

# COVID-19 Grand Rounds

## Update on Surge, Vaccine, Testing, Treatment

April 12, 2022



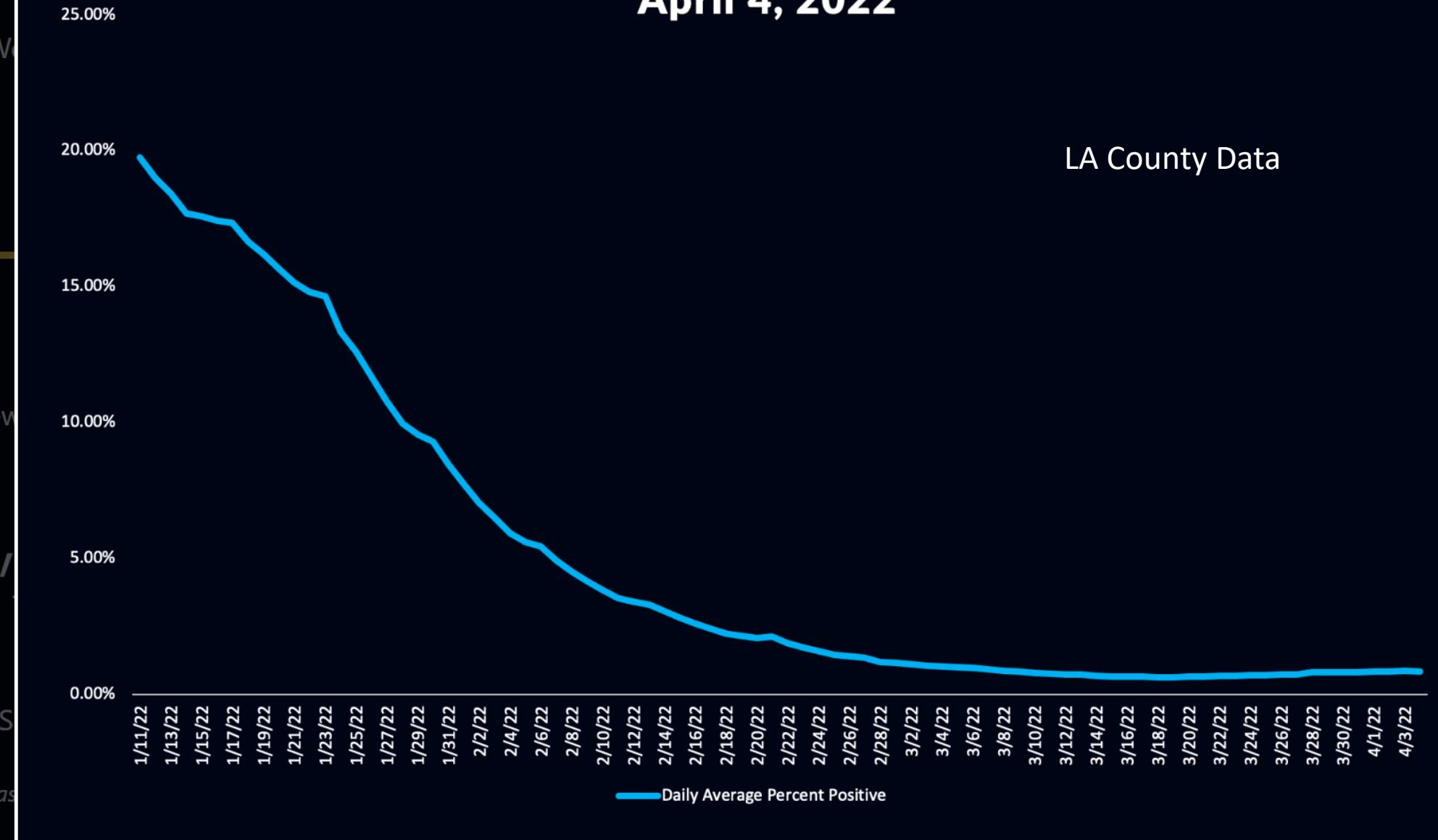
# Surge Level Thresholds

Stage	0	1 (100-115%)	2 (115-125%)	3 (125-130%)
Description	Demand	<i>Increase by 10-15% from baseline</i>	<i>Increase by 15-25% from baseline</i>	<i>Increase by 25-30%</i>
Data/Tracking	<ul style="list-style-type: none"> <li><input type="checkbox"/> Productivity measures</li> <li><input type="checkbox"/> URI Symptom Tableau Dashboard</li> <li><input type="checkbox"/> Flu Tableau Dashboard</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> CDC trends (LA County &amp; OC Public Health data)</li> <li><input type="checkbox"/> Increase in volume/demand for visits w/flu, IFL, URI, cold</li> <li><input type="checkbox"/> Increase in call center call volumes: Appointments and Nurse Advice Line</li> <li><input type="checkbox"/> Same day appointments booked at 80% <b>within</b></li> <li><input type="checkbox"/> Wait times <b>&gt;2</b></li> <li><input type="checkbox"/> Increase in staff sick calls, resulting in staff shortages</li> <li><input type="checkbox"/> Site Specific: F2F visits in break rooms, resulting in productivity issues</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> CDC trends (LA County &amp; OC Public Health data)</li> <li><input type="checkbox"/> Increase in volume/demand for visits w/flu, IFL, URI, cold</li> <li><input type="checkbox"/> Increase in call center call volumes</li> <li><input type="checkbox"/> <b>Same day appointments booked 100% by 9:00am. three consecutive days</b></li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> CDC trends (LA County &amp; OC Public Health data)</li> <li><input type="checkbox"/> Increase in volume/demand for visits w/flu, IFL, URI, cold</li> <li><input type="checkbox"/> Increase in call center call volumes: appointments and Nurse Advice Line</li> <li><input type="checkbox"/> <b>Same day appointments booked 100% by 8:00am, daily consecutive week.</b></li> <li><input type="checkbox"/> Wait times in clinic/urgent care <b>&gt;3 hours</b></li> <li><input type="checkbox"/> Increase in walk-ins</li> <li><input type="checkbox"/> Increase in staff sick calls, resulting in loss of coverage</li> </ul>

# LA County Daily COVID-19 Data

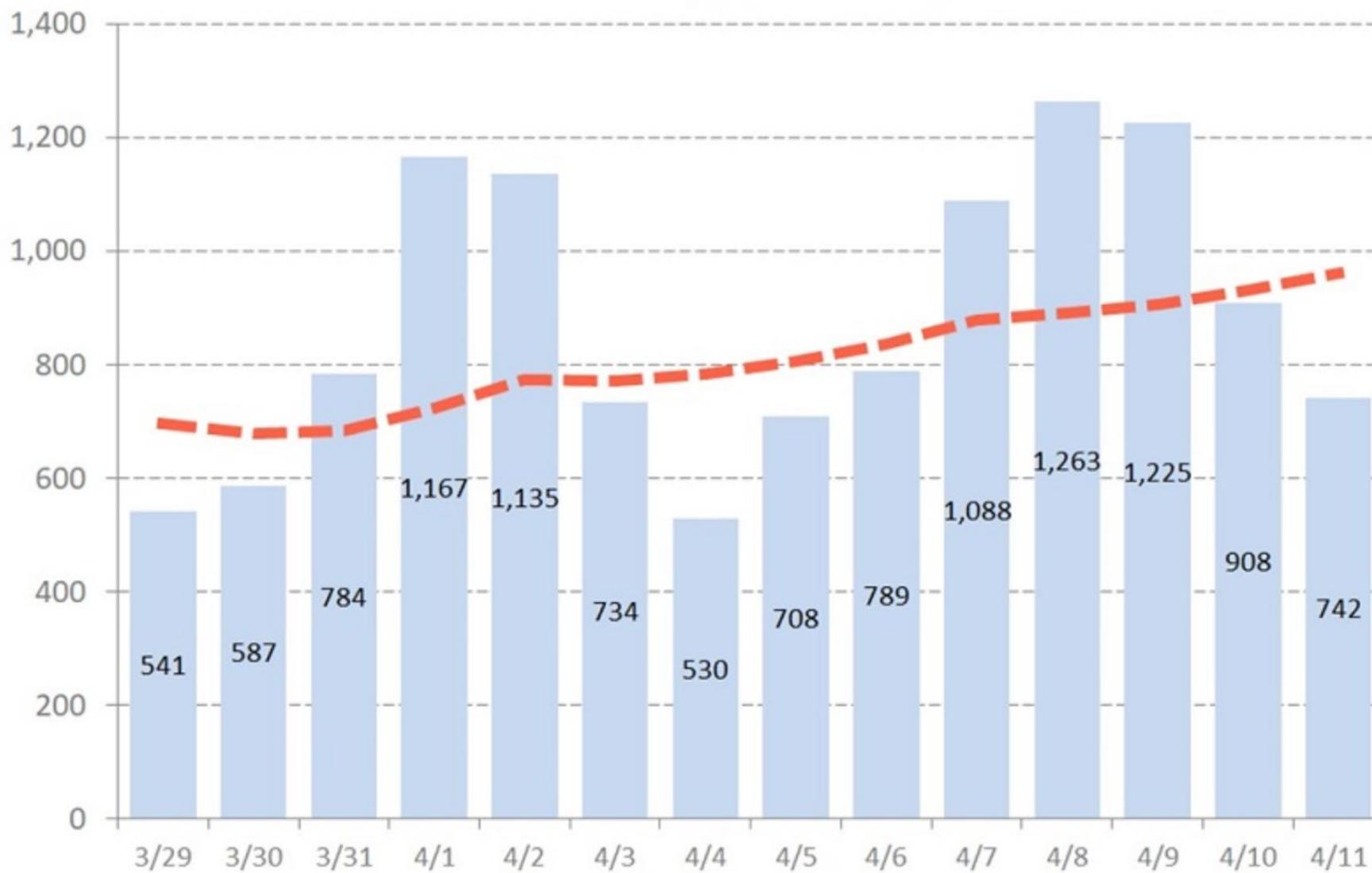
## Daily Reported Percent of COVID-19 Diagnostic Tests that are Positive, Past 7-day Average

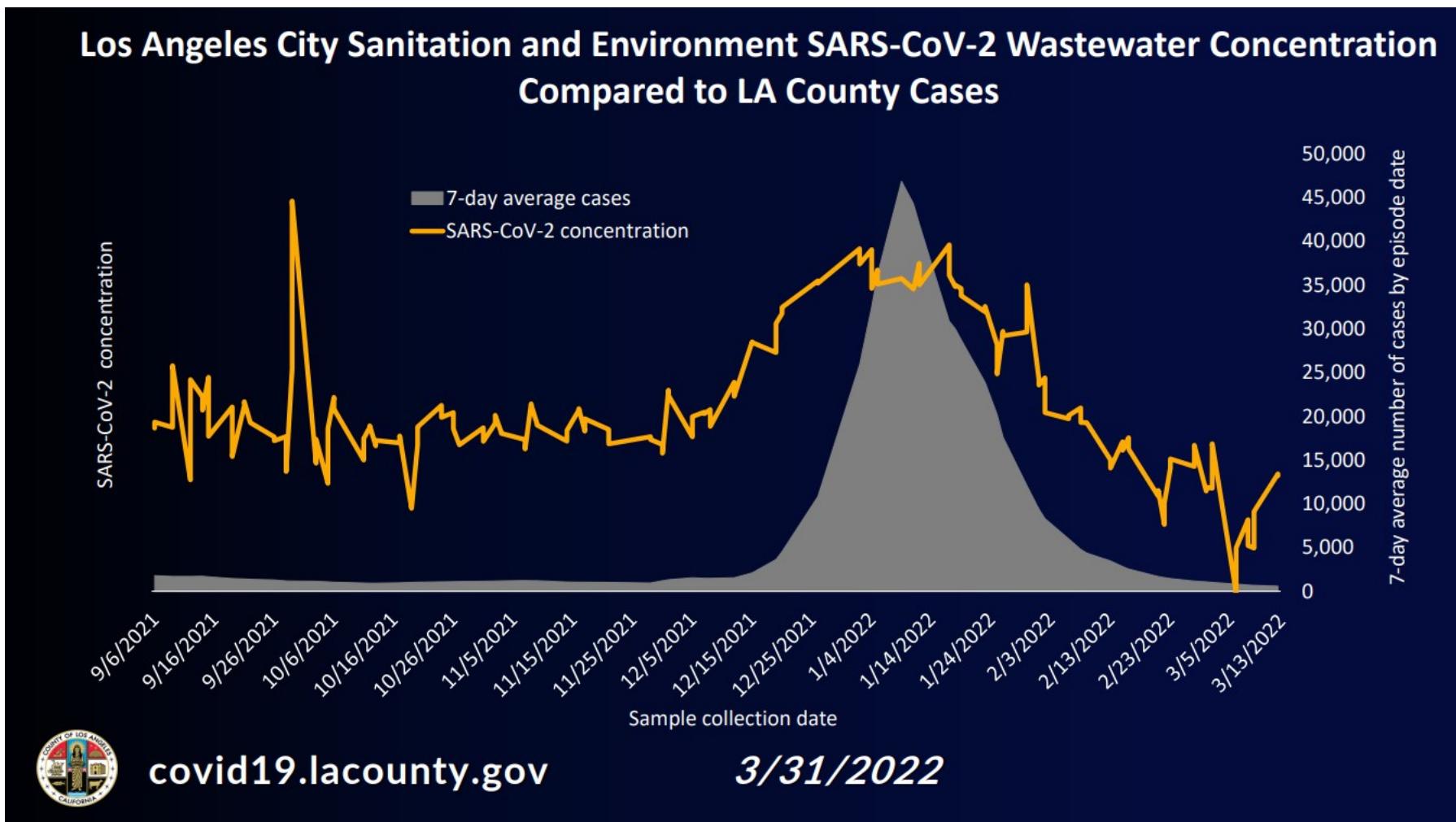
### April 4, 2022



 **Rising (+38%)**

LA County Data





# Cardiac Complications After SARS-CoV-2 Infection and mRNA COVID-19 Vaccination — PCORnet, United States, January 2021–January 2022

*Early Release / April 1, 2022 / 71*

Data from 40 health care systems participating in a large network found that the risk for cardiac complications was significantly higher after SARS-CoV-2 infection than after mRNA COVID-19 vaccination for both males and females in all age groups.

vaccination. The incidence of cardiac outcomes after mRNA COVID-19 vaccination was highest for males aged 12–17 years after the second vaccine dose; however, within this demographic group, the risk for cardiac outcomes was 1.8–5.6 times as high after SARS-CoV-2 infection than after the second vaccine dose. The risk for cardiac outcomes was likewise significantly higher after SARS-CoV-2 infection than after first, second, or unspecified dose of mRNA COVID-19 vaccination for all other groups by sex and age (RR 2.2–115.2). These findings support continued use of mRNA COVID-19 vaccines among all eligible persons aged  $\geq 5$  years.

# GET THE FACTS

## COVID-19, Myocarditis, and Vaccines



Myocarditis is inflammation of the heart muscle. This can happen after viral infections like COVID-19 and, very rarely, after receiving mRNA COVID-19 vaccines.

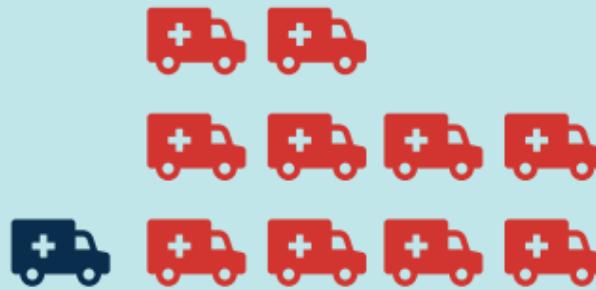
Most people with myocarditis following vaccination recover completely with rest and simple treatment. However, myocarditis from COVID-19 can be very severe.

### If you're **UNVACCINATED**:



**4x to 8x**

**higher risk**  
of myocarditis from  
COVID-19 infection  
in all ages.



**10x**

**higher risk**  
of hospitalization  
from COVID-19  
infection.

April 1, 2022

# **Incidence Rates and Clinical Outcomes of SARS-CoV-2 Infection With the Omicron and Delta Variants in Children Younger Than 5 Years in the US**

Lindsey Wang<sup>1</sup>; Nathan A. Berger, MD<sup>1</sup>; David C. Kaelber, MD, PhD<sup>2</sup>; et al

Results of this cohort study suggest that the incidence rate of SARS-CoV-2 infection with Omicron variant was 6 to 8 times that of Delta variant in children younger than 5 years, but severe clinical outcomes were less frequent than with Delta variant. Study limitations include potential biases introduced by the ob-

## BNT162b2 Protection against the Omicron Variant in Children and Adolescents

Ashley M. Price, M.P.H., Samantha M. Olson, M.P.H., Margaret M. Newhams, M.P.H., Natasha B. Halasa, M.D., Julie A. Boom, M.D., Leila C. Sahni, Ph.D., M.P.H., Pia S. Pannaraj, M.D., M.P.H., Katherine Irby, M.D., Katherine E. Bline, M.D., Aline B. Maddux, M.D., Ryan A. Nofziger, M.D., Melissa A. Cameron, M.D., et al., for the Overcoming Covid-19 Investigators\*

### RESULTS

We enrolled 1185 case patients (1043 [88%] of whom were unvaccinated, 291 [25%] of whom received life support, and 14 of whom died) and 1627 controls. During the delta-predominant period, vaccine effectiveness against hospitalization for Covid-19 among adolescents 12 to 18 years of age was 93% (95% confidence interval [CI], 89 to 95) 2 to 22 weeks after vaccination and was 92% (95% CI, 80 to 97) at 23 to 44 weeks. Among adolescents 12 to 18 years of age (median interval since vaccination, 162 days) during the omicron-predominant period, vaccine effectiveness was 40% (95% CI, 9 to 60) against hospitalization for Covid-19, 79% (95% CI, 51 to 91) against critical Covid-19, and 20% (95% CI, -25 to 49) against noncritical Covid-19. During the omicron period, vaccine effectiveness against hospitalization among children 5 to 11 years of age was 68% (95% CI, 42 to 82; median interval since vaccination, 34 days).

# Summary

## What is already known about this topic?

Protection against COVID-19 after 2 doses of mRNA vaccine wanes, but little is known about durability of protection after 3 doses.

## What is added by this report?

Vaccine effectiveness (VE) against COVID-19-associated emergency department/urgent care (ED/UC) visits and hospitalizations was higher after the third dose than after the second dose but waned with time since vaccination. During the Omicron-predominant period, VE against COVID-19-associated ED/UC visits and hospitalizations was 87% and 91%, respectively, during the 2 months after a third dose and decreased to 66% and 78% by the fourth month after a third dose. Protection against hospitalizations exceeded that against ED/UC visits.

## What are the implications for public health practice?

All eligible persons should remain up to date with recommended COVID-19 vaccinations to best protect against COVID-19-associated hospitalizations and ED/UC visits.

On March 30, 2022, the Centers for Disease Control and Prevention (CDC) updated its [guidance](#) to allow the following groups to receive a second mRNA booster dose at least 4 months after their first booster dose:

- People ages 50 years and older
- People ages 12 to 49 years who are moderately or severely immunocompromised

In addition, people ages 18 years and older who received a primary and booster dose of the Johnson & Johnson/Janssen (Johnson & Johnson) vaccine may receive one mRNA booster dose at least 4 months after their first booster dose.

The recommendation for a second booster dose for mRNA vaccine recipients was informed by [data from Israel](#). Immunogenicity data from an ongoing, open-label, non-randomized clinical study of 274 healthcare workers at one facility in Israel found a higher level of neutralizing antibody levels against SARS-CoV-2, including the delta and omicron variants, two weeks after a second Pfizer or Moderna booster dose, as compared with five months after the initial booster dose. The Israeli Ministry of Health did not identify any new safety concerns related to the approximately 700,000 Pfizer second booster doses administered to adults ages 18 years and older. The recommendation for a second booster dose for Johnson & Johnson vaccine recipients was informed by [data from the U.S.](#), which showed that effectiveness against severe COVID-19 was higher when an mRNA booster dose was administered to Johnson & Johnson primary vaccine recipients compared with people who received two doses of the Johnson & Johnson vaccine.

## 2<sup>nd</sup> Booster Recommendations

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A second Booster shot has now been FDA approved and allowed for patients

- 12 and over with moderate to severe immune compromise and
- for all patients 50 and over.
- 18 and over Patients that received Janssen as their 1<sup>st</sup> booster

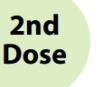
The 2<sup>nd</sup> booster shot would be given for this patient population 4 months or more after their 1<sup>st</sup> booster dose.

- It is vital that all patients 5 and up have their initial vaccination series and that all individuals 12 and over have had at least one booster when eligible.
- Healthy individuals between 50-64 may opt to selectively delay the timing of their 2<sup>nd</sup> booster shot, especially if they were recently infected with COVID-19.
- Keep in mind when counseling patients that some immunity will wane with booster shots 4-6 months after vaccination.
- Standing order is signed for 2<sup>nd</sup> boosters.

# COVID-19 Vaccine Timing by Age



## Routine Schedule

Age	Vaccine	Primary Doses	Booster Dose	Consider 2nd Booster
5-11	Pfizer-Pediatric (5-11)	 3 weeks 		
12+	Pfizer/Comirnaty (12+)	 3 weeks <small>(8 weeks for some people<sup>^</sup>)</small>  <small>≥5 months</small>	<b>1st Booster</b> <b>Ages 12-17: Pfizer</b> <b>18+: Moderna/Pfizer (mRNA preferred) or J&amp;J*</b>	<b>2nd Booster</b> <b>Ages 50+: Moderna/Pfizer</b> <b>18-49: Not currently recommended</b>
18+	Moderna/Spikevax	 4 weeks <small>(8 weeks for some people<sup>^</sup>)</small>  <small>≥5 months</small>		
18+	Johnson & Johnson Pfizer/Moderna preferred*	 <small>≥2 months</small>	<b>1st Booster</b> <b>J&amp;J</b>	<b>2nd Booster</b> <b>18 years + mRNA booster recommended</b>

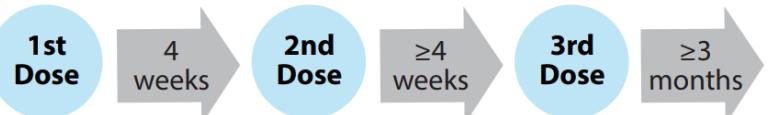
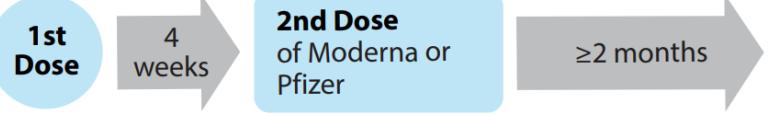
<sup>^</sup> An [8-week interval](#) may be preferable for some people, especially for males 12-39 years.

\* Although use of mRNA COVID-19 vaccines is preferred, the Janssen vaccine may be offered in [some situations](#).

View [Interim Clinical Considerations for Use of COVID-19 Vaccines](#) for details. Schedule is subject to change.

# COVID-19 Vaccine Timing by Age

## Schedule if Moderately or Severely Immunocompromised

Age	Vaccine	Primary Doses	Booster Dose	Consider 2nd Booster
5-11	Pfizer– Pediatric (5-11)			
12+	Pfizer/ Comirnaty (12+)		<b>1st Booster</b> Ages 12-17: Pfizer  18+: Pfizer/ Moderna (mRNA preferred) or J&J*	<b>2nd Booster</b> Ages 12-17: Pfizer  18+: Moderna/ Pfizer
18+	Moderna/ Spikevax			
18+	Johnson & Johnson Pfizer/Moderna preferred*			

\*Although use of mRNA COVID-19 vaccines is preferred, the Janssen vaccine may be offered in some situations.

View [COVID-19 Vaccines for Moderately or Severely Immunocompromised People](#) for details. Schedule is subject to change.

## COVID Vaccine Additional Updates

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- COVID-19 Vaccine approved for people 5 and older
- 3<sup>rd</sup> Doses are approved for moderate to severe immune deficiency for people 5 and over
- Vaccine for Kids <5 will not be reviewed until sometime in April 2022 to assess for effectiveness after 3<sup>rd</sup> dose

## Masking at AltaMed

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- All patients 2yrs of age and over and all staff must continue to wear a mask while in any AltaMed facility regardless of vaccination status at all times unless actively eating or drinking.
  - For patients 2 and over that arrive to clinic with a KN95 mask or N95 mask, they may continue to wear this protective mask while in clinic.
  - For patients with loose fitting or cloth masks, please ask them to put on a clinic provided surgical mask or higher grade mask that is available for patient distribution which may be worn over their mask if requested.



## MEDICINES TO TREAT AND PREVENT COVID-19

If you are at [high risk of getting very sick<sup>‡</sup>](#) from COVID-19 contact a doctor right away - even if your symptoms are mild. If you test positive for COVID-19, you may be eligible for medicines that *treat* COVID-19 and help keep you out of the hospital. **Don't delay: the medicines work best when they are given as soon as possible after symptoms start.**

Talk to your doctor. If you need help finding a doctor, call 2-1-1. You can also call the Public Health Call Center **1- 833-540-0473**, open 7 days a week, 8:00 am – 8:30 pm.

There are 2 types of medicine available to prevent or treat COVID-19:

- **Antivirals** prevent viruses from "multiplying" in the body
- **Monoclonal antibodies** bind to the virus and help the body to get rid of it

There is currently *no* cost for these COVID-19 medications, but the treating facility may charge for administering the drug. Medicare and Medicaid cover *all* costs. If you have private insurance, check with your plan to see if it covers all costs. If you do not have insurance, ask the treatment facility if there are fees.

# Epic Project Updates: Covid/URI Fast Track

- “COVID” in *Rooming > Screenings* → flows into your Note & Covid lab ORDER!
- This is necessary for reporting Covid cases
- **Tip:** *.covidflow* brings in the flowsheet answers to your note

**Chief Complaint**  
Patient presents with  
• Cough

**Covid-19 Flowsheet Screening:**  
Need Work Note?  
Is the patient here for a work note or form? : No  
Symptoms  
Is patient symptomatic? (**! Yes**)  
Patient reports the following symptoms: (**! Fever > 100.4F, Cough worsening chronic cough**)  
Symptoms started on (date): 11/05/20

**Screenings**

Covid	TB Screening	GAD-7	Fall Risk	ADLs	PHQ-9	He
Gender Identity/Sexuality	Geriatric Assessment	Opioid Risk	KATZ			

**Covid Screening**

+ New Reading

Office Visit from  
12/2/20  
**2329**

Need Work Note?  
Is the patient here for a work note or form? **No**

Symptoms  
Is patient symptomatic? **Yes !**

Patient reports the following symptoms **Fever >100.4F,**

Symptoms started on (date) **11/5/2020**

- Positive test results should be immediately directed to a provider to make decision on if patient needs immediate COVID treatment. Add on to a provider's schedule onsite or schedule immediately with a telehealth provider.
- Make sure to write a nurse note to document screening questions.

# COVID-19 Testing

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- Both types of COVID-19 rapid tests are widely available to order for clinic use at AltaMed. (ID-Now and Quidel Antigen)
  - ID-NOW test cartridges can be ordered through McKesson and there is no restriction on ordering at this time.
  - Quidel COVID-19 Antigen test kits may be ordered through the supply chain. Only order the necessary amount to avoid any kits from expiring or being damaged during storage.
  - There is a shortage on the printer paper used for the ID-NOW analyzers but you may use and order the Siemens Urinalysis Analyzer Printer paper as a replacement for the time being if needed.
  - Quidel test kits can be distributed to staff for home use

# Updated Recommendation for COVID Testing

Reason For Testing	Antigen COVID Test for Patients in All Clinic Sites*	ID Now COVID Test	Fulgent COVID PCR Test
COVID Like Symptoms <7 days		X	
COVID Like Symptoms >7 days			X
Exposure to Someone with COVID			X
ID Now unavailable	X		X
Prior positive test in the last 90 days or to Retest with Antigen on or after Day 5 to come out of Iso early	X	X (antigen preferred)	
Other Reason not recommended	X		X

\*All sites may order quidel rapid test kits for patient testing, distribution for patients requiring follow up testing and for staff members to take home (2 kits per staff member at a time).

# Updated Isolation And Quarantine for General Public

Scenario	Isolation Duration	Follow up test	Isolation Ends
<b>Positive Covid Test</b>	Isolate for 5 days	Antigen test on Day 5 or after. If unable to test or choose not to continue Isolation for 10 days	If Neg Ag test- Yes <u>Must</u> wear well-fitting mask for next 5 days around others
<b>Negative Covid Test &amp; Symptoms</b>	Isolate until symptoms improved and Fever Free for 24 hours.	Home Antigen test on Day 5 or after. If unable to test or choose not to continue Isolation for 10 days	If Neg Ag test- Yes <u>Must</u> wear well-fitting mask for next 5 days around others
<b>Exposure to someone with Covid-19 &amp; Unvaccinated or Booster Eligible but have not received booster dose.</b>	Quarantine for 5 days	Home Antigen test on Day 5 or after ok. Clinic PCR best. If unable to test or choose not to continue Isolation for 10 days	If Neg Ag or PCR test- Yes <u>Must</u> wear well-fitting mask for next 5 days around others
<b>Exposure to someone with Covid-19 &amp; Boosted OR Fully Vaccinated but not yet eligible for booster</b>	No Quarantine  Wear well-fitting mask around others for 10 days	Home Antigen test Day 5 or after ok Clinic PCR best.	NA

# COVID Treatment

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- Sotrovimab is no longer recommended for the treatment of COVID-19 in individuals at high risk for developing severe COVID-19 as it has been found to be less effective with the BA.2 Omicron subvariant.
  - They may increase the dose for Sotrovimab so that it will be more effective as a treatment.
  - In the meantime, continue to use Paxlovid as the treatment of choice for patients within 5 days of symptoms onset.
  - For patients that cannot use Paxlovid: Bebtelovimab or Remdesivir would be the drugs of choice. We continue to work on securing access to the most up to date treatments for our patients. Bebtelovimab should be available through our usual MAB referral process but the order form should be updated.
  - Evushield should be considered for those with moderate to severe immune suppression as a pre-exposure prophylaxis against COVID.
  - [Therapeutics Locator](#)
  - <https://covid-19-therapeutics-locator-dhhs.hub.arcgis.com/>

# COVID-19 Treatment Contd

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- Paxlovid can be ordered for patients with a positive COVID-19 test (home test if reliable may be used).
- Given our current robust supply, we may expand treatment to Risk group 1-4
- Prioritize treatment for symptomatic patients that are vaccinated or unvaccinated with additional risk factors for progressing to severe disease (this may be updated as supply increases/decreases)
- AltaMed patients are able to arrange for delivery but keep in mind that patients must start therapy within 5 days of symptom onset and we need to reconcile all meds to eval for significant drug drug interactions that may preclude treatment.
- Prescriptions can only be filled at AltaMed through the AltaMed Commerce Pharmacy or to other outside pharmacies listed on the external database.

Coronavirus Disease 2019 (COVID-19)  
Treatment Guidelines

VIEW GUIDELINES

The COVID-19 Treatment Guidelines Panel's Interim Statement on Patient Prioritization for Outpatient Anti- SARS-CoV-2 Therapies or Preventive Strategies When There Are Logistical or Supply Constraints

Last Updated: December 23, 2021

<https://www.covid19treatmentguidelines.nih.gov/>

Tier	Risk group
1	Immunocompromised individuals regardless of vaccine status <b>or</b> Unvaccinated individuals age $\geq 75$ y or age $\geq 65$ y with additional risk factors*
2	Unvaccinated individuals age $\geq 65$ y or age $< 65$ y with risk factors*
3	Vaccinated individuals age $\geq 75$ y or age $\geq 65$ y with additional risk factors*
4	Vaccinated individuals age $\geq 65$ y or age $< 65$ y with risk factors*

\*Risk factors for progressing to severe COVID include advanced age, cancer, cardiovascular disease, chronic kidney disease, chronic lung disease, diabetes, immunocompromised, obesity, pregnancy, sickle cell disease, other conditions\*

\*<https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care/underlyingconditions.html>

# Appendix

