Saphenous vein grafts are commonly used conduits for surgical revascularization of coronary arteries but are associated with poor long-term patency rates. Percutaneous revascularization of saphenous vein grafts is associated with worse clinical outcomes including higher rates of in-stent restenosis, target vessel revascularization, myocardial infarction, and death compared with percutaneous coronary intervention of native coronary arteries. Use of embolic protection devices is a Class I indication according to the American College of Cardiology/American Heart Association guidelines to decrease the risk of distal embolization, no-reflow, and periprocedural myocardial infarction. Nonetheless, these devices are underused in clinical practice. Various pharmacological agents are available that may also reduce the risk of or mitigate the consequences of no-reflow. Covered stents do not decrease the rates of periprocedural myocardial infarction and restenosis. Most available evidence supports treatment with drug-eluting stents in this high-risk lesion subset to reduce angiographic and clinical restenosis, although large, randomized trials comparing drug-eluting stents and bare-metal stents are needed.