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TRENT MEDICINES INFORMATION SERVICE

NHS

QIPP Detail Aid

Providing support for quality in prescribing

Omega-3 fatty acid compounds- do they reduce cardiovascular disease?

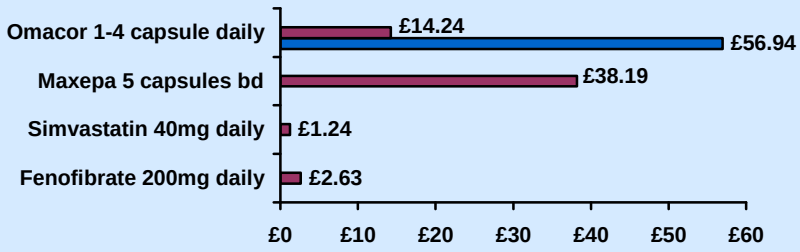
WHAT IS THE PROBLEM?

- In 2010/11 the East Midlands spent nearly £800,000 on Omacor in primary care. There is little place for its use in optimal management of cardiovascular disease and this money could be better used for other interventions.
- **ADD LOCAL DATA HERE**

WHAT IS THE EVIDENCE?

- The omega-3 fatty acid compounds *Omacor*® and *Maxepa*® are licensed as an adjunct to diet and/or statins for hypertriglyceridaemia. Omacor is additionally licensed as adjunctive therapy in secondary prevention in those who have had an MI. The products vary in the ratio of EPA/ DHA fatty acids they contain. Unlicensed supplements are also available with varying amounts of fatty acids.
- A Cochrane systematic review, search date 2004, included 48 randomised controlled trials (36,913 participants) and 41 cohort analyses. Pooled trial results did not show a reduction in the risk of total mortality or combined cardiovascular events in those taking omega 3 fatty acids. Trials varied in the doses used and trial design. More recent studies have not found a positive effect on mortality or major cardiovascular outcomes with omega-3 fatty acid compounds.
- NICE guidance recommends against prescribing omega-3 fatty acids for the primary prevention of coronary heart disease.
- NICE found evidence from only one trial that omega-3 fatty acids may be effective in secondary prevention if started within 3 months of an MI. This was a large open-label study which showed a reduction in all-cause mortality. However patients were not receiving optimal cardiovascular preventative therapies and several important confounding factors (for example change in statin usage during the trial) were not adjusted for.
- NICE clinical guidelines for type 2 diabetes concluded that omega-3 supplements could lower triglyceride levels, but overall the evidence showed minimal improvement in lipid profiles in people who had not had a MI. In addition, high doses (4 capsules of Omacor daily) were needed to show a reduction in triglycerides comparable to the reduction seen in trials with fenofibrate; doses lower than this resulted in triglyceride reductions of approximately half this amount.

WHAT ARE THE COSTS?



Costs for 28 days supply. Taken from MIMS/ Drug Tariff January 2012
Doses are a guide and do not imply therapeutic equivalence.

KEY MESSAGES

- **Omega-3 fatty acid compounds, Maxepa and Omacor, are licensed for hypertriglyceridaemia. Omacor is additionally licensed for secondary prevention in those who have had an MI. Use in other indications is unlicensed.**
- **NICE guidance recommends against prescribing omega-3 acids for the primary prevention of coronary heart disease.**
- **Trials of omega-3 acids added to optimal care to prevent CHD have not shown benefits on major cardiovascular endpoints.**
- **Fibrates should be used first line for raised triglycerides. High doses (4 capsules of Omacor) were required in trials to reduce triglycerides to a similar extent to fibrates in patients with type 2 diabetes. Doses below this resulted in a triglyceride reduction of approximately half this amount.**
- **Patients who have had an MI should be advised to consume two to four portions of oily fish per week.**

References:

1. NICE Clinical Guideline 67 Lipid modification May 2008 (reissued March 2010)
2. NICE Clinical Guideline 66 Type 2 diabetes May 2008
3. NICE Clinical Guideline 48 **MI: secondary prevention May 2007**

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