

CRITERIA FOR DETERMINING BRAIN DEATH

(Some hospitals have a policy on brain death declaration)

- § **Known mechanism of injury**
- § **Absence of toxic CNS depression**
- § **Absence of metabolic CNS depression**
- § **Clinical evaluation**
 - No pupillary reflex
 - No corneal reflex
 - No oculoccephalic reflex (dolls eyes)
 - No oculovestibular reflex (cold calorics)
 - No gag or cough reflex
 - Apneic
- § **Optional**
 - Cerebral Flow Study
 - EEG

APNEA TEST GUIDELINES

- Adjust ventilator settings to normalize CO₂
 - Pre-oxygenate with 100% O₂ for at least 10-15 minutes
 - Disconnect ventilator, give 100% O₂ by T-piece or blow by
 - Observe for spontaneous respirations
 - After 10 minutes, draw ABG; need CO₂>60 for accurate test
 - † Patient is apneic if there is no spontaneous respiratory movement with a pCO₂>60 after 10 minutes
 - Reconnect ventilator and return to previous vent settings
- If hypotension and/or arrhythmia develop at any time during test immediately reconnect ventilator and consider another confirmatory test.

BRAIN DEATH DOCUMENTATION

- § 2 physicians independent of the transplant service must document brain death exam and results of apnea test
- § Date and time the entry - 2nd note is the legal time of death

CALIFORNIA TRANSPLANT DONOR NETWORK (CTDN) 800-553-6667

CALL TRANSPLANT NETWORK FOR:

- **ALL DEATHS - Tissue Donation**
- **IMMINENT DEATHS - Organ Donation**
 - Severely brain-injured, ventilator-dependent patient.
 - Glasgow Coma Scale less than or equal to 5 or plans to discontinue mechanical/ pharmacological support.
- **Situations where family brings up donation.**
- **Coroner cases are not criteria for exclusion.**

* Per CMS Regulations & JCAHO standards

Organ Donation Process

Physician's Role:

- Refer all imminent deaths to CTDN
- GCS less than or equal to 5.
- Inform family of grave prognosis.
- Brain death declarations.
- Talk openly about the death; explain death in non-medical terms, using the words "died" or "death" instead of "passed on" or "gone."
- Allow time for the bereaved to process the reality of the death.

CLINICAL MANAGEMENT

SUPPORT PATIENT TO KEEP THE OPTION OF DONATION AVAILABLE FOR FAMILY.

Goals:

SBP >90, CVP 4-7, Temp. 36.5–37.2
UO >100cc/hr., PO₂ >100

Diabetis Insipidus - (UO >300c c/hr. x 2 hrs. & Spec.Grav. <1.005)
DDAVP 0.1 mcg/kg. in 50 cc NS over 20 min.

Minimize Na + - in the IVF - suggest D51/2 NS with 20 KCL at 150cc/hr.

Hypotension - SBP <90mmHG Dopamine titrate to max of 20 mcg/kg/min.
If dopamine @ 15 mcg/kg/min and/or HR > 120 start Neosynephrine @ 50 mcg/min. Titrate to max 300 mcg/min. Consider Solumedrol 15 mg/kg IVPB over 20 min. **Imbalances** - Correct acidosis, anemia, coagulopathy and electrolytes.
(Mg+, PO₄+, Ca+, K+).

Respiratory Care - Aggressive pulmonary hygiene to minimize risk of pneumonia.
Minimal - FIO₂ to maintain PO₂ >100, add PEEP 5.

Organ Donation Process

Hospital Staff's Role:

- Maintain close communication with CTDN staff.
- Introduce Transplant Coordinator to family as someone here to help them with end of life decisions.
- Complete documentation of death on appropriate hospital form.
- Report death, per hospital policy, to coroner/ME.

Transplant Network's Role:

- Evaluate medical suitability to determine if patient is a candidate for donation.
- Provide culturally sensitive and compassionate family care.
- Assess whether family is ready to be approached about donation.
- Collaborate with the team regarding the request process.
- Present option of donation to family.
- Obtain authorization from coroner/ME for organ recovery.
- Clinically manage patient after brain death declaration and consent obtained.
- Provide follow up on outcome of organ donation to staff.