



DEPARTMENT OF THE NAVY  
BUREAU OF MEDICINE AND SURGERY  
2300 E STREET NW  
WASHINGTON DC 20372-5300

IN REPLY REFER TO  
BUMEDINST 5360.24A  
BUMED-M00J  
17 Aug 2011

BUMED INSTRUCTION 5360.24A

From: Chief, Bureau of Medicine and Surgery  
To: All Ships and Stations Having Medical Department Personnel

Subj: DEFINITION OF DEATH

- Ref: (a) Uniform Determination of Death Act (1980), Uniform Laws Annotated (ULA), Volume 12A (2008)  
(b) Defining Death: Medical, Legal and Ethical Issues in the Determination of Death, Washington, DC (1981)  
(c) American Academy of Neurology, "Evidence-Based Guideline Update: Determining Brain Death in Adults"  
(d) American Academy of Pediatrics, "Guidelines for the Determination of Brain Death in Children"  
(e) BUMEDINST 6300.8A

1. Purpose. To establish policies and procedures per the Uniform Determination of Death Act (1980), reference (a).

2. Cancellation. BUMEDINST 5360.24.

3. Background

a. Under the traditional common law definition, clinical death occurs when the body's respiration and circulation cease. Modern technology can now sustain respiration and circulation in people with irreversible cessation of brain function. As a result, the definition of death has been broadened to include irreversible cessation of brain function in circumstances in which the patient's respiratory and circulatory functions are maintained by artificial means. The traditional common law definition remains applicable in all other situations.

b. In its 1981 report, the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavior Research recommended that reference (a), the Uniform Determination of Death Act (Death Act), be adopted for areas under Federal jurisdiction. The Death Act contains common language that is the result of agreement between the American Medical Association, the American Bar Association, and The National Conference of Commissioners on Uniform State Laws (NCCUSL), also known as the Uniform Law Commission. The Death Act was published by NCCUSL and has not changed since 1980. The ULA, Death Act, and States that have adopted the Death Act are available on the internet via NCCUSL: <http://www.nccusl.org/nccusl/DesktopDefault.aspx?tabindex=2&tabid=60>. The ULA (a Westlaw publication) and the Death Act have been made available through the University of Pennsylvania Law School internet site, Penn Law, at: [http://www.law.upenn.edu/bll/ulc/ulc\\_final.htm#upaa](http://www.law.upenn.edu/bll/ulc/ulc_final.htm#upaa).

c. The Commission's lengthy 1981 report, reference (b), is available on the internet through The President's Council on Bioethics, under Former Bioethics Commissions, located at: [http://bioethics.georgetown.edu/pcbe/reports/past\\_commissions/defining\\_death.pdf](http://bioethics.georgetown.edu/pcbe/reports/past_commissions/defining_death.pdf).

4. Scope. This instruction applies, in all instances, to ships at sea where determination of death is an issue, overseas in the absence of applicable Status of Forces Agreement provisions, and within the United States in the absence of an applicable State statute. Providers and administrators shall be familiar with the particular laws that apply to their facility and shall consult the facility judge advocate or legal officer for guidance, as appropriate. Reference (a) has been adopted by most States. Some State laws also contain provisions allowing competent adults with certain religious beliefs to declare in advance that the traditional, heart-oriented definition of death should be applied to them. Be aware that laws change and vary from one jurisdiction to another. In general, State law does not control the practice of medicine in Federal facilities; however, claims alleging medical negligence are resolved per the law of the State where the act or omission occurred. In any State where there is a conflict between this instruction and that State's law, whenever possible the facility should apply the law of the State in which the facility is located.

5. Definition of Death. The following definition of death shall apply in the absence of an applicable State statute or guidance under a Status of Forces Agreement and to ships at sea where determination of death is an issue:

An individual, who has sustained either: (1) irreversible cessation of circulatory and respiratory functions or (2) irreversible cessation of all functions of the entire brain, including the brain stem, is dead.

6. Determination of Death Criteria. A determination of death shall be made per accepted medical standards. In the absence of an applicable State statute or guidance under a Status of Forces Agreement, and for ships at sea where determination of death is an issue, the determination will include one of the following:

- a. Irreversible cessation of circulatory and respiratory functions in an individual.
- b. Irreversible cessation of all brain functions, including the brain stem, termed "brain death."

(1) Cessation of all brain functions is determined by the absence of both responsiveness and brain stem reflexes. The absence of brain stem reflexes indicates that brain death has progressed from the brain's higher centers to those that control respiration, heart rate, and blood pressure. Brain stem reflexes include:

(a) Documentation of absence of brainstem reflexes:

1. Pupillary light reflex
2. Oculocephalic reflex
3. Oculovestibular reflex
4. Corneal reflex
5. Oropharyngeal reflex

(b) Documentation of absence of motor response to pain.

(c) Documentation of absence of respiration effort with  $PCO_2 \geq 60$  mm Hg.

(d) Documentation of justification of confirmatory test and result of confirmatory test.

(e) Documentation of repeat neurological examination after 6 hours.

(2) A determination of irreversibility requires all of the following:

(a) The cause of coma must be established and must be sufficient to account for the loss of brain function.

(b) Reversible causes of brain function loss must be excluded. Such reversible causes include hypothermia, hypotension, acute drug intoxication or drug effect, neuromuscular blockade, and profound metabolic abnormalities (such as severe electrolyte or liver abnormalities).

(c) Cessation of all brain function must persist for an appropriate period of observation or trial of treatment. The necessity and duration of observation is a matter of clinical judgment. Often data from the history and one appropriate neurological exam are sufficient to allow a clinical diagnosis of brain death to be made. The period of observation needed may be reduced or terminated if clinical findings are supported by other tests. Although not necessary for the diagnosis of brain death, tests such as electroencephalogram, radionuclide; or contrast blood flow studies, brain metabolism studies (positron emission tomography or nuclear medicine imaging); or other clinically proven methods can provide additional support for the clinical diagnosis.

7. Certification of Brain Death

a. Whenever possible, a neurologist or neurosurgeon shall certify that the criteria for brain death have been met.

b. If it is not possible for an attending physician to consult with a neurologist or neurosurgeon, the attending physician and one other physician may certify that the criteria for brain death have been met. In all cases involving certification of brain death by two physicians, neither of whom is a neurologist or neurosurgeon, the attending physician shall document why it was not possible to consult with a neurologist or neurosurgeon. For the non-neurologist and non-neurosurgeon in a position to establish brain death, the following references are available on the internet:

(1) Reference (c): <http://www.neurology.org/cgi/reprint/74/23/1911>.

(2) Reference (d): <http://www.pediatrics.org>.

c. If it is not possible to have the certification of a neurologist or neurosurgeon, or certification by two physicians, one physician may certify that the criteria for brain death have been met. In all cases involving certification of brain death by only one physician, that physician shall document why it was not possible to have the certification of a neurologist or neurosurgeon, or the certification of another physician.

d. The patient's family or next of kin shall not participate in the clinical determination of brain death.

e. Neither the attending nor consulting physicians shall be related to the patient by blood or marriage, or have some other significant relationship that might be reasonably construed as creating a conflict of interest.

f. While it is understood that other members of the healthcare team may play important and critical roles in managing and caring for a dying patient, the final responsibility for interpreting all relevant clinical information and issuing the declaration of death rests with the physician as discussed above.

8. Action

a. Medical Corps Officers

(1) Brain death shall be determined per the definition and criteria set forth above. If ancillary procedures are deemed necessary by the attending physician or consulting physician, they should be performed and documented per currently established medical guidelines.

17 Aug 2011

(2) Prior to declaring the patient dead, the attending physician shall document in the patient's medical record the criteria used (as set forth in paragraph 6 above) to establish that brain death has occurred.

(3) Following declaration of death, the Bureau of Medicine and Surgery directive on organ donation, reference (e), will be consulted to determine if the deceased is an organ or tissue donor prior to discontinuing or terminating the ventilator and any other artificial means of life support in use.

b. Commanders, Commanding Officers, and Officers in Charge. Shall review existing command instructions establishing procedures for the determination of death and shall modify inconsistent provisions to make them consistent with this instruction.

A handwritten signature in black ink that reads "A. M. Robinson, Jr." with a stylized flourish at the end.

A. M. ROBINSON, JR.

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