Live shingles vaccine shows safe, short-term efficacy for persons taking TNFis for inflammatory diseases

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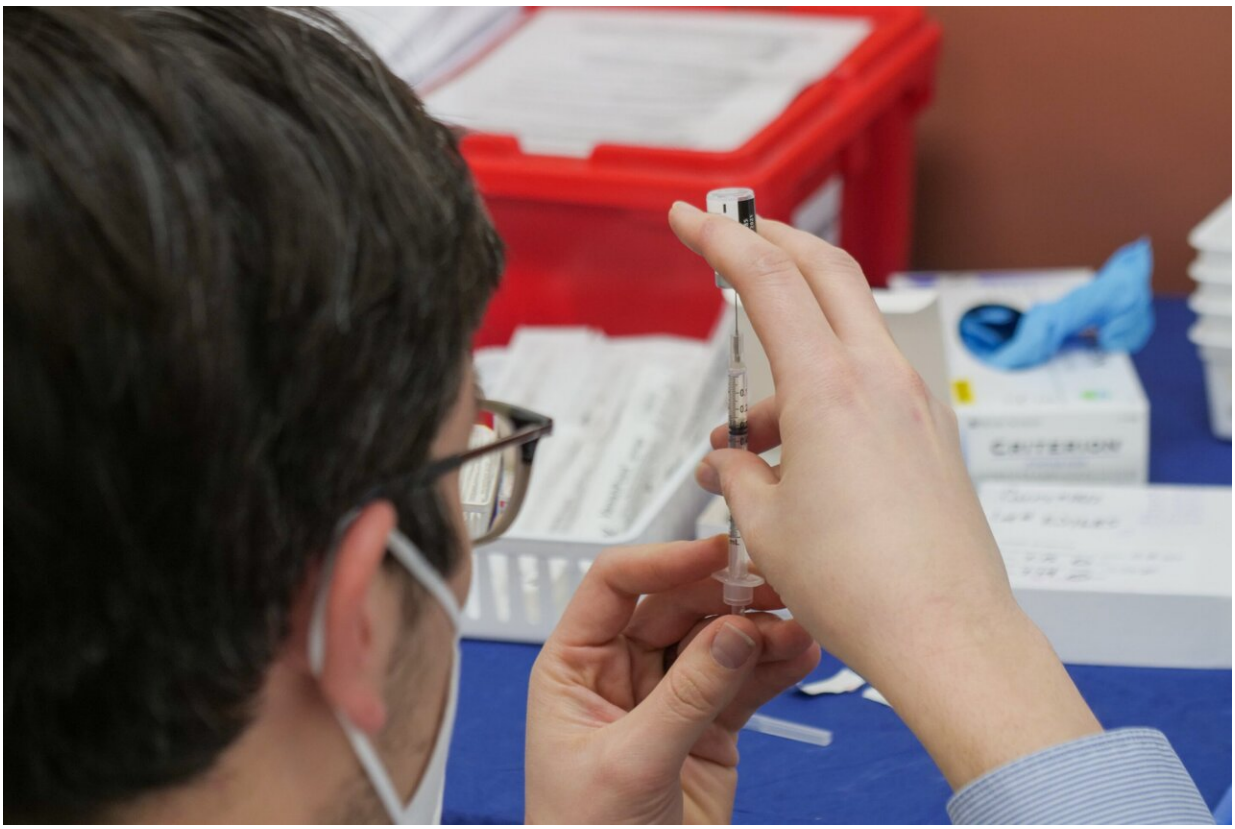

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A randomized controlled trial found that the live shingles, or varicella-zoster, vaccine was safe and showed short-term efficacy for participants

also taking tumor necrosis factor inhibitors (TNFis) for a broad range of inflammatory disorders. These finding suggest that a live virus vaccine in immunosuppressed patients receiving biologic therapies may be a reasonable option, especially for the zoster vaccine, if no alternative vaccine is available. The findings are published in *Annals of Internal Medicine*.

TNFis are increasingly used in the United States and worldwide to treat a range of chronic autoimmune and inflammatory diseases, including rheumatoid arthritis, psoriasis, and inflammatory bowel diseases, but their use may result in immunosuppression. Compared with the general population, patients with these conditions are at higher risk for varicella-zoster virus reactivation, or shingles, due to their underlying disease states and commonly used immunosuppressive treatments, such as glucocorticoids. The safety and effectiveness of live virus vaccines largely are unknown in this patient population.

Researchers from the University of Alabama at Birmingham (UAB) and Oregon Health Sciences University (OHSU) randomly assigned 617 participants receiving TNFIs to either the live varicella-zoster vaccine or placebo to determine its safety and efficacy for preventing shingles in these immunocompromised patients. Among those studied, the most common conditions were rheumatoid arthritis (57.6%) and psoriatic arthritis (24.1%); TNFi medications taken were adalimumab (32.7%), infliximab (31.3%), etanercept (21.2%), golimumab (9.1%), and certolizumab (5.7%); and concomitant therapies included methotrexate (48.0%) and oral glucocorticoids (10.5%). Through 6 weeks of observation, there were no cases of vaccine-associated shingles or varicella infection, and the vaccine was well tolerated. The authors noted that although vaccine-induced immunogenicity responses were robust, cell-mediated responses were variable and not sustained at 1 year after vaccination, suggesting that patients may need to be evaluated for a booster vaccination. The authors conclude that although historically

contraindicated, the live varicella-zoster vaccine may be considered for those using TNFIs, particularly in healthcare settings where no alternative zoster vaccine is available.

More information: Jeffrey R. Curtis et al, The Safety and Immunologic Effectiveness of the Live Varicella-Zoster Vaccine in Patients Receiving Tumor Necrosis Factor Inhibitor Therapy, *Annals of Internal Medicine* (2021). DOI: 10.7326/M20-6928

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