EMS Team to identify if there is evidence of an Acute Ischemic Stroke.

**FAST Cincinnati Pre-Hospital Stroke Scale**

1. **First Medical Contact (EMS Provider)**
   - Assess occlusion (RACE, LAMS or CPSSS)
   - Severity stroke scales/assessment of large vessel occlusion

2. **Initial stroke assessment (CPSS, LPSS)**
   - Determine time of symptom onset or last known normal, and
   - Determine blood glucose and treat accordingly
   - Provide supplemental oxygen to maintain O2 saturation > 94%
   - Initiate cardiac monitoring
   - Check and monitor blood pressure, but do not treat

3. **NEUROLOGICAL SIGNS**
   - *Drooping* (use the smile test)
   - *Facial* (ask the patient to smile)
   - *Arm* (ask the patient to raise both arms)
   - *SPEECH* (ask the patient to repeat a phrase)
   - *CALL 911*
   - *TIME TO CALL 911**

4. **NIHSS in Emergency Department**
   - Evaluate for IV r-tPA (≤3 hours)1
   - CT-A (angiogram) and/or CT-P (perfusion)
   - Electroencephalogram if seizures are suspected and CT scan is negative for blood
   - Chest radiography if lung disease is suspected
   - Arterial blood gas tests if hypoxia is suspected
   - Blood alcohol level
   - Toxically screen
   - Hepatic function tests
   - Thrombin inhibitors or direct factor Xa inhibitors if it is suspected the patient is taking direct oral anticoagulants
   - Thrombin time (TT) and/or ecarin clotting time (ECT)
   - ECG
   - Activated partial thromboplastin time (aPTT)
   - Prothrombin time (PT)/INR
   - Markers of cardiac ischemia
   - CBC, including platelet testing
   - Blood glucose level
   - Noncontrast brain CT or brain MRI

5. **Inclusion criteria:**
   - Aged ≥18 years
   - Onset of symptoms <3 hours before beginning treatment
   - Diagnosis of ischemic stroke causing measurable neurological deficit
   - Causative occlusion of the ICA or proximal MCA (M1)
   - NIHSS score of ≥6
   - Prestroke mRS score 0–1

6. **Exclusion criteria:**
   - Recent acute myocardial infarction (within previous 21 days)
   - Seizure at onset with postictal residual (clearing spontaneously)
   - Significant head trauma or prior stroke in previous 3 months
   - History of previous intracranial hemorrhage
   - Elevated BP (systolic >185 mm Hg or diastolic >110 mm Hg)
   - Recent acute bleeding diathesis, including but not limited to:
     - Active internal bleeding
     - History of both diabetes and prior ischemic stroke
     - Severe stroke (NIHSS>25)
     - Aged >80 years
     - Onset of symptoms >3 hours before beginning treatment
     - Admit this patient to an intensive care or stroke unit for monitoring for at least 24 hours
     - Increase the frequency of BP measurements if systolic BP is >180 mm Hg or if diastolic BP is >105 mm Hg. Administer antihypertensive medications to maintain blood pressure at or below these levels.
     - If the patient develops severe headaches, acute hypertension, nausea or vomiting, or has a rising neurological examination, discontinue the infusion (Alteplase IV r-tPA is being administered) and obtain emergent CT scan.
     - Increase the frequency of BP monitoring.
     - In patients with rising neurological assessments every 15 min during and after Alteplase IV r-tPA (for 2 hours, then every 30 min for 6 hours, then every hour until 24 hours after Alteplase IV r-tPA treatment). Then every 2 hours after Alteplase IV r-tPA treatment.
     - Delay placement of neuroaxial tubes, including epidural, subarachnoid, or intrathecal pressure catheters if the patient can be safely managed without them.
     - Obtain a follow-up CT or MRI scan at 24 hours after Alteplase IV r-tPA before starting anticoagulant or antiplatelet agents.

7. **Relative exclusion criteria:**
   - History of both diabetes and prior ischemic stroke
   - Seizure (last 3 mg/kg/dose every 30 mg over 60 minutes, with 10% of the dose given as a bolus over 1 minute)
   - Thrombolysis in myocardial infarction (TIMI) score >4
   - Thrombolysis in myocardial infarction (TIMI) score 0–1
   - Admit the patient to an intensive care or stroke unit for monitoring for at least 24 hours
   - Increase the frequency of BP measurements if systolic BP is >180 mm Hg or if diastolic BP is >105 mm Hg. Administer antihypertensive medications to maintain blood pressure at or below these levels.
     - If the patient develops severe headaches, acute hypertension, nausea or vomiting, or has a rising neurological examination, discontinue the infusion (Alteplase IV r-tPA is being administered) and obtain emergent CT scan.
     - Increase the frequency of BP monitoring.
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