ST. ANTHONY'S MEDICAL CENTER

Subject:	219 - Death, Determination of		
Cross Reference:	• 10 - Ethics Consultation • 703 - Extraordinary Treatment, Elective Discontinuation of • Death of a Patient and Medical Examiner Cases • Organ Donation, Donation after Cardiac Death (DCD)*		
Category:	• Mission Integration & Pastoral Care\Documents • Nursing Services - All\Documents\Documents • Pulmonary Services\Documents	**Original Issue:**	12/1/1978
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Book:	Book II: Department Specific	**Reviewed:**	10/1/2011

POLICY

I. The purpose of this policy is to provide general guidelines for:
   A. Declaring and documenting death
   B. Appropriately involving the patient's family in this process

II. General Information
   A. Death occurs when:
      1. There is irreversible cessation of spontaneous circulation and respiration, or
      2. There is irreversible cessation of all brain function, including the brain stem
   B. **All** deaths must be called to Mid-America Transplant Services (MTS) in a timely manner. MTS will also be notified on all patients with imminent death including those being evaluated for death based on neurologic criteria or potential DCD cases. Nursing staff will make the call to MTS and document time of call in the patient's medical record.
   C. Pastoral Care will be notified on **ALL** deaths and/or imminent deaths.

DEFINITIONS

I. Timely Notification:

A) For potential tissue donors, timely notification will be any time within one (1) hour after cardiac asystole.

B) For potential organ donors, timely notification will be any time prior to, or within one (1) hour of the time the patient is found to meet criteria for imminent death (death as an expected outcome from removal of life-support) and prior to any measure taken to decelerate treatment.

Imminent Death:

A) A severely brain damaged/injured and/or ventilator dependant patient (death as an expected outcome from removal of life-support) with either:

1) clinical findings consistent with a Glasgow Coma Scale of $\leq$ 5

OR

2) discussion of discontinuation of mechanical or pharmacologic support has taken place

B) When pronouncement of brain death is being considered

PROCEDURE

1. Determination of **death using circulatory-respiratory criteria**:
   A. The determination of death must be made by a qualified physician **or designated nurse limited to very specific circumstances,** according to current standards of practice. Refer to policy on "Death of a Patient and Medical Examiner Cases" for exceptional circumstances where designated nurses may pronounce a patient. Only a physician may pronounce a patient in circumstances of Donation after Cardiocirculatory (DCD) or Neurological Determination of Death.
   B. Patients who are ventilator-dependent (but do not meet neurological criteria for death) may be eligible to donate organs using SAMC's Donation after Cardiocirculatory Death policy. Consent for DCD will be obtained by MTS. The specific procedures to be followed for determining death are stipulated in the DCD policy.

2. Determination and documentation of **death using neurological criteria**:
   A. This procedure applies to patients who are >2 years old
   B. The neurological determination of death is made by a neurosurgeon, neurologist or intensivists.
   C. The physician will follow the criteria delineated in the Neurological Determination of Death Evaluation form and will use the form to document
   E. Dates and times of clinical examinations and confirmatory tests must be documented by the physician in the patient's medical record.
   F. Documentation that the patient is medically certified as meeting neurological criteria for death is to be charted in the medical record and signed by the physician.
   G. When death is determined neurologically, a reasonable amount of time should be allowed for the family to visit prior to removal of the ventilator. (SAMC is under no legal obligation to continue ventilation after death has been determined). In the event that there is a lack of acceptance of the concept of death based on neurological criteria or religious objection, an ethics consult should be requested.
   H. If the patient is not to be a vital organ donor, a physician must order the discontinuation of the ventilator.

3. Family Notification
   A. A physician on the case shall advise appropriate family members that death has occurred and the time of declaration of death. This discussion must be documented in the patient's medical record.

Appendix A

Neurological Determination of Death Evaluation Form

DT0401

POTENTIALLY CORRECTABLE ABNORMALITIES SHOULD BE CAREFULLY EVALUATED IN THE DETERMINATION OF DEATH ON A NEUROLOGICAL BASIS. THE SECOND EXAM SHOULD BE PERFORMED PROMPTLY, BUT NO SOONER THAN THE CRITERIA ALLOWS.

IN SPECIAL CIRCUMSTANCES OR IF CLINICAL EXAMINATION IS UNRELIABLE (ONLY AS DETERMINED BY NEUROLOGIST OR NEUROSURGEON), BRAIN DEATH MAY BE DECLARED SOLELY ON THE BASIS OF VALIDATED CONFIRMATORY STUDY(IES) SHOWING ABSENT CEREBRAL BLOOD FLOW.

Clinical Category	Minimum interval with confirmatory tests (hours)	Date/Time of 1st Exam	Date/Time of 2nd Exam
I. The cause of coma is known	2		
II. The cause of coma is hypoxia	6		
III. The cause of coma is unknown	12		
Clinical Examination must include: (check if in agreement with criteria)			
A. Absence of reversible CNS depressants:			
1. Absence of hypothermia (temp higher than 32.2 C / 90 F)			
2. Absence of metabolic perturbations that can potentiate CNS depression. If indicated check serum Mg, Ca, Na, Cr, NH4, Osmolality, $PaCo_2$, SaO_2			
3. Absence of drugs that can potentiate CNS depression, including: ethanol, barbiturates, others.			
4. Absence of hypotension			
B. Absence of cortical function:			
1. Unresponsiveness to painful stimuli			
2. No evidence of decerebrate or decorticate posturing or shivering. **If the patient exhibits spinal reflex type movements, please note this specifically.**			
C. Absence of brainstem reflexes			
1. Pupils non-reactive to light			
2. Absent corneal reflexes			
3. Absent cough and gag reflexes			
4. Absent oculocephalic reflex			
5. Absent oculovestibular reflex			
D. Confirmatory tests performed any time after first exam (specify EEG, nuclear medicine blood flow study, cerebral angiography or other).			
RESULTS OF CONFIRMATORY TEST			
E. Apnea Test: Generally, the Apnea test is performed after the second examination of brain stem reflexes, and need only be performed once when results are conclusive. Common approach to testing follows, but clinicians may choose alternative approaches.			
1. Obtain ABGs at start of apnea check for baseline $PaCO_2$			
2. Ventilate patient with 100% FIO_2 for 10 minutes prior to apnea (adjust per clinician if patient is dependent on hypoxic drive)			
3. Change ventilator to T-tube, again usually at 100% oxygen			
4. Repeat ABGs every 5-10 minutes after start. Test is conclusive when there is absence of spontaneous respirations for at least thirty seconds after $PaCO_2$ greater than 60 at end of apnea test. Patients dependent on hypoxic drive (e.g. COPD, Pickwickian, or other) must have a PaO_2 less than 50 and show $PaCO_2$ rise of 15% over baseline at end ot test.			

CERTIFICATION: Having considered the above findings, this certifies the death of:

Patient's name _____

Physician Signature _____ ***Date*** _____ ***Time*** _____

PROGRESS 04

St Anthony's Medical Center
St. Louis, Missouri 63128

NEUROLOGICAL DETERMINATION OF DEATH EVALUATION

61010235

01-3257 (7/08)

ST. ANTHONY'S MEDICAL CENTER

Approvals:

Initiating Director:		Date:	10/1/2011
Initiating Supervisor:		Date:	
Director:		Date:	
Medical Director:		Date:	
Committee:		Date:	
Senior Leadership:		Date:	10/1/2011
President & CEO:		Date:	10/1/2011
Medical Executive:		Date:	
Board of Directors:		Date:	
Manager:		Date:	
Supervisor:		Date:	