

# Flu Vaccine Effective Despite Anti-TNF Therapy

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Patients taking anti-tumor necrosis factor- $\alpha$  medications show somewhat impaired antibody response to influenza vaccination, but there is no decrease in the proportion of patients achieving a protective titer.

A study, by Dr. L.B.S. Gelinck of Leiden (the Netherlands) University Medical Center and colleagues, compared immuno-

logic responses to the influenza vaccine in 64 patients taking anti-tumor necrosis factor- $\alpha$  (anti-TNF- $\alpha$ ) medications for various autoimmune diseases with 48 patients with autoimmune diseases who were not taking those drugs. There were 18 healthy controls. All three groups achieved about an 80% rate of protection to each of the three components of the influenza vaccine (Ann. Rheum. Dis. 2007;doi:10.1136/ard.2007.077552).

Guidelines issued by the Centers for Dis-

ease Control and Prevention recommend annual vaccination for patients at risk of complications of influenza, including those treated with anti-TNF- $\alpha$  agents such as infliximab, etanercept, and adalimumab. On the other hand, findings from earlier studies on the effect of influenza vaccination on these patients were conflicting.

Patients with several autoimmune diseases were represented in the study. Their average age was 49 years, with a range of 18-85. Patients in the anti-TNF group had

been using the agents for an average of 24 months with a range of 0.5-78 months.

All of the patients in the study were vaccinated in the fall or winter of 2003 with a commercially available trivalent subunit influenza vaccine. Four weeks after vaccination, patients taking an anti-TNF- $\alpha$  agent had significantly lower geometric mean titers to two out of the three vaccine components, compared with the patients not taking an anti-TNF- $\alpha$  agent and with the healthy controls. ■

## In the treatment of very high triglycerides ( $\geq 500$ mg/dL)

- **LOVAZA** dramatically lowered triglycerides by 45%<sup>1</sup>
  - Treatment resulted in a median increase of 45% in LDL-C; treatment with **LOVAZA** resulted in an overall reduction of atherogenic cholesterol, as reflected by a 14% reduction in non-HDL-C ( $P=0.0013$ )<sup>1-5</sup>
- **LOVAZA** demonstrates an excellent safety profile and proven tolerability<sup>1</sup>
  - The most common adverse events reported were: eructation, infection, flu syndrome, dyspepsia, rash, taste perversion, and back pain

### Indication:

LOVAZA™ (omega-3-acid ethyl esters) is indicated as an adjunct to diet to reduce very high ( $\geq 500$  mg/dL) triglyceride (TG) levels in adult patients.

### Usage Considerations:

In individuals with hypertriglyceridemia (HTG), address excess body weight and alcohol intake before initiating any drug therapy. Diet and exercise can be important ancillary measures. Look for and treat diseases contributory to hyperlipidemia, such as hypothyroidism or diabetes mellitus. Certain treatments (e.g., estrogen therapy, thiazide diuretics and beta blockers) are sometimes associated with very significant rises in serum triglyceride (TG) levels. Discontinuation of the specific agent may obviate the need for specific drug therapy for HTG.

Consider lipid-regulating agent use only when reasonable attempts have been made to obtain satisfactory results with non-drug methods. Advise patients that lipid-regulating agent use does not reduce the importance of adhering to diet. (See PRECAUTIONS section of full prescribing information.)

In patients with very high TG levels the effect of LOVAZA on the risk of pancreatitis has not been evaluated, nor has its effect on cardiovascular mortality and morbidity been determined.

Please see brief summary of full prescribing information on the adjacent page.

VISIT OUR WEB SITE AT [www.LOVAZA.com](http://www.LOVAZA.com)

The US Food and Drug Administration (FDA) has granted approval for the addition of new clinical data in the **LOVAZA** label. Please read our updated prescribing information for more details.

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**LOVAZA**™  
 omega-3-acid ethyl esters