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# BRINGING CLINICIANS TOGETHER TO DISCUSS CURRENT DRUG THERAPY

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The following succinct analysis appeared in Pharmacist's Letter. Based on vol. 35. No. 1

# DYSLIPIDEMIA

You'll hear <u>cautious optimism about cardiovascular benefits with the Rx omega-3 fatty acid, Vascepa</u> (icosapent ethyl)...and see a flood of ads.

Vascepa is a form of EPA (eicosapentaenoic acid). Other Rx omega-3s (*Lovaza*) or fish oil supplements have EPA and DHA (docosahexaenoic acid).

New evidence suggests Vascepa 2 g BID may prevent a CV event in about one in 21 high-CV-risk patients over 5 years compared to placebo. This is in patients with elevated triglycerides of about 215 mg/dL despite statins...and CV disease OR diabetes plus other CV risks (high BP, etc).

But prior studies with LOWER omega-3 doses of about 1 g/day are conflicting...or suggest only slight benefit in some CV patients.

Don't be too quick to jump on the Vascepa bandwagon. Point out that researchers are scratching their heads about this new evidence.

Vascepa only modestly lowers triglycerides...so this doesn't explain its CV benefit. And there's still no proof that using fish oil, fibrates, or niacin specifically to lower triglycerides improves CV outcomes.

Some question whether Vascepa's results are inflated...since the study's mineral oil placebo may reduce statin absorption.

Plus Vascepa seems to lead to atrial fib in about one in 71 patients. It might also increase bleeding...and costs about \$275/month.

Save Vascepa for patients with elevated triglycerides and CV disease or diabetes plus other CV risks...AFTER a statin and lifestyle changes.

Don't extrapolate Vascepa's benefits to other omega-3s. Stay tuned for a study in a year or so to help define their role. For now, point out it's not practical to get this high EPA dose from *Lovaza* or supplements.

If lower-CV-risk patients want to use fish oil, explain it's okay to try about 1 g/day of USP Verified omega-3s...but CV benefit isn't likely.

Emphasize other measures to decrease CV risk, such as a healthy diet with at least two 3.5 oz servings/week of fatty fish (salmon, tuna, etc).

See our chart, Omega-3s: Fish Oil and More, for guidance. Use our patient handout, Fish Oil and Other Omega-3s, to clarify the options.

(For more on this topic, see Clinical Resource #340903 at PharmacistsLetter.com.)

Primary Reference – Bhatt DL, Steg PG, Miller M, et al. Cardiovascular risk reduction with icosapent ethyl for hypertriglyceridemia. N Engl J Med 2018 Nov 10. doi: 10.1056/NEJMoa1812792.





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# **DISCUSSION QUESTIONS OVERVIEW OF CURRENT THERAPY**

1. What is known about omega-3 fatty acids and their impact on cardiovascular (CV) risk?

# ANALYSIS OF NEW STUDY

2. What type of study was this? How were the patients selected for inclusion?

3. How were the trial groups defined?

4. How were the outcomes evaluated?

5. What were the outcomes of this trial?



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6. What were the strengths and weaknesses of this trial?

7. Were the results expressed in terms we care about and can use?

## HOW SHOULD THE NEW FINDINGS CHANGE CURRENT THERAPY?

#### 8. Do the results change your practice? How?

## APPLY THE NEW FINDINGS TO THE FOLLOWING CASE

JW is a 52-year-old African American male with a past medical history significant for hypertension, an MI and stent placement about six years ago, and prediabetes. He presents to clinic today for a hospital discharge follow up for chest pain. He was admitted to the hospital and had a cardiac catherization. The catherization revealed diffuse coronary artery disease (CAD) and a patent stent in his right coronary artery, but no new stent was necessary. Due to widespread CAD, the cardiologist recommended medical management. JW and his wife are following up with you today to discuss how to best medically manage his CAD and follow up on lab results from his hospitalization. He does report a family history of "heart disease" with his mom passing away at 62 from an MI and his brother having a triple bypass when he was 55. He's a non-smoker. His current medications include lisinopril 20 mg and a daily multivitamin. The cardiologist suggested he take aspirin 81 mg daily and recommended a statin medication but JW's wife wanted to discuss with you first and find out about any side effects. He was prescribed a statin after his stent placement six years ago, but didn't ever take it.

Vitals today include BP 137/71, pulse 68, oxygen saturation 98%, and body mass index 24.6. Review of labs from the hospital showed a normal electrolytes and renal function, HgbA1C



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6.1, a normal complete blood count, and lipid panel with: total cholesterol 257, triglycerides 325, LDL 156, and HDL 36.

9. What is JW's atherosclerotic cardiovascular disease (ASCVD) risk? Based on his risk, what recommendations would you suggest?

10. What are some side effects of statins you can discuss with JW and his wife?

JW starts taking atorvastatin 80 mg daily. Repeat lipids in three months reveal: total cholesterol 187, triglycerides 207, LDL 113, and HDL 47. You reinforce adherence, review lifestyle changes, have JW and his wife meet with the dietician, and encourage physical activity for at least 30 minutes most days of the week. Three months later, they return and JW's lipid panel is total cholesterol 180, triglycerides 198, LDL 92, and HDL 48.

### 11. Should you consider medication changes at this time?

JW is back for another three month follow-up. He reports compliance with atorvastatin 80mg and ezetimibe 10mg daily. He also been working very hard on his diet and getting exercise five days a week. Today his repeat lipids are: total cholesterol 140, triglycerides 120, LDL 68, and HDL 48. He and his wife are both excited and want to know whether he should also start taking fish oil since someone at the health food store suggested it.

### 12. Should you recommend fish oil for JW?



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# REFERENCES

American Heart Association. Fish and omega-3 fatty acids. October 6, 2016. http://www.heart.org/HEARTORG/GettingHealthy/NutritionCenter/HealthyDietGoals/Fish-and-Omega-3-Fatty-Acids\_UCM\_303248\_Article.jsp.

ASCEND Study Collaborative Group. Effects of n-3 fatty acid supplements in diabetes mellitus. N Engl J Med 2018;379:1540-50.

Bhatt DL, Steg PG, Miller M, et al. Cardiovascular risk reduction with icosapent ethyl for hypertriglyceridemia. N Engl J Med 2018 Nov 10. doi: 10.1056/NEJMoa1812792.

Manson JE, Cook NR, Lee IM, et al. Marine n-3 fatty acids and prevention of cardiovascular disease and cancer. N Engl J Med 2018 Nov 10. doi: 10.1056/NEJMoa1811403.

Rizos EC, Ntzani EE, Bika E, et al. Association between omega-3 fatty acid supplementation and risk of major cardiovascular disease events: a systematic review and meta-analysis. JAMA 2012;308:1024-33.

Siscovick DS, Barringer TA, Fretts AM, et al. Omega-3 polyunsaturated fatty acid (fish oil) supplementation and the prevention of clinical cardiovascular disease: a science advisory from the American Heart Association. Circulation 2017;135:e867-e884.

Tavazzi L, Maggioni AP, Marchioli R, et al. Effect of n-3 polyunsaturated fatty acids in patients with chronic heart failure (the GISSI-HF trial): a randomised, double-blind, placebo-controlled trial. Lancet 2008;372:1223-30.

Yokoyama M, Origasa H, Matsuzaki M, et al. Effects of eicosapentaenoic acid on major coronary events in hypercholesterolaemic patients (JELIS): a randomized open-label, blinded endpoint analysis. Lancet 2007;369:1090-8.

#### Additional Pharmacist's Letter Resources available at PharmacistsLetter.com

Chart, Omega-3s: Fish Oil and More. Pharmacist's Letter/Prescriber's Letter. January 2019. Chart, Lipid Treatment FAQs. Pharmacist's Letter/Prescriber's Letter. January 2019. Chart, 2018 ACC/AHA Cholesterol Guidelines. Pharmacist's Letter/Prescriber's Letter. January 2019. Chart, Non-Statin Lipid-Lowering Agents. Pharmacist's Letter/Prescriber's Letter. September 2018. Chart, Common Cardiovascular Risk Calculators. Pharmacist's Letter/Prescriber's Letter. September 2018. Chart, Optimizing Care of Patients with Coronary Artery Disease. Pharmacist's Letter/Prescriber's Letter. February 2018. Patient Education Handout. What You Should Know About Statins. Pharmacist's Letter/Prescriber's Letter. November 2017. Patient Education Handout. Fish Oil and Other Omega-3 Fatty Acids. Pharmacist's Letter/Prescriber's Letter.

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