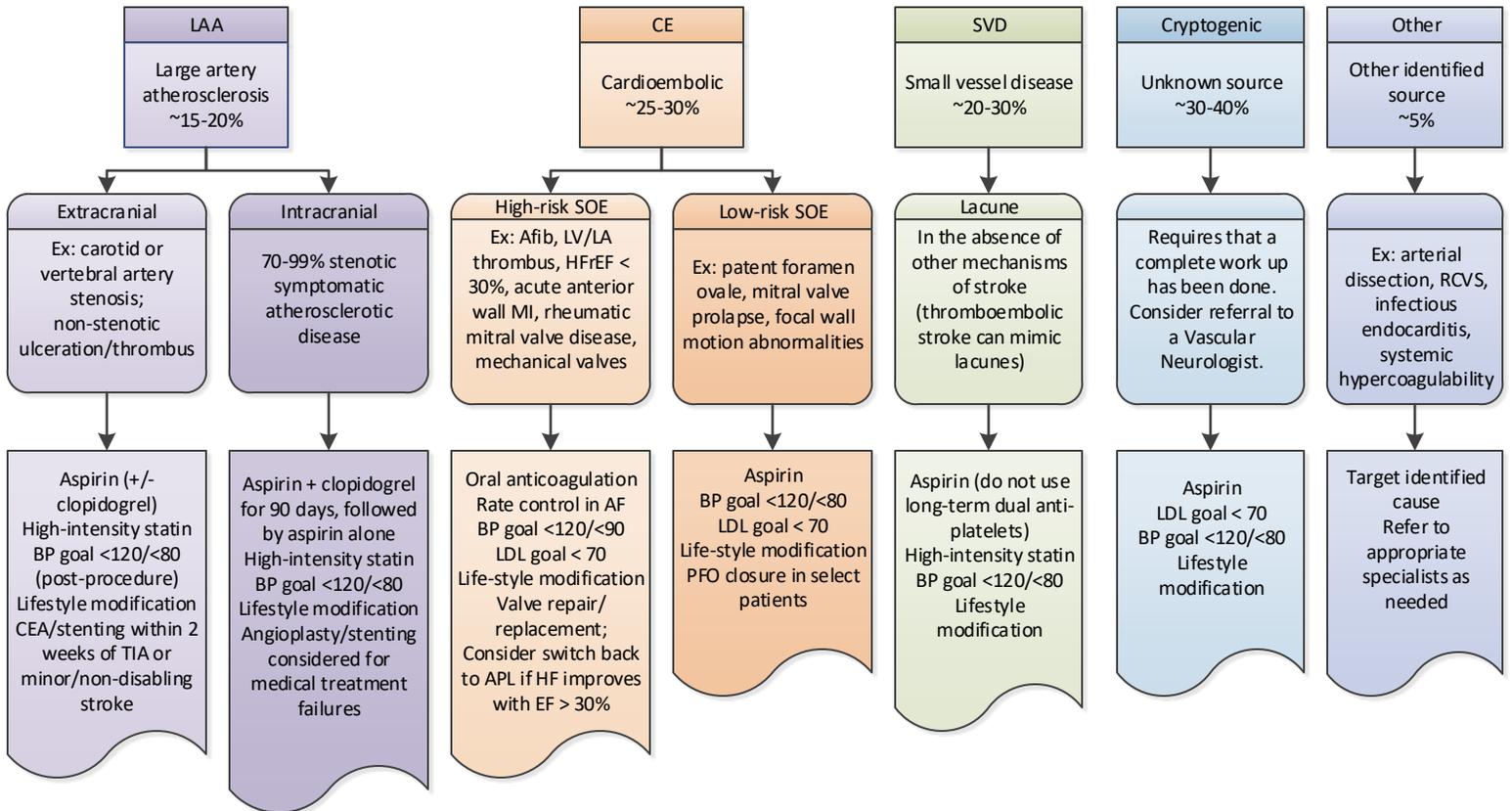


Etiology-Based Secondary Stroke Prevention



DAPT:
 Dual antiplatelet therapy is appropriate in the short term (21-28 days) for patient's presenting with high-risk TIA (ABCD Score ≥ 4 or NIHSS ≤ 3) regardless of etiology. (CHANCE, POINT); alternative to clopidogrel: ticagrelor 180 mg load, 90 mg bid (THALES)
 Long-term DAPT was found to be HARMFUL in patients with stroke due to small vessel disease (SPS3)
 Following carotid endarterectomy, DAPT is typically stopped and monotherapy with aspirin is continued life-long.
 Following intra or extracranial stenting DAPT is typically continued for 6 months
 Intracranial angioplasty **without** stenting is generally reserved for patients who have failed maximum medical management (SAMMPRIS)

Antihypertensive agents:
 Preferred agents for BP reduction following stroke are ACEI, ARB, thiazide diuretics and DHP-CCB. Unless there is a compelling indication for their use, beta blockers should not be used for prevention of recurrent stroke.

Lipid-lowering agents:
 Preferred agents for LDL reduction are statins. Ensure adequate vitamin D levels and trial Co-enzyme Q10 100-200 mg bid if initial statin use results in mild-moderate intolerance. If LDL is not at goal with maximum tolerated dose of statin, add ezetimibe 10 mg qd. PCSK9 inhibitors have not been studied adequately in secondary stroke prevention. Fibrates, niacin and fish oil have not been proven to lower recurrent stroke risk

Hypoglycemics:
 Pioglitazone was shown in one trial (IRIS) to reduce the risk of recurrent stroke in patients with impaired glucose tolerance, as measured by the HOMA test, and is an option for that subset of patients.

Lifestyle modification:
 Smoking cessation, including exposure to second hand smoke; moderation in any alcohol consumption; avoidance of illicit drug use
 A Mediterranean, pescatarian or vegetarian diet is recommended for secondary stroke prevention
 A minimum of 30 minute of moderate intensity exercise 3 times a week is recommended for those that are able following their stroke

Systemic hypercoagulability: (See "Thrombophilia testing in stroke")
 In patient with **venous clotting** AND a **PFO** who are < 40 years old, the thrombophilia panel should be considered
 In patients with **cryptogenic** stroke of any age, the arterial thrombosis panel (a.k.a. antiphospholipid antibody panel) should be considered
 Patient should also be screened for signs/symptoms of active malignancy and targeted assessment if indicated; Otherwise, all patients should be encouraged to be up to date on all age-appropriate cancer screening

Abbreviations: AF = atrial fibrillation; CEA = carotid endarterectomy; DM = diabetes mellitus; HFrEF = heart failure with reduced ejection fraction; LDL = low density lipoprotein, LV/LA = left ventricle/left atrium; MI = myocardial infarction; PFO = patent foramen ovale; SOE = source of emboli; TIA = transient ischemic attack