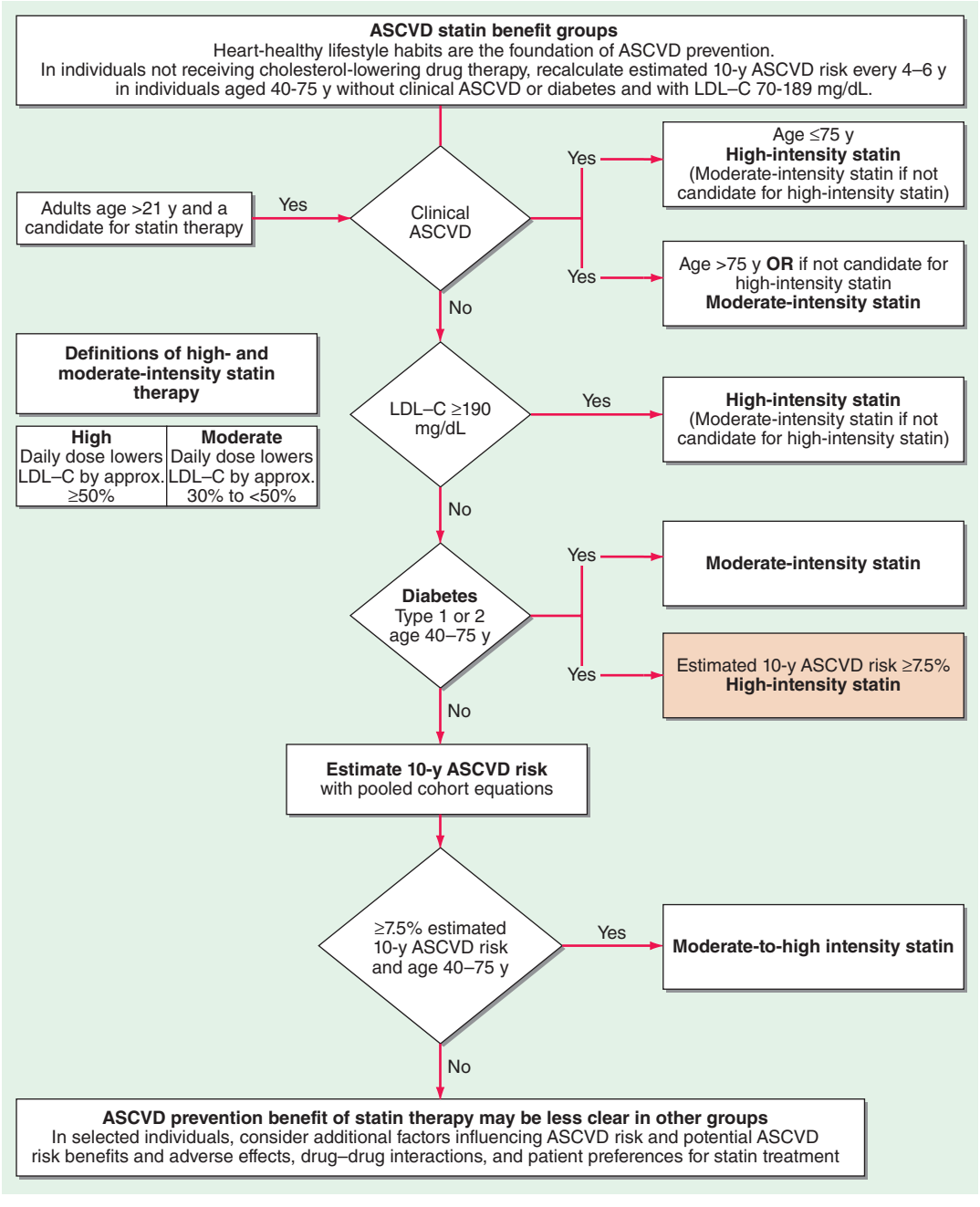

FIGURE 291e-4 Major recommendations for statin therapy for atherosclerotic cardiovascular disease (ASCVD) prevention. LDL-C, low-density lipoprotein cholesterol. *(From NJ Stone et al: J Am Coll Cardiol, 2013, doi: 10.1016/j.jacc.2013.11.002.)*

Therapeutic objectives for intervention in these patients include addressing the underlying causes, including obesity and low physical activity, by initiating lifestyle measures (see below). Establishing that strict glycemic control reduces the risk of macrovascular complications of diabetes has proved much more elusive than the beneficial effects on microvascular complications such as retinopathy and renal disease. Indeed, "tight" glycemic control may increase adverse events in patients with type 2 diabetes, lending even greater importance to aggressive control of other aspects of risk in this patient population. In this regard, multiple clinical trials have demonstrated unequivocal benefit of statin therapy in diabetic patients over all ranges of LDL cholesterol levels (but not those with end-stage renal disease or advanced heart failure). Among the oral hypoglycemic agents, metformin possesses the best evidence base for cardiovascular event reduction. The novel oral hypoglycemic agents tested in sufficiently powered trials, the dipeptidyl peptidase-4 (DPP-4) inhibitors saxagliptin and alogliptin, did not show cardiovascular benefit. Indeed, saxagliptin was associated with a slight increase in heart failure. Diabetic populations appear to derive particular benefit from antihypertensive strategies that block the action of angiotensin II. Thus, the antihypertensive regimen for patients with the metabolic syndrome should include angiotensin-converting enzyme inhibitors or angiotensin receptor blockers when possible. Many of these individuals will require more than one antihypertensive agent to reach the 2013 goals for individuals 18 years of age or older with diabetes to achieve a systolic blood pressure of less than 140 mmHg and a diastolic blood pressure of less than 90 mmHg.

Male Sex/Postmenopausal State Decades of observational studies have verified excess coronary risk in men compared with premenopausal women. After menopause, however, coronary risk accelerates in women. Although observational and experimental studies have suggested that estrogen therapy reduces coronary risk, large-scale randomized clinical trials have not demonstrated a net benefit of estrogen with or without progestins on CHD outcomes. In the Heart