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Among 272 study participants, 1 had COVID-19 disease within 3 months of follow-up. We found low anti–SARS-Cov-2 IgG values (index value <1.4) at the serological test in 5 of 14 patients with previous COVID-19 infection. All 5 of these study participants had had COVID-19 disease in the previous 6 months.

A preliminary analysis of the data shows a positive correlation between reporting AEs following the second administration and anti–SARS-Cov-2 RBD spike protein antibodies response. The antibody value in patients with AEs at the second dose was  $15,664 \pm 10,640$  AU/mL versus  $9,136 \pm 7,523$  AU/mL in patients who did not report adverse effects (P < .05).

In 4 patients, the anti–SARS-Cov-2 receptor binding domain (RBD) spike protein antibody level was <600 AU/mL, which indicates very poor humoral immune response to vaccine. Of these, 2 patients were on active chemotherapy, 1 had previous hematological malignancy, and 1 did not report any major issues. These patients were referred to the preventive medicine service for dedicated follow-up. According to some studies, cancer patients could need additional doses of vaccine and/or should maintain nonpharmacological preventive measures as suggested for patients who use B-lymphocyte–depleting agents.<sup>3</sup>

In the first phase of the campaign, 85% of the staff chose to receive the vaccine. Currently, adherence to the vaccination program is progressively improving to 92%. This result is better than that in a similar Canadian experience in which 80.9% of the staff accepted the vaccine. This result is even more significant when we consider that in November 2020, a survey administered to FTGM employees to explore vaccination hesitancy in healthcare and non-healthcare workers found that just 232 (59%) of 396 participants had an intention to be vaccinated against COVID-19. We believe that scheduling of vaccinations outside working hours during the weekend, one-to-one vaccine counseling to hesitant workers, peer pressure from colleagues directly involved in the vaccination campaign, and the introduction of a national vaccination mandate for healthcare workers at the end of May played a significant role in achieving the current vaccination rate.

These AE data are not in line with manufacturer-sponsored studies,<sup>5</sup> but they reflect another single-center experience.<sup>6</sup> The main limitations of this study are that it is a single-center experience with a short follow-up. We have planned a serological follow-up at 6 and 12 months after the vaccination. Through a dedicated questionnaire, all

participants are invited to record any cases of COVID-19 disease to monitor the vaccine's long-term protection. Furthermore, these data will be included in a surveillance network involving all hospitals in Tuscany, which is being used to monitor the evolution of SARS-CoV-2 immune response in healthcare workers.

In our opinion, independent studies of real-life acceptancy, safety, and effectiveness of SARS-CoV-2 on high-risk cohorts, such as hospital personnel, are required to boost confidence in vaccine campaigns, both in the general population and in healthcare providers.

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## References

- Richardson S, Hirsch JS, Narasimhan M, et al. Presenting characteristics, comorbidities, and outcomes among 5,700 patients hospitalized with COVID-19 in the New York City area. JAMA 2020. doi: 10.1001/jama. 2020.6775.
- MedDRA version 23.0 update to be produced. Medical Dictionary for Regulatory Activities website. https://www.meddra.org/news-and-events/ news/meddra-version-230-update-be-produced. Published April 10, 2020. Accessed July 13, 2021.
- Connolly CM, Boyarsky BJ, Ruddy JA, et al. Absence of humoral response after two-dose SARS-CoV-2 messenger RNA vaccination in patients with rheumatic and musculoskeletal diseases: a case series. Ann Intern Med 2021. doi: 10.7326/M21-1451.
- Dzieciolowska S, Hamel D, Gadio S, et al. COVID-19 vaccine acceptance, hesitancy, and refusal among Canadian healthcare workers: a multicenter survey. Am J Infect Control 2021. doi: 10.1016/j.ajic.2021.04.079.
- Polack FP, Thomas SJ, Kitchin N, et al. C4591001 Clinical Trial Group. Safety and efficacy of the BNT162b2 mRNA COVID-19 vaccine. N Engl J Med 2020;383:2603–2615.
- Riad A, Pokorná A, Attia S, Klugarová J, Koščík M, Klugar M. Prevalence of COVID-19 vaccine side effects among healthcare workers in the Czech Republic. J Clin Med 2021;10:1428.

## Healthcare facilities should publicly report the coronavirus disease 2019 (COVID-19) vaccination coverage of healthcare personnel

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To the Editor—Between expanding eligibility criteria and the opening of mass vaccination sites, millions of Americans have now been vaccinated against coronavirus disease 2019 (COVID-19). Barriers to vaccination remain, however, including supply shortages, difficulties in scheduling, and vaccine hesitancy. Among healthcare personnel (HCP), hesitancy has been linked to concerns about adverse effects, a desire to hear the experiences

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of others, and distrust of the rapid approval process.<sup>1,2</sup> Willingness to undergo vaccination appears associated with identity, with differences based on gender, race, and political beliefs.<sup>1</sup>

For these reasons and others, as of early March, approximately half of HCP were unvaccinated.<sup>3</sup> Unvaccinated HCP present a threat to patient safety because they are more likely than vaccinated HCP to expose patients to severe acute respiratory coronavirus virus 2 (SARS-CoV-2). Unvaccinated HCP are also more likely than vaccinated HCP to compromise hospital staffing and operations because developing COVID-19 and exposing coworkers to the virus may necessitate time away from work for isolation or quarantine.

The Centers for Medicare and Medicaid Services (CMS) recently proposed changes to the Hospital Inpatient Quality-Reporting Program that include an important new measure for COVID-19 vaccination coverage among HCP.<sup>4</sup> We applaud the CMS for moving quickly to add this measure. If the proposed rule is enacted—and we hope that it will be—hospitals and long-term care facilities will be required to report HCP vaccination rates to the CMS beginning in October 2021. The precedent for this type of rule is mandatory reporting of influenza vaccination coverage among select categories of HCP.<sup>5</sup>

However, healthcare facilities should not wait until October to begin reporting COVID-19 vaccination rates for HCP. Rather, public reporting should begin as soon as possible. During this crucial period of transition to the next phase of the pandemic, public reporting can encourage health systems to improve vaccination uptake and can empower patients to seek care in settings that are less likely to place them at risk.

Hospital-acquired COVID-19 is rare,<sup>6</sup> but fear of exposure has real consequences. By June 2020, 41% of patients had delayed or avoided medical care out of concern for COVID-19.<sup>7</sup> Also, ~40% of Americans feel unsafe going to a doctor's office, and ~50% feel uncomfortable scheduling a procedure.<sup>8</sup> Furthermore, these concerns may be more common among minority populations,<sup>8</sup> potentially worsening health disparities related to the pandemic. Public reporting of HCP vaccination coverage may help to alleviate these fears so patients will be less likely to delay necessary care.

Public reporting can be a potent motivator to improve performance on quality measures. We anticipate that most health systems are actively working to vaccinate as many of their employees as possible, and mandatory vaccination may be coming soon. In the meantime, public accountability can provide the urgency to align stakeholders and overcome logistical barriers. Although a small proportion of unvaccinated HCP may be firm in their decision, a much larger group are likely unsure and waiting for more information. Town halls, education seminars, and question-and-answer sessions can be helpful, but they rarely occur at a time when they can be accessed by night-shift workers. We suspect that regardless of what health systems are currently doing to get their HCP vaccinated, they could probably be doing more.

Sharing data can also help to normalize vaccination among hesitant HCP. Finding out that a high proportion of your coworkers have been vaccinated may be compelling if the vaccination rate among your immediate peer group is much lower. In hospitals with relatively low vaccination coverage, higher coverage at a nearby institution may send a signal to staff and leadership that they have fallen behind.

COVID-19 vaccination has been framed as a personal choice. <sup>10</sup> Thus, healthcare facilities may be reluctant to report data that they perceive to be beyond their scope or that reflect the private health information of their employees. However, the choice to abstain from vaccination affects public health and patient safety.

Coworkers and patients bear the consequences alongside the unvaccinated individual. Thus, improving vaccination coverage is ultimately the responsibility of the healthcare facility.

We recognize that public reporting of COVID-19 vaccination coverage among HCP may present challenges, and most healthcare facilities will prefer to wait and see whether reporting becomes mandatory. However, we strongly encourage healthcare facilities to report their vaccination rates voluntarily before they are required to do so. In particular, facilities with high vaccination rates should publicize their numbers. Patients at those facilities will feel reassured and competitors will feel pressured. Hopefully, more HCP will get vaccinated, keeping themselves, their communities, their colleagues, and their patients safer.

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## References

- Shekhar R, Sheikh AB, Upadhyay S, et al. COVID-19 vaccine acceptance among healthcare workers in the United States. Vaccines 2021;9:119.
- Meyer MN, Gjorgjieva T, Rosica D. Trends in healthcare worker intentions to receive a COVID-19 vaccine and reasons for hesitancy. *JAMA Network Open* 2021;4:e215344.
- Kirzinger A, Kearney A, Hamel L, Brodie M. KFF/The Washington Post frontline healthcare workers survey. Kaiser Family Foundation website. https://www.kff.org/report-section/kff-washington-post-frontline-healthcare-workers-survey-vaccine-intentions/. Published April 22, 2021. Accessed April 24, 2021
- 4. Fiscal Year (FY) 2022 Medicare hospital inpatient prospective payment system (IPPS) and long-term care hospital (LTCH) rates proposed rule (CMS-1752-P). Centers for Medicare and Medicaid Services website. https://www.cms.gov/newsroom/fact-sheets/fiscal-year-fy-2022-medicare-hospital-inpatient-prospective-payment-system-ipps-and-long-term-care. Published April 27, 2021.Accessed April 29, 2021.
- HCP influenza vaccination summary reporting FAQs. Centers for Disease Control and Prevention website. https://www.cdc.gov/nhsn/faqs/ vaccination/faq-influenza-vaccination-summary-reporting.html. Published March 16, 2020. Retrieved April 24, 2021.
- Rhee C, Baker M, Vaidya V. Incidence of nosocomial COVID-19 in patients hospitalized at a Large US academic Medical Center. *JAMA Network Open* 2020;3(9):e2020498.
- Czeisler MÉ, Marynak K, Clarke KE, Delay or avoidance of medical care because of COVID-19-related concerns—United States, June 2020. Morbid Mortal Wkly Rept 2020;69:1250–1257.
- Grines CL. SCAI conducts updated survey regarding patient perception of COVID-19 safety in health care settings, with emphasis on underserved populations. Society for Cardiovascular Angiography and Interventions website. https://scai.org/scai-conducts-updated-survey-regarding-patientperception-covid-19-safety-health-care-settings. Published March 2, 2021. Accessed April 24, 2021.
- Campanella P, Vukovic V, Parente P, Sulejmani A, Ricciardi W, Specchia M.
   The impact of public reporting on clinical outcomes in healthcare: a systematic review and meta-analysis. BMC Health Serv Res 2016;16:296.
- Information about COVID-19 vaccines for people who are pregnant or breastfeeding. Centers for Disease Control and Prevention website. https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/ pregnancy.html. Published March 18, 2021. Accessed April 24, 2021.