GMDA Summer Meeting
August 6, 2022
Presenter

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Medical Director, Alliant Health Solutions
Objectives

- Discuss the latest science pertaining to current existing variants and the level of concern for contagiousness.
- Discuss the current CDC recommendations for the degree of isolation in the general population and infected patients.
- Discuss the currently accepted treatments for COVID and the current recommendations for vaccination.
Current State: COVID-19

The blue bars show daily cases. The red line is the 7-day moving average of cases. The orange line represents the percentage of Emergency Department (ED) visits with diagnosed COVID-19.
Current State: COVID-19

The blue bars show daily cases. The red line is the 7-day moving average of cases. The orange line represents the 7-day average of the number of inpatients (adult and pediatric) admitted to a hospital with confirmed COVID-19 diagnosis.

Daily Trends in Number of Cases and 7-day Average of New Patients Admitted to Hospital with Confirmed COVID-19 in Georgia Reported to CDC

- United States
  - New Cases: 89,044
  - 7-day Moving Avg Cases: 89,041
  - New COVID-19 Hospital Admissions: 6,701
  - Date: October 12, 2021
Current State: COVID-19 Among Vaccinated

The blue bars show daily cases. The red line is the 7-day moving average of cases. The orange line represents the 7-day moving average of the number of people who were fully vaccinated against COVID-19 by date administered.

Daily Trends in Number of COVID-19 Cases and 7-day Moving Average of the Number of People Fully Vaccinated in Georgia Reported to CDC
Resident Cases of COVID-19

* Data are likely accruing, all data can be modified from week-to-week by facilities
For the purpose of creating this time-series graph, data that fail certain quality checks or appear inconsistent with surveillance protocols are assigned a value based on their patterns for data-entry or excluded from analysis
Data source: Centers for Disease Control and Prevention, National Healthcare Safety Network
For more information: https://www.cdc.gov/nhsn/ltc/covid19/index.html
Accessibility: [Right click on the graph area to show as table]
Staff Cases of COVID-19

Confirmed COVID-19 Cases among Staff and Rate per 1,000 Resident-Weeks in Nursing Homes, by Week—United States

* Data are likely accruing, all data can be modified from week-to-week by facilities
For the purpose of creating this time-series graph, data that fail certain quality checks or appear inconsistent with surveillance protocols are assigned a value based on their patterns for data-entry or excluded from analysis
Data source: Centers for Disease Control and Prevention, National Healthcare Safety Network
For more information: https://www.cdc.gov/nhsn/ltc/covid19/index.html
Accessibility: [Right click on the graph area to show as table]
### Wastewater Surveillance

**Current SARS-CoV-2 virus levels by site, United States**

<table>
<thead>
<tr>
<th>Current virus levels category</th>
<th>Num. sites</th>
<th>% sites</th>
<th>Category change in last 7 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Site</td>
<td>173</td>
<td>19</td>
<td>0%</td>
</tr>
<tr>
<td>0% to 19%</td>
<td>3</td>
<td>0</td>
<td>50%</td>
</tr>
<tr>
<td>20% to 39%</td>
<td>55</td>
<td>6</td>
<td>12%</td>
</tr>
<tr>
<td>40% to 59%</td>
<td>205</td>
<td>22</td>
<td>– 4%</td>
</tr>
<tr>
<td>60% to 79%</td>
<td>340</td>
<td>37</td>
<td>– 14%</td>
</tr>
<tr>
<td>80% to 100%</td>
<td>138</td>
<td>15</td>
<td>– 3%</td>
</tr>
</tbody>
</table>
Current COVID-19 Variant

United States: 4/24/2022 – 7/30/2022

United States: 7/24/2022 – 7/30/2022 NOWCAST

- Current COVID-19 Variant

- United States: 4/24/2022 – 7/30/2022

- United States: 7/24/2022 – 7/30/2022 NOWCAST

- WHO label Lineage # US Class %Total 95%PI

- Omicron BA.5 VOC 85.5% 83.8-87.0%

- BA.4 VOC 7.7% 7.0-8.5%

- BA.4.6 VOC 4.1% 3.2-5.4%

- BA.2.12.1 VOC 2.6% 2.4-2.8%

- BA.2 VOC 0.1% 0.1-0.1%

- B.1.1.529 VOC 0.0% 0.0-0.0%

- BA.1.1 VOC 0.0% 0.0-0.0%

- Delta B.1.617.2 VBM 0.0% 0.0-0.0%

- Other Other* 0.0% 0.0-0.0%

- Enumerated lineages are US VOC and lineages circulating above 1% nationally in at least one week period. “Other” represents the aggregation of lineages which are circulating <1% nationally during all weeks displayed.

- These data include Nowcast estimates, which are modeled projections that may differ from weighted estimates generated at later dates. BA 1-AY 1-AY 133 and their sublineages are aggregated with B.1.617.2. BA 1-BA 3 and their sublineages (except BA 1.1 and its sublineages) are aggregated with B.1.1.529. For regional data, BA 1.1 and its sublineages are also aggregated with B.1.1.529, as they currently cannot be reliably called in each region. Except BA 1-AY 1-BA 3 sublineages are aggregated with BA 2.
## Vaccine Effectiveness: March-June 2022

<table>
<thead>
<tr>
<th>Event</th>
<th>Vaccination Status</th>
<th>Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARS-CoV-2 infection</td>
<td>3 doses mRNA</td>
<td>69%</td>
</tr>
<tr>
<td>Hospitalizations</td>
<td>3 doses mRNA</td>
<td>90%----&gt; 86% for Omicron</td>
</tr>
<tr>
<td>ED visit</td>
<td>3 doses mRNA</td>
<td>83%</td>
</tr>
<tr>
<td>Mechanical ventilation or death</td>
<td>3 doses mRNA</td>
<td>94%</td>
</tr>
</tbody>
</table>

https://covid.cdc.gov/covid-data-tracker/#vaccine-effectiveness
Vaccine Effectiveness in LTC

Effect of 3rd vs 4th Dose Against Omicron

https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2793699
# Vaccine Effectiveness Against BA.5

<table>
<thead>
<tr>
<th>Hospitalization</th>
<th>BA.5</th>
<th>BA.2</th>
<th>OR BA.5/BA.2 (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hospitalization</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vaccination status</td>
<td>Outcome n (%)</td>
<td>Adjusted OR (95% CI)</td>
<td>Outcome n (%)</td>
</tr>
<tr>
<td>Not vaccinated (reference)</td>
<td>9/590 (1.53) ref</td>
<td>14/631 (2.2) ref</td>
<td></td>
</tr>
<tr>
<td>Complete primary vaccination</td>
<td>9/2530 (0.36) (0.29;0.29)</td>
<td>11/2434 (0.45) (0.16;0.89)</td>
<td>0.38 (0.56; 7.55)</td>
</tr>
<tr>
<td>1st booster vaccination</td>
<td>34/9186 (0.37) (0.10;0.51)</td>
<td>29/12331 (0.24) (0.03; 0.14)</td>
<td>0.07 (1.18; 9.63)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaccination status</td>
</tr>
<tr>
<td>Not vaccinated (reference)</td>
</tr>
<tr>
<td>Complete primary vaccination</td>
</tr>
<tr>
<td>1st booster vaccination</td>
</tr>
</tbody>
</table>

[https://www.medrxiv.org/content/10.1101/2022.07.25.22277996v1](https://www.medrxiv.org/content/10.1101/2022.07.25.22277996v1)
Vaccine Effectiveness on Long COVID

Figure 3. Impact of vaccinations on long COVID forest plot.
Effect of Vaccine Mandates on Staffing Shortages

https://jamanetwork.com/journals/jama-health-forum/fullarticle/2794727
The Three Pillars

1. Up-to-date vaccinate (booster for all eligible)
2. PPE and Infection Control
3. Testing
Checklist

• Up-to-date vaccine
  – Residents
  – Staff

• PPE and Infection control:
  – Staff
  – Residents
  – Visitors

• Test early
  – Cohort
Preventing Spread

- Healthier staff
- ↓ Risk of giving to resident

Resident

- ↓ Risk of giving to resident

- ↓ Risk of getting COVID
- ↓ Risk of giving to resident

- ↓ Risk of giving to resident
Therapeutic Considerations

**PATIENT DISPOSITION**

Does Not Require Hospitalization or Supplemental Oxygen

**PANEL’S RECOMMENDATIONS**

All patients should be offered symptomatic management (AIII).

For patients who are at high risk of progressing to severe COVID-19, use 1 of the following treatment options:

**Preferred Therapies**

*Listed in order of preference:*

- Ritonavir-boosted nirmatrelvir (Paxlovid) (Ala)
- Remdesivir (BIIa)

**Alternative Therapies**

For use ONLY when neither of the preferred therapies are available, feasible to use, or clinically appropriate. Listed in alphabetical order:

- Bebtelovimab (CIII)
- Molnupiravir (CIIa)

The Panel recommends against the use of dexamethasone or other systemic corticosteroids in the absence of another indication (AIII).
Paxlovid: EPIC HR Trial

https://www.fda.gov/media/158165/download
Remdesivir: PINETREE Trial

Novavax: EUA on July 13, 2022

- **Number of Shots**: Two doses in the primary series, given three to eight weeks apart.
- People who are moderately or severely immunocompromised should also receive two doses, given three weeks apart (a third primary dose is not currently authorized).
- **Booster Shot**: Novavax COVID-19 vaccine is not authorized for use as a booster dose.
Mechanism of action of authorized COVID-19 vaccines

**mRNA**
- Pfizer-BioNTech and Moderna COVID-19 vaccines

**Protein subunit**
- Novavax COVID-19 vaccine

**Viral vector**
- Janssen/J&J COVID-19 vaccine

Novavax: Efficacy

Figure 3. Kaplan–Meier Plots of Efficacy of the NVX-CoV2373 Vaccine against Symptomatic Covid-19.

## Novavax: Efficacy – Subgroup Analysis

![chart showing subgroup analysis of Novavax vaccine efficacy](chart)

- **Per-protocol population**: Placebo - 96/7019, NVX-CoV2373 - 10/7020, Vaccine Efficacy (95% CI) - 89.7% (80.2 to 94.6%)
- **Intention-to-treat population**: Placebo - 141/7570, NVX-CoV2373 - 42/7569, Vaccine Efficacy (95% CI) - 70.4% (58.3 to 79.1%)
- **Age**
  - 18 to <65 yr: Placebo - 87/5062, NVX-CoV2373 - 9/5067, Vaccine Efficacy (95% CI) - 89.8% (79.7 to 95.5%)
  - ≥65 to 84 yr: Placebo - 9/1957, NVX-CoV2373 - 1/1953, Vaccine Efficacy (95% CI) - 88.9% (20.2 to 99.7%)
- **Race**
  - White: Placebo - 85/6635, NVX-CoV2373 - 8/6625, Vaccine Efficacy (95% CI) - 90.7% (80.8 to 96.1%)
  - Other: Placebo - 8/297, NVX-CoV2373 - 2/302, Vaccine Efficacy (95% CI) - 75.7% (-21.6 to 97.5%)
- **Variant**
  - Non-B.1.1.7: Placebo - 28/7020, NVX-CoV2373 - 1/7020, Vaccine Efficacy (95% CI) - 96.4% (73.8 to 99.5%)
  - B.1.1.7: Placebo - 58/7020, NVX-CoV2373 - 8/7020, Vaccine Efficacy (95% CI) - 86.3% (71.3 to 93.5%)
- **Coexisting illness**
  - Yes: Placebo - 33/3143, NVX-CoV2373 - 3/3117, Vaccine Efficacy (95% CI) - 90.9% (70.4 to 97.2%)
  - No: Placebo - 63/3876, NVX-CoV2373 - 7/3903, Vaccine Efficacy (95% CI) - 89.1% (76.2 to 95.0%)

Questions?
This material was prepared by Alliant Health Solutions, under contract with the Georgia Department of Public Health as made possible through the American Rescue Plan Act of 2021.