



Therapeutic Class ReviewSM

Cholesterol Lowering - Omega-3 acid ethyl esters (Omacor[®])

February 2006

New Product for Review:

omega-3 ethyl esters (Omacor[®]) [Reliant]

Dossier Provided by Manufacturer: Yes

Dossier Evaluation: 2 (no pharmacoeconomic model)

1- dossier w/missing components

2- all components present, except pharmacoeconomic model

3- all components present (comprehensive)

Executive Summary

- Omacor (omega-3 fatty acid esters):
 - Is a prescription product indicated for treatment of very high triglycerides (TG > 500mg/dl).
 - Contains high concentrations (at least 90%) of eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), two omega-3 fatty acids found in cold water fish and nutritional fish oil supplements.
 - Is approved in 14 countries for treatment of hypertriglyceridemia.
- The manufacturer claims Omacor:
 - Dramatically reduces serum triglycerides and is very well-tolerated.
 - Delivers a pure, consistent dose of omega-3 fatty acids.
 - Eliminates concerns of environmental toxins, such as mercury and PCBs.
- Additionally, the manufacturer claims that increases in LDL-C that are seen with this product are due to increases in the more buoyant, less atherogenic form of LDL-C.
- The majority of use with Omacor will likely be in combination with other lipid-lowering agents (statins).

Evidence:

- The evidence for Omacor is uncertain due to concerns with the validity of the studies.
- There is no useful or possibly useful evidence demonstrating that Omacor is as good as fibrates or niacin in the treatment of hypertriglyceridemia.

- There is currently no evidence that Omacor decreases the risk of cardiovascular events.
- In addition:
 - The potential risk associated with the elevation in LDL-C levels seen with Omacor is not known.
 - The effects of Omacor on HDL-C (good cholesterol) are uncertain and inconsistent.
- The safety of Omacor relative to alternative treatment options is not known.
 - There are no safety studies comparing Omacor with fibrates or niacin.
 - There are no studies that differentiate impurities between Omacor and other fish oil products.
- The incremental benefit of adding Omacor to existing 'statin' therapy is uncertain.

Decision

- Maintain omega-3 acid ethyl esters (Omacor) as non-preferred, non-formulary because:
 - There is no evidence that it provides additional clinical value over available treatment options for the treatment of hypertriglyceridemia.
 - There is potential for overuse of this product.

Products

Drug Product	Date of FDA Approval	FDA Approved Indications	Dose/Route	Potential Off-Label Uses
fenofibrate, micronized (Lofibra [®]) ¹	9/2001 (Tricor [®])	1. Hypercholesterolemia 2. Hypertriglyceridemia	54 to 160 mg p.o. daily	All of these medications have the potential for off-label use in conditions that arise as a result of abnormal lipid homeostasis, regardless of the specific indication for which they are approved. Additionally, off-label uses specifically related to Omacor may include cystic fibrosis ¹³ , and intermittent claudication ¹⁴ .
gemfibrozil (generics) ²	12/1981	1. Hypertriglyceridemia (type IV and V) 2. Reduce the risk of developing coronary heart disease (type IIb patients)	600 mg p.o. b.i.d.	
niacin ERT (Niaspan [®]) ³	7/1997	1. Primary hypercholesterolemia 2. Mixed dyslipidemia (type IIa & IIb)	1 to 2 Gm p.o. daily	
omega-3-acid ethyl esters (Omacor [®]) ⁴	11/2004	1. Reduce very high triglyceride (TG ≥ 500 mg/dl) levels in adults	2 Gm p.o. b.i.d.	
HMG CoA reductase inhibitors ('statins'):				
atorvastatin (Lipitor [®]) ⁵	12/1996	1. Prevention of cardiovascular disease 2. Hypercholesterolemia	10 to 80 mg p.o. daily	

fluvastatin (Lescol [®] , Lescol XL [®]) ⁶	12/1993 10/2000 (XL)	1. Hypercholesterolemia and mixed dyslipidemia 2. Secondary prevention of coronary events 3. Atherosclerosis	20 to 40 mg p.o. b.i.d. 80 mg p.o. daily (XL)	
lovastatin (generics) ⁷	8/1987	1. Primary prevention of coronary heart disease 2. Coronary heart disease 3. Hypercholesterolemia 4. Adolescent patients with heterozygous familial hypercholesterolemia	10 to 80 mg p.o. daily	
lovastatin/niacin (Advicor [®]) ⁸ - 20/500 mg - 20/1000 mg	11/2001	1. Primary hypercholesterolemia 2. Mixed dyslipidemia (type IIa & IIb) (not indicated for initial therapy)	1 tablet p.o. qHS	
pravastatin (Pravachol [®]) ⁹	10/1991	1. Primary prevention of coronary events 2. Secondary prevention of cardiovascular events 3. Hyperlipidemia (primary, mixed dyslipidemias, high triglycerides)	20 to 80 mg p.o. daily	
rosuvastatin (Crestor [®]) ¹⁰	8/2003	1. Primary hypercholesterolemia and mixed dyslipidemia 2. Elevated triglycerides (type IV) 3. Homozygous familial hypercholesterolemia	5 to 40 mg p.o. daily	
simvastatin (Zocor [®]) ¹¹	12/1991	1. Reductions in risk of CHD mortality and cardiovascular events 2. Hypercholesterolemia 3. Heterozygous familial cholesterolemia	10 to 80 mg p.o. daily	
ezetimibe/simvastatin (Vytorin [®]) ¹² - 10/10mg - 10/20mg - 10/40mg - 10/80 mg	7/2004	1. Primary hypercholesterolemia 2. Homozygous familial hypercholesterolemia	1 tablet p.o. daily	

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