*</td>
<td>20E/501.V3</td>
<td>202012/901</td>
<td>United Kingdom</td>
<td>-50% increased transmission**&lt;br&gt;- Potential increase in severity based on hospitalization rates and case fatality rates**&lt;br&gt;- Increased susceptibility to neutralizing antibodies (IgM, IgG)<strong>&lt;br&gt;- Increased susceptibility in vaccinees (IgM, IgG)</strong>&lt;br&gt;- No change in vaccine efficacy**&lt;br&gt;- Reassortment: no change in susceptibility**&lt;br&gt;- Reassortment: no change in case fatality rates**&lt;br&gt;- Reassortment: no change in hospitalization rates**&lt;br&gt;- Reduced neutralization by convalescent and post-vaccination sera**&lt;br&gt;</td>
</tr>
<tr>
<td>Beta</td>
<td>B.1.351</td>
<td>20H/501.V2</td>
<td>202101/14</td>
<td>South Africa</td>
<td>50% increased transmission**&lt;br&gt;- Significant impact on vaccination and some monocellular antibody therapy**&lt;br&gt;- Increased susceptibility to monocellular antibody therapy**&lt;br&gt;- No change in vaccine efficacy**&lt;br&gt;- Moderate reduction in neutralization by convalescent and post-vaccination sera**&lt;br&gt;</td>
</tr>
<tr>
<td>Gamma</td>
<td>P.1</td>
<td>20G/501/V3</td>
<td>202101/14</td>
<td>Japan, Brazil</td>
<td>Significant impact on neutralization to some monocellular antibody therapies**&lt;br&gt;- Reduced neutralization by convalescent and post-vaccination sera**&lt;br&gt;</td>
</tr>
<tr>
<td>Delta</td>
<td>B.1.617.2*</td>
<td>20K/19V3</td>
<td>202101/14</td>
<td>India</td>
<td>Increased transmissibility compared with B.1.1.7**&lt;br&gt;- Potential increased severity based on hospitalization rates**&lt;br&gt;- Potential decreased neutralization by monocellular antibody therapies**&lt;br&gt;- Potential reduced neutralization by monocellular antibody therapies**&lt;br&gt;- No change in vaccine efficacy**&lt;br&gt;- Reduced neutralization by convalescent and post-vaccination sera**&lt;br&gt;</td>
</tr>
<tr>
<td>Epsilon</td>
<td>B.1.1.27 / B.1.42</td>
<td>20G/25+50R</td>
<td>202101/14</td>
<td>New York, California</td>
<td>-50% increased transmissibility**&lt;br&gt;- Significant increase in hospitalization rates**&lt;br&gt;- Increased susceptibility to monocellular antibody therapies**&lt;br&gt;- Increased susceptibility in vaccinees**&lt;br&gt;- Reassortment: no change in susceptibility**&lt;br&gt;- Reassortment: no change in case fatality rates**&lt;br&gt;- Reassortment: no change in hospitalization rates**&lt;br&gt;- Reduced neutralization by convalescent and post-vaccination sera**&lt;br&gt;</td>
</tr>
</tbody>
</table>
SARS-CoV-2 Variants of Concern: Delta

- Pangolin: B.1.617.2
- Nextstrain: 20A
- First detected in India, October-20, designated 05-11-21
- Increased transmissibility compared with Alpha
- Potentially more severe
- Potential minimal reduction in neutralization by monoclonal antibody therapies – lack of mutations which affect these therapies
- Potential moderate reduction in vaccine effectiveness against mild symptomatic disease, without significant effect on severe disease

SARS-CoV-2 Variants of Interest: Lambda

- Pangolin: C.37
- Nextstrain: 21G
- First detected in Peru Dec-2020, designated on 06-14-2021
SARS-CoV-2 Variants of Interest: Mu

- Pangolin: B.1.621
- Nextstrain: 21H
- First detected in Columbia Jan-2021, designated on 08-30-2021
- High prevalence in Columbia and Ecuador, globally 0.1%
- It has mutations that indicate “potential properties of immune escape”
- Impact on treatment with monoclonal antibody is not known at this time
- More studies are needed

SARS-CoV-2: Variants of Interest/Concern

- Variants are expected to continue to emerge
- Some variants will:
  - Emerge
  - Disappear
  - Continue to spread
  - May replace previous variants
- Nowcast (CDC.GOV) projects more recent proportions of circulating variants
- It is updated every week on Tuesdays
SARS-CoV-2 Variants of Concern: Resources

- Uptodate.com
- CDC.gov
- Idsociety.org
Thank You
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@hgagneja

Update on Virology: Vaccines

Francis A. Farraye, MD, MSc, MACG
Director, Inflammatory Bowel Disease Center
Division of Gastroenterology and Hepatology
Professor of Medicine
Mayo Clinic, Jacksonville, FL
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@FarrayeIBD
Information up to date as of September 19, 2021
September 20, 2021
COVID-19 Vaccines in the U.S.

- mRNA vaccines studied since the 1990s
- Pfizer mRNA Vaccine: FDA approved 8/23/21, two shots for people 12 years and older, 21 days apart; Some immunocompromised people should get 3 doses
- Moderna mRNA Vaccine: Emergency Use Authorization, two shots for people 18 years and older, 28 days apart; Some immunocompromised people should get 3 doses
- J&J Viral Vector Vaccine: Emergency Use Authorization, One shot for people 18 years and older; No recommendation for immunocompromised people
- 381 million vaccine doses administered in US through September 2021
- Multiple other vaccines approved in other parts of the world with 5.76B doses of various Covid vaccines administered worldwide

New reported cases

NY Times, Accessed 9/14/2021
Effectiveness of COVID-19 Vaccines Prior to Spread of B.1.617.2 (Delta) Variant

- Model developed by Commonwealth Fund prior to delta explosion
- Without a vaccination program, by the end of June 2021 there would have been approximately 279,000 additional deaths and up to 1.25 million additional hospitalizations


New reported cases

NY Times, Accessed 9/14/2021
Who Should Get the Covid Vaccine?

- Everyone 18 and older in the US for Pfizer, Moderna and J&J vaccine
- Pfizer vaccine approved for ages 12-17
- Pediatric studies ongoing in children 6 months to 11
- Safe to receive vaccine if pregnant or breastfeeding
- If naturally infected, it is recommended to receive a Covid vaccine
- No out-of-pocket charge for the vaccine in the US
Waning Antibody Titers Over Time

- CDC conducted a case-control analysis among 3,689 adults aged ≥18 years who were hospitalized at 21 US hospitals across 18 states during 3/1/21–8/15/2021
- Among U.S. adults without immunocompromising conditions, vaccine effectiveness against COVID-19 hospitalization during 3/1/21–8/15/2021 was higher for the Moderna vaccine (93%) than the Pfizer vaccine (88%) and the J&J vaccine (71%)

https://www.cdc.gov/mmwr/volumes/70/wr/mm7038e1.htm?s_cid=mm7038e1_x

Third Dose of the Covid Vaccine for Immunocompromised

- 40% (Israel) and 44% (US) of hospitalized patients with breakthrough infection are immunocompromised
- CDC and ACIP recommended on 8/12/2021 a third dose of COVID-19 vaccine (Moderna, Pfizer) for immunosuppressed individuals
  - Advanced or untreated H.I.V. infections, stem cell transplants within the past two years and those receiving certain kinds of chemotherapy
  - High-dose corticosteroids, alkylating agents, antimetabolites, tumor-necrosis factor (TNF) inhibitors, and other immunosuppressive biologic agents
- Immunosuppressed patients should continue to wear a mask in public and follow social distancing guidelines

**FDA Meeting 9/17/2021**

- FDA Vaccines and Related Biological Products Advisory Committee voted against recommending 3rd dose of Pfizer vaccine to everyone 16 and older
- What is the risk of side effects of a third dose of a COVID-19 vaccine?
- Voted that people 65 and older or at high risk for COVID-19 to receive 3rd dose
- Who are at high risk?
  - This remains to be determined but likely includes health care workers, emergency responders, teachers (?)

**Safety of Pfizer Covid Vaccine**

- Study of 885K patients in Israel who received the Pfizer vaccine compared to control group not vaccinated and with 233K patients who developed COVID-19
- Adverse outcomes within 42 days of the second vaccine were recorded
- Vaccination was associated with an elevated risk of following
  - Myocarditis (RR, 3.24; 95% CI, 1.55 to 12.44); risk difference, 2.7 events per 100,000 persons
  - Lymphadenopathy (RR, 2.43; 95% CI, 2.05 to 2.78); risk difference, 78.4 events per 100,000 persons
  - Appendicitis (RR, 1.40; 95% CI, 1.02 to 2.01); risk difference, 5.0 events per 100,000 persons
  - Herpes zoster infection (RR, 1.43; 95% CI, 1.20 to 1.73); risk difference, 15.8 events per 100,000 persons
- Must take safety of vaccine in the context of developing COVID-19 infection

How is Success Defined with the COVID-19 Vaccine?

- Prevent infection
- Prevent hospitalization
- Prevent ICU admission or intubation
- Prevent death
Breakthrough Infections in the U.S.

- As of 8/2/21, among more than 164 million fully vaccinated individuals in U.S., there have been 7,101 hospitalizations & 1,507 deaths with vaccine breakthrough reported to passive surveillance
- Among hospitalized or fatal breakthrough cases, 74% were in persons ≥ 65
- With waning immunity, we will see more breakthrough cases but anticipate robust protection against severe disease, hospitalization and death


What does this mean for you and your patients?

- Breakthrough infections are to be EXPECTED
- MUST continue prevention strategies
  - Vaccination
  - Masks
  - Distancing
- Mitigating activities of masking and distancing INCLUDES vaccinated individuals
- Recommendations will certainly and appropriately change as we learn more about SARS COV-2 variants
Vaccinations in the U.S. as of September 13, 2021

U.S.: 42 million cases and 673K deaths (9/17/2021)

Addressing vaccine hesitancy is high priority with multiple states in the U.S. having less than 50% of their population vaccinated.

https://covid.cdc.gov/covid-data-tracker/#vaccinations

Vaccine Doses Administered in U.S.

Source: Centers for Disease Control and Prevention
Mild influenza season 2020-2021 likely related to masking and social distancing

Strongly recommend influenza vaccine for your patients to avoid a “twindemic”

OK to receive your COVID-19 vaccine along with all other vaccines
Thank You
farraye.francis@mayo.edu
@FarrayeIBD

Update in Regulations

Costas H. Kefalas, MD, MMM, FACG
Trustee, ACG Board of Trustees
Partner, Akron Digestive Disease Consultants, Inc.
Akron, Ohio
Topics

• Updated CDC Numbers and Guidelines
• OSHA Emergency Temporary Standard
• OSHA Guidance on Mitigating and Preventing Spread of COVID-19 in the Workplace
• Employer COVID-19 Vaccine Mandates
• President Biden’s COVID-19 Action Plan

United States CDC Data:
COVID-19 Cases and Deaths (as of 9/18/2021)

• Total cases: 41,915,285
• Total deaths: 670,565
• 7 day case rate per 100,000: 299.6

https://covid.cdc.gov/covid-data-tracker/#cases_casesper100klast7days
**Interim CDC Public Health Recommendations for Fully Vaccinated People (9/1/2021): Slide 1**

- Updated info for fully vaccinated people, based on new Delta variant evidence
- Fully vaccinated people should wear a mask in public indoor settings in areas of substantial or high transmission (defined in chart below):

<table>
<thead>
<tr>
<th>New cases per 100,000 persons in the past 7 days</th>
<th>Low</th>
<th>Moderate</th>
<th>Significant</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10</td>
<td>10-49.99</td>
<td>50-99.99</td>
<td>≥100</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentage of positive NAATs* tests during the past 7 days</th>
<th>Low</th>
<th>Moderate</th>
<th>Significant</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5%</td>
<td>5-7.99%</td>
<td>8-9.99%</td>
<td>≥10.0%</td>
<td></td>
</tr>
</tbody>
</table>

* Nucleic Acid Amplification Test


**Interim CDC Public Health Recommendations for Fully Vaccinated People (9/1/2021): Slide 2**

- Fully vaccinated people might choose to wear mask regardless of the level of transmission, especially if:
  - Immunocompromised or at increased risk for severe disease from COVID-19
  - There is someone immunocompromised at home, at increased risk of severe disease, or not fully vaccinated
- Fully vaccinated people who have come into close contact with someone with suspected or confirmed COVID-19 should be tested 3-5 days after exposure, and wear a mask in public indoor settings for 14 days or until they receive a negative test result
- Universal indoor masking for all teachers, staff, students, and visitors to schools, regardless of vaccination status

OSHA Emergency Temporary Standard (6/21/2021): Slide 1

- Requires covered healthcare employers to develop and implement a COVID-19 plan to identify and control COVID-19 hazards in the workplace
- Issued pursuant to President Biden’s Executive Order on Protecting Worker Health and Safety on January 21, 2021
- All provisions of ETS had to be implemented by 7/21/2021
- Provisions included:
  - Development and implementation of a COVID-19 plan
  - Patient and employee screening and management
  - Controls for aerosol-generating procedures
  - Physical barriers
  - Ventilation


- Intended to protect employees in hospitals and ambulatory care facilities where suspected or confirmed COVID-19 patients are treated
- Exemptions: ETS does not apply to:
  - Non-hospital ambulatory care settings where all non-employees are screened prior to entry and people with suspected or confirmed COVID-19 are not permitted to enter those settings
  - Defined hospital ambulatory care settings where all employees are fully vaccinated, and all non-employees are screened prior to entry and people with suspected or confirmed COVID-19 are not permitted to enter those settings
  - Healthcare support services not performed in a healthcare setting (e.g., off-site services, off-site medical billing)
  - Telehealth services performed outside of a setting of direct patient care


- Guidance ≠ standard, regulation, or legal obligation
- Facilitate employees getting vaccinated
- Instruct infected workers, unvaccinated workers who have had close contact with someone who tested positive for SARS-CoV-2, and all workers with COVID-19 symptoms to stay home
- Implement physical distancing in communal work areas for unvaccinated and at-risk workers
- Provide workers masks, unless work task requires a respirator or other PPE
- Educate/train workers on your COVID-19 policies/procedures using accessible formats/language
- Suggest or require unvaccinated customers, visitors, or guests wear masks in public-facing workplaces, and that all customers, visitors, or guests wear masks in public, indoor settings in areas of substantial or high transmission

https://www.osha.gov/coronavirus/safework


- Maintain ventilation systems
- Perform routine cleaning and disinfection
- Record and report COVID-19 infections and deaths
- Implement protections from retaliation and set up anonymous process for workers to voice concerns about COVID-19-related hazards
- Follow other applicable mandatory OSHA standards:
  - Requirements for PPE, respiratory protection, sanitation, protection from bloodborne pathogens, and OSHA’s requirements for employee access to medical and exposure records

https://www.osha.gov/coronavirus/safework
### EEOC Guidance (5/28/2021): Employer COVID-19 Vaccine Mandates: Slide 1

- **EEOC = Equal Employment Opportunity Commission**
- **Guidance based on ADA, Title VII, and existing EEO laws**

<table>
<thead>
<tr>
<th>Selected Guidance Questions</th>
<th>Selected Guidance Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• May an employer require all employees physically entering workplace to be vaccinated for COVID-19?</td>
<td>• Yes</td>
</tr>
<tr>
<td>• Possible exemptions: disability; religious beliefs, practices, or observance; pregnancy</td>
<td>• Principles apply if employee gets vaccinated in community or from employer</td>
</tr>
<tr>
<td>• What accommodations do employers have to provide employees who do not get vaccinated due to disability; religious beliefs, practices, or observance; or pregnancy?</td>
<td>• Wear mask, social distance from coworkers or non-employees, work modified shift, obtain periodic tests for COVID-19, telework option, or reassignment</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Selected Guidance Questions</th>
<th>Selected Guidance Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Is information about an employee's COVID-19 vaccination confidential medical information?</td>
<td>• Yes</td>
</tr>
<tr>
<td>• Employer must maintain confidentiality of employee medical information, i.e., documentation or confirmation of COVID-19 vaccination, no matter where employee obtained vaccination</td>
<td>• Employers allowed to require employees to present documentation or other confirmation of vaccination</td>
</tr>
<tr>
<td>• Documentation or confirmation of vaccine status should be stored separately from personnel files</td>
<td></td>
</tr>
</tbody>
</table>

Employee COVID-19 Vaccinations: Practical Considerations

• Decide if you will mandate COVID-19 vaccine or consider other means to increase vaccination rates
• Consider implementing/updating COVID-19 vaccination policies
• Review EEOC guidance for accommodating employees with disabilities or religious objections to vaccine
• Review current policies/procedures to ensure correct handling of accommodation requests
• Keep employee vaccination status as confidential medical information
• Monitor CDC and OSHA websites to keep current with guidance
• Update COVID-19 policies to determine which employees will be subject to masking and social distancing, based on CDC guidance
• Keep informed of local public health rules and regulations requiring masking
• Consider bargaining obligations with the Union prior to instituting/modifying vaccination policies, if you have employees subject to collective bargaining agreements
• Train supervisors and managers on COVID-19 policies


President Biden’s COVID-19 Action Plan (9/9/2021): Six Strategies

• **Vaccinating the Unvaccinated**
• Further Protecting the Vaccinated
• Keeping Schools Safely Open
• Increasing Testing & Requiring Masking
• Protecting Our Economic Recovery
• Improving Care for those with COVID-19

https://www.whitehouse.gov/covidplan/
**President Biden’s COVID-19 Action Plan (9/9/2021): Vaccinating the Unvaccinated: Specific Requirements**

- Requiring all employers with 100+ employees to ensure their workers are vaccinated or tested weekly
- Requiring vaccinations for all federal workers and for millions of contractors that do business with the federal government
- Requiring COVID-19 vaccinations for over 17 million health care workers at Medicare and Medicaid participating hospitals and other health care settings
- Calling on large entertainment venues to require proof of vaccination or testing for entry
- Requiring employers to provide paid time off to get vaccinated

https://www.whitehouse.gov/covidplan/

---

**Medicare and Medicaid Participating Hospitals and Other Health Care Settings Defined by CMS:**

- All fee-for-service (FFS) facilities
- Hospitals & inpatient facilities
  - Acute care
  - Critical Access Hospitals (CAHs)
  - Inpatient Rehabilitation Facilities (IRFs)
- Outpatient facilities
  - Ambulatory Surgical Centers (ASCs), Comprehensive Outpatient Rehabilitation Facilities (CORFs), Federally Qualified Health Centers (FQHCs), & Rural Health Clinics (RHCs)
  - Long-term care facilities & Skilled Nursing Facilities (SNFs)
  - Durable medical equipment suppliers (DMEs)
  - Home Health Agencies (HHAs)
  - Hospices
  - Clinical labs
  - Ambulances

https://www.cms.gov/Outreach-and-Education/Find-Your-Provider-Type/Facilities/Facilities-page
COVID-19: Update on Environmental Safety

Melissa Latorre, MD MS
Director, Inpatient GI Services Tisch/Kimmel
NYU Langone Health
Assistant Professor of Medicine
NYU School of Medicine

Objectives

- To review prior recommendations for masks, pre-procedure testing, and environmental safety.

- To discuss changes to recommendations in light of recent strains and vaccination.

- To provide a practical approach to environmental safety in your practice.
The CDC continues to recommend mask use in light of increased transmissibility with the delta variant.

The CDC recommends that vaccinated individuals wear masks while indoor or in locations of substantial/high transmission.

There is no specification on mask type.
### Vaccine Efficacy in Healthcare Settings

**Table 1. Symptomatic SARS-CoV-2 Infection and mRNA Vaccine Effectiveness among UCSDH Health Workers, March through July 2021.**

<table>
<thead>
<tr>
<th></th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UCSDH workforce — no. of persons</strong></td>
<td>9,964</td>
<td>9,992</td>
<td>19,000</td>
<td>19,035</td>
<td>19,016</td>
</tr>
<tr>
<td><strong>Vaccination status — no. of persons</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fully vaccinated†</td>
<td>14,470</td>
<td>15,510</td>
<td>16,157</td>
<td>16,426</td>
<td>16,492</td>
</tr>
<tr>
<td>mRNA-1273 (Moderna)</td>
<td>6,608</td>
<td>7,005</td>
<td>7,340</td>
<td>7,451</td>
<td>7,464</td>
</tr>
<tr>
<td>BNT162b2 (Pfizer-BioNTech)</td>
<td>7,862</td>
<td>8,505</td>
<td>8,817</td>
<td>8,975</td>
<td>9,028</td>
</tr>
<tr>
<td>Inactivated</td>
<td>1,020</td>
<td>2,000</td>
<td>3,187</td>
<td>3,004</td>
<td>1,805</td>
</tr>
<tr>
<td><strong>Percentage of workers fully vaccinated</strong></td>
<td>76.3</td>
<td>81.7</td>
<td>85.0</td>
<td>86.3</td>
<td>86.7</td>
</tr>
<tr>
<td><strong>Symptomatic Covid-19</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fully vaccinated workers</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>94</td>
</tr>
<tr>
<td>Unvaccinated workers</td>
<td>11</td>
<td>17</td>
<td>10</td>
<td>10</td>
<td>31</td>
</tr>
<tr>
<td><strong>Percentage of cases in fully vaccinated</strong></td>
<td>21.4</td>
<td>19.0</td>
<td>23.1</td>
<td>33.3</td>
<td>75.2</td>
</tr>
<tr>
<td><strong>Attack rate per 1000 (95% CI)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fully vaccinated workers</td>
<td>0.2</td>
<td>[0.21-0.47]</td>
<td>0.26</td>
<td>[0.26-0.50]</td>
<td>0.19</td>
</tr>
<tr>
<td>Unvaccinated workers</td>
<td>3.4</td>
<td>6.8</td>
<td>4.6</td>
<td>4.9</td>
<td>16.4</td>
</tr>
<tr>
<td><strong>Vaccine effectiveness — % (95% CI)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fully vaccinated workers</td>
<td>91.9</td>
<td>[79.2-97.9]</td>
<td>96.2</td>
<td>[88.7-98.3]</td>
<td>95.9</td>
</tr>
</tbody>
</table>

* UCSDH denotes University of California San Diego Health.  † Data are the total number of workers who had received two doses of an mRNA vaccine as of the last day of the month.
OTHER ENVIRONMENTAL FACTORS

Air Exchange

Table B.1. Air changes/hour (ACH) and time required for airborne-contaminant removal by efficiency *

<table>
<thead>
<tr>
<th>ACH 5 %</th>
<th>Time (mins.) required for removal 95% efficiency</th>
<th>Time (mins.) required for removal 99.9% efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>138</td>
<td>207</td>
</tr>
<tr>
<td>4</td>
<td>69</td>
<td>104</td>
</tr>
<tr>
<td>6</td>
<td>46</td>
<td>69</td>
</tr>
<tr>
<td>8</td>
<td>35</td>
<td>52</td>
</tr>
<tr>
<td>10</td>
<td>28</td>
<td>41</td>
</tr>
<tr>
<td>12</td>
<td>23</td>
<td>35</td>
</tr>
<tr>
<td>15</td>
<td>18</td>
<td>28</td>
</tr>
<tr>
<td>20</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>50</td>
<td>6</td>
<td>8</td>
</tr>
</tbody>
</table>
Surface Transmission (Fomites)

- The risk of fomite transmission <<<< direct contact, droplet transmission or airborne transmission.
- Fomite transmission & infection is estimated at < 1:10,000.
- Fomite transmission of SARS-CoV-2 is thought to be minimal after 72 hours.
- EPA List N registered disinfectants are thought to be effective.
- Soap and water has not been thoroughly studied.

Beyond the Mask: Gowns & Goggles

Repici A et al. Gastroint Endosc 2020
Beyond the Mask: Gowns & Goggles

Minimum PPE for general patient triage
- Face shield / Goggles / eye-visors
- Surgical mask / N95 respirator
- Isolation gown (AAMI level 1)
- Disposable gloves as indicated
  # For example, when presence of skin lesions or contact with blood and body fluids

Recommended PPE for suspected / confirmed novel coronavirus cases
- Face shield / Goggles / Cap
- N95 respirator
- Isolation gown (AAMI level 3)
- Disposable gloves

Chiu PWY et al. Gut 2020

PRE-PROCEDURE TESTING
Weighing Pre-Procedure COVID-19 Testing

**BENEFITS**
- Staff / patient anxiety
- Triage of resources and PPE
- Reduced risk of infection

**DISADVANTAGES**
- Patient burden
- Staff resources
- Delays
- Limited capacity / turn-around
- Cost
- Inadvertent consequences

When to Consider Testing?

- NY state mandated pre-procedure testing regardless of vaccine status at positivity rate 2% or greater.

- AGA recommends adopting a testing strategy at 0.5-2.0% - intermediate prevalence of asymptomatic population.
Intermediate prevalence
(0.5-2.0%) of asymptomatic population
Considerations for adopting a testing strategy

Overall considerations regardless of setting:
- Testing may provide reassurance to patients that all patients in endoscopy center are COVID-
- Patient burden of testing logistics, particularly given low availability and limited testing sites
- Provider burden of testing logistics

<table>
<thead>
<tr>
<th>Prevalence:</th>
<th>PPE Rationing:</th>
<th>Limited Testing Capacity:</th>
</tr>
</thead>
<tbody>
<tr>
<td>High prevalence area:</td>
<td>Pros: - Allows for more informed rationing of limited PPE</td>
<td>Pros: - None</td>
</tr>
<tr>
<td>Pro: - Greater benefit in reducing risk of transmission by delaying COVID+ cases</td>
<td>Cons: - False negatives may result in false sense of security and downgrading of PPE when not safe</td>
<td>Cons: - Limited ability to test patients will become a bottleneck in resuming endoscopy operations</td>
</tr>
<tr>
<td>Low prevalence area:</td>
<td>Cons: - False positives may result in unnecessary case delay, with quarantine (consequences for family, quality of life, and ability to work)</td>
<td>If CDC or hospital guidance require it, additional tests showing 2 negative PCRs will be needed to clear patients prior to resuming work and rescheduling the procedure, in an already limited testing setting</td>
</tr>
</tbody>
</table>

Take Home Points

- Evidence is still limited with respect to masks, vaccines and environmental safety.

- The development of novel strains may continue to change practices in the future. With the delta variant recommendations remain largely unchanged.

- Decisions around pre-procedure testing should be tailored to the local environment by accounting for disease prevalence and the availability of PPE.

COVID-19: Update on Practice Management Considerations

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The old normal

Before 3/2020

The current crisis

3/2020-present

Our (professional) future
Can we get back?

2022 ........

Keeping our practices afloat

- Keeping everyone safe in our **physical space**
- The front line: our **coworkers and teammates**
- The back office: **financial concerns**
Keeping everyone safe

- Infection control measures are here to stay, likely some level indefinitely
- Distancing, hand hygiene, barriers
- ? masks
- Increasing attention on ventilation and airspace rather than on surface decontamination


Community masking likely matters

- UCSD Health system, 87% vaccinated
- CA mask mandate ended June 15th 2021
- Abrupt rise certainly due in part to Delta (95% of isolates) but also very likely decreased masking also.
Mask policies

- Often loco-regional mandates will define a ‘minimum’ but you may impose further measures as a private business (and most health care facilities do) so shouldn’t cause too much controversy
- RCT 340K in 600 communities
  - Yale, Stanford, Innovation for Poverty Action
  - 30% ↑ mask use → 10% ↓ risk COVID
  - 35% for >60 years
  - Surgical > cloth
  - Free masks, info, modeling: effective
  - Incentives, texts, altruistic messaging: not

Employees testing positive (and they will)

- Express support, still frightening
- HR if appropriate; PTO, FFCRA
- Isolate / quarantine based on current CDC guidance (evolves, but shortens / lightens for vax’d vs non-vax’d)
- Might be able to work remotely if not clinically ill
- Assess risk to other employees or patients or vendors (inform, index case remains anonymous). “six feet prolonged contact”
Many healthcare systems now mandating for employees

May be moot now, with Biden’s executive order mandating same

Nearly 1,500 health systems across the United States mandate Covid-19 vaccination

By Katheryn Houghton, Kaiser Health News
Updated 6:34 AM ET, Mon August 9, 2021

Keeping up morale and attending to employee mental health

- Empathy fatigue is real
- Communicate frequently and consistently (have a schedule)
- Permit flexibility and pivoting
- Acknowledge and be alert for signs of burnout in staff
- Acknowledge and be open to mental health disclosures, support those who disclose and create environment of acceptance for same

Healthcare workers, once cheered as heroes, now threatened and harassed

Molly Gamble (Twitter) - Thursday, September 2nd, 2021 Print | Email
"Business disruptions return

Crisis Standards Activated in Idaho as Hospitals Overflow
— "This is a decision I was fervently hoping to avoid," says department of health director
by Syrii Xiong, Enterprise & Investigation Writer, WedPage Today, September 10, 2021

Texas hospitals asked to postpone elective procedures, out-of-state workers recruited
Kelly Gooch and Albo Paavola - Tuesday, August 10th, 2021 Print | Email

Advocate Sherman Hospital rescheduling elective surgeries due to a lack of anesthesia providers
Nurse recruitment, retention is a No. 1 priority for ASCs in 2022
by carpet - Thursday, August 11th, 2021 Print | Email

Intermountain halts nonemergent surgeries at 13 hospitals
Intermountain HealthCare said it is joining other U.S. hospitals and health systems that have delayed nonemergency surgeries amid a COVID-19 surge fueled by the highly transmissible delta variant.
The Salt Lake City-based health system is postponing all non-urgent surgeries and procedures requiring a hospital admission or postoperative inpatient monitoring in its 13 trauma and community hospitals.

Your team will need to be bigger

- Intermittent absences (childcare, quarantine) will remain common and your admins need permission to upstaff/hire.
- "7-for-5"
- Prioritize cross-training and staff rotations.
- Recognize efforts and sacrifices by staff, address career development, retention bonuses
- Since you can’t hire, promote!! Use the (human) resources you already have!
COVID-19: Where Are We Now?
Updates from the ACG COVID-19 Task Force

- COSTS are up:
  - PPE cost, new supplies
  - Salaries / benefits
- Revenues were down, may be rebounding now but risks remain:
  - Staff shortages
  - Supply chain disruptions
  - Decreased federal reimbursement

Productivity / revenue are up but so are expenses
So, what can we do?

- Be flexible, reassess costs, revenue often! We used to live in a somewhat steady state world, but not anymore....
- Supply chain integration?
- Up your remote and digital games as much as possible, it is no longer an optional luxury
- Continue overt efforts to keep staff, patients safe
- Upstaff, cross train, promote and love ‘em all emotionally and financially

Q&A Session

Moderated by:

Samir A. Shah, MD, FACG
Michael S. Morelli, MD, CPE, FACG