Top Ten Things to Know
Prevention of Stroke in Patients with Silent Cerebrovascular Disease

1. Approximately 25% of people >80 years of age have ≥1 silent brain infarcts. The prevalence of silent cerebrovascular disease exceeds, by far, the prevalence of symptomatic stroke. It has been estimated that for every symptomatic stroke, there are ≈10 silent brain infarcts.

2. Epidemiological research shows that SCI disease is common and is associated with future risk for stroke and dementia.

3. The scope of this paper is to evaluate existing evidence, discuss clinical considerations for management and prevention and to suggest ideas for future research on stroke prevention in patients with three cardinal manifestations of SCI disease: silent brain infarcts, magnetic resonance imaging white matter hyperintensities of presumed vascular origin and cerebral microbleeds.

4. Silent infarctions increase with age, prior vascular disease or other risk factors and in those who smoke.

5. Silent cerebrovascular disease is commonly found, especially in older adults, and is associated with subtle cognitive and motor deficits.

6. Investigations to be undertaken in persons with SCI include: hypertension, diabetes, hyperlipidemia, smoking, level of physical activity, atrial fibrillation, non-invasive carotid imaging and other cardiac monitoring and echocardiogram if an embolic pattern is seen on imaging.

7. Cerebral microbleeds are associated with an increased risk of both ischemic stroke and intracerebral hemorrhage.

8. Silent infarctions are associated with an increased risk of cognitive impairment and stroke.

9. Cerebral magnetic resonance imaging (MRI) is more sensitive than computed tomography (CT) for detection of silent infarctions.

10. This expert writing panel presents several suggestions for clinical practice. Among them is following primary prevention guidelines to prevent stroke in patients with silent infarctions who have not had a transient ischemic attack or symptomatic stroke.