Use of Icosapent Ethyl in Statin-Treated Patients with Elevated Triglycerides and High- or Very-high ASCVD Risk

NATIONAL LIPID ASSOCIATION

What is Icosapent Ethyl (IPE) and REDUCE-IT?

IPE is a long-chain, marine omega-3 fatty acid and is a synthetic derivative of eicosapentaenoicacid (EPA).

The Reduction of Cardiovascular Events with Icosapent Ethyl-Intervention Trial (REDUCE-IT) was a cardiovascular outcomes trial that examined the effects of IPE on major adverse cardiovascular events in selected high- or very high-risk, statin-treated patients with elevated triglycerides.

Mechanisms of Action

Lipid and Non-Lipid Effects

Reduces

TG-rich lipoproteins and non-HDL-C
Platelet activation
Inflammation

Anti-fibrotic

Anti-oxidative

Stabilizes membranes

Increases RBC fluidity

REDUCE-IT

Results predict that IPE reduces:

Myocardial infraction

Stroke

Coronary revascularization

Hospitalization for unstable angina

Incidence of total ASCVD events, including second and higher events

Cardiovascular death

Potential Adverse Effects of IPE

Peripheral edema

Constipation as compared to mineral oil placebo

Atrial fibrillation, sometimes requiring hospitalization

Non-serious bleeding

IPE

NLA Recommendation

For patients 45 years of age or older with clinical ASCVD, or 50 years of age or older with diabetes mellitus requiring medication and ≥1 additional risk factor,* with fasting TG 135-499 mg/dL on high-intensity or maximally tolerated statin, with or without ezetimibe, treatment with IPE is recommended[Ø] for ASCVD risk reduction.

**Additional risk factors include the following, based on the entry criteria in REDUCE-IT: age (men ≥55, women ≥65 years of age), cigarette smoker or stopped smoking within 3 months, hypertension (treated or untreated), HDL-C ≤40 mg/dL for men or ≤50 mg/dL for women, hs-CRP >3.0 mg/L, renal dysfunction with creatinine clearance >30 and <60 mL/min, retinopathy, micro- or macro-albuminuria, ankle-brachial index <0.9 without symptoms of intermittent claudication.*

[Ø]Evidence Rating: Class I, Level B-R.

Orringer, Carl E., Jacobson, Terry A., Maki, Kevin C. "National Lipid Association Scientific Statement on the Use of Icosapent Ethyl in Statin-treated Patients with Elevated Triglycerides and High- or Very-high ASCVD Risk" Journal of Clinical Lipidology, November 2019, doi: 10.1016/j.jacl.2019.10.014