Reply to: "Comment on 'The human papillomavirus vaccine as a treatment for human papillomavirus–related dysplastic and neoplastic conditions: A literature review'"

To the Editor: We would like to thank Medepalli et al for their thoughtful commentary on our review article discussing human papillomavirus (HPV) vaccines as a treatment for HPV-related dysplastic and neoplastic conditions. The authors provide valuable insight into the limited access and hurdles to obtaining the HPV vaccine for many patients in the United States.

Although the nonavalent HPV vaccine is approved by the US Food and Drug Administration (FDA) for adults up to age 45 years, the Centers for Disease Control and Prevention (CDC) currently recommends HPV vaccines only as a preventative tool, and thus does not recommend catch-up vaccination for patients older than 26 years.[1] Rather, the CDC calls on the individual clinician to determine if a patient older than 26 years should receive vaccination. It is unfortunate that only 33% of state health departments offer the vaccine to adults older than 26 years. In addition, for those states that do offer it, insurance companies may not provide full coverage, and out-of-pocket costs may be exorbitant.

Various literature sources have supported the belief that therapeutic HPV vaccines have the potential to provide successful therapy for HPV-related diseases.[2-4] The current data show that HPV vaccines used as a treatment modality in patients with cutaneous warts, recurrent respiratory papillomatosis, and certain nonmelanoma skin cancers can be successful. Additionally, preliminary data on patients with pre-existing anogenital warts, cervical intraepithelial neoplasia, anal intraepithelial neoplasia, and vulvar intraepithelial neoplasia are promising.[5] Further large-scale studies will be required to determine the long-term clinical efficacy and safety profiles. Just as the pneumococcal vaccine has specific criteria for high-risk patients younger than 65 years, we believe that specific criteria may be warranted for the use of the HPV vaccine in patients older than 26 years. We recommend that governing bodies, such as the CDC and US FDA, champion the use of nontraditional, safe treatment modalities for both prevention and treatment—in this case, the use of the HPV vaccine for therapeutic purposes in persons older than 26 years.

The CDC's support of the use of the HPV vaccine as a treatment modality may serve as an impetus for state health departments to expand protocols for HPV vaccination and influence policy change regarding insurance coverage.

Christine T. Pham, BS, Margit Juhasz, MD, Calvin T. Sung, MD, and Natasha Atanaskova Mesinkovska, MD, PhD

From the Department of Dermatology, University of California, Irvine.

Funding sources: None.

Conflicts of interest: None disclosed.

IRB approval status: Not applicable.

Reprints not available from the authors.

Correspondence to: Christine T. Pham, BS, University of California, Irvine, Dermatology Research Center, Hewitt Hall Building, 843 Health Sciences Road, Room 1001, Irvine, CA 92697.

REFERENCES

1. Meites E, Szilagyi PG, Chesson HW, Unger ER, Romero JR, Markowitz LE. Human papillomavirus vaccination for adults: updated recommendations of the Advisory Committee on Immunization Practices. *MMWR Morb Mortal Wkly Rep*. 2019; 68:698-702.
2. Yang A, Farmer E, Wu TC, Hung CF. Perspectives for therapeutic HPV vaccine development. *J Biomed Sci*. 2016; 23(1):75.
3. Garbuglia AR Lapa D, Sias C, Capobianchi MR, Del Porto P. The use of both therapeutic and prophylactic vaccines in the therapy of papillomavirus disease. *Front Immunol*. 2020;11: 188.
4. Harper DM, Nieminen P, Donders G, et al. The efficacy and safety of tipapkinogen sovacivec therapeutic HPV vaccine in cervical intraepithelial neoplasia grades 2 and 3: randomized controlled phase II trial with 2.5years of follow-up. *Gynecol Oncol*. 2019;153(3):521-529.
5. Pham CT, Juhasz M, Sung C, Mesinkovska NA. The human papillomavirus vaccine as a treatment for HPV-related dysplastic and neoplastic conditions: a literature review. *J Am Acad Dermatol*. 2020;82(1):202-212.

https://doi.org/10.1016/j.jaad.2020.05.021