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Ethical Issues in Mandating COVID-19 Vaccination for Health Care Personnel

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Frontline health care personnel (HCP) were among the first to receive the COVID-19 vaccines. Physicians, nurses, allied health professionals, and others with direct patient contact or who handle biological materials are at high risk of exposure and illness and have duties of care and protection to patients, coworkers, and communities. Yet well into 2021, some HCP remain vaccine hesitant, an obstacle to needed immunization coverage, disease prevention, and public health. In response to inadequate coverage due to persistent vaccine hesitancy and rapid spread of the highly transmissible Delta variant, nearly 60 leading medical and health care organizations have taken the extraordinary step of advocating vaccine mandates for hospitals and nursing homes.[1] The Mayo Clinic system announced a compulsory vaccination policy for all HCP, allowing medical and religious exemptions (effective September 2021),[2] as have dozens of other health systems and the Veterans Administration. Many health care facilities nationwide have adopted mandates in response to the recent federal requirement to do so as a condition of Medicare and Medicaid participation.[3] Guidance from the Equal Employment Opportunity Commission affirms the legal right of employers to require COVID-19 vaccination.[4,5] At least one court has upheld a hospital's legal right to impose a COVID-19 vaccine mandate.[6]

Here we discuss whether vaccine mandates for HCP *should be* adopted. After defining the ethical values that frame this debate, we present the argument for compulsory vaccination that prioritizes the duty to protect and to promote the greater good of patients, staff, and communities and the opposing view that prioritizes individual rights of autonomy and informed consent to opt out of medical interventions. This analysis should also be instructive for future policy regarding recommended booster shots and whether a regular vaccination series should become necessary with spread of the Delta or other novel variants, similar to seasonal influenza.

ETHICAL VALUES: FRAMING THE CONTROVERSY

Health care personnel and institutions alike have a duty to protect patients and others from known and anticipated harms of infection. The duty to protect rests on foundational ethical values: putting patients and others first and promoting their well-being (beneficence) and avoiding harm to others (non-maleficence).[7] Members of society, here the health care institution community, should contribute their fair share to the public good in times of crisis, except in cases of justified medical or religious exemption (a version of the principle of fairness).[8] Whereas HCP are committed to putting patients first, they also have the fundamental right of autonomy to make voluntary informed decisions about their own health, including refusal of unwanted medical interventions. Pursuant to the principle of utility, the best policy is the one that effectively improves vaccine coverage and produces more net benefits than harms in the aggregate, considering the interests of all concerned parties and the consequences of reasonable competing approaches.[7] In the balancing of principles and consequences, the principle of least infringement, widely applied in public health, requires that institutions aim to maximize immunization coverage while also minimizing infringement on HCP rights of autonomy and informed consent.[9] This assessment involves a sliding scale. If

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inadequate voluntary compliance persists amid increasing COVID-19 admissions, the case for mandates strengthens. The Table summarizes how these principles relate to the arguments for mandates and for voluntary consent.

THE CASE FOR VACCINE MANDATES

Health care institutions are obligated to protect all within their walls and the communities they serve, to pursue health and well-being, and to avoid harm for the greatest number. Patients and families rightly assume that HCP will take all reasonable steps to protect them from developing preventable illness. Other staff potentially at risk justifiably hold the same expectations. Less vaccination means more sick days (or worse) and possible staff shortages. Strained resources at times of surging admissions endanger all patients. The vaccines are safe and effective and provide substantial benefit and protection with minimal risk from temporary adverse effects (more arduous for some HCP than for others). Unfortunately, status quo reliance on voluntary vaccination has not achieved coverage necessary to protect patients, staff, and communities against serious risks that continue to intensify. Although vaccination rates among physicians are reportedly as high as 96%, they are significantly lower for other HCP, particularly in nursing homes. COVID-19 vaccine mandates have increased coverage where adopted[10]; and if local communities are discouraged from vaccination when trusted HCP experts and role models themselves refuse vaccination, compulsory vaccination instills public confidence. Mandatory vaccination is not uncommon, as HCP have long been required to be immunized against pertussis, hepatitis B, and influenza.

Experience with vaccination mandates for influenza shows that mandates can be effective. According to a Centers for Disease Control and Prevention study, for 2018-19, HCP had high vaccination rates for seasonal influenza (81.1% overall), highest among physicians (96.7%) and nurses (91.8%); but there was nearly full compliance (97.7%) when vaccination was required.[11] Influenza vaccination has been associated with reduced morbidity and mortality, protects others in the workplace, and reduces extra shifts to cover for absences, all easing the burdens on patient care and communities. That SARS-CoV-2 is far more contagious and causes far greater morbidity and mortality than influenza weighs in favor of compulsory vaccination.

TABLE. Comparison of Ethical Arguments for Mandatory COVID-19 Vaccination for HCP and for Voluntary Informed Consent

Principle/value	Mandatory vaccination	Voluntary informed consent
Duty to protect/beneficence and non-maleficence	The duty to protect and to promote the well-being of all patients, staff, and the public is the strongest argument for mandates, provided they are effective at increasing immunization coverage.	Strict compliance with personal protective equipment and other infection control measures satisfies this duty, but only to an extent. Vaccination provides greater protection.
Respect for autonomy	Overriding or limiting respect for autonomy carries a heavy burden of justification.	The right to consent to or to refuse vaccination is foundational but is not absolute.
Utility/benefits, risks and consequences	Risks associated with inadequate coverage are substantial. The vaccines are safe and effective, with temporary adverse effects. Increased coverage brings substantial benefit, with some acceptable negative consequences.	The good of patients, HCP, and communities outweighs the autonomy interests of the few.
Least infringement	Different approaches intended to maximize vaccination coverage involve different levels of infringement on autonomy.	Infringements on autonomy require strong justification. Policies may impose limits on autonomy without overriding voluntary choice.
Fairness	All HCP should contribute to protecting patients, staff, and the public.	Choosing to remain unvaccinated fails to contribute to this collective responsibility.

HCP, health care personnel.

By definition, mandates entail consequences for noncompliance but can be more or less coercive. "Get vaccinated or get fired" may be the most effective approach. It is also the most coercive and least respectful of HCP and risks alienating HCP at a time when they are experiencing traumatic stress, some are leaving the workforce over COVID concerns and burnout, and some hospitals struggle to stay fully staffed amid surging admissions. Faced with this "coerced choice," some have instead chosen to resign. A softer mandate would require all unvaccinated personnel to have regular COVID-19 testing and to be reassigned to lower risk positions or to lose compensation until vaccinated. This approach incurs associated costs and burdens but infringes upon without overriding autonomy and mitigates some of the adverse effects of a more coercive policy. Institutions must also consider whether a mandate should apply to all or only "patient facing" HCP. Poor coverage may necessitate extension and enforcement of mask mandates throughout the hospital, a lesser but felt intrusion on individual choice for all HCP. Coercive policies can engender resentment or distrust among unvaccinated HCP; conversely, vaccinated HCP may be upset by the added risks and burdens imposed by the unvaccinated. Including representative voices of physicians, nurses, administrators, and other HCP in policy development along with commitment to transparency both is good practice and can ease some of these concerns. An ethically sound and comprehensive policy designed to maximize effectiveness should include many of the features designed to support and encourage voluntary choice, such as provision of accurate information, paid time off to get vaccinated and recover from adverse effects, and accommodation for medical and religious exemptions with testing protocols.

THE CASE FOR VOLUNTARY INFORMED CONSENT

As patients, HCP have the right to make informed decisions to consent to or refuse the medical intervention of COVID-19 vaccination based on available, reliable information about its risks and benefits. The principle of respect for autonomy limits the duty to accept vaccination for the benefit and protection of others, and it is a shield against mandates that would override individual choice. The right to refuse is at its most meaningful when autonomy is respected even though others disagree. Respect for autonomy carries substantial weight, such that those who would override it bear the burden of persuasion. Vaccination adds another safeguard for patients beyond rigorous compliance with personal protective equipment and other infection control protocols, especially for those who are unvaccinated or immunocompromised, and critical protection for other HCP. However, efforts to improve voluntary compliance must be exhausted before turning to compulsory programs.

What is known about COVID-19 vaccine hesitancy among HCP suggests that a significant number of reluctant HCP may be persuadable. Vaccine hesitancy is predominantly rooted in concerns about the safety, efficacy, and long-term profile of the vaccines, concerns shared in the general population. Available data suggest that the "newness" of the COVID-19 vaccines with the related desire for more short- and long-term safety information is the most significant source of hesitancy among HCP. One in-depth study at a large academic medical center (conducted by J.S.) found that in December 2020, close to 20% of physicians and 33% of nurses and allied health professionals were vaccine hesitant. Reasons given by respondents included concerns about adverse events, adverse effects, safety, and efficacy; that the vaccines were new and "rushed"; and the absence of longitudinal experience and study. Levels of hesitancy are somewhat higher among Black HCP.[12] Other sources reveal similar concerns as well as the effects of misinformation and disinformation and some level of antivaccination sentiment.[13] Politically motivated opposition to the COVID-19 vaccines among HCP does not appear to be a significant factor (but may be more prevalent in some

parts of the country), nor is generalized opposition to vaccines; HCP customarily accept vaccination requirements (eg, MMR, Tdap, hepatitis B, influenza) and various infection control procedures in the workplace as a condition of employment.

Many HCP are apprehensive about the "record speed" of COVID-19 vaccine development, feel more information and experience would build greater trust, and have a "wait and learn more" attitude, not hardened opposition. According to the Kaiser Family Foundation March 2021 tracking poll, 71% of frontline HCP had been or planned to be vaccinated, with 12% undecided and 18% opposed. The data show an upward trend in intent to vaccinate; as experience and positive messaging grow over time, so too does the intent to vaccinate. Consistent with this trend, majorities with a wait and see posture among the general public felt they could change their mind in response to targeted messaging about safety and efficacy, in particular that the "vaccines are 100% effective at preventing hospitalization and death from COVID-19."[14] With full Food and Drug Administration approval of the Pfizer-BioNTech vaccine (currently pending for the Moderna vaccine),[15] there will be increased trust in the COVID-19 vaccines and more will be moved to roll up their sleeves.[16] If past vaccination is a strong predictor of future acceptance,[12] a surge in voluntary choice can be anticipated.

For proponents of autonomous choice, the ethical and prudent course is to continue to follow voluntary vaccination programs to encourage and persuade, including effective presentation of developing vaccine information with targeted educational efforts; making vaccination easily accessible (on site, with paid release time for appointments and to recover from adverse effects); child care assistance for those who need it; and committing to respect for the right of informed consent and refusal and acknowledging personal concerns while allowing some to opt out for medical and religious reasons. Institutions should also consider positive incentives, such as cash payments or gift cards. Mandates should be adopted only as a policy of last resort.

There are important objections to this argument. First, it wrongly implies that respect for autonomy is absolute. Second, the strength of this position relies on the success of voluntary vaccination. The point of the case for vaccine mandates is that autonomy must sometimes yield to the greater good. When voluntary compliance fails to achieve near-universal immunization coverage and poses risks of harm to others, it is time to resort to mandates. Least infringement is a principle of balance but does not shield personal autonomy from the needs and interests of the health care institution community.

CONCLUSION

Whether to mandate COVID-19 vaccination and how to implement such a policy is ultimately a local institutional decision. Some institutions may be subject to state policy. New York and California have both announced mandates for state employees[17]; Florida has taken the opposite stance. Most vaccine-hesitant HCP want the opportunity to make more informed decisions. More will likely be persuaded with emergence of greater data, experience, and now full Food and Drug Administration approval. We generally favor policies that respect and accommodate but do not violate autonomy and informed consent. However, vaccine hesitancy among HCP steadfastly opposed to vaccination is a stubborn obstacle to high vaccination coverage and an ongoing risk for patients, HCP, and the public. We conclude that persistent inadequate immunization coverage despite extensive evidence of vaccine safety and efficacy, the surge in COVID-19 cases and hospitalizations, and rapid spread of the more serious highly transmissible Delta variant tip the scales toward some form of mandatory vaccination policy. The extent to which voluntary compliance compared with compulsory vaccination policies promotes near-universal coverage and the related consequences of each are questions for study.

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