

Preparing for Winter Amid a Flu, RSV & COVID-19 Tridemic; Plus Update on Ebola

Dec. 3, 2022

Q&A

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Update on Ebola

1. Given the resistance and delay in acknowledging that COVID is airborne, how do we know that the same error is not being made when stating that “EBOLA is not airborne”?

Dr. Mary Choi: During every outbreak of Ebola we examine the outbreak data (who is getting infected, how are people getting infected, where are people getting infected) very carefully to identify anomalies. Thus far, there is no evidence that Ebola is spread through airborne transmission.

If there was airborne transmission, we would anticipate seeing a far greater number of cases. We would also expect to see very high transmission of the virus within households, but thus far, we have not seen this. So, in looking at the human outbreak data collected since 1976, we don't have evidence that the ebolaviruses are transmitted through airborne transmission. But we continue to closely monitor the outbreak data.

2. Are these Ebola relapses, or second cases?

Dr. Mary Choi: These are considered relapse cases. For the UK nurse, once she was infected, she was sent back to the UK for treatment and stayed there...where re-infection would not have been possible. For all these relapse cases, they experienced CNS symptoms so there is a concern that they may have had virus persistence in the CNS

3. In patients with detected Ebola RNA months later, we're they found to have viable virus?

Dr. Mary Choi: Thank you for this question. We have virus isolation results for some of these patients. For semen, the majority of testing has been done in outbreak countries, where virus isolation is not available. There was a study looking virus persistence in US survivors and in that study the investigators did report virus isolation attempts. For the viral relapse case in the UK nurse, she was treated in the UK and virus was isolated from her CSF. For the breastmilk studies, those were primarily done in the outbreak countries.

4. Can you address Europe's Mvabea (an MVA-BN Ebola vaccine which is licensed) and its efficacy in Sudan Disease?

Dr. Mary Choi: Currently there is no evidence that this vaccine cross protects against Sudan virus

5. Were the patients who experienced relapse of EBV, was there underlying immunosuppression?

Dr. Mary Choi: The data is incomplete. For the UK nurse, she did not have any reported underlying immune compromising conditions. However, prior to her relapse event, she was experiencing symptoms that were suggestive of an autoimmune disease however testing was negative. For the motorcycle taxi driver: he had no immunocompromising conditions that we were aware of. he was tested for HIV and was negative. For the other two individuals from the DRC with relapse: one was a pregnant woman and the other was an elderly man in his 60 or 70s. Otherwise our information on the medical history for these individuals is limited

6. Dr Choi If Ebola is not airborne why airborne isolation?

Dr. Alex Kallen: CDC recs are really for a single room with a bathroom. An AIIR might be preferred for people undergoing AGP. Since it might be hard to predict who will undergo an AGP some will put them in an AIIR right away. In addition, AIIR often have anterooms which might assist with donning and doffing.

7. We have been made to understand that very low risk returning travelers from Uganda, having been screened at one of 5 US airports, are allowed to return to their local destinations, and not quarantine near an Ebola treatment center. We have been alerted about some of these individuals and have had one or 2 locally who have had infectious symptoms. Are we supposed to get immediate guidance from CDC about whether to test such individuals for EVD? Their workups obviously require lab work, which creates significant issues around lab workflow and equipment disinfection. Should we have a low threshold to manage these very low risk individuals as having potentially highly contagious lab specimens, or can we rely on CDC to help us decide whether this is necessary, and proceed with malaria workups etc. without bringing our lab workflows to a standstill?

Dr. Mary Choi: If clinicians have questions as to how to manage symptomatic returning travelers in their clinic/hospital, we ask that you first contact your state/local health department. Collectively, they have had a lot of experience in answering these types of questions. If after consultation with the state/local health department, there are outstanding questions or there is a desire to test for Ebola, then we ask that the state/local health departments, in coordination with the clinician call CDC for additional guidance. We have people on the ground in Uganda (CDC country office, CDC deployers) and so we have access to the latest information on the outbreak and we can often contextualize the patient's epidemiologic risk factors. In some cases we have been able to provide additional clarity on the patient's travel and activities in Uganda

Attendee: The problem is that there is a time/urgency issue and Ebola symptoms are very nonspecific. If the local hospital/providers do an initial workup of more likely diagnoses such as malaria or typhoid, several hours will pass before there is realization that EVD test is necessary. If lab precautions are not taken from the beginning, laboratories are then put at risk. Our local health dept relies highly on local ID clinicians.

- 8. Dr. Choi, could CDC please advocate for travel to/from Uganda being restricted to avoid nonessential travel (Level 3), until the current outbreak is over? Current airport screening practices aren't so reliable, and there are limitations/challenges for local and state jurisdictions establishing contact and monitoring travelers, much less coordinating evaluation, testing (non-Ebola and CDC-approved Ebola testing), and care for symptomatic travelers with healthcare partners, many of whom are challenged with limited capacity due to surging respiratory illnesses, staffing shortages, and burnt out staff.**

Dr. Mary Choi: Thank you for the feedback. I hear you on the heavy burden state/local jurisdictions are shouldering with Ebola + flu + COVID + RSV. I will definitely pass along this message. Thank you for all that you are doing.

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- 9. With the new subvariants of COVID-19, please discuss the sensitivity and specificity of the test kits that are currently on the market. Additionally, many have expired, and some have been stating that they are good for an additional 90 days- please comment.**

Dr Carlos Villa: FDA has posted information on their website on this issue:

<https://www.fda.gov/medical-devices/coronavirus-covid-19-and-medical-devices/sars-cov-2-viral-mutations-impact-covid-19-tests>

FDA also provides a table with information on shelf-life extensions for at-home tests:

<https://www.fda.gov/medical-devices/coronavirus-covid-19-and-medical-devices/home-otc-covid-19-diagnostic-tests>

- 10. Could you please comment on continuing vs ceasing use of Evusheld given the % of BQ variants in circulation?**

Dr. Dana Wollins: The IDSA and CDC planners have this topic on the agenda to bring to a Clinician Call in the future. For additional reference, IDSA and NIH guidelines on this topic can be found here: <https://www.idsociety.org/practice-guideline/covid-19-guideline-treatment-and-management> and here: <https://www.covid19treatmentguidelines.nih.gov/therapies>

- 11. Please provide an update on oseltamivir shortage and other options for treatment of Influenza.**

Dr. Tim Uyeki: Unfortunately, there are spot shortages of oseltamivir being reported, likely due to high influenza activity, early season, low influenza activity the past 2 seasons and manufacturers not planning for high demand this season, and long timeline to ramp up production. Options are to prioritize oseltamivir for **highRisk** outpatients and hospitalized patients, and to see if inhaled zanamivir/oral baloxavir/IV peramivir are available for outpatients.

- 12. Any news about the current shortage of oseltamivir?**

Dr. Tim Uyeki: Unfortunately reports of spot oseltamivir shortages are increasing. Some manufacturers have reported that more oseltamivir will be available in the next 1-2 months but likely demand will exceed supply. Most oseltamivir is produced by generic manufacturers based overseas (mainly in India) and the timeline to ramp up production is not timely. Looking at availability of other antivirals (baloxavir, zanamivir, peramivir) is advised.

- 13. Adding to the test kit question, is the cheek, throat, nose method better than nose only method (realizing that the test kits now sold in the US do not mention the cheek/throat method). However, there have been cases in the US where patients do not test positive with nose only, but get a positive with cheek, throat, nose method. Those same patients go on to test positive a day or two later with the nose only method or PCR.**

Dr. Tim Uyeki: For influenza testing, suggest NP swab, or the recommended respiratory specimens for the specific influenza test being used (might be a nasal swab). A throat swab will have lower yield for detection of influenza viruses than an NP or nasal swab. A combined nasal and throat swab specimen (two separate specimens combined) will have a higher yield than a throat swab alone. There are no influenza tests for which a "cheek" specimen is recommended. I would only recommend collection of NP/nasal/or combined nasal and throat swabs for upper respiratory tract specimens.

- 14. Do we know of any updates on availability of at home Influenza testing?**

Dr. Tim Uyeki: There are no home-based influenza assays that have received FDA EUA to date, but two companies have applied for EUA for their tests.

- 15. Could you comment on the generation of hybrid viral particles noted with coinfection by influenza A virus and respiratory syncytial virus?**

Dr. Tim Uyeki: That was an interesting study - more research is needed. However, all I can comment on is that viral co-infection, including RSA and influenza virus co-infection is possible.

- 16. Re: influenza cohorting. Can people with flu A and flu B be cohorted in same room?**

Dr. Tim Uyeki: Ideally, they should not be cohorted together because transmission of one type of influenza virus can be transmitted to a person with another type, and vice versa. If cohorting must be done, it would be a good idea to consider having both patients to wear a facemask for source control if possible, and to take other precautions to reduce transmission. Antiviral treatment of both patients may reduce but not eliminate the risk of transmission to one another.

- 17. TODAY's Los Angeles Times: https://www.latimes.com/california/story/2022-12-03/california-reporting-very-high-flu-activity?utm_id=78339&sfmc_id=1690771**

Dr. Tim Uyeki: Thank you, unfortunately this is true for most of the US and in other areas it foreshadows what is likely to happen in the coming weeks.

- 18. If someone has had influenza in October and had not yet gotten the flu vaccine, have they developed enough antibodies to be protected from another case of influenza or do they still need to get the flu vaccine? If so, how long should they wait to get it?**

Dr. Tim Uyeki: If someone has had influenza this season, they should still get influenza vaccination because there are multiple types and subtypes of influenza A viruses co-circulating. So far, @80% of influenza viruses have been influenza A(H3N2) viruses, and @20% have been influenza A(H1N1)pdm09 viruses, with very little influenza B viruses. However, influenza B viruses typically increase and peak after the peak of influenza A viruses. People can get influenza due to different types of influenza and different subtypes of influenza A viruses during the same season.

19. Are there flu tests available commercially for pts to buy or obtain, like covid home tests?

Dr. Tim Uyeki: There are no over-the-counter influenza tests for home use or use outside clinical settings to date, but this could change in the future.

20. We have seen myositis associated with influenza. There is a patient with influenza that has parotitis. We are ruling out mumps. Are more unusual complication following influenza being reported this season compared to other seasons? We are seeing 99% influenza A and only a very limited number of influenza B. Our current positive test rate is over 55% for the week ending 11/25/2022.

Dr. Tim Uyeki: There is a wide range of manifestations and complications associated with influenza, including parotitis, myositis - including progressing to rhabdomyelitis, compartment syndrome or myoglobinuria/renal failure. These occur every season. There was not enough time to cover all aspects of influenza including complications but there are some review articles that summarize the range of complications. See the IDSA Clinical Practice Guidelines, Uyeki et al, CID 2019; and Uyeki et al., Lancet August 2022.

21. Any update on Tamiflu shortage?

Dr. Tim Uyeki: Unfortunately, spot shortages of oseltamivir are being reported in many areas. Manufacturers are reporting increases in oseltamivir will be available in the next 1-2 months, but most did not plan for an early robust season. Options are to prioritize oseltamivir treatment for highRisk outpatients and hospitalized patients, and to look for other antivirals (inhaled zanamivir, IV peramivir, oral baloxavir).

22. Is lingering cough after fever resolution and improved wellbeing associated with continued contagion with Influenza like illness?

Dr. Tim Uyeki: From the influenza perspective, some people, particularly elderly, can have persistent cough for a few weeks or longer. It is not generally associated with an infectious risk, except in severely immunocompromised persons (e.g. hemopoietic stem cell or solid organ transplant recipients).

23. What is the experience of starting oseltamivir between 2 and 5 days?

Dr. Tim Uyeki: It depends upon the patient population. In non-high risk persons with uncomplicated illness, there is likely no clinical benefit, but in those with severe illness or progressive illness and hospitalized patients, there is some benefit in treating during this time course but greater clinical benefit is observed when treatment is started as close to illness onset than later so ideally started at the time of hospital admission.

24. Would you comment on recommendations when oseltamivir not available for inpatient therapy?

Dr. Tim Uyeki: If oseltamivir is not available, consider intravenous peramivir. However, optimal dosing of peramivir in hospitalized influenza patients is unclear, and serial respiratory sampling and influenza testing can inform duration of antiviral treatment.

25. There is a severe shortage of oseltamivir in the Pacific Northwest, and I have been told that zanamivir is difficult to obtain as well. Can you comment on this, why is there a shortage, and how is this being addressed? We are forced to ration treatment and restrict as best we can to very highRisk individuals.

Dr. Tim Uyeki: This is very unfortunate, and we have heard reports of spot shortages. This stems from manufacturers seeing low demand the past 2 seasons and not preparing for high demand this season or an early season, and the long timeline to ramp up antiviral production - most, but not all, generic oseltamivir is produced overseas, particularly in India. Agree with prioritizing oseltamivir treatment for those at highest risk of severe disease and hospitalized patients.

26. There is significant shortage of Tamiflu (at least in New York), what's your advice in this setting?

Dr. Tim Uyeki: Suggest prioritizing oseltamivir treatment of highRisk outpatients and hospitalized patients. For some highRisk patients, baloxavir is an option. See if inhaled zanamivir or IV peramivir is available.

27. Dr. Uyeki - can you comment on post-exposure prophylaxis for influenza outbreaks in congregate settings such as homeless shelters

Dr. Tim Uyeki: To stop influenza institutional outbreaks, treatment of symptomatic residents and PEP of exposed is recommended starting with 2 weeks. Treatment dosing (twice daily) may be a better option than a prophylaxis dose (once daily) and PEP needs to be started ASAP after exposure. Consider reviewing the recommendations for LTCFs - see CDC guidance and especially the IDSA Influenza Clinical Practice Guidelines.

28. Which is more appropriate for immunocompromised solid organ transplant patients at start of flu, oseltamivir or baloxavir? - just saw the answer. baloxavir not recommended

Dr. Tim Uyeki: Oseltamivir. Baloxavir is not recommend as monotherapy for immunocompromised patients with influenza.

29. We are down to 5 doses of Oseltamivir in our hospital, how should we prioritize? Just critically ill, just high risk hospitalized.

Dr. Tim Uyeki: I'm so sorry to hear this news. Although there may be benefit in treating critically ill persons with viral pneumonia, the pathogenesis is more likely to be secondary to a host inflammatory response. If the patient has secondary bacterial pneumonia - appropriate antibiotic treatment without antiviral treatment might be fine. You might prioritize treatment of non-critically ill patients with high-risk conditions who can be started on treatment earlier in their clinical course, e.g. viral pneumonia patients not ventilated. Very challenging case-to-case decisions. If IV peramivir is available, could consider that for ICU patients.

30. Do RSV, influenza and Covid varieties share some protein pieces causing them more virulent compared with the variety before?

Dr. Tim Uyeki: There is no evidence that circulating RSV, influenza viruses, and SARS-CoV-2 have recombined or share viral proteins.

31. What is your recommendation for isolation for immunocompromised pts. with flu treated with Oseltamivir? Is PCR retesting helpful?

Dr. Tim Uyeki: In healthcare settings, isolation and implementation of infection control and prevention measures are recommended for immunocompromised patients with influenza, whether treated or untreated, and whether symptomatic or asymptomatic (recovered), because of the risk of prolonged influenza viral replication, including while asymptomatic. RT-PCR testing of respiratory tract specimens collected from immunocompromised patients can inform duration of infection prevention and control measures and can be done on a weekly basis, including in asymptomatic recovered immunocompromised patients until negative. Although detection of viral antigen or viral RNA does not indicate that infectious, replication-competent virus is present, a Ct value might be helpful to estimate if infectious virus is present, but viral culture is the best way to determine this. The optimal duration of antiviral treatment of influenza in immunocompromised patients is unknown, and whether combination antiviral treatment using drugs with different mechanisms of action provides more clinical benefit than monotherapy needs to be studied. In immunocompromised patients with influenza who improve with oseltamivir treatment and then subsequently worsen, clinicians should consider the possibility of emergence of oseltamivir resistant virus.

32. Are there plans to look at the efficacy of the high dose recombinant and adjuvanted vaccines in seniors this season. would be great to look at the relative protective effects of flucelvax vs high dose recombinant and adjuvanted vaccines in seniors this season

Dr. Tim Uyeki: There will likely be multiple studies to assess clinical influenza vaccine effectiveness this season. Studies to assess the relative vaccine effectiveness of high-dose, recombinant, adjuvanted, and standard-dose influenza vaccines in persons aged 65 years and older will depend on enrollment numbers of participants in these different vaccine groups. Studies in recent years have also analyzed administrative databases for Medicare beneficiaries and this can be done to assess these vaccines for persons aged 65 years and older.

33. Are there any updates for use of oseltamivir in young infants like neonates?

Dr. Tim Uyeki: If pediatric oseltamivir suspension is not available, pharmacists can compound a suspension utilizing 75mg capsules. CDC, IDSA, and the AAP recommend oseltamivir treatment of influenza in persons of all ages starting from birth, including premature infants.

34. What is the current status of oseltamivir shortages and what are the recommendations for when it's not available?

Dr. Tim Uyeki: There are increasing reports of oseltamivir shortages related to generic oseltamivir. This may increase in the coming weeks. Options include prioritizing oseltamivir for treatment of influenza in hospitalized patients, use for institutional outbreaks, and for high-risk outpatients, whereas healthy, otherwise non-high-risk persons might not be treated if they have uncomplicated illness. Baloxavir is an option for early treatment of influenza for persons aged 5 years and older.

35. Dr. Uyeki, can you please clarify timeframe for initiation of antiviral treatment in hospitalized patients with influenza? We're surprised during case investigation/surveillance efforts, not infrequently, to learn of ICU-admitted, lab-positive patients with influenza who have NOT had antiviral therapy initiated since symptom onset was more than 48 hours prior to admission. We (LHD) provide CDC guidance to initiate antiviral tx asap, but time has already been lost between admission and surveillance follow-up efforts.

Dr. Tim Uyeki: Ideally, oseltamivir treatment should be initiated as soon as possible for patients with suspected or lab-confirmed influenza who are being admitted to hospital; oseltamivir can be started in the emergency room. Performing influenza testing in the emergency department upon arrival in persons with acute respiratory illness, and testing for other respiratory viral pathogens (e.g. RSV, SARS-CoV-2, etc.) can help inform clinical management. CDC and IDSA recommend starting oseltamivir treatment at the time of hospital admission empirically without waiting for the results of influenza testing in patients with suspected influenza because observational studies have reported clinical benefit when oseltamivir treatment is started at the time of admission or shortly after admission compared with no treatment or later initiation of treatment. For those not treated with oseltamivir within 2 days after hospital admission, they might still benefit from oseltamivir treatment even started >2 days after admission.

36. COMBO SWAB-COVID/FLU-HOW RELIABLE?

Dr. Tim Uyeki: Multiple assays are available that provide results for influenza A/B, SARS-CoV-2, and other respiratory viruses from a single respiratory swab specimen. Data are limited but they appear to have similar sensitivity to single-plex assays.

37. GUIDELINES FOR TREATING FLU EXPOSURE INDIVIDUALS, WITHOUT TESTING OR IF THEIR TEST IS NEGATIVE

Dr. Tim Uyeki: This depends upon the setting. For congregate settings such as institutional influenza outbreaks, the recommendation is to test and treat the symptomatic index cases who test positive for influenza, and to administer post-exposure antiviral chemoprophylaxis to exposed residents. Influenza testing on asymptomatic exposed close contacts is not needed in congregate settings to initiate antiviral chemoprophylaxis.

38. Can you comment on cohorting of flu A cases in hospitals when H1 and H3 subtypes are not usually available at hospital level?

Dr. Tim Uyeki: Ideally, a patient with influenza should be isolated in a single patient room. If this is not possible, patients with influenza A could be cohorted together with other preventive measures implemented including having the patients wear facemasks for source control as much as possible to reduce the risk of patient-to-patient transmission in case they are infected with different influenza A virus subtypes. You could also review local influenza surveillance data or state influenza surveillance data to see what the relative prevalence of influenza A(H3N2) virus is compared with influenza A(H1N1)pdm09 virus. Currently this season at the national level, of influenza A viruses characterized at CDC, @79% have been H3N2 and @21% have been H1N1pdm09 viruses. So, one might assume that most influenza A virus infections are likely due to influenza A(H3N2) viruses but this might be different from community to community and change as the season progresses.

39. Any issues cohorting hospitalized patients with 2 different strains of influenza A strains? Perhaps avoid in immunocompromised? Some assays like Biofire subspeciate, but most others don't.

Dr. Tim Uyeki: Immunocompromised patients with influenza should not be cohorted, but isolated in single rooms. If it is known that patients have infections with different subtypes of influenza A viruses, cohorting should be avoided if possible. If not possible, patients with different influenza A viruses infections could be cohorted together with other preventive measures implemented including having the patients wear facemasks for source control as much as possible to reduce the risk of patient-to-patient influenza virus transmission.

40. Any concerns if vaccines given in same arm for example patient requested it in same arm (pt preference/ h/o lymph node dissection or lymphedema in one extremity)?

Dr. Tim Uyeki: If co-administered vaccines cannot be given in separate arms (e.g. co-administration of COVID-19 booster and influenza vaccines), then they can be given in the same arm at least an inch apart. See:

<https://www.cdc.gov/flu/prevent/coadministration.htm>

41. Can you comment on the status of an RSV vaccine and why it is so difficult to develop one? Can you also comment on long acting RSV antibody treatment for babies less than 6 months of age .

Dr. Meredith McMorrow: Thank you for this question. Nirsevimab (Beyfortus) was recently authorized by the European Medicines Agency and we expect it to be reviewed by the FDA in the coming year. Pfizer has recently completed a Phase 3 maternal vaccine trial and that vaccine may also be reviewed by the FDA in the near future. There are also multiple vaccine products targeting adults aged 60 years and older in late clinical development and many may be reviewed by the FDA in the next 1-2 years.

42. In our hospital, we are using the rapid kits. What impact has the increased availability for easy testing for RSV on the detection of RSV in elderly adults (known prevalence and incidence)?

Dr. Meredith McMorrow: We understand from some academic medical centers that they are seeing more use of quadriplex PCR testing for RSV, influenza, and SARS-CoV-2 in their settings. However, it is unclear to me how widespread this is. We do have more seasons of adult surveillance on RSV-NET and there we are seeing hospitalization rates similar to prior seasonal peaks:

<https://www.cdc.gov/rsv/research/rsv-net/dashboard.html>

43. Can RSV be acquired multiple time in the same resp season?

Dr. Meredith McMorrow: Children and adults may be infected more than once in a single respiratory season. Typically, the first RSV infection in infants is more likely to cause lower respiratory tract disease but a small number of infants may experience RSV-associated LRTI more than once in a season.

44. Considering kids haven't been exposed to much RSV the past 2yrs from pandemic precautions, if a 3yr old gets RSV for 1st time now, will she be highRisk for hospitalization still, or not much highRisk because she's above 6months of age?

Dr. Meredith McMorrow: While severe RSV can occur at any age, because of an immature immune system, small bronchioles, etc. infants consistently have higher rates of severe disease. An older infant cohort study (Glezen et al. 1986) found that risk of LRTI was significantly lower among children with first RSV infection in the second year of life.

45. Can RSV cause Roseola symptoms in kids? (i.e. a 2 y.o. presented with high fevers for 3-4days, then had rash the day she was afebrile: no other symptoms prior/during except for some watery nasal secretions the day before fever started)

Dr. Meredith McMorrow: Rashes are rarely reported in children with RSV so it is possible

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Dr. Meredith McMorrow: While severe RSV can occur at any age, because of an immature immune system, small bronchioles, etc. infants consistently have higher rates of severe disease. An older infant cohort study (Glezen et al. 1986) found that risk of LRTI was significantly lower among children with first RSV infection in the second year of life.

47. RSV A and RSV B is different in terms of clinical presentation and severity?

Dr. Meredith McMorrow: Most RSV seasons historically have been a mixture of RSV A and B subtypes and studies have not identified significant differences in clinical severity. Interestingly though, last year's unusual season peaked in August but there was significant virus circulation from late June through January and more than 90% of tested viruses were subtype B. It is unclear if the high proportion RSV B or other pandemic-related epi changes may have caused this longer "simmering" season in 2021. In contrast, thus far in the current season we are seeing 90% or more RSV A and have seen a more intense, early season with higher peak. Again, unclear if this is a result of changes in population immunity or is associated with the season being so RSV A dominant.

48. Do we have any data about RSV infection in adults, particularly elderly or immunocompromised patients?

Dr. Meredith McMorrow: Please see prior response and check out hospitalization rates on the newly available RSV-NET interactive website: <https://www.cdc.gov/rsv/research/rsv-net/dashboard.html>

49. Is there any conversation about rapid approval or eua for the new rsv vaccine from Pfizer that just finished phase 3 trial, in the context of the current emergency?

Dr. Meredith McMorrow: My understanding is that no manufacturers have requested FDA EUA to date for RSV prevention products - FDA colleagues may have other data to share.

50. Thank you for these wonderful presentations is there any data to support UV robot cleaning in patient room previously occupied by covid positive patient before bringing in a covid negative patient in the room if routine cleaning protocols and air exchanges performed.

Dr. Chanu Rhee: Not that I am aware of. In my opinion this would likely be very low yield as most SARS-CoV-2 transmission occurs through direct short-range respiratory emissions. To the extent that lingering aerosols and surface contamination plays a role, these are likely mitigated in the hospital setting by routine air exchanges and surface cleaning protocols.

51. Dr. Rhee - can you comment on if transmission between healthcare workers occurs in areas such as break rooms or socializing outside of the work environment, when they are not masking, vs within the hospital during patient care?

Dr. Chanu Rhee: Contact tracing studies indicate that most in-hospital HCW-HCW transmissions occurs in settings where one or both are unmasked, including breakrooms, cafeterias, and other situations involving socializing. Rates of transmission between HCWs during masked patient care are hard to quantify but are undoubtedly much less common.

52. What do we tell our immunocompromised patients, particularly those who are not responding to vaccines due to B cell depleting therapy or a suboptimal response due to immunosuppression? If they can't take Paxlovid, CCP supply is being left to individual facilities and outpatient Remdesivir is virtually nonexistent, do we really have the tools for them to participate normally in society or gather for the holidays? Do we expect one way masking to be enough for them? Esp for healthcare?

Dr. Chanu Rhee: For these reasons, I agree that universal masking in the healthcare setting (for both healthcare workers and patients) is appropriate to consider for immunocompromised patients regardless of COVID transmission levels. Outside of healthcare, where we can't guarantee two-way masking, I think it's reasonable to advise our high-risk immunocompromised patients to wear higher quality masks [or respirators](#) (KN95s or N95s) in indoor public settings or [avoid higher risk crowded situations](#).

53. With so much evidence that COVID-19 is mostly transmitted by asymptomatic individuals and that face masks (particularly respirators) effectively prevent respiratory diseases, why doesn't the CDC recommend masks again for this winter? It's understandable that it's not ideal to wear them, but disease prevention is more important.

Dr. Alex Kallen: CDC currently recommends that the use of facemasks for source control in healthcare settings, specifically for COVID, be targeted to areas with higher community incidence. There might be additional situations where masking is recommended by healthcare facilities even in lower prevalence areas including during outbreaks or even, as Drs Rhee and Baker described, for the highest risk patients. Beyond SARS-CoV-2, facilities might also recommend masks be used more widely when the community are in is experiencing higher rates of other respiratory viruses. As CDC guidance is designed to be widely applicable to all healthcare settings, facilities should factor in their unique circumstances when applying the guidance

54. Even with low transmission rates, is it safe for severely immunocompromised people to see a doctor who is not masked?

Dr. Chanu Rhee: I think that universal masking in the healthcare setting (for both healthcare workers and patients) is appropriate to consider for our severely immunocompromised patients regardless of COVID transmission levels. This is particularly true when community rates of other non-SARS-CoV-2 respiratory viruses are high. [Immunocompromised patients may also want to consider wearing higher quality masks or respirators \(KN95s or N95s\).](#)

55. Regardless negative impact of masks, is there any data on PFT changes in workers working in high temperatures or cold/freezer environments?

Dr. Chanu Rhee: There is some literature documenting the negative impact of masks in warm temperatures, humid conditions, or during exercise; these suggest that in these situations there can be perceived increases in sensations of dyspnea and generally decreased comfort, as you might expect. I am not aware of data specifically looking at PFT changes in this context.

56. What isn't the best metric the amount of resp illness being seen in the ER and the urgent care?

Dr. Alex Kallen: The best metric would include a variety of respiratory viruses or represent a syndrome that would be specific for a respiratory viral infection and would be available at a granular level (e.g. county level). Such a metric is not currently available in the US beyond for SARS-CoV-2 but is of continuing interest at CDC. In the meantime, when deciding on use of source control in individual facilities, using a measure of respiratory viral illness presenting to the ED might be one way to make decisions at a facility. The challenge, of course, will be knowing what specific number would be an appropriate trigger for broadening source control recommendations.

57. CP is not available from our local blood bank. Will there be incentives for local/regional blood banks to resume collecting CP from recently infected patients?

Dr Carlos Villa: Thank you for your comment. I encourage you to contact your blood supplier, or other suppliers in your region regarding CCP collections. Blood organizations such as AABB and America's Blood Centers may also be able to help direct you to establishments with available CCP

58. Can you comment on emerging evidence that a combi treatment of remdesivir and ccp for those with smoldering covid-19? i.e that a combi-treatment is effective

Dr Carlos Villa: There have been case-series and case reports of these products used as combination treatment for 'smoldering COVID-19' in immunosuppressed. Some of these were commented on in the clinical review memo for the CCP reissue in 12/2021. While there appeared to be an associated with improved viral clearance, there have not yet been prospective RCTs in this treatment setting.

59. As large blood suppliers are no longer collecting COVID convalescent plasma, how can anyone except large medical centers with their own blood donor facility obtain CCP? Our medical center blood supplier states unless government funds collection costs, they will not manufacture CCP

Dr Carlos Villa: Thank you for your comment. FDA communicates regularly with blood organizations and government partners regarding CCP. I encourage you to reach out to your local and regional blood suppliers regarding your interest in CCP

60. The available CCP is from donors during delta and initial omicron. We have to accept the oldest dates of CCP before more recent donors. Not even sure the blood banks are still collecting. Why would we give old CCP that is unlikely to have any neutralizing ab to BQ variants?

Dr Carlos Villa: Thank you for your question. We are aware that blood establishments are taking different approaches to donor selection and distribution of CCP. You should refer to the CCP guidance linked in my presentation for the most recent information, which FDA continually assesses. I encourage you to engage your local and regional blood suppliers on this issue, as this is a challenge for treating providers, and I agree that CCP from a donor with a remote history of infection runs a risk of not having neutralization against emerging variant.

61. Has anyone engaged blood industry re actually producing CCP? Previously production of CCP was fully funded by BARDA.

Dr Carlos Villa: Thank you for your comment. FDA communicates regularly with blood organizations and government partners regarding CCP. I encourage you to reach out to your local and regional blood suppliers regarding your interest in CCP

62. Why isn't the govt taking a leadership role in making ccp more widely available? rather than leave it to the individual blood banks and ordering physicians?

Dr Carlos Villa: Thank you for your comment. FDA communicates regularly with blood organizations and government partners regarding CCP. I encourage you to reach out to your local and regional blood suppliers regarding your interest in CCP

63. Can you please address the use of eye protection during close contact with patients who may have RSV? I've found that most clinicians don't recall Caroline Breese Hall's Rochester studies in 1986 that prompted the recommendation.

Dr. Alex Kallen: CDC recommends eye protection for RSV as per Standard Precautions (ie, you anticipate being coughed on). These guidelines are under review and could change (being updated by HICPAC)

64. The CCP review was helpful. The NIH guidelines do not offer any of this underlying reasoning. The collection challenges and understanding whether CCP is high-titer seem overwhelming except in certain select circumstances. Should this not be included in a footnote to the NIH guidelines?

Thank you for your comment. While the guidelines are the purview of the NIH and the committee that develops them, FDA does provide guidance on the collection of CCP:

<https://www.fda.gov/media/136798/download>

65. The CDC guidance emphasizing masks for symptomatic people seems unusual given the high rates of asymptomatic respiratory infections.

Dr. Alex Kallen: CDC recommends masks for symptomatic people and for areas with high prevalence both.

66. As a person who is immunocompromised, if my doctor isn't wearing a mask, I am going home. For many visits, I am asked to take off my mask during the vitals or for the exam. Getting sick from my doctor is an unacceptable scenario to me.

Cannot agree more with you. "first do no harm" should be our guiding light here.

Additional Influenza Resources:

*CDC ACIP Influenza vaccine recommendations for 2022-2023:

<https://www.cdc.gov/mmwr/volumes/71/rr/pdfs/rr7101a1-H.pdf>

*Summary of CDC ACIP Influenza vaccine recommendations for 2022-2023:

<https://www.cdc.gov/flu/pdf/professionals/acip/acip-2022-23-summary-of-recommendations.pdf>

*Weekly CDC Influenza surveillance report (FluView): <https://www.cdc.gov/flu/weekly/index.htm>

*CDC Influenza testing information, including clinical algorithms when SARS-CoV-2 and influenza viruses are co-circulating: <https://www.cdc.gov/flu/professionals/diagnosis/index.htm>

*CDC Influenza antiviral treatment recommendations:

<https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm>

*CDC guidance for LTCF residents with acute respiratory illness when SARS-CoV-2 and influenza viruses are co-circulating: <https://www.cdc.gov/flu/professionals/diagnosis/testing-management-considerations-nursinghomes.htm>

*CDC guidance for Influenza Outbreak Management in Long-Term Care and Post-Acute Care Facilities:

<https://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm>

*CDC guidance on Prevention Strategies for Seasonal Influenza in Healthcare Settings:

<https://www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm>

*IDSA Influenza Clinical Practice Guidelines:

<https://academic.oup.com/cid/article/68/6/e1/5251935?login=true>

*AAP Recommendations for Prevention and Control of Influenza in Children, 2022–2023:

<https://publications.aap.org/pediatrics/article/150/4/e2022059274/189385/Recommendations-for-Prevention-and-Control-of>

*NIH COVID-19 Treatment Guidelines Panel: Influenza and COVID-19:

<https://www.covid19treatmentguidelines.nih.gov/special-populations/influenza/>