SUPPLEMENT 1: ADJUDICATION OF EVENTS

Events adjudicated as incident HF, AF, CHD and all cardiovascular disease (CVD) as part of the MESA study were used as end-points. In addition to MESA follow-up examinations every two years, a telephone interviewer contacted each participant (or representative) every 6–9 months to inquire about all interim hospital admissions, cardiovascular outpatient diagnoses, and deaths. Two physicians reviewed all records for independent end-point classification and assignment of event dates.

Criteria for CHD included any of – myocardial infarction (MI), resuscitated cardiac arrest (RCA), definite angina, probable angina (if followed by revascularization) and CHD death. Reviewers classified MI as definite, probable, or absent, based primarily on combinations of symptoms, ECG, and cardiac biomarker levels. In most cases, definite or probable MI required either abnormal cardiac biomarkers (2 times upper limits of normal) regardless of pain or ECG findings; evolving Q waves regardless of pain or biomarker findings; or a combination of chest pain, and ST-T evolution or new LBBB, and biomarker levels 1-2 times upper limits of normal. Reviewers classified RCA when a patient successfully recovered from a full cardiac arrest through cardiopulmonary resuscitation (including cardioversion). Definite or probable angina required symptoms of typical chest pain or atypical symptoms. Probable angina required, in addition to symptoms, a physician diagnosis of angina and medical treatment for it. Definite angina required one or more additional criteria, including CABG surgery or other revascularization procedure; 70% or greater obstruction on coronary angiography; or evidence of ischemia by stress tests or by resting ECG. Coronary revascularization or, a physician diagnosis of angina, or CHD, in the absence of symptoms, was not considered to be angina. Fatal CHD

was classified as definite, possible, or absent. Definite fatal CHD required a documented MI within the previous 28 days, chest pain within the 72 hours before death, or a history of CHD, and required the absence of a known non-atherosclerotic or non-cardiac cause of death. If the definite fatal CHD criteria were not met, possible fatal CHD could be assigned with an underlying cause of death consistent with fatal CHD and required the absence of a known non-atherosclerotic or non-cardiac cause of death.

CVD was considered a composite of MI, RCA, definite or probable angina, stroke, stroke death, CHD death, atherosclerotic death and CVD death. Stroke was classified as present or absent and consisted of rapid onset of a documented focal neurologic deficit lasting 24 hours or until death, or if < 24 hours, there was a clinically relevant lesion on brain imaging. Patients with focal neurologic deficits secondary to brain trauma, tumor, infection, or other non-vascular cause were excluded. Cause of death was assigned for potential CVD deaths through committee review as part of MESA.

Reviewers classified HF as definite, probable, or absent. Definite or probable HF required heart failure symptoms, such as shortness of breath or edema, as asymptomatic disease is not a MESA endpoint. In addition to symptoms, probable HF required HF diagnosed by a physician and patient receiving medical treatment for HF. Definite HF required one or more other criteria, such as pulmonary edema/congestion by chest X-ray; dilated ventricle or poor LV function by echocardiography or ventriculography; or evidence of left ventricular diastolic dysfunction. We considered participants not meeting any criteria, including just a physician diagnosis of HF without any other evidence, as having no HF.

AF cases were detected using hospital discharge International Classification of Diseases, Ninth Revision (ICD9) diagnosis codes for AF or atrial flutter (427.31 or 427.32). MESA

ascertained hospital discharge ICD-9 codes and Centers for Medicare and Medicaid Services (CMS) inpatient hospital claims. AF events during a hospital stay with coronary artery bypass surgery or valve replacement surgery were not counted as incident events.