A **cerebrovascular accident/stroke** occurs when blood supply to part of the brain is stopped or reduced, causing lack of oxygen and nutrition to the brain tissue.

Types of Cerebrovascular accidents

- **Ischemic Stroke (I63.9)**- The brain's blood vessel become narrowed or blocked. This causes reduced blood flow known as ischemia.

- **Hemorrhagic stroke (I60-I62, I63, I65-I66)**- Blood vessel in the brain ruptures.

- **Transient ischemic attack (TIA) (G43.9)**- Similar symptoms to those who have a stroke but does not cause brain damage. Last to several minutes to 24 hours. This is a warning of stroke.

Signs and Symptom

- Sudden weakness and/or numbness in part of the body
- Difficulty talking or understanding.
- Difficulty in sight
- Dizziness or loss of balance
- Onset severe headache

Risk Factors

- Obesity
- Heavy drinking
- Illegal drug use
- Physical inactivity
- Hypertension
- High Cholesterol
- Diabetes
- Obstructive Sleep Apnea
- Cardiovascular diseases
- COVID-19 infection
- Personal or family history of CVA, Myocardial Infarction, or transient ischemic attack.

Complications

- Paralysis
- Difficulty communication
- Difficulty swallowing
- Vision loss
- Memory loos
- Pain
- Emotional problems
- Changes in behavior and self-care ability

Diagnostic Tests

- Medical history and Physical Exam
- Lab blood test
- Electrocardiogram (ECG or EKG) other types of cardiac monitoring
- Radio diagnostic tests such as ultrasound, CT scan, MRI and MRA or CTA.

Treatment- Immediate medical care is necessary because strokes are considered a medical emergency.

- **Ischemic stroke** - medications such as clot busting drugs and blood thinners. Carotid artery surgery if needed.

- **Hemorrhagic stroke**- surgical intervention if needed to control bleeding.

- Pain medications

- Therapy for residual effects; physical, occupational, and speech.

Clinical Coding Tips and Documentation

- Always code to the highest level of specificity
- SOAP Notes documentation tips:
- **Subjective**- Document the presence or absence of any of any current symptoms related to Cerebral vascular disease/ Stroke.
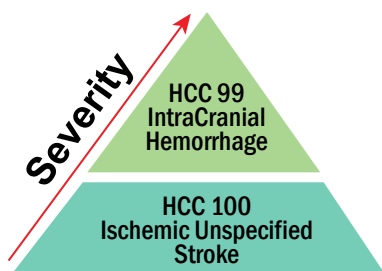
- **Objective**- Document signs and symptoms lab/test results related to CVA present at the moment of the visit.
- **Assessment**- Document diagnostic statements that are compatible with the ICD-10 nomenclature to the highest specificity.
- **Plan**- Document and link all medication to treat CVA. Detail any referrals, consultations, labs, or diagnostic testing requested.

Medicare Hierarchal Condition Categories (HCC)

Hierarchical condition category (HCC) coding is a risk-adjustment model designed to estimate future health care costs for patients. This model filters ICD-10CM codes into diagnosis groups (DxGs), and then into Conditions Categories (CCs). Hierarchies or families are placed to gain an HCC numeric code, which translates to a risk adjustment factor (RAF) value. Each diagnosis code found in the model, as a stand-alone diagnosis code or within a family or hierarchy, carries a value through RAF, but this value can change if the patient has other influencing factors such as ESRD, hospice, or are dual-eligible. Families or hierarchies set a value based on severity of illness, with more severe diagnoses carrying the overall risk score for that family. Diagnoses within families or hierarchies are inclusive of one another, while any additional diagnoses from other hierarchies or stand-alone diagnoses are additive and increase each patient's overall risk score.

A stroke is a chronic condition that fall under category Ischemic or Unspecified Stroke (HCC 100) with an average RAF score of 0.380.

Coding CVA

ICD-10 CM Code	Description
I63.00 – I63.09	Cerebral infarction due to thrombosis of precerebral arteries
I63.10 – I63.19	Cerebral infarction due to embolism of precerebral arteries
I63.20 – I63.29	Cerebral infarction due to unspecified occlusion or stenosis of precerebral arteries
I63.30 – I63.39	Cerebral infarction due to thrombosis of cerebral arteries
I63.40 – I63.49	Cerebral infarction due to embolism of cerebral arteries
I63.50- I63.59	Cerebral infarction due to unspecified occlusion or stenosis of cerebral arteries
I63.6	Cerebral infrc due to cerebral venous thombos, nonpyogenic
I36.81 – I63.89	Other cerebral infarction
I63.9	Cerebral infarction, unspecified

Always remember:

- Verify if CVA is current or a past medical problem.
- CVA is an acute condition that is treated as medical emergency in a hospital setting.
- Sequelae of Cerebrovascular disease, Category I69. This indicates conditions classifiable to categories I60-I67 as the causes of sequela classified as elsewhere.
- Codes from category I69, Sequelae of cerebrovascular disease, that specify hemiplegia, hemiparesis and monoplegia identify whether the dominant or nondominant side is affected. Should the affected side be documented, but not specified as dominant or nondominant, and the classification system does not indicate a default, code selection is as follows:
  - For ambidextrous patients, the default should be dominant.

- If the left side is affected, the default is non-dominant.
- If the right side is affected, the default is dominant.

- Please code the history type of the CVA when assigning a sequela of CVA such as late effect or neurological deficit