INDEX

Note: Page numbers of article titles are in boldface type.

Abdominal manifestations, of infective endocarditis, 1219
Adenosine, for pharmacologic stress echocardiography, 1045
Alteplase, for acute ischemic heart disease, 1013
Amiodarone, for atrial fibrillation, 1141, 1144
for sustained ventricular tachycardia, 1107
for ventricular fibrillation, 1107
for ventricular premature beats, 1099–1100
Amiodipine, cardiovascular actions of, 1075
for coronary artery disease with concomitant medical conditions, 1077
Angina pectoris, anti-ischemic drug therapy for, 1067–1068
in atherosclerosis regression trials, 987
pathophysiology of, 1064–1066
unstable, risk stratification in, 1053
Angiography, correlation with clinical coronary risk, 1247
Angiotensin-converting enzyme inhibitors, for acute ischemic heart disease, 1015
for heart failure, effects of, 1179–1181
studies of, 1177
for myocardial infarction, early administration of, safety of, 1199–1200
for postinfarction left ventricular dysfunction, 1196–1198
in left ventricular remodeling, experimental studies with, 1194–1196
Antiplatelet therapy, for acute ischemic heart disease, 1011–1012
Antithrombin therapy, for acute ischemic heart disease, 1012–1013
Aortic valve, dissection of, myocardial infarction vs, 1006
Antibiotics, for infective endocarditis, 1228–1233
Anticoagulants, for embolization prevention, in atrial fibrillation, 1146
for heart failure, 1183
Antihypertensive therapy, in coronary artery disease prevention, 991–992
Anti-ischemia drugs, for perioperative myocardial ischemia, 1255
Antiplatelet therapy, for acute ischemic heart disease, 1011–1012
Antithrombin therapy, for acute ischemic heart disease, 1012–1013
Atrial fibrillation, 1135–1152
cardioversion for, 1140–1144. See also Cardioversion.
cause and clinical significance of, 1136–1137
clinical presentation of, 1137
conditions associated with, 1136
embolization in, prevention of, 1144–1147
effect of aspirin, 1145
primary, 1144–1145
role of transesophageal echocardiography, 1146–1147
secondary, 1146
Atrial fibrillation (Continued)
warfarin vs aspirin, 1145
general approach to, 1138
mechanisms of, 1123
prevalence of, 1135–1136
rate control in, 1138–1140
beta-adrenergic blockers, 1139–1140
calcium channel blockers, 1139
digitalis, 1138–1139
Atrial flutter, catheter ablation of, 1127
Atrioventricular node, ablation of, for atrial fibrillation, 1147–1148
Atrioventricular node reentrant tachycardia, catheter ablation of, 1127
Atrioventricular reciprocating tachycardia, mechanisms of, 1122
Bacteremia, source of, in infective endocarditis, 1210
Beta-adrenergic blockers, doses and actions of, 1072
for acute ischemic heart disease, 1014
for atrial fibrillation, 1139–1140
for coronary artery disease, 1071–1074
for peroperative myocardial ischemia, 1255
for ventricular premature beats, 1099
general actions of, 1068
properties of, 1073
withdrawal symptoms with, 1073
Betaxolol, doses and actions of, 1072
Blood cultures, in infective endocarditis, 1220
Blood pressure, as coronary risk factor, 954–955, 964
control of, in coronary artery disease prevention, 991–992
Bradydysrhythmia, in myocardial infarction, 1007
Bundle branch block, in myocardial infarction, 1007
Bundle branch reentry ventricular tachycardia, catheter ablation for, 1110–1111
with dilated cardiomyopathy, 1110
Calcium channel blockers, cardiovascular actions of, 1075
for acute ischemic heart disease, 1016
for atrial fibrillation, 1139
for coronary artery disease, 1074–1075
for heart failure, 1182–1183
general actions of, 1068
Cardiac manifestations, in infective endocarditis, 1218
Cardiomyopathy, dilated, bundle branch reentry ventricular tachycardia with, 1110
idiopathic, nonsustained ventricular tachycardia in, 1103–1104
hypertrophic, nonsustained ventricular tachycardia in, 1104–1105
Cardiovascular death, 982, 1198
in atherosclerosis regression trials, 987
Cardioversion, for atrial fibrillation, 1140–1144
electrical, 1147
exclusion criteria for, 1148
pharmacologic, 1140–1144
amiodarone, 1141, 1144
disopyramide, 1141–1143
flecainide, 1141, 1143
procainamide, 1141–1142
propafenone, 1141, 1143
quinidine, 1140–1142
sotalol, 1141, 1143–1144
predictors of success in, 1140
surgical, 1147–1148
Cardioverter defibrillator, for sustained ventricular tachycardia, effect on mortality, 1108
Carotid massage, for arrhythmia detection, in syncope evaluation, 1158–1160
Catheter ablation, for sustained ventricular tachycardia, 1109–1114
bundle branch reentry type, 1110–1111
idiopathic type, 1111–1113
with coronary artery disease, 1113–1114
Central nervous system manifestations, in infective endocarditis, 1219
Cholesterol, as coronary risk factor, 964, 975
level of, in ischemic heart disease, 1003
lowering of, and atherosclerosis regression, 984–985
in coronary artery disease, 1065
Computed tomography, single-photon emission, 1029
sensitivity of, 1030
Congestive heart failure, death from, 1198.
See also Heart failure.
Coronary angioplasty, 1085–1095
percutaneous transluminal, benefit of, coronary artery bypass grafting vs, 1088–1092
established, 1088–1089
complete vs incomplete revascularization with, 1091–1092
coronary artery bypass grafting vs, medical economics, 1085–1086
studies of, 1089–1091
cost of, 1086–1088
implications of, 1092–1093
in atherosclerosis regression trials, 987
Coronary artery bypass grafting, 1085-1095
benefits of, 1089
coronary angioplasty vs, 1089-1092. See also Coronary angioplasty.
implications of, 1092-1093
in atherosclerosis regression trials, 987
prior, importance in noncardiac surgery, 1242-1245
Coronary artery disease. See also Angina pectoris; Myocardial ischemia.
atherosclerotic, prevention of, 976-977
primary trials for, 977-978
beta-adrenergic blockers for, 1071-1074
calcium channel antagonists for, 1074-1075
combination therapy for, 1076
familial and genetic predisposition to, 961
in elderly, prevention of, 961-962
ischemic. See Ischemic heart disease.
multi-vessel/high-risk, detection of, 1040
multivariate risk profiles of, 963
prevention of, antihypertensive therapy in, 991-992
diet, exercise, and lifestyle in, 989-991
hormonal replacement therapy in, 992-993
implications in, 963-966
practical guidelines for, 993-994
secondary, 979
atherosclerosis regression in, 982-988
lipid-lowering therapy for, 980-982
strategies for, cost-effectiveness of, 993
risk factors in, 951-971
following myocardial infarction, 962-963
levels of, 966
modification of, 1067
prediction with, 964-965
update on, 951-971
secular trends in, 963
stable, 1063-1084
anti-ischemic therapy for, effect on clinical outcome, 1076-1078
medical options in, 1066
stress imaging in, 1025-1061. See also Stress imaging.
treatment choice for, 1092-1093
ventricular tachycardia with, idiopathic, catheter ablation for, 1113-1114
nonsustained, 1101-1103
Coronary atherosclerosis, pathophysiology of, 974-975
prevention of, 973-998
Coronary evaluation, recent, importance in noncardiac surgery, 1245
Coronary flow reserve, tests of, 1043-1047
diagnosis, 1043-1045
prognosis, 1045-1046
viability, 1046-1047
Coronary heart disease. See Coronary artery disease.
Coronary risk assessment, for noncardiac surgery, 1241-1262
complication probability in, exercise stress testing and, 1248-1250
surgical type and, 1247-1248
elective surgery benefits vs complications, 1252
long-term risk stratification in, 1256-1257
modified perioperative care for complication reduction, 1252-1253
postoperative pathophysiology modification, 1254-1256
preoperative clinical, 1245-1247
Cost effectiveness, of acute ischemic heart disease management, 1017-1019
of stress echocardiography, 1050-1051
Creatine kinase, elevation of, in myocardial necrosis, 1008-1009
Cutaneous manifestations, in infective endocarditis, 1218

Delta waves, in supraventricular tachyarrhythmias, radiofrequency catheter ablation of, 1126
Diabetes mellitus, as coronary risk factor, 955
Diet, as coronary risk factor, 959, 989-991
Digitalis, for atrial fibrillation, 1138-1139
Digoxin, for heart failure, effects of, 1179-1182
Diltiazem, cardiovascular actions of, 1075
for atrial fibrillation, 1139
for coronary artery disease with concomitant medical conditions, 1077
for heart failure, 1175
for perioperative myocardial ischemia, 1255
Dipyridamole, for pharmacologic stress echocardiography, 1045
Disopyramide, for atrial fibrillation, 1141-1143
Diuretics, for heart failure, effects of, 1178-1180
Dobutamine, for pharmacologic stress echocardiography, 1043-1044

Eagle index, of clinical coronary risk, 1246
Echocardiography, in infective endocarditis, 1220-1221
stress. See Stress echocardiography.
with pharmacologic stress testing, for preoperative coronary risk assessment, 1251-1252
Elderly, syncope in, management of, 1168
Electrocardiogram, and left ventricular hypertrophy predictors, 960–961
for arrhythmia detection, in syncope evaluation, 1158
prolonged, for arrhythmia detection, in syncope evaluation, 1159–1160
Electrophysiologic studies, for arrhythmia detection, in syncope evaluation, 1159, 1159–1162
Enalapril, for heart failure, studies of, 1177
Endocardial lesions, thrombotic, nonbacterial, and infective endocarditis, 1209–1210
Endocarditis, infective, 1205–1240. See also Infective endocarditis.
Endothelium, damage to, and infective endocarditis, 1209
role of, in ischemic heart disease, 1004
Esmolol, doses and actions of, 1072
Exercise, as coronary risk factor, 959, 989–991
Exercise stress testing. See Stress testing.

Fever, in infective endocarditis, 1218
Fibrinogen, as coronary risk factor, 957–958
Flecainide, for atrial fibrillation, 1141, 1143
Foam cells, in coronary atherosclerosis, 974
Functional capacity, cardiac, evaluation of, for intermediate-risk surgical patients, 1247–1248
Fungi, and infective endocarditis, 1216–1217

Glucose metabolism, as coronary risk factor, 955–956

Heart, functional capacity of, evaluation of, for intermediate-risk surgical patients, 1247–1248
wall motion in, echocardiography of, 1042
Heart disease, congenital, and infective endocarditis, 1207–1208
valvular, nonsustained ventricular tachycardia in, 1105
Heart failure, 1171–1190
clinical pharmacotherapeutic trials in, 1176
controversial drugs for, 1182–1183
antiarrhythmics, 1183
anticoagulants, 1183
calcium channel blockers, 1182–1183
nonsteroidal anti-inflammatory drugs, 1183
definition of, 1172
diagnosis of, 1173
death from, 1198
end-stage, 1183–1184
left ventricular dysfunction with, 1191–1203
clinical importance of, 1193
early intervention in, 1201–1202
etiopathologic factors in, 1192–1193
natural history in, 1192–1193
postinfarction remodeling and, 1193–1196
pathophysiology of, and pharmacotherapeutic focus, 1174
physiology of, relationship of therapies to, 1173–1178
specific drug classes for, 1178–1182
angiotensin-converting enzyme inhibitors, 1179, 1181
cardiac glycosides, 1181–1182
digoxin, 1179, 1181–1182
direct-acting vasodilators, 1180–1181
diuretics, 1178–1180
treatment strategies for, 1184–1187
Hematologic factors, as coronary risk factors, 956–958
Hemodynamics, abnormal, and infective endocarditis, 1209
Heparin, for acute ischemic heart disease, 1012–1013
High density lipoprotein, as coronary risk factor, 952–953, 964
Hirudin, for acute ischemic heart disease, 1013
Homocystine, as coronary risk factor, 958
Hormonal replacement therapy, in postmenopausal women, for coronary artery disease prevention, 992–993
Hydralazine, for heart failure, effects of, 1180
studies of, 1175
Hyperinsulinemia, as coronary risk factor, 955
Hypertension, as coronary risk factor, 954–955, 964
control of, 991–992

Infective endocarditis, 1205–1240
antibiotics for, 1228–1233
aortic valve, complications with, 1224–1226
clinical manifestations of, 1217–1219
culture-negative, 1217
definition of, 1205–1207
diagnostic studies in, 1220–1228
blood cultures, 1220
echocardiography, 1220-1221
Duke criteria for, 1206
experimental, pathogenesis of, 1208-1209
left-sided, echocardiography of, 1222-1228
indications for surgery, 1226
microbiology of, 1211-1217
mitral valve, complications with, 1226-1228
pathogenesis of, 1208-1210
pathophysiology of, 1210-1211
preventing factors to, 1207-1208
right-sided, echocardiography of, 1221-1222
treatment of, 1228-1233
Insulin resistance, as coronary risk factor, 955-956
Ischemic heart disease, acute, 999-1023
classification of, 1000-1001
cost-efficient management of, 1017-1019
length of stay in, 1017-1018
prophylactic testing, 1018-1019
rapid diagnosis and risk stratification, 1017
diagnosis of, 1004-1008
electrocardiogram, 1005-1007
history, 1004-1005
physical examination, 1005
summary measures, 1007-1008
ischemic triggers in, 1003
nomenclature of, 999-1002
pathophysiology of, 1002-1004
study markers in, 1008-1009
therapy for, 1009-1016
acute reperfusion, 1010-1011
angiotensin-converting enzyme inhibitors, 1015
antiarrhythmic, 1016
antiplatelet, 1011-1012
antithrombin, 1012-1013
beta-blocker, 1014
calcium channel blocker, 1016
magnesium, 1016
nitrate, 1014-1015
pain relief, 1016
Isosorbide dinitrate, for heart failure, effects of, 1180
studies of, 1175
Labetolol, doses and actions of, 1072
Left ventricle, dysfunction of, heart failure with, 1191-1203. See also Heart failure.
postinfarction, angiotensin-converting enzyme inhibitor trials for, 1196-1198
Low density lipoprotein, relative coronary risk with, 952-953
Magnesium, for acute ischemic heart disease, 1016
Menopause, as coronary risk factor, 958
Metabolic disorders, as coronary risk factors, 958-959
Metoprolol, doses and actions of, 1072
Myocardial infarction, amiodarone trials following, 1100
angiotensin-converting enzyme inhibitors for, early administration of, 1199-1200
clinical characteristics predictive of, 1005
clinical syndromes mimicking, 1006
death from, 1198
diabetes and, 956
hypertension and, 955-956
in atherosclerosis regression trials, 987
left ventricular remodeling following, 1193-1194
angiotensin-converting enzyme inhibitors for, 1194-1196
neurohormonal changes and, 1194
role of nitrates in, 1200
prognosis after, 1041
risk factors following, 962-963
Myocardial ischemia, anti-ischemic drug therapy for, 1067-1068, 1255
antianginal therapy for, 1076
pathophysiology of, 1064-1066
signs of, 1065
Lifestyle, as coronary risk factor, 959-960, 989-991
Lipid(s), as coronary risk factor, 952-954
Lipid hypothesis, in coronary atherosclerosis, 975-976
Lipid-lowering therapy, for secondary prevention of coronary artery disease, 980-982
Leukocyte count, as coronary risk factor, 956-957
Menopause, as coronary risk factor, 958
Metabolic disorders, as coronary risk factors, 958-959
Metoprolol, doses and actions of, 1072
for perioperative myocardial ischemia, impact of, 1255
Mitral valve, infective endocarditis of, complications with, 1226-1230
Mycotic aneurysm, in infective endocarditis, echocardiography of, 1221
Myocardial infarction, amiodarone trials following, 1100
angiotensin-converting enzyme inhibitors for, early administration of, 1199-1200
clinical characteristics predictive of, 1005
clinical syndromes mimicking, 1006
death from, 1198
diabetes and, 956
hypertension and, 955-956
in atherosclerosis regression trials, 987
left ventricular remodeling following, 1193-1194
angiotensin-converting enzyme inhibitors for, 1194-1196
neurohormonal changes and, 1194
role of nitrates in, 1200
prognosis after, 1041
risk factors following, 962-963
Myocardial infarction, anti-ischemic drug therapy for, 1067-1068, 1255
antianginal therapy for, 1076
pathophysiology of, 1064-1066
signs of, 1065
Myocardial necrosis, serum markers of, 1008–1009
Myocardial oxygen demand, increased, in coronary artery disease, 1065
Myocardial perfusion scintigraphy, diagnostic/prognostic value of, 1032–1033

Nadolol, doses and actions of, 1072
Neurohormonal changes, in postinfarction left ventricular remodeling, 1194
Nifedipine, cardiovascular actions of, 1075 for coronary artery disease with concomitant medical conditions, 1077 for heart failure, studies of, 1177
Nitrates, for acute ischemic heart disease, 1014–1015 for angina pectoris, 1068–1069 general actions of, 1068 role in postinfarction left ventricular remodeling, 1200 tolerance to, 1069–1071
Nitroglycerin, for perioperative myocardial ischemia, impact of, 1255 Nonsteroidal anti-inflammatory drugs, for heart failure, 1183

Ophthalmologic manifestations, in infective endocarditis, 1219
Orthopedic manifestations, in infective endocarditis, 1219
Orthostatic hypotension, management of, 1167–1168
Oxidation, as coronary risk factor, 958

Pacemaker, for sustained ventricular tachycardia, 1108
Pain relief, for acute ischemic heart disease, 1016
Perforation, in infective endocarditis, echocardiography of, 1221
Perfusion, end points of, characteristics of, 1028
Perfusion imaging, with pharmacologic stress testing, for preoperative coronary risk assessment, 1250–1251 prognostic value of, 1042
Perfusion scintigraphy, clinical applications of, 1030–1033 diagnostic accuracy of, 1031 imperfections in, 1033–1034 method of, 1028–1030 sensitivity of, degree of coronary involvement and, 1030

Pharmacologic stress testing, for preoperative coronary risk assessment, 1250–1252
Phosphodiesterase inhibitors, for heart failure, studies of, 1177
Pindolol, doses and actions of, 1072
Plaque, in ischemic heart disease, 1002
Pneumothorax, myocardial infarction vs, 1006
Positron emission tomography, stress echocardiography vs, 1048
Procainamide, for atrial fibrillation, 1141–1142
Propafenone, for atrial fibrillation, 1141, 1143
Propranolol, doses and actions of, 1072
Prosthetic valves, infective endocarditis in, microbiology of, 1211–1213
Psychiatric testing, for syncope evaluation, 1163
Pulmonary embolus, myocardial infarction vs, 1006
Pulmonary manifestations, in infective endocarditis, 1218

Quinidine, for atrial fibrillation, 1140–1142
Radiation exposure, in stress echocardiography, 1049–1050
Ramipril, for heart failure, studies of, 1177
Renal manifestations, in infective endocarditis, 1219
Reperfusion therapy, for acute ischemic heart disease, 1010–1011
Rhythm strip, for arrhythmia detection, in syncope evaluation, 1158
Ring abscess, in infective endocarditis, echocardiography of, 1221–1224

Scintigraphy, perfusion, 1028–1034. See also Perfusion scintigraphy.
Sleep disturbance, as coronary risk factor, 960
Smoking, as coronary risk factor, 959
Sotalol, for atrial fibrillation, 1141, 1143–1144
ST-segment elevation, in myocardial infarction, 1005, 1007
Staphylococci, and infective endocarditis, 1211
Streptococci, and infective endocarditis, 1211
Streptokinase, for acute ischemic heart disease, 1013
Stress echocardiography, debate concerning, 1052
disadvantages of, 1049–1051
cost effectiveness, 1050–1051
potential for abuse, 1051
radiation exposure, 1049–1050
dynamic, 1041–1043
dynamic exercise, 1039–1041
method of, 1049–1051
acceptance and integration of, 1052–1054
choice of, 1054
development of, 1034
pharmacologic, agents for, 1043–1045
results of, 1036
settings for use of, 1047–1049
dyspnea, 1047
left bundle branch block, 1049
low pretest likelihood, 1048–1049
women, 1047–1048
stress perfusion scintigraphy vs, 1034–1037
views in, 1035
Stress imaging, 1025–1061
function vs perfusion in, 1037–1038
in coronary artery disease, current status of, 1026–1027
direct vs indirect, 1026
ischemic end points in, 1027–1028
methods of, 1027
objectives of, 1025
reasons for, 1025–1026
in exercise, echocardiography vs perfusion scintigraphy, 1038
Stress testing, exercise, for preoperative coronary risk assessment, 1249–1250
pharmacologic, for preoperative left ventricular function assessment, 1252
Supraventricular tachyarrhythmias, 1121–1134
antiarrhythmic interventions for, 1123–1130
catheter ablation, 1125–1128
costs and benefits of, 1129–1130
optimization of, 1130
patient selection for, 1128–1129
deVICES, 1125
nonpharmacologic, 1124–1130
outcomes in, 1128
pharmacologic, 1123–1124
surgical, 1125
future directions in, 1130
mechanisms of, 1122–1123
pathophysiology of, 1121–1122
Surgery, noncardiac, coronary risk assessment for, 1241–1262
Syncope, 1153–1170
causes of, 1154–1155
diagnostic evaluation of, 1155–1164
algorithm for, 1165
approach to, 1164–1166
arrhythmia detection, 1158–1162
carotid massage, 1158–1159
electrocardiogram/rhythm strip, 1158
electrophysiologic studies, 1159, 1161–1162
prolonged electrocardiographic monitoring, 1159–1160
diagnostic testing, 1156, 1158
history, 1155–1156
low yield tests in, 1164
physical examination, 1156
psychiatric testing, 1163
upright tilt testing, 1162–1163
drugs causing, 1156
management of, 1166–1168
orthostatic hypotension and, 1167–1168
pathophysiology of, 1153–1154
prognosis in, 1164
Tachyarrhythmias, supraventricular, 1121–1134. See also Supraventricular tachyarrhythmias.
Tachycardia, in myocardial infarction, 1007
Thrombolytic therapy, for acute ischemic heart disease, 1010–1011
Tilt table testing, for syncope evaluation, 1162–1163
Timolol, doses and actions of, 1072
Transesophageal echocardiography, role in embolization prevention in atrial fibrillation, 1146–1147
Triglycerides, relative coronary risk with, 953
Upright tilt testing, for syncope evaluation, 1162–1163
Vascular manifestations, in infective endocarditis, 1219
Vasodilators, direct-acting, for heart failure, 1180–1181
Vasovagal syncope, management of, 1166–1167
pathophysiology of, in upright tilt testing, 1162
Vegetations, in infective endocarditis, echocardiography of, 1220–1223
Ventricular premature beats, frequency vs mortality with, 1098
Ventricular premature beats (Continued)
present trials of, 1098–1101
prognosis in, 1097–1098
recommendations concerning, 1101
Ventricular tachyarrhythmias, approaches to, 1097–1120
Ventricular tachycardia, idiopathic,
catheter ablation for, 1111–1113
origins of, 1112–1113
nonsustained, 1101–1106
in coronary artery disease, 1101–1103
in hypertrophic cardiomyopathy, 1104–1105
in idiopathic dilated cardiomyopathy, 1103–1104
in valvular heart disease, 1105
without structural heart disease, 1105–1106
sustained, 1106–1115
catheter ablation in, 1109–1114. See also Catheter ablation.
devices for, 1108–1109
drug therapy for, 1106–1107
treatment recommendations for, 1114
Verapamil, cardiovascular actions of, 1075
for atrial fibrillation, 1139
for coronary artery disease with concomitant medical conditions, 1077
Vesnarinone, for heart failure, studies of, 1177
Vitamin intake, as coronary risk factor, 958–959
Wolff-Parkinson-White syndrome,
atrioventricular reciprocating tachycardia in, 1122
Xamoterol, for heart failure, studies of, 1175