



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

COVID-19 booster exemption for severe dyshidrotic eczema

***Dear Dr Dermatoethicist:* A 24-year-old male health care worker with a history of dyshidrosis requested that I sign a COVID-19 booster medical exemption form. His workplace has mandated that he receive this booster. Despite previous years of resolution, after his second COVID-19 vaccine, he developed an acute, severe, pruritic, and painful vesicular eruption affecting the entire palmar surface of both of his hands, requiring him to wear cotton gloves; he was unable to use latex or latex-free gloves and hand sanitizer for patient care. Now, with partial resolution, he is concerned that the booster will cause another flare resulting in an inability to fulfill his clinical obligations. Is signing his booster exemption ethical?
— Concerned Physician**

Dear Concerned Physician: Per the Center for Disease Control, eczema is not a true contraindication for vaccination, unlike a vaccine component allergy. COVID-19 vaccine-associated cutaneous reactions are self-limited; no robust data suggest that underlying skin disease is exacerbated by COVID-19 vaccination. However, the National Eczema Society has acknowledged multiple patient reports of worsening eczema after COVID-19 vaccination and published reports documenting eczematous reactions to the vaccine in patients with prior disease.¹⁻³ Thus, there may be a lack of understanding regarding the potential for multiple vaccine components or the antigen itself to be a trigger. Recommending vaccination in these individuals at theoretical risk of cutaneous reactions, who could otherwise be at low risk of COVID-19 complications, may violate the principle of nonmaleficence.

Conversely, given the incidence of polymorphic skin eruptions after SARS-CoV-2 infection, there is also the possibility that forgoing the booster increases the risk of an eczema flare if the patient becomes infected with the SARS-CoV-2 virus. The patient's role as a health care worker places him at significant risk of COVID-19, potentially triggering a similar or worse flare than previously experienced. An infected, unboosted health care worker could expose patients to COVID-19, resulting in increased morbidity and mortality to others. Therefore,

granting the vaccine exception places the dermatologist in an ethical conflict: a physician's role to uphold the public good versus their role in upholding their patient's right to autonomously decide whether to get vaccinated or not.

Acknowledging the uncertainty of whether the dyshidrosis flare was attributable to the vaccine is recommended. Given that the reaction could plausibly be related to a vaccine component or the spike protein, the patient's reluctance is understandable despite the established benefit of the booster protecting against severe COVID-19 illness.⁴ The patient's youth and lack of comorbid medical conditions suggest that he is at low risk of developing severe illness. Additionally, immunity against new COVID-19 variants may only be marginally benefited from the booster.⁵ Because of these equivocal factors, it is less convincing that the benefits of the booster outweigh the potential adverse outcomes, including a dyshidrosis flare, loss of work, and lack of decision-making autonomy for the patient. However, when considering the patient's role as a health care worker who would expose other patients to COVID-19 if he were to become infected, signing the exception for a non-life-threatening illness could result in increased morbidity and mortality for others. Given these considerations, granting the COVID-19 vaccine booster exemption is not recommended on behalf of patients and the public good.

—Dr Dermatoethicist

Kathryn Bentivegna, MPH,^a Marti J. Rothe, MD,^b and Jane M. Grant-Kels, MD^{b,c}

From the University of Connecticut School of Medicine, Farmington, Connecticut^a; Department of Dermatology, University of Connecticut School of Medicine, Farmington, Connecticut^b; and Department of Dermatology, University of Florida College of Medicine, Gainesville, Florida.^c

Funding sources: None.

IRB approval status: Not applicable.

Key words: atopic dermatitis; COVID-19 booster; dyshidrosis; eczema flare; ethics; informed consent; vaccination exemption.

Reprints not available from the authors.

Correspondence to: Jane M. Grant-Kels, MD, Department of Dermatology, University of Connecticut School of Medicine, Conn Health, 21 South Rd, Farmington, CT 06032

E-mail: grant@uchc.edu

Conflicts of interest

None disclosed.

REFERENCES

1. Leasure AC, Cowper SE, McNiff J, Cohen JM. Generalized eczematous reactions to the Pfizer-BioNTech COVID-19 vaccine. *J Eur Acad Dermatol Venereol*. 2021;35(11):e716-e717. <https://doi.org/10.1111/jdv.17494>
2. Potestio L, Napolitano M, Bennardo L, Fabbrocini G, Patruno C. Atopic dermatitis exacerbation after Covid-19 vaccination in Dupilumab-treated patients. *J Eur Acad Dermatol Venereol*. 2022;36(6):e409-e411. <https://doi.org/10.1111/jdv.17964>
3. Corbeddu M, Diociaiuti A, Vinci MR, et al. Transient cutaneous manifestations after administration of Pfizer-BioNTech COVID-19 vaccine: an Italian single-centre case series. *J Eur Acad Dermatol Venereol*. 2021;35(8):e483-e485. <https://doi.org/10.1111/jdv.17268>
4. Thompson MG, Natarajan K, Irving SA, et al. Effectiveness of a third dose of mRNA vaccines against COVID-19—associated emergency department and urgent care encounters and hospitalizations among adults during periods of delta and omicron variant predominance—VISION network, 10 states, August 2021-January 2022. *MMWR Morb Mortal Wkly Rep*. 2022;71(4):139-145. <https://doi.org/10.15585/mmwr.mm7104e3>
5. Watson C. Three, four or more: what's the magic number for booster shots? *Nature*. 2022;602(7895):17-18. <https://doi.org/10.1038/d41586-022-00200-9>

<https://doi.org/10.1016/j.jaad.2022.06.1176>