

The Case for Mandating COVID-19 Vaccines for Health Care Workers

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Almost 15 years have passed since hospitals first began mandating influenza vaccines for health care workers. This initially innovative but now common policy was prompted by a dual desire to protect patients from health care-acquired influenza and to protect the workplace from the disruption and expense of worker illnesses. Health care organizations are now wrestling with whether to mandate SARS-CoV-2 vaccination for all employees. We believe that the case for mandating SARS-CoV-2 vaccines for health care workers is substantially stronger than the case was for mandating influenza vaccines (Table).

THE MORBIDITY AND MORTALITY OF COVID-19 FAR EXCEEDS THAT OF INFLUENZA

The mortality rate for influenza is estimated to be 1 in 1000, whereas that for SARS-CoV-2 is closer to 1 in 100 to 250 (1). Patients with COVID-19 are more likely to require hospital admission, have respiratory failure, and require prolonged intensive care than those with influenza (2). In 2020 alone, SARS-CoV-2 is estimated to have caused more than 522 000 excess deaths in the United States (3). Post-COVID-19 symptoms also seem to be more common, more pronounced, and more long-lasting than those after influenza.

SARS-CoV-2 THREATENS ESSENTIAL WORKERS' LIVES

Vaccines for SARS-CoV-2 save lives (4). Health care workers and other essential workers have higher rates of infection than people in other fields (5). According to the Centers for Disease Control and Prevention, more than 1600 U.S. health care workers have died of COVID-19 thus far. Although it is unclear how many of these infections were acquired in the workplace versus the community, vaccine mandates will prevent infections, severe illness, and deaths in health care workers no matter where they are exposed.

NOSOCOMIAL TRANSMISSION OF SARS-CoV-2 IS COMMON

Up to two thirds of cases of SARS-CoV-2 infection are attributable to asymptomatic and presymptomatic transmissions. Hospitals have undertaken considerable efforts to stop staff from working while sick, but these policies do not prevent staff with silent infections from coming to work and potentially infecting patients and colleagues. In some cases, staff-to-patient and staff-to-staff transmissions have led to large clusters (6). Universal masking diminishes this risk, but perfect adherence is not realistic and surgical masks are not perfectly protective; nosocomial transmission despite masks has been well documented (7). Vaccines, by contrast, provide constant protection

without requiring reminders, persuasion, mask-fitting aids, or behavioral changes.

SARS-CoV-2 VACCINATION FOR HEALTH CARE WORKERS IS HEALTH CARE DELIVERY

We believe that there is an extra onus on health care workers to protect themselves from SARS-CoV-2 in order to protect patients. Health care workers routinely tend to the elderly, ill, and vulnerable, in whom SARS-CoV-2 infection is more likely to be deadly. We cannot rely on patients being vaccinated to prevent nosocomial transmission because some patients cannot get the vaccine, some will decline, and vaccine may not be effective in immunocompromised patients (8). Vaccinating health care workers, however, helps protect even unvaccinated patients because SARS-CoV-2 vaccines are associated with fewer infections overall, less silent carriage, and less risk for transmission (4, 9).

COVID-19 VACCINES ARE MORE EFFECTIVE THAN INFLUENZA VACCINES

The estimated effectiveness of influenza vaccines varies by season but generally ranges from 30% to 50%. The 2 messenger RNA vaccines for SARS-CoV-2, by contrast, are more than 90% effective. Notwithstanding the moderate effectiveness of influenza vaccines, randomized trials suggest that vaccinating health care workers in congregate health care settings may decrease patient deaths by 30% (10). The life-saving effects of vaccinating health care workers against COVID-19 will be that much greater given these vaccines' greater effectiveness against a pathogen that is more common and more deadly than influenza.

SARS-CoV-2 IS MORE DISRUPTIVE TO HOSPITAL OPERATIONS THAN INFLUENZA

The SARS-CoV-2 pandemic has had an unprecedented effect on day-to-day operations in health care. Changes include universal masking, daily attestations of health, limitations on visitors, cancellations of surgery and elective admissions, cancellation of in-person meetings and education sessions, cancellation of travel, and much more. Universal vaccination is the pathway to rolling back these disruptions and returning to normal operations.

SARS-CoV-2 IS MORE DISRUPTIVE TO WORKFORCE CONTINUITY THAN INFLUENZA

Vaccinating health care workers will help preserve workforce continuity. Workers with influenza are typically allowed to return to work 24 hours after their fever

Table. The Case for Mandating COVID-19 Vaccines for Health Care Workers: Comparison of Influenza Versus COVID-19

Effect	Influenza	COVID-19
Mortality	~1 in 1000	~4-10 in 1000
Number of people infected	Infects ~10% of the U.S. population each year	Infected ~30% of the U.S. population in 2020
Threat to patients	Nosocomial spread well documented but understudied	Nosocomial spread well documented but understudied
Impact on operations	Absorbed by routine operations	Unprecedented disruption of routine operations (e.g., masking, distancing, virtual meetings, visitor restrictions, testing requirements, attestations)
Time lost to work	Employees return to work 1 d after fever resolves	Mandatory absence of at least 10 d
Vaccine effectiveness	30%-50%	70% for adenovirus vector; 90%-95% for mRNA
Vaccine experience	~50% of adults get influenza vaccine each year	>65% of U.S. adults vaccinated thus far

mRNA = messenger RNA.

subsidies. Staff with SARS-CoV-2 infection, however, are required to isolate for at least 10 days, even if their symptoms resolve well before then. Staff shortages have pushed some hospitals to cancel procedures, close units, and reduce elective admissions, thereby putting patients at risk due to deferred care. Vaccines will help keep more staff healthy and at work.

SARS-CoV-2 VACCINES ARE SAFE

More adults have now been inoculated against SARS-CoV-2 than are typically vaccinated against influenza in a given year. More than 300 million doses of SARS-CoV-2 vaccine have been administered in the United States alone, and more than 65% of U.S. adults have been vaccinated. By contrast, in a typical influenza season only about 150 million to 175 million doses of influenza vaccine are administered and fewer than 50% of adults are immunized. Despite the enormous number of people who have now received SARS-CoV-2 vaccines, serious side effects have been exceedingly rare. We acknowledge that some life-threatening adverse effects and deaths have occurred, but the incidence of these complications is vanishingly small, is substantially lower than the risk for complications of COVID-19, and is far outweighed in our opinion by the likelihood of benefit to both health care workers and their patients. Similarly, we believe that these benefits also outweigh the other possible reasons that health care workers may object to vaccination, including fear of postvaccine side effects, concerns about fetal safety, philosophical disagreement, and perceived invulnerability to serious infection.

Many organizations contemplating mandating SARS-CoV-2 vaccines are reluctant to move forward while vaccines remain under emergency use authorization. Some are also concerned about legal challenges. As more safety data on the vaccines rapidly accumulate, however, there is every expectation of full approval from the U.S. Food and Drug Administration later this year, and the courts have ruled in favor of health care organizations on the legal challenges that have come forward thus far. Now is the time for organizations to ready themselves to adopt mandatory vaccination policies as soon as full approval is granted. This includes drafting policies, educating employees about vaccine safety and effectiveness, developing strategies to address unvaccinated employees' specific concerns, ensuring easy vaccine access,

partnering with employee leaders and unions to make a shared case for universal vaccination, weighing potential exemptions, and foreshadowing the road ahead for all.

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