HI DHS MQD Medicaid Enhanced PA P&T Committee
Therapeutic Class Review Summary

Therapeutic Class:
HMG-CoA Reductase Inhibitors

Overview:
3-Hydroxy-3-methylglutaryl-coenzyme A (HMG-CoA) reductase inhibitors (also known as statins) were first approved in 1987. HMG-CoA reductase inhibitors compete with HMG-CoA for HMG-CoA reductase, thus interfering with the conversion of HMG-CoA to mevalonate, which is a precursor of cholesterol. HMG-CoA reductase inhibitors reduce total cholesterol and low-density lipoprotein cholesterol (LDL-C), increase high-density lipoprotein cholesterol (HDL-C), and modestly reduce triglycerides (TG). These agents have been approved by the FDA to treat a variety of hypercholesterolemias.

There are currently seven HMG-CoA reductase inhibitors available in the U.S. market. Only lovastatin is available generically. Statins are generally well tolerated with few adverse reactions. Rare cases of rhabdomyolysis have been reported. However, the risk of rhabdomyolysis increases when HMG-CoA reductase inhibitors are co-administered with gemfibrozil, erythromycin, azole antifungals, and immunosuppressive agents.

All HMG-CoA reductase inhibitors have data supporting their efficacy in lowering total cholesterol, LDL-C, triglycerides, and/or apolipoproteins. There are some outcome studies measuring mortality and morbidity. Lovastatin, pravastatin and simvastatin have been proven to reduce the risk of death or coronary events in patients with a history of myocardial infarction over 5 years. Pravastatin showed additional benefit in patients with high cholesterol but no history of coronary events. In acute MI patients, atorvastatin 80mg was proven to prevent death in a 16-week study. Additionally, atorvastatin 10mg reduced the incidence of major cardiovascular events in hypertensive patients who were at risk for coronary heart disease but not conventionally deemed dyslipidemic.

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Brand Name</th>
<th>Manufacturer</th>
<th>Generic Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atorvastatin</td>
<td>Lipitor®</td>
<td>Pfizer</td>
<td>N</td>
</tr>
<tr>
<td>Fluvastatin</td>
<td>Lescol®; Lescol® XL</td>
<td>Novartis</td>
<td>N</td>
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<tr>
<td>Lovastatin</td>
<td>Mevacor®</td>
<td>Merck</td>
<td>Y</td>
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<tr>
<td>Pravastatin</td>
<td>Pravachol®</td>
<td>Bristol-Myers Squibb</td>
<td>N</td>
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<tr>
<td>Rosuvastatin</td>
<td>Crestor®</td>
<td>AstraZeneca</td>
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<tr>
<td>Simvastatin</td>
<td>Zocor®</td>
<td>Merck</td>
<td>N</td>
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<tr>
<td>Lovastatin ER</td>
<td>Altocor®</td>
<td>Andrx Pharmaceuticals</td>
<td>N</td>
</tr>
</tbody>
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References from Therapeutic Class Review:


