

Vitamin D and influenza vaccination

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The recent report on vitamin D (VD) and influenza vaccination is very interesting.¹ Principi et al. assessed the “impact of vitamin D administration on the immunogenicity of trivalent inactivated influenza vaccine in previously unvaccinated children”¹ and concluded that “the daily administration of VD 1,000 IU for four months from the time of the injection of the first dose of TIV does not significantly modify the antibody response evoked by influenza vaccine.”¹ Indeed, this finding would have been expected. The use of vitamin D to improve the immunogenicity of the vaccine has been tested over many years. Based on the fact that vitamin D can induce cytokine production and lymphocyte proliferation, its effectiveness in co-administration with vaccines has been assessed. Focusing on influenza, vitamin D has been reported since 1999 to not be useful in stimulating humoral immunity when co-administration with influenza vaccine.² Furthermore, the non-usefulness of vitamin D in addition to influenza vaccination was repeatedly reported by Cooper et al. in cases with underlying HIV infection.³ Nevertheless, giving vitamin D with influenza vaccination still poses some clinical advantages. Lawless et al. noted that giving vitamin D along with influenza vaccination can result in two desired clinical outcomes, prevention of bone impairment by vitamin D and prevention of infection by vaccination.⁴

References

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