

CDC/IDSA Clinician Call
**Updates on CDC's New Respiratory Virus Guidance, COVID Antivirals
& Emergence of Clade I Mpox**
March 14, 2024
Q&A

This is the Q&A transcript from the Zoom webinar held on March 14, 2024. The views and opinions expressed here are those of the presenters and do not necessarily reflect the official policy or position of the CDC or IDSA. Involvement of CDC and IDSA should not be viewed as endorsement of any entity or individual involved.

1. Should patient w hx of MPX be vaccinated?

Agam Rao, MD, FIDSA - No. At this time, the number of reinfections in the United States are few (<15 cases that we at CDC have evaluated). We believe there is immune protection. For vaccinated persons, we commonly are asked if there is any indication of waning immunity and there is not. Breakthrough infections happen; however, they are not increasing in number (same general numbers since the beginning of the outbreak) and provide benefit: breakthrough infections have been less severe.

2. Can you talk a little about the vaccine efficacy of the mpox vaccine?

Agam Rao, MD, FIDSA - Regardless of clade, the vaccine and the therapeutics re expected to be effective. There were no VE studies assessing Clade II until the global outbreak began in 2022: Those say that VE (Clade II) is 66-89%. For Clade I, we expect a similar effectiveness because the 2 clades are so similar; however, it has never been evaluated.

3. How is the supply of Jynneos vaccine? Any shortage concerns.

Agam Rao, MD, FIDSA - No. There are no shortage issues. Both doses can be administered subcutaneously. There is plenty of vaccine.

4. are the clinical presentations classic for Clade 1, compared to the variety of lesions seen in the Clade 2 outbreak?

Agam Rao, MD, FIDSA - Unfortunately we (and also WHO) don't have a good sense of this yet. There was one case published in EID a few months ago that describes a case that seems to involve a less severe illness. However, there were not a lot of clinical details in that paper.

5. Nosocomial transmission of clade1 MPXV?

Agam Rao, MD, FIDSA - The data and experience is based on the endemic country experience. Most cases there (before the current Clade II outbreak) have occurred in rural forested regions of the country because that's where the small mammal reservoirs reside. PPE is not available there. Infections have spread in the absence of PPE (e.g., in households and healthcare settings) because more virus is shed by infected patients than with Clade II. The IPC recommendations CDC issued for Clade II apply for Clade I as well.

6. Is there specific prep advice for someone needing to travel to these areas?

Agam Rao, MD, FIDSA - I assume this is an mpox question but if I'm wrong, please let us know. Regarding travel vaccinations, currently we only recommend vaccination if people meet the ACIP criteria (i.e., sexual risk factors). We do not have travel specific recommendations despite the outbreak in DRC at this time. It is something we are monitoring though.

7. What is the evidence that Clade 1 causes more severe disease?

Agam Rao, MD, FIDSA - Clade I MPXV has occurred in DRC for decades; it's always been known to cause more severe illness than Clade 1 and more often result in deaths. The data is based on the endemic country experience. Outcomes would be better in the U.S. because cases in DRC are often in rural areas where there isn't as much access to healthcare. But we still expect more patients would have severe disease with Clade 1 MPXV.

8. Is there any evidence that mpoxv clade 1 spreads more easily via respiratory route than clade 2?

Agam Rao, MD, FIDSA - No. There's no evidence that MPXV (regardless of Clade) spreads via aerosols. There's no data to suggest that it spreads differently.

9. Can CDC please clarify/promote treatment recommendations in the context of COVID-19 rebound? During my own recent COVID-19 illness, I was eligible though my provider almost tried to talk me out of Paxlovid due to several anecdotal reports of rebound. He did prescribe it and I received it...I did experience rebound, which was disruptive, but thankfully I didn't end up in the hospital or worse. Any consideration to a reported 8-day vs. 5-day course to help eliminate rebound illness/infection?

Pragna Patel, MD, MPH - Please see an MMWR that CDC recently published on rebound:

<https://www.cdc.gov/mmwr/volumes/72/wr/mm7251a1.htm>

There are clinical trials underway that are evaluating longer duration of treatment and hopefully we will have more data at that time to make recommendations about longer courses of treatment.

10. Any idea when the CDC will update the ARI guidance page for the maritime industry?

Brendan Jackson, MD, MPH - Great question. We're going through as quickly as possible to update pages to be consistent with the new guidance. I'll see if I can get a more specific answer, but please know we're working on it.

11. What percentage of patients older than 65 who are hospitalized and/or die of COVID are unvaccinated vs. fully vaccinated?

Brendan Jackson, MD, MPH - Over 95% of patients hospitalized with COVID-19, including those 65+, had not received an updated (2023-2024) COVID-19 vaccine. And most (70%) had not received the previous year's vaccine either. Read more and see the figure here (about 2/3 down the page): <https://www.cdc.gov/respiratory-viruses/background/index.html>

12. The IC community is still at high risk (along with their caregivers and co-workers), yet we still have to bear all the responsibility of protection even in medical settings. We may be a minority but not to be ignored.

Brendan Jackson, MD, MPH - I'm sorry I ran out of time to cover that last slide. We absolutely recognize the importance of protecting people who are immunocompromised and others who are at higher risk of severe disease and other complications. We have guidance websites with information for several of these groups. We agree with the importance of treatment, especially for immunocompromised people, and focus on treatment as a core strategy in the guidance. I know the other presenters will address this issue further.

13. What is the effectiveness of the COVID vaccines on reducing/preventing long COVID?

Brendan Jackson, MD, MPH - This paper provides a good summary. Many nuances in terms of which vaccinations, which populations, etc.

<https://www.sciencedirect.com/science/article/pii/S0264410X23001342>

14. You gave constructive feedback in response to "we need to follow the science". What I heard was that the science is absolutely being looked at and being followed. Can you then respond to: "You have a responsibility to outline the details of that science that's being followed, which currently does not feel communicated."

Brendan Jackson, MD, MPH - I'd be glad to discuss this. We have a fairly extensive background document laying out the rationale for the guidance. It'd be great to get your feedback on it.

<https://www.cdc.gov/respiratory-viruses/background/index.html>

15. Covid is still a great threat to the immunocompromised, especially for many who have little ability to obtain effective antivirals. Those people — and their families — are overlooked by the new CDC policy. Emphasis should be made on protecting these people in the CDC’s public information. Plus, more emphasis should be placed on getting effective antivirals for those who need them. Can the CDC work on these two issues?

Brendan Jackson, MD, MPH - We agree it's critical to protect immunocompromised people. Here's the page in the guidance dedicated to this issue, which highlights the importance of treatment: <https://www.cdc.gov/respiratory-viruses/risk-factors/weakened-immune-systems.html>

CDC continues to work to increase awareness and education on antivirals, and others on this call can address broader efforts.

16. 10% of 65+ having an updated monovalent dose does not seem like a small percentage?

Brendan Jackson, MD, MPH - It's well document that the vaccines are not completely protective against hospitalization, same for influenza and many other vaccines. What's important to know is that an updated vaccination can reduce the risk of hospitalization by about half on top of existing immunity.
<https://www.cdc.gov/mmwr/volumes/73/wr/mm7308a5.htm>

(also, the percentage is 5%, not 10%)

17. Is there any new guidance on an extended dosing for molnupiravir especially for immunocompromised people?

Pragna Patel, MD, MPH - From the NIH COVID-19 Treatment Guidelines: For patients who are immunocompromised and have prolonged COVID-19 symptoms and evidence of ongoing viral replication, the optimal management is unknown. The data for these approaches are not definitive, but some Panel members would use 1 or more of the following treatment options:

Longer and/or additional courses of ritonavir-boosted nirmatrelvir (Paxlovid)

Longer and/or additional courses of remdesivir

High-titer COVID-19 convalescent plasma from a vaccinated donor who recently recovered from COVID-19 likely caused by a SARS-CoV-2 variant similar to the variant causing the patient’s illness.

18. At this point, is it possible for Paxlovid to be carried prophylactically by people with them for example while going on travel etc. in case they end up getting infected when on travel?

Pragna Patel, MD, MPH - That would be off-label use of the medication but as Paxlovid is FDA-approved, you should discuss with your physician.

19. It is long past the time to update the guidance for healthcare settings. quite a burden considering the existing staffing challenges nationwide.

Brendan Jackson, MD, MPH - Thanks for the comment. This guidance is being actively considered.

20. Is there a way to ask that all these handouts, publications can be labeled with a statement stating these recommendations are for general public and not healthcare facilities & workers.

Brendan Jackson, MD, MPH - Yes, apologies my slides did not have that disclaimer. The website has such a note on each page: <https://www.cdc.gov/respiratory-viruses/guidance/respiratory-virus-guidance.html>

21. Does medication free also mean off Paxlovid?

Brendan Jackson, MD, MPH - Just antipyretics (fever-reducing medications)

22. Could you remind us what the isolation duration is for Covid 19 among LTCFs between the Assisted living and the nursing homes/Skilled nursing facilities?

Brendan Jackson, MD, MPH - Recommendations are here: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html>

23. What testing specifically is recommended for people after testing positive?

Brendan Jackson, MD, MPH - If the question is about testing positive without symptoms, the recommendation is added precautions for 5 days. More information here: <https://www.cdc.gov/respiratory-viruses/prevention/precautions-when-sick.html>

Attendee: Sorry, my question was about testing positive WITH symptoms, and the “added precautions” that mentioned testing

Brendan Jackson, MD, MPH - This testing was recommended as part of the additional precautions to be taken in the 5 days after returning to normal activities, and I’m wondering what testing exactly is recommended.

24. If testing is used as an option for return to work/school and the test is positive (but they have been fever-free and sx improving for 24 hours) do they "start over" as they do with fever with sx monitoring? Also, if someone tests negative for return to work, is it still recommended to take extra precautions for 5 days? Previously it was a neg test 48 hours apart. I just want to clarify. Thanks.

Brendan Jackson, MD, MPH - Given the change in the overall situation and variability in practices, the guidance provides greater flexibility for individual situations.

FAQ number 4 on this page helps address this issue, including this text:

It is important to note that the updated guidance states that testing is an option during the 5 days of additional precautions following the “stay home” period. While COVID-19 at-home

testing can give a rough approximation of whether a person is still infectious, at-home testing for other respiratory viruses is not widely available. CDC guidance throughout the pandemic recognized that repeated testing through the course of illness is not practical for many people.

<https://www.cdc.gov/respiratory-viruses/guidance/faq.html>

25. Dr. Jackson, did you say that you think most people with Covid-19 are not testing positive? Can you please explain?

Brendan Jackson, MD, MPH - In a recent survey, about half of people said they would test for COVID-19 if they had cough or cold symptoms. We don't know the exact number, and it may not be most, but there are certainly many people with URI symptoms who do not know that COVID-19 (or SARS-CoV-2 infection) is the cause.

26. How about inpatients with RSV ? no iso unless immunocompromised?

Brendan Jackson, MD, MPH - Thanks for the comment. We're looking forward to reassessing healthcare guidance.

27. Covid vaccine during pregnancy?

Brendan Jackson, MD, MPH - COVID-19 vaccine is recommended during pregnancy. It can help protect the pregnant person and also the infant after birth. That's important because infants have COVID-19 hospitalization rates roughly as high as adults in their 60s.
<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/pregnancy.html>

Data on infant hospitalizations here: <https://www.cdc.gov/surveillance/resp-net/dashboard.html>

28. Are we expecting any COVID-19 isolation changes in the healthcare setting coming out soon?

Brendan Jackson, MD, MPH - No specific timeline yet, but they're continually being assessed, thanks.

29. Some facilities are applying new guideline, out till 24 hr. without symptoms or temp to apply to HCW allowing them to come back wearing a mask for 5 days. Please see new info does not apply to HCW at this time.

Brendan Jackson, MD, MPH - Thanks for the note. The guidance pages include on each page the following information:
<https://www.cdc.gov/respiratory-viruses/guidance/respiratory-virus-guidance.html>

CDC offers separate, specific guidance for healthcare settings (COVID-19, flu, and general infection prevention and control).

30. This seems particularly problematic for schools - when kids always go back to school with symptoms and are in close, congregated settings. How do we do any control or mitigation of spread of COVID in schools without masks, testing, vaccine requirements, or removal of kids with symptoms?

Brendan Jackson, MD, MPH - The recommendation is for people who are sick with respiratory symptoms not explained by another cause to stay home and away from others. The reality is that SARS-CoV-2 and other respiratory diseases already spread widely in the community. The guidance aims to provide simple, actionable recommendations to reduce spread and severe disease and protect people at greater risk. Read more in the background document here: <https://www.cdc.gov/respiratory-viruses/background/index.html>

31. So many elderly admitted with covid, not because of covid, right ?

Pragna Patel, MD, MPH - Agree - in the elderly falls and disorientation could be related to COVID-19. Hospitalizations among elderly are with COVID but in that age group COVID is usually the driver.

32. Is this percent of covid-19 hospitalizations divided by what denominator? all hospitalizations in that age group? all covid hospitalizations? something else?

Brendan Jackson, MD, MPH - COVID-19-associated hospitalizations, thanks

33. Many locales no longer require recording receipt of the updated monovalent vaccine [exceptions are children and CMS beneficiaries at least in my area]. How do you discern impact of vaccine receipt outside of these groups?

Pragna Patel, MD, MPH - In the slide of hospital admissions, we looked at COVID hospitalizations as a percent of all admissions.

34. Discuss relative cost benefit of nirmatrelvir now and earlier in the pandemic, in the face of nearly universal immunity in the us population.

Brendan Jackson, MD, MPH - Seroprevalence data are here: <https://covid.cdc.gov/covid-data-tracker/#nationwide-blood-donor-seroprevalence-2022>. I want to be clear that COVID-19 remains an important threat, especially for people at higher risk. This level of immunity just makes it a different threat than it was in years past.

35. Does CDC support development of new oral antivirals?

Pragna Patel, MD, MPH - ASPR/BARDA has a program called NextGen that supports development of new therapeutics.

36. Is a similar evidence portal in the works for flu?

Therese Tripler, PhD - As of now it is not in the works. We've designed the site to be able to scale to other diseases if the opportunity arises.

37. Could you put the link to the real world evidence studies in the chat? I can't find it on the NCATS website.

Attendee: Here is the link to the Real World Evidence Studies on the OpenData Portal

<https://opendata.ncats.nih.gov/covid19/variant/real-world-evidence>

38. Thank you for the excellent tool. How often are the data updated?

Therese Tripler, PhD - Publications are continuously monitored and updated as publications emerge on a bi-weekly cadence.

39. Does anyone know why USG is no longer providing free Covid-19 antigen tests?

Brendan Jackson, MD, MPH - Free COVID-19 tests remain available to uninsured people and underserved communities through HRSA-funded health centers and ICATT locations. Read more and find the links to those sites here: <https://www.covid.gov/tools-and-resources/resources/tests>

40. I've seen patients stay positive on antigen tests for weeks following Paxlovid Rebound. How long do they remain infectious and can transmit virus if still testing positive after 10 post completion of Paxlovid?

Pragna Patel, MD, MPH - There are very few studies of infectiousness but the few that have looked at it, suggests that patients with rebound are infectiousness. We recommend following our isolation guidelines which state that if someone is fever-free for 24 hours and their symptoms have improved or resolved, they can end isolation.

41. What percentage of pregnant individuals have been vaccinated with Covid vaccination?

Brendan Jackson, MD, MPH - <https://www.cdc.gov/vaccines/imz-managers/coverage/covidvaxview/interactive/vaccination-dashboard.html>
Pregnant Persons COVID-19 Vaccination Coverage

COVID-19 vaccination coverage estimates for pregnant persons 18 to 49 years are based on data from CDC's Vaccine Safety Datalink. Estimates of vaccination coverage are based on electronic health data from multiple integrated health systems.

As of March 2, 2024, 13.0% of pregnant persons had received the updated 2023-24 COVID-19 vaccine.

Vaccination coverage was highest among non-Hispanic Asian (22.3%) pregnant persons and lowest among non-Hispanic Black (5.7%) pregnant persons.

Additional COVID-19 vaccination data for pregnant persons are available: Coverage by Population: Pregnant Women.

42. Will IV Remdesivir be more available for those of us IC who can't take Paxlovid? Even going somewhere for a week can be scary thinking I'll get sick. I'm on seizure meds and antirejection meds.

Pragna Patel, MD, MPH - Gilead has an Advancing Access® program to help eligible patients. Learn more here: Advancing Access® program.

43. Has molnupiravir disappeared as a "tool"? I hear nothing about it, anymore.

Pragna Patel, MD, MPH - It is still available but not as efficacious as other options - nirmatrelvir-ritonavir and remdesivir.

44. Since Paxlovid still has an EUA designation for pediatric patients 12 and older, will these patients still be able to get the Rx free through their local pharmacy?

Pragna Patel, MD, MPH - Please let me check on that. I will get back to you. In general it is good to enroll in the patient access program regardless. Here is some more info: Patients, caregivers, provider or pharmacists can enroll patients for these programs for free or low cost Paxlovid via Pfizer's Paxcess website. No one needs to pay full price for Paxlovid. Everyone on Medicare, Medicaid and uninsured have access for free, either directly at the counter or via enrollment in the PAP.

Publicly insured and uninsured patients receive free Paxlovid through December 31, 2024, with the U.S. government (USG) Patient Assistance Program (PAP) operated by Pfizer. This program uses USG-procured Paxlovid inventory and includes any patient who is: Publicly insured, including through Medicaid or Medicare (with or without Part D, Part B, or Part C and inclusive of Medicare Advantage)

Uninsured Patients with private (commercial) insurance can use the Pfizer co-pay savings program for Paxlovid at little or no cost.

45. What percent of hospitalized patients have not had early antiviral rx. Any difference with other rx? Same for deaths.

Pragna Patel, MD, MPH - Some reports suggest that only 30% of people who are eligible receive treatment.

Brendan Jackson, MD, MPH - National data on this issue are not readily available, and CDC is exploring additional ways to better ascertain an estimate. One difficulty is linking outpatient antiviral treatment records to hospital records, which is challenging given the decentralized structure of the US healthcare system.

But we know that **uptake of these treatments remains suboptimal**, meaning many people are missing this layer of protection against hospitalization and death. A [study of patients in the Veterans Health Administration](#) reported that among all persons with SARS CoV-2 infection, 24% used outpatient antiviral medications in 2022, remaining at that level through early 2023. Similar overall rates of use, with a maximum of 34%, were found using [observational data of a large cohort](#) from health care systems participating in the

National Patient-Centered Clinical Research Network (PCORnet). This study also highlighted racial and ethnic differences in treatment uptake. During April–July 2022, treatment with nirmatrelvir-ritonavir among adults aged ≥20 years was 35.8%, 24.9%, 23.1%, and 19.4% lower among Black, multiple or other race, American Indian or Alaska native or other Pacific Islander, and Asian patients, respectively, than among white patients (31.9% treated). A [CDC study](#) found that among 699,848 U.S. adults aged ≥18 years eligible for nirmatrelvir-ritonavir during April–August 2022, 28.4% received a prescription with 5 days of being diagnosed with COVID-19. (Summary found here: [Background for CDC's Updated Respiratory Virus Guidance | Respiratory Illnesses | CDC](#))

Pragna Patel, MD, MPH - Results from a preliminary analysis of observational national electronic medical record data of >300,000 adults aged 65 years or older found that for those who were hospitalized or died, the vast majority (78.9%) had no history of receiving an outpatient COVID-19 antiviral. CDC is exploring these data further as they are subject to some limitations and will work with academic and other partners to better ascertain estimates in diverse populations.

Also, several studies have shown that **uptake of these treatments remains suboptimal**, meaning many people are missing this layer of protection against hospitalization and death. A [study of patients in the Veterans Health Administration](#) reported that among all persons with SARS CoV-2 infection, 24% used outpatient antiviral medications in 2022, remaining at that level through early 2023. Similar overall rates of use, with a maximum of 34%, were found using [observational data of a large cohort](#) from health care systems participating in the National Patient-Centered Clinical Research Network (PCORnet). This study also highlighted racial and ethnic differences in treatment uptake. During April–July 2022, treatment with nirmatrelvir-ritonavir among adults aged ≥20 years was 35.8%, 24.9%, 23.1%, and 19.4% lower among Black, multiple or other race, American Indian or Alaska native or other Pacific Islander, and Asian patients, respectively, than among white patients (31.9% treated). A [CDC study](#) found that among 699,848 U.S. adults aged ≥18 years eligible for nirmatrelvir-ritonavir during April–August 2022, 28.4% received a prescription with 5 days of being diagnosed with COVID-19. (Summary found here: [Background for CDC's Updated Respiratory Virus Guidance | Respiratory Illnesses | CDC](#))

46. What I have heard from older people in the community is my doctor did not prescribe Paxlovid because the side effects are worse than the disease, so they are told to wait it out. Patients that have taken Paxlovid state it seems worse than the symptoms they were experiencing prior to starting. How to respond to this

Pragna Patel, MD, MPH - The main side effect is metallic taste which goes away when you stop the medication. I have had patients tell me they feel better quickly - after one day and that their energy comes back quickly.

47. What is the latest data on the value of Paxlovid for reducing the risk of long covid?

Pragna Patel, MD, MPH - The data from observational studies are mixed but clinical trials are underway. I think for people who are at high risk for severe disease and eligible for treatment, might have an additive benefit of prevention of long-term consequences.

48. One of the most difficult challenges revolves around managing patients who have undergone B-cell depleting therapy and subsequently developed prolonged, persistent, or recurring COVID-19 with evidence of ongoing SARS-CoV-2 shedding. Can you discuss strategies for treating these patients?

Pragna Patel, MD, MPH - Please see the NIH COVID-19 treatment guidelines: <https://www.covid19treatmentguidelines.nih.gov/special-populations/immunocompromised/>

49. Please remind us the handful of drugs that are contraindicated with Paxlovid in addition to statins. A slide would be helpful.

Pragna Patel, MD, MPH - See NIH COVID-19 treatment guidelines: <https://www.covid19treatmentguidelines.nih.gov/therapies/antivirals-including-antibody-products/ritonavir-boosted-nirmatrelvir--paxlovid-/paxlovid-drug-drug-interactions/>

50. Why not just have patients who would otherwise be eligible for Paxlovid [similar to Tamiflu] fill the Rx and have it in the home along with previously discussed considerations [such as what meds to hold / adjust and for how long, so the urgency is removed?

Peter V. Chin-Hong, MD - Love that

51. Can you please repeat the Medicare/Medicaid website for Paxlovid assistance?

Peter V. Chin-Hong, MD - sign up by going to paxlovid.iassist.com or by calling 877-219-7225 (Medicare/Medicaid might already be pre-enrolled)

52. I'm asking about the denominator. all hospitalizations in that age group? all covid hospitalizations?

Pragna Patel, MD, MPH - For COVID-NET data, all COVID hospitalizations. 63% occurred among persons 65 years or older.

53. Molnupiravir is still under EUA status but is not available in pharmacies. What is the current or future plan for this agent?

Pragna Patel, MD, MPH - The MerckHelps Patient Assistance Program provides Lagevrio free of charge to patients who meet eligibility criteria and who, without assistance, could not otherwise afford the product. Learn more at MerckHelps.com/Lagevrio

54. Is there any data that Ensitrelvir actually reduces the percentage of people who end up hospitalized or dead? My understanding is there is only data that it reduces length of symptoms, none on its effects on bad outcomes.

Pragna Patel, MD, MPH - The clinical trial looked at reduction in symptoms.

55. Seems would be preferred to also make recommendations to maximally decrease risk. Including masking and isolation. Some want to know.

Brendan Jackson, MD, MPH - We certainly hear and recognize that perspective. The background document addresses the thinking behind the change.

<https://www.cdc.gov/respiratory-viruses/background/index.html>

Dr. Ashish Jha also addresses this issue in a STATNews article:

<https://www.statnews.com/2024/03/06/cdc-covid-isolation-guidance-public-health/>

56. It was VERY interesting that the flu is now exceeding SARS-CoV-2 in hospitalization. What underlies this shift (e.g., changes in flu virus, changes in immune status for both viruses, other changes)?

Brendan Jackson, MD, MPH - More info on that here: <https://www.cdc.gov/respiratory-viruses/background/index.html>

57. Tu Y, Green C, Hao L, Greninger AL, Morton JF, Sights HA, Gale M, Drain PK. 2023. COVID-19 Antigen Results Correlate with the Quantity of Replication-Competent SARS-CoV-2 in a Cross-Sectional Study of Ambulatory Adults during the Delta Wave. Microbiol Spectr 11:e00064-23.

<https://doi.org/10.1128/spectrum.00064-23> . This study has viral culture quantification by days of symptoms. It shows viral culture titers are highest on day 1 and 2 of symptoms and rapidly drop. Full disclosure, I am one of the authors.

Brendan Jackson, MD, MPH - Thank you Dr. Tu.

58. I may have missed this, but what is guidance for prevention of respiratory viruses in the outpatient setting? If different than community setting, how do you reconcile this?

Brendan Jackson, MD, MPH - Outpatient settings still fall under the COVID-19 infection prevention and control guidance, thanks. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html>

59. NIH guidance and that of other respected infectious disease doctors state that for those in the high risk category antivirals should be given EVEN if mild symptoms.

Pragna Patel, MD, MPH - Agree! Treat high-risk patients with mild to moderate COVID to prevent severe outcomes.

60. What is the time from infection to hospitalization for omicron? I believe it is shorter than for pre-omicron variants.

Brendan Jackson, MD, MPH - We are not aware of data specifically addressing time from infection to hospitalization for Omicron, but it is likely to be somewhat shorter than for ancestral SARS-CoV-2, since available data point to the incubation period (time from infection to symptoms) being a few days shorter for Omicron.

61. Any chance that remdesivir will become more widely available on an out-patient basis?

Pragna Patel, MD, MPH - Gilead has an Advancing Access® program to help eligible patients obtain access to remdesivir. Learn more here: [Advancing Access® program](#)

62. Is CDC recommending for individuals who are >65 and have received the original vaccine plus 2 boosters as well as a bivalent booster and the fall monovalent booster to receive another dose of monovalent vaccine?

Brendan Jackson, MD, MPH - CDC recommends that people who are 65+ years receive an updated (2023-2024) COVID-19 vaccine. For those who received a dose earlier in the season, CDC recommends 1 additional dose of an updated COVID-19 vaccine at least 4 months after the previous updated dose. The number of previous vaccines is no longer considered.

More information here: <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/stay-up-to-date.html>

63. As clean air is an important layer of protection to prevent spread of respiratory viruses, including sars2, could the cdc please provide clean air guidance for workplaces that will follow the absolute minimum guidance but don't know what to do or how, especially as a layer of protection for more vulnerable staff?

Brendan Jackson, MD, MPH - CDC provides extensive guidance to reduce viral particles in buildings, including workplaces. This guidance includes the first national clean indoor air target, recommending 5 equivalent air changes per hour when possible.

Detailed guidance here: [Ventilation in Buildings | CDC](#)

Concise summary here: [Improving Ventilation In Buildings | CDC](#)

Example coverage in the Washington Post: [Opinion | CDC's new indoor air guidelines are a monumental victory for health - The Washington Post](#)

64. When we look at vaccination rates among those hospitalized for COVID, should we not be comparing to the vaccination rate among the general population, or the vaccination rate among the not hospitalized?

Brendan Jackson, MD, MPH - Absolutely. Having a comparator group is of course critical. Using the rates comparison, ~5% of hospitalized people 65+ years in the COVID-NET surveillance system had a record of receiving the updated (2023-2024) COVID-19 vaccine vs. an estimated 42% of overall adults 65+ years. However, these numbers provide a simple but rough comparison and are not the best way to examine impact of vaccines. Dedicated vaccine effectiveness studies provide the best real-world information on impact of COVID-19 vaccines on hospitalization. Data from two studies [published in MMWR](#) demonstrate that the 2023–2024 COVID-19 vaccine is associated with an additional ~50% increase in protection against COVID-19-associated hospitalization.

65. Has anyone done comparative analysis of risk of death/serious outcomes in various populations (elderly, obese, etc) with covid vs. influenza vs rsv so we can present to patients who are struggling with determining their actual individual risk? Patients with anxiety diagnoses often overestimate their risk resulting in social isolation based on misinterpretation of the data.

Brendan Jackson, MD, MPH - The background document associated with the new guidance gets at this issue, providing detailed characterizations of recent hospitalization and death trends and references studies that provide more detailed data.

“COVID-19 remains a greater cause of severe illness and death than other respiratory viruses, but the differences between these rates are much smaller than they were earlier in the pandemic. This difference is even smaller among people admitted to the hospital. Studies show the proportion of adults hospitalized with COVID-19 (15.5%) or influenza (13.3%) who were subsequently admitted to the intensive care unit (ICU) was similar, and patients 60 years and older hospitalized with RSV were 1.5 times more likely to be admitted to the ICU than those with COVID-19.”