National Nurses United
The National Voice for Direct-Care RNs

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Dr. Mandy Cohen, MD, MPH
Director, Centers for Disease Control and Prevention
1600 Clifton Rd.
Atlanta, GA 30329

Dear Dr. Cohen:
National Nurses United, representing nearly 225,000 registered nurse (RN) members, is the largest labor union and professional association for RNs in the United States. As RNs, our members have extensive scientific training and are dedicated to applying scientific data to protect and care for our patients. Since well before the Covid-19 pandemic began, NNU's members have been advocating for strong, science-based infection prevention protections rooted in the precautionary principle. We are writing today to express concerns about recommendations sent to the Centers for Disease Control and Prevention (CDC) by the Healthcare Infection Control Practices Advisory Committee (HICPAC).

At its most recent meeting held on November 14 and 15, 2024, HICPAC voted to send two items to the CDC: a new recommendation on isolation and return-to-work timeframes for health care workers infected with viral respiratory pathogens and answers to the four questions posed by the CDC when it returned HICPAC's draft Isolation Precautions guidance updates for additional work earlier this year.[1] Both recommendations from HICPAC ignore important science and will result in increased infections among health care workers and patients.

HICPAC's proposed three-day isolation period for health care workers infected with viral respiratory pathogens ignores science and will lead to onward transmission to staff and patients.
By majority vote at the November 2024 meeting, HICPAC sent an updated recommendation to the CDC regarding health care worker restrictions from work when infected with viral respiratory pathogens.[2] HICPAC's new proposal proposes one timeframe for all viral

[1] Jernigan, D. & Howard, J. (2024, January 23). *A CDC Update on the Part One Draft update to the Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings*. Safe Healthcare Blog. https://blogs.cdc.gov/safehealthcare/draft-2024-guideline-to-prevent-transmission-of-pathogens-in-healthcare-settings/

[2] Steed, C. (2024, November 14-15). *Infection Control in Healthcare Personnel Workgroup* [pdf]. Centers for Disease Control and Prevention Healthcare Infection Control Practices Advisory Committee. https://www.cdc.gov/hicpac/media/pdfs/HCP-WG-HICPAC-Nov-2024-508.pdf

respiratory pathogens that are not otherwise specified in the Infection Prevention in Healthcare Personnel Guidance (e.g., measles would not be included because it is addressed separately in the guidance, but Covid-19, influenza, and respiratory syncytial virus or RSV would be). This is a change from current guidance, which recommends different timeframes for different pathogens.

HICPAC's new recommendation is that health care workers with a suspected or confirmed viral respiratory infection (not otherwise addressed) be restricted until three days have passed from symptom onset, they are fever free for at least 24 hours without the use of antipyretics, symptoms are improving, and they feel well enough to return to work. The recommendation also includes mask use upon return to work until the end of day seven. Asymptomatic health care workers with a known or suspected exposure to a respiratory virus would wear a mask for five days and would not be restricted from work. Viral respiratory infection has not yet been defined, but HICPAC discussed utilizing a definition that would include two or more signs or symptoms of respiratory viruses (e.g., fever, chills, fatigue, cough, runny nose, sore throat, etc.).

NNU is extremely concerned that these proposals from HICPAC would lead to onward transmission of multiple respiratory viruses to both patients and staff in health care settings. Research clearly shows that, for multiple common respiratory viruses, a large proportion of individuals remain infectious well beyond three days:

SARS-CoV-2/Covid-19

- Among non-hospitalized health care workers infected with the Omicron variant, 52 percent shed infectious virus on day seven, 13.5 percent on day ten, and 8.5 percent on day 14.[3]
- Many people infected with SARS-CoV-2 remain positive and potentially infectious for five or more days.[4,5,6]

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[3] Keske, S., Güney-Esken, G., et al. (2023). Duration of infectious shedding of SARS-CoV-2 Omicron variant and its relation with symptoms. *Clinical Microbiology and Infection, 29*(2), 221-4. https://doi.org/10.1016/j.cmi.2022.07.009

[4] Dzieciolowska, S., Charest, H. et al. (2023). Timing and Predictors of Loss of Infectivity Among Healthcare Workers With Mild Primary and Recurrent Coronavirus Disease 2019 (COVID-19): A Prospective Observational Cohort Study. *Clinical Infectious Diseases*, *78*(3), 613-24. https://doi.org/10.1093/cid/ciad535

[5] Luna-Muschi, A., Vásconez Noguera, S. et al. (2022). Characterization of Severe Acute Respiratory Syndrome Coronavirus 2 Omicron Variant Shedding and Predictors of Viral Culture Positivity on Vaccinated Healthcare Workers With Mild Coronavirus Disease 2019. *Journal of Infectious Diseases*, *226*(10), 1726-30. https://doi.org/10.1093/infdis/jiac391

[6] Wu, Y., Guo, Z. et al. (2023). Duration of viable virus shedding and polymerase chain reaction positivity of the SARS-CoV-2 Omicron variant in the upper respiratory tract: a systematic review and meta-analysis. *International Journal of Infectious Diseases*, *129*, 228-35. https://www.ijidonline.com/article/S1201-9712(23)00057-7/fulltext

- Over one-third of non-hospitalized patients with Covid-19, a majority of whom had been vaccinated, had culturable virus on day six. Authors of the study concluded, "...a recommendation to end isolation based solely on the presence of improving symptoms risks releasing culture-positive, potentially infectious individuals prematurely, underscoring the importance of proper mask wearing and avoidance of high-risk transmission venues through day 10."[7]
- The median time from symptom onset to culture conversion was eight days for non-hospitalized patients infected with the SARS-CoV-2 Omicron variant.[8]

Influenza

- A study of healthy individuals from 2008 to 2014 found that viral shedding of influenza A peaked on the first one to two days of clinical illness and decreased gradually to undetectable levels by day six or seven.[9]

RSV

- The mean duration of viral shedding for individuals infected with RSV was 14.1 days and approximately 80 percent of symptomatic cases became asymptomatic. Maximal viral shedding peaked at 6.2 days after infection. The mean interval from exposure to infection was 5.1 days. There was no clear association between viral load and presence of symptoms.[10]

This scientific data indicates that a three-day isolation timeframe for health care workers with suspected or confirmed viral respiratory infections will mean that a substantial proportion of health care workers remain infectious upon their return to work. This places patients and staff at increased risk of exposure and infection with respiratory viruses. Additionally, HICPAC's recommendation would require use of a mask upon return to work through day seven after symptom onset. While mask use can reduce the amount of infectious aerosols emitted by the wearer and is an important prevention measure for source control, mask use by itself does not fully prevent transmission. Indeed, one study documented multiple instances of staff and patients being infected with Covid-19 despite

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[7] Cosimi, L.A., Kelly, C., Esposito, S., et al. (2022, August 3). Duration of Symptoms and Association With Positive Home Rapid Antigen Test Results After Infection With SARS-CoV-2. *JAMA Network Open, 5*(8), e2225331. https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2794884

[8] Boucau, J., Marino, C., et al. (2022, June 29). Duration of Shedding of Culturable Virus in SARS-CoV-2 Omicron (BA.1) Infection. *New England Journal of Medicine, 387*, 275-7. https://www.nejm.org/doi/10.1056/NEJMc2202092

[9] Ip, D.K.M., Lau, L.L.H. et al. (2015, October 30). The Dynamic Relationship Between Clinical Symptomatology and Viral Shedding in Naturally Acquired Seasonal and Pandemic Influenza Virus Infections. *Clinical Infectious Diseases*, *62*(4), 431-7. https://doi.org/10.1093/cid/civ909

[10] Okamoto, H., J.B.T. Sornillo, et al. (2021, July 3). Risk of Transmission and Viral Shedding From the Time of Infection for Respiratory Syncytial Virus in Households. *American Journal of Epidemiology*, *190*(12), 2536-43. https://doi.org/10.1093/aje/kwab181

one or both parties wearing surgical masks and eye protection.[11] Additionally, HICPAC did not fully acknowledge the need for health care workers to remove their masks to eat and drink and the risks this poses to other staff and patients if they are infectious.

HICPAC's responses to CDC's questions on the draft Isolation Precautions guidance updates ignore science and fail to protect health care workers and patients.
In November 2023, HICPAC voted unanimously to send draft updates to the Isolation Precautions guidance to the CDC.[12] HICPAC's November 2023 draft ignored science on aerosol transmission and respiratory protection and proposed to weaken protections for health care workers and patients.[13] NNU commends the CDC for sending this draft back in January 2024 for more work by HICPAC on four questions that addressed some of NNU's core concerns. At the November 2024 meeting, HICPAC voted on responses to those four questions posed by the CDC.[14] A majority of the committee voted to maintain the problematic November 2023 draft language.

In the spring of 2024, the CDC also added additional expertise in industrial hygiene, respiratory protection, and occupational health to both HICPAC and its Isolation Precautions Guideline Workgroup—an important step in the right direction. However, the scientific expertise, experience, and perspective they represent were essentially erased by HICPAC's voting majority of health care infection prevention managers.

Important science that HICPAC is missing in its responses to the CDC's four questions regarding the Isolation Precautions guideline updates:

1. HICPAC is proposing to update the CDC's scientific paradigm on infectious disease transmission in name only, failing to recognize extensive scientific research on aerosol transmission, which sets the stage to weaken existing isolation precautions.

HICPAC is proposing to update language on infectious disease transmission, leaving behind the faulty contact-droplet-airborne distinctions and moving to a paradigm with two non-exclusive transmission methods: by air and by touch. This update certainly moves in the

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[11] Klompas, M., Baker, M., et al. (2021, March 11). Transmission of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) From Asymptomatic and Presymptomatic Individuals in Healthcare Settings Despite Medical Masks and Eye Protection. *Clinical Infectious Diseases, 73*(9), 1693-5. https://doi.org/10.1093/cid/ciab218

[12] Record of the Proceedings, Healthcare Infection Control Practices Advisory Committee (2023, November 2-3). Department of Health and Human Services, Centers for Disease Control and Prevention. https://www.cdc.gov/hicpac/media/pdfs/2023-November-HICPAC-Summary-508.pdf

[13] Updates on the CDC Advisory Committee's efforts to weaken infection control guidance for health care (2024, October 28). National Nurses United. https://www.nationalnursesunited.org/cdc-and-hicpac

[14] Lin, M. & S. Wright (2024, November 14). Isolation Precautions Guideline Workgroup [pdf]. Centers for Disease Control and Prevention Healthcare Infection Control Practices Advisory Committee. https://www.cdc.gov/hicpac/media/pdfs/IP-WG-HICPAC-Nov-2024-508.pdf

right direction—research has extensively documented that the droplet-airborne distinction is false, based on past scientific errors, and fails to adequately account for transmission of infectious diseases.[15,16] Research has clearly and extensively documented that aerosol transmission is a more accurate category that reflects the dynamics of respiratory aerosols, which are emitted in a continuum of sizes and can transmit through and remain aloft in the air for long distances and periods of time.[17,18]

However, HICPAC fails to fully recognize the available evidence on aerosol transmission. Instead, HICPAC remains focused on short versus long distance transmission (i.e., droplet vs airborne transmission) and fails to acknowledge research on respiratory emissions and aerosol dynamics. This becomes clear in the proposed recommendations for isolation precautions for the new "by air" transmission category where HICPAC proposes three tiers: routine air precautions, special air precautions, and extended air precautions. Routine air precautions maps onto the existing droplet category, where only surgical masks are recommended (and respirators are not) for pathogens like seasonal coronaviruses and seasonal influenza. Special air precautions and extended air precautions map onto the existing airborne category, where an N95 respirator is recommended for pathogens like MERS, SARS-CoV-1, "pandemic-phase respiratory viruses," and tuberculosis, measles, and varicella. Thus, these proposals represent a change in language with no real corresponding change in PPE practice.

Concerningly, in this proposal for isolation precautions, HICPAC is failing to acknowledge a vast body of research documenting the aerosol transmission of multiple respiratory

[15] Jimenez, J.L., Marr, L.C., et al. (2022, August 21). What were the historical reasons for the resistance to recognizing airborne transmission during the COVID-19 pandemic?. *Indoor Air.* https://doi.org/10.1111/ina.13070

[16] Randall, K., E.T. Ewing, et al. (2021, October 21). How did we get here: what are droplets and aerosols and how far do they go? A historical perspective on the transmission of respiratory infectious diseases. *Interface Focus*, *11*(6). https://doi.org/10.1098/rsfs.2021.0049

[17] Jones, R.M. & Brosseau, L.M. (2015, May). Aerosol transmission of infectious disease. *Journal of Occupational and Environmental Medicine, 57*(5), 501-8. https://doi.org/10.1097/jom.0000000000000448

[18] Wang, C.C., Prather, K.A. et al. (2021, August 21). Airborne transmission of respiratory viruses. *Science, 373*(6558). https://doi.org/10.1126/science.abd9149

viruses, including influenza, SARS-CoV-2/Covid-19, and respiratory syncytial virus (RSV), indicating the need for an N95 or more protective respirator.[19,20,21,22,23]

2. HICPAC/CDC is basing its proposals on an evidence review that is inappropriately narrow in its focus and fails to incorporate all the available evidence on respiratory protection.

CDC staff performed an evidence review on select questions to inform HICPAC guidance updates. This review concluded that there was no difference between N95s and surgical masks in the protection offered from respiratory infections to health care workers. This review was inadequate, flawed, and biased. Specifically, the evidence review:

- Over-relied on randomized controlled trials (RCTs), failing to account for the inability of RCTs to fully evaluate the effectiveness of respirators and masks due to the lack of objective measurement of mask/respirator use, lack of consideration of intermittent use of respirators which is known to offer insufficient protection, and often the lack of a true control group.[24]
- Cherry-picked the end point of concern, which skewed results. The CDC inexplicably only examined lab-confirmed respiratory infections while at least one study included in its review found evidence that N95s provided more protection from influenza-like illness than surgical masks.[25]

Importantly, by exclusively examining RCTs comparing N95s to medical/surgical masks, HICPAC is ignoring over a century of occupational health research into the efficacy,

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[19] Bischoff, W.E., Swett, K. et al. (2013, January 30). Exposure to Influenza Virus Aerosols During Routine Patient Care. *Journal of Infectious Diseases, 207*(7), 1037-46. https://doi.org/10.1093/infdis/jis773

[20] Lindsley, W.G., Blachere, F.M. et al. (2010, March 1). Distribution of Airborne Influenza Virus and Respiratory Syncytial Virus in an Urgent Care Medical Clinic. *Clinical Infectious Diseases, 50*(5), 693-8. https://doi.org/10.1086/650457

[21] Yan, J., Grantham, M. et al. (2018, January 18). Infectious virus in exhaled breath of symptomatic seasonal influenza cases from a college community. *PNAS*, *115*(5), 1081-6. https://doi.org/10.1073/pnas.1716561115

[22] Schulman, J.L. (1967, March 1). Experimental Transmission of Influenza Virus Infection in Mice: IV. Relationship of Transmissibility of Different Strains of Virus and Recovery of Airborne Virus in the Environment of Infector Mice. *Journal of Experimental Medicine, 125*(3), 479-88. https://doi.org/10.1084/jem.125.3.479

[23] See Table 1 in Wang, C.C., Prather, K.A. et al. (2021, August 27). Airborne transmission of respiratory viruses. *Science, 373*(6558). https://doi.org/10.1126/science.abd9149

[24] Brosseau, L., MacIntyre, C.R., et al. (2023, February 23). COMMENTARY: Wear a respirator, not a cloth or surgical mask, to protect against respiratory viruses. *University of Minnesota, Center for Infectious Disease Research and Policy*. https://www.cidrap.umn.edu/covid-19/commentary-wear-respirator-not-cloth-or-surgical-mask-protect-against-respiratory-viruses

[25] Loeb, M., Dafoe, N. et al. (2009). Surgical mask vs N95 respirator for preventing influenza among health care workers: a randomized trial. *JAMA, 302*(17), 1865-71. https://doi.org/10.1001/jama.2009.1466

performance, and need for certification of respiratory protection.[26] This evidence was ignored by HICPAC members at the November 2024 meeting, where a majority of HICPAC voted to assert that N95s should *not* be recommended for all pathogens that spread through the air.

3. HICPAC proposes to reframe infection control guidance to create extensive flexibility for health care employers.

The November 2023 draft Isolation Precautions guidance update provides weak, minimal recommendations for health care providers and leaves extensive flexibility for employers to prioritize profits over protections. The CDC adopted such an approach in its Covid-19 infection control guidance early in the pandemic when it implemented crisis and contingency strategies, which directed health care employers to select a level of infection control measures based on their own risk assessment, with no accountability or oversight for whether those risk assessments were accurate. This led to many health care employers implementing fewer or less protective infection control practices inappropriately and without actual need to resort to crisis standards. If the CDC adopts HICPAC's draft, it will have disastrous impacts on health care worker and patient health and safety.

At the November 2024 meeting, HICPAC voted *against* including a recommendation that health care employers allow health care workers to utilize an N95 or higher-level respirator at any time they assess it is needed, even where it is not recommended under Transmission-based Precautions. This is an important layer of protection—RNs and other health care workers frequently encounter situations where they have information indicating there may be a higher risk of exposure, such as a patient developing new symptoms or a patient's family member having been exposed to Covid. RNs and other health care workers may also need a higher level of protection because they or someone they live with is at higher risk for severe outcomes if infected, such as if they are immunocompromised, receiving cancer treatment, or have diabetes. It is unconscionable that HICPAC rejected the opportunity to urge health care employers to make respirators available to all health care workers to protect themselves from aerosol transmissible diseases as needed.

4. HICPAC is omitting multiple important measures from the guidance update.

HICPAC/CDC is excluding essential infection prevention and control measures from updated guidance and focusing almost exclusively on PPE. The November 2023 draft contains no recommendations related to ventilation, fails to address the essential role that

[26] Giammaria, C., Yost, O., & Nicolson, A., editors (2020, December 22). *Lessons Learned from 100 Years of Respiratory Protection*. National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Health Sciences Policy https://www.ncbi.nlm.nih.gov/books/NBK567460/

safe staffing levels play in infection control and prevention, and provides weak consideration of patient and visitor screening and isolation. In taking this approach, HICPAC is missing important control measures, which fails to protect health care workers and patients.

In conclusion

NNU urges CDC to reject HICPAC's draft Isolation Precautions guidance updates. Infectious disease threats continue to increase, with the emergence of new pathogens alongside the re-emergence of existing pathogens. With the threats to public health posed by the incoming presidential administration, it is of the utmost importance that CDC guidance and policy be based on the most up-to-date science and recommend the strongest level of protection. Robust health care infection prevention protects health care workers and patients, prevents disease outbreaks, and is key to future pandemic response.

Sincerely,

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