I. AUTHORITY:

Health and Safety Code, Division 2.5, Section 1798.170.

II. APPLICATION:

This policy defines the requirements for designation as an Orange County Stroke-Neurology Receiving Center (SNRC) to receive patients transported by the emergency medical services system with signs and symptoms of acute cerebral vascular accident that may benefit by rapid assessment and treatment at a dedicated stroke specialty center.

A SNRC will provide specialized cerebral vascular services for patients presenting via the 9-1-1 system or by emergency interfacility transfer from an Orange County Emergency Medical Services (OCEMS) Paramedic Receiving Center assigned to that SNRC. Patients eligible for 9-1-1 field triage or transfer to a SNRC include those who meet OCEMS criteria for triage as an acute ischemic or hemorrhagic cerebral vascular event. Trauma related cranial-cerebral events will be managed in the OCEMS Trauma System.

III. DESIGNATION:

A. Initial Designation Criteria:

1. Hospitals meeting Title 22 requirements and designated as an Emergency Receiving Center (ERC) that are in good standing and interested in designation as a Stroke-Neurology Receiving Center (SNRC) should submit a request to OCEMS.
   a. Hospitals providing 24/7 acute neuroendovascular intervention services will be preferentially considered in the designation process.
   b. Hospitals providing 24/7 acute neuroendovascular intervention services shall maintain appropriate inventory of interventional equipment.
2. OCEMS will evaluate the request and determine the need for an additional SNRC. If such need is identified, OCEMS will request the interested hospital to provide:
   a. Policies, procedures and agreements as described in Section VI, of this policy.
3. OCEMS will review the submitted material, perform a site visit, and meet with the hospital representatives. In addition, the following information will be collected by OCEMS and considered in the designation process:
   a. Emergency Department diversion statistics during the past three years.
   b. Emergency Intra-facility transfers during the past three years, including transfers for higher level of care management of acute ischemic and hemorrhagic stroke.
4. Following review, the OCEMS will provide its designation decision to the Facilities Advisory Subcommittee and the Emergency Medical Care Committee for endorsement or denial of endorsement for designation of up to three years as a SNRC.
5. An approved SNRC will have a written agreement as described in Section VI of this policy and pay the established Health Care Agency fee.
6. OCEMS will identify ERC's to be assigned to each of the SNRC's. (650.05 Attachment #1).

B. Continuing Designation

1. OCEMS will review each designated SNRC for compliance to criteria as described in this policy every three years or more often if deemed necessary by the OCEMS Medical Director. Each SNRC will be required to submit specific written materials to demonstrate evidence of compliance to criteria established by this policy and pay the established fee. A site visit may be required at the discretion of the OCEMS Medical Director.

2. OCEMS will provide its designation decision to the Facilities Advisory Subcommittee and the Emergency Medical Care Committee for endorsement or denial of endorsement for continued designation of up to three years.

C. Change in Ownership / Change in Executive or Management Staff

1. In the event of a change in ownership of the hospital, continued SNRC designation will require adherence to this policy with review and approval of continued designation by the OCEMS Medical Director. Change in hospital ownership may require redesignation by OCEMS.

2. OCEMS shall be notified, in writing, at least 10 days prior to the effective date of any changes in key SNRC personnel as identified in Section IV, (A) and (B) below.

D. Denial / Suspension / Revocation of Designation

1. OCEMS may deny, suspend, or revoke the designation of a SNRC for failure to comply with any applicable OCEMS policy or procedure.

   a. Failure to comply with data submission requirements for three (3) consecutive months will result in automatic suspension of SNRC designation.

2. The process for appeal of suspension or revocation will adhere to OCEMS Policy #640.00 and #645.00.

E. Cancellation of Designation by SNRC

1. SNRC designation may be canceled by the SNRC upon 90 days written notice to OCEMS.

IV. MEDICAL PERSONNEL:

A. SNRC Medical Director

1. The hospital will designate a medical director for the Stroke-Neurology Program who is a physician certified by the American Board of Psychiatry and Neurology or an equivalent board.

2. Responsibilities of the Medical Director include:

   a. Development of hospital policies as defined in Section VI, part C.

   b. Development and maintenance of the hospital SNRC performance/quality improvement plan.

   c. Development and maintenance of a stroke-neurology continuing education program within the hospital with an offering of yearly category 1 CME for physicians and BRN CE for nursing staff.

   d. Attendance at county-wide SNRC system meetings.

B. SNRC Coordinator

1. A Registered Nurse will serve as the Stroke-Neurology Coordinator who may also be the critical care department director, emergency department director, or other similar position.
2. Responsibilities of the SNRC Coordinator include:
   a. Development of nursing stroke education programs (standardized national programs are acceptable to fulfill this responsibility).
   b. Integration and documentation of inpatient acute rehabilitation services offered to SNRC patients.
   c. Collection and reporting of required (Section VII) SNRC data elements to OCEMS on a monthly basis.
   d. Attendance at the hospital SNRC performance/quality improvement program meetings.
   e. Development of a stroke-neurology education and outreach program for the local community and assigned regional hospitals.

C. On-Call Physician Specialists / Consultants

1. An Emergency Medicine specialist will be available in-house at all times
2. The following physician specialists will be on-call and available to consult for SNRC patients within thirty minutes:
   a. Neurologist
   b. Neurosurgeon
   c. Radiologist experienced in neuroradiologic interpretations (may meet this criteria by use of telemedicine equipment).

D. Additional Personnel (for facilities with neuroendovascular intervention services):

1. Experienced nursing and technical laboratory staff with training in neuroendovascular interventional laboratories. Neuroendovascular personnel must have demonstrated competency in treating acutely ill neurologic patients.
2. A dedicated neuroendovascular interventional laboratory team to perform neuroendovascular procedures with an on call schedule for operation of the neuroendovascular laboratory 24 hours per day, 365 days per year.
3. Neuroendovascular laboratory team available within 30 minutes of notification.
4. Intensive Care Unit nursing staff who have demonstrated competency in providing care for neuroendovascular intervention patient populations.

V. HOSPITAL SERVICES:

In addition to those services required of an Emergency Receiving Center, the SNRC will provide the following:

A. Inpatient acute rehabilitation services available for all patients referred to the hospital through the OCEMS Stroke-Neurology triage system.

B. A stroke education program available to hospital staff, other regional hospital staffs, EMS personnel and the public, provided at the appropriate educational level for each group.

C. It is preferred that interventional neurological endovascular services available 24/7 at facilities designated as SNRCs. This will be considered a preferred resource when designating SNRC status in a single region.

VI. HOSPITAL POLICIES / AGREEMENTS:

A. The hospital will have a written agreement with OCEMS indicating the concurrence of hospital administration and medical staff to meet the requirements for SNRC program participation as specified in this policy.

B. At all times (excepting closure due to internal disaster) the SNRC will agree to accept all patients meeting OCEMS Stroke-Neurology System triage criteria, whether arriving via the 9-1-1 system or in transfer from an ERC assigned to the SNRC within the hospital's assigned regional area.

C. The SNRC will have formal written policies which address the following:

1. An Emergency Department Response Plan for victims of possible acute cerebral vascular accident. Such plan must include:
   a. Defining patients who are eligible to receive emergent thrombolytic or mechanical therapy for acute ischemic stroke.
   b. Treatment pathway protocols (may be electronic or written format) for management and treatment of acute ischemic and hemorrhagic stroke victims using FDA-approved drugs or devices.
2. A performance / quality improvement plan that is incorporated into the hospital's quality improvement program which monitors activities involving the SNRC. A summary of QI findings relevant to the Orange County SNRC system must be submitted annually to OCEMS by March 30 for the preceding calendar year.
3. Defined methods for collecting and reporting required Stroke-Neurology System data elements to OCEMS within the specified time frame.
4. Defined stroke-neurology education and outreach program for the local community and assigned regional hospitals.

VII. DATA COLLECTION:

Data will be reported to the OCEMS Medical Director on a monthly basis and must be current in the Orange County Medical Emergency Data System (OC-MEDS) within 45 days after the end of the preceding month. The following data elements will be collected for each SNRC triaged patient transported to the SNRC as part of the emergency medical system:

A. Each acute ischemic or hemorrhagic stroke case received via EMS from the field

1. Date and time
2. Time of onset of stroke symptoms and time of arrival
3. Age, Gender, Ethnicity
4. Copy of Prehospital Care Report (field documentation)
5. Primary diagnosis at discharge
6. Outcome:
   a) Lived / Died

b) NIH Stroke Scale at hospital admission and discharge for ischemic stroke

c) Admission and 30 day modified Rankin Scale for ischemic stroke

d) GCS at hospital admit and discharge for hemorrhagic stroke

B. Each acute ischemic or hemorrhagic stroke case meeting OCEMS triage criteria, walk-ins and transfers to the SNRC from an assigned regional ERC:

1. Date and time
2. Time of onset of stroke symptoms and time of arrival
3. Transferring Hospital
4. Age, Gender, Ethnicity
5. Copy of Ambulance or Paramedic Transport Document
6. Primary diagnosis at discharge
7. Outcome:

a) Lived / Died

b) NIH Stroke Scale at hospital admission and discharge

c) Admission and 30 day modified Rankin Scale for ischemic stroke

d) GCS at hospital admit and discharge for hemorrhagic stroke

C. For acute stroke victims receiving thrombolytic or mechanical therapy

1. Type of therapy
2. Time from Emergency Department arrival to initiation of treatment

VIII. QUALITY ASSURANCE / IMPROVEMENT:

A. The Quality Assurance/Improvement program will include OCEMS selected performance measures or indicators specific to the SNRC System.

The hospital SNRC performance/quality improvement program may suggest measures and indicators to OCEMS.

B. As appropriate, specific SNRC outcomes will be used to compare with national and local performance standards to determine SNRC system performance.

C. An annual log of community outreach projects will be maintained by the SNRC describing those actions that are:

1. Community oriented.
2. Regional hospital oriented.