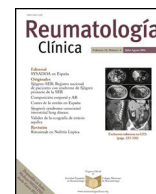




Sociedad Española  
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# Reumatología Clínica

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## Letter to the Editor

### Vaccination against human papillomavirus in patients with immune-mediate diseases



### Vacunación contra virus de papiloma humano en pacientes con enfermedades inmunomediadas

Dear Sir,

The treatment guidelines put forth by the Mexican College of Rheumatology are an essential tool for physicians practicing medicine in Latin American countries, as they can be extrapolated to similar demographic and economic contexts. The most recent update of the treatment guidelines for rheumatoid arthritis (RA) place special emphasis on vaccination, given that infections are one of the leading causes of morbi-mortality in these patients and immunization against certain agents goes a long way toward preventing these events. Table 2 of the guideline presents a summary of the recommendations and, specifically, as regards human papilloma virus (HPV) infection, their recommendation is listed as low evidence to support vaccinating females under the age of 26 years and males under the age of 21 years.<sup>1</sup>

The human papilloma virus (HPV) is a DNA virus that belongs to the *Papillomaviridae* family. It is one of the most common sexually transmitted diseases around the world and has been linked to the appearance of benign and malignant lesions in the genital areas, respiratory tract, and skin. Some 15 oncogenic serotypes have been recognised, mainly the 16 and 18 involved in occurrence of cervical cancer. This type of neoplasm is highly prevalent and is third as far as incidence is concerned and the fourth leading cause of death among women.<sup>2</sup> People who suffer from immunomediated diseases are at increased risk for HPV and cancer; this risk has been best outlined in individuals with systemic lupus erythematosus,<sup>3</sup> but a recently published study also reveals a positive association with RA and interleukin 18 as possibly participating in the early occurrence of cancer.<sup>4</sup>

The recommendation provided in the guidelines is consistent with that of the Advisory Committee on Immunisation Practices of the US Centers for Disease Control in 2011 for those people who were not duly immunised between 11 and 12 population at large. In its most recent update in 2019, the recommendation no longer distinguishes between sexes and is recommended in both men and women under the age of 26 years.<sup>5</sup> Special populations that can benefit from immunisations have been recognised among patients with ages of between 27 and 45 years, and one such special population comprises individuals with immune mediated illnesses, given that the immunosuppression status due to the disease itself, as well as the treatment used both raise the risk of dysplasia and cancer as a result of a persistent state of inflammation.<sup>6</sup> This recommendation is endorsed by the most recent version American College of

Rheumatology vaccination guidelines,<sup>7</sup> albeit with low grade evidence; no benefit of immunisation has been noted in patients over the age of 45 years, in light of their high, prolonged exposure to HPV.

In light of the aforementioned, the recommendation for people with RA is that individuals under the age of 26 years be vaccinated against HPV with strong evidence, while for those with ages of between 27 and 45 years and who have not been previously immunised the evidence is weak.

## References

- Abud-Mendoza C, Aceves-Ávila FJ, Arce-Salinas CA, Álvarez Nemesgyei J, Barile-Fabris L, Durán-Barragán S, et al. Update of the guidelines for the pharmacological treatment of rheumatoid arthritis by the Mexican College of Rheumatology 2023. *Reumatol Clin (Engl Ed)*. 2024;20:263–80, <http://dx.doi.org/10.1016/j.reumae.2024.02.009>.
- Xia C, Dong X, Li H, Cao M, Sun D, He S, et al. Cancer statistics in China and United States, 2022: profiles, trends, and determinants. *Chin Med J (Engl)*. 2022;135:584–90, <http://dx.doi.org/10.1097/CM9.000000000000108>.
- Feldman CH, Liu J, Feldman S, Solomon DH, Kim SC. Risk of high-grade cervical dysplasia and cervical cancer in women with systemic lupus erythematosus receiving immunosuppressive drugs. *Lupus*. 2017;26:682–9, <http://dx.doi.org/10.1177/0961203316672928>.
- Xu M, Chen H, Tan T, Xie K, Xie H, Li Q. Exploring the causal association between rheumatoid arthritis and the risk of cervical cancer: a two-sample Mendelian randomization study. *Arthritis Res Ther*. 2024;26:35, <http://dx.doi.org/10.1186/s13075-023-03240-2>.
- 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, <http://dx.doi.org/10.15585/mmwr.mm6832a3>.
- Dhar JP, Essenmacher L, Dhar R, Magee A, Ager J, Sokol RJ. The safety and immunogenicity of Quadrivalent HPV (qHPV) vaccine in systemic lupus erythematosus. *Vaccine*. 2017;35:2642–6, <http://dx.doi.org/10.1016/j.vaccine.2017.04.001>.
- Bass AR, Chakravarty E, Akl EA, Bingham CO, Calabrese L, Cappelli LC, et al. 2022 American College of Rheumatology guideline for vaccinations in patients with rheumatic and musculoskeletal diseases. *Arthritis Rheumatol*. 2023;75:333–48, <http://dx.doi.org/10.1002/art.42386>.

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