VALLEYCARE
OLIVE VIEW-UCLA MEDICAL CENTER/HEALTH CENTERS
RESPIRATORY CARE SERVICES - ADULT
POLICY & PROCEDURE

NUMBER: 5549
VERSION: 1

SUBJECT/TITLE: APNEA TEST / BRAIN DEATH POLICY

POLICY: The following guidelines will be followed when performing apnea testing.

PURPOSE: To standardize the criteria to define brain death

DEPARTMENTS: **RESPIRATORY CARE SERVICES**

DEFINITIONS:

PROCEDURE:

- Two clinical examinations must be performed, the second no sooner than 2 hours after the first.

- Absence of hypothermia (i.e., 96° or below), and central depressant drugs. Rectal temperature should be recorded.

- An ethanol level and a toxic screen, is required in all patients in whom the cause of CNS damage is not known.

- All patients known to be taking CNS depressant drugs, levels of cerebral depressant drugs should be obtained.

- Coma with generalized flaccidity, no spontaneous movements, and no evidence of postural activity of shivering, all in absence of neuromuscular relaxant.

1) Cranial nerve reflexes and responses:

1. Pupils midposition (4mm) to dilated (9mm), fixed and unresponsive to light.

2. Absent corneal reflexes.

3. No ocular movement with head turning (doll's eyes) and irrigation of ears with up to 120cc of ice water.

4. No swallowing, yawning, blinking. No gag reflex.

5. No response to suctioning of pharynx, trachea or bronchi.

2) Apnea Test:

1. Patient on 100% oxygen at appropriate IMV for pCO2 36-45mmHg, pH 7.35 - 7.44 for 1/2 hr. Blood gas just prior to apnea test to confirm pCO2 36-45mmHg.

2. Place on CPAP alarms off at Fi02 100% or place on T-piece 100% Fi02 at greater than L/minutes.

3. Check ABG after 10 minutes to confirm pC02 at or greater than 60 or 20mmHg rise from baseline value.

4. Note the presence or absence of spontaneous respiration during and at the conclusion of 10-minute period.

3) May use one of these ancillary studies for confirmation test.*
(* Not needed to declare brain death in the State of California)

1. EEG

2. Brainstem Auditory Evoked Response.
   i. Isotope flow brainscan.
   ii. Cerebral Arteriogram.

4) Clinical Observations Compatible with the Diagnosis of Brain Death

1. These manifestations are occasionally seen and should not be misinterpreted as evidence for brain stem function.

   i. Spontaneous "spinal" movements of limbs (not to be confused with pathologic flexion or extension response).

   ii. Respiratory-like movements (shoulder elevation and adduction, back arching, intercostal expansion without significant tidal volumes).

   iii. Sweating, blushing, tachycardia.

iv. Normal blood pressure without pharmacological support.

v. Absence of diabetes insipidus (normal osmolar control mechanism).

vi. Deep tendon reflexes; triple flexion response.

vii. Babinski's reflex.

5) Informing Legal Next-of-Kin of Brain Death

a. Patient's attending physician explains to the legal next-of-kin that the patient has suffered irreversible cessation of brain function and patient is brain dead.

6) Certification (two physicians)

After considering the above findings, we herby certify the d

Patient's Name Here

#1 Physician's Signature Here	#2 Physician's Signature H
#1 Physician's Printed Name Here	#2 Physician's Printed Nar
Date: Time:	Date:

The above physicians are not the physicians of a proposed organ recipient.

7) If legal next-of-kin does not give consent to organ donation or if there is not a signed Advance Directive

1. Treatment will then be withdrawn.

2. Explain to the legal next-of-kin it is possible that the cardiac and respiratory activity will not cease immediately.

8) Guidelines for Determination of Brain Death in Pediatric Patients

1. In term newborn infants (more than 38 weeks, the criteria are useful seven days after the birth).
2. Seven days to two months - 2 examinations and EEG's separated by at least 48 hours.
3. Two months to one year - 2 examinations and EEG's separated by at least 24 hours.
4. Over one year - 2 examinations and EEG's separated by 12 hours. In case
5. No criteria for "Brain Death" have been established for the seven days of life and in premature infants

Note: This policy is modeled after the One Legacy Guidelines.

References: One Legacy Guidelines on Apnea Testing	
Approved by: Arnold Panganiban (Chief of Respiratory Therapy), Nikhil Barot ()	Date: 05/17/2019
Review Date: **05/17**/2022	Revision Date:
Distribution: Respiratory Care	
Original Date: 05/17/2019	