EDITOR'S NOTE

The following two policies are offered as examples of what some Catholic health care organizations have issued on donation after cardiac death. Such policies, of course, need to be adapted to the local context. The organizations' names have been removed.

Sample Policy 1: Donation After Cardiac Death

POLICY/PURPOSE:

To outline policy and procedure for referral, consent, medical management, recovery of organs, and support of patients and their families and their right to donate organs in the event of irreversible cessation of cardiopulmonary function.

DEFINITION:

Organ Donation after Cardiac Death, or DCD, is defined as a procedure whereby organs and tissues are surgically recovered after pronouncement of death based on irreversible cessation of circulatory and respiratory functions.

STATEMENT OF POLICY:

It is the policy of [name of health care organization] and its Medical Staff to provide appropriate guidelines for donation of organs by Donation after Cardiac Death donors. Consistent with the *Ethical and Religious Directives for Catholic Health Care Services* (ERDs), we "encourage and provide the means whereby those who wish to do so may arrange for the donation of their organs and bodily tissue, for ethically legitimate purposes, so that they may be used for donation and research after death." (Directive 63)

1. Introduction
   - 1.1 Donation and procurement of vital organs after death is reasonable and ethical provided informed consent is obtained from the patient's Surrogate or Power of Attorney for Health Care.
   - 1.2 An ethical cornerstone of organ donation is informed consent, which is required before every donation.
   - 1.3 Organ procurement must not cause death and death must precede procurement of organs. This fundamental principle is intended to protect the rights and interests of the donor.
   - 1.4 Death must be certified using standardized, objective, and audible criteria and must follow applicable state law.
   - 1.5 The critical care professional is first and foremost caring for the dying patient. The care of the dying patient is paramount and will not be compromised in an effort to improve transplant outcome.

2. Recommendations for donation after cardiac death donors:

   Patients who intend to become Donation after Cardiac Death donors have the right to humane care, including the presence of family members as they are dying. Organ donation from a person whose death was certified using cardiopulmonary criteria has several special concerns that must be considered.

   - 2.1 The patient must be certified dead by an attending physician or attending designee using objective, standardized, audible criteria that are not different from those utilized for patients not destined to be DCD.
   - 2.2 No patient may be certified dead by a physician who takes part in the procurement or transplantation of organs.
   - 2.3 The decision on the part of the patient or an appropriate surrogate to withdraw life-sustaining therapy that has been deemed non-beneficial and/or excessively burdensome must be made independently of the decision to donate organs and tissues.
   - 2.4 When therapy is withdrawn, patients have the same right to medications that prevent and alleviate pain and suffering as do patients who do not intend to be DCD.
   - 2.5 No medication may be given to the patient for the purpose of hastening death. Medications may, however, be given to provide comfort even if they have the unintended side-effect of hastening death.
   - 2.6 Therapies that are harmful to the dying patient should be avoided even if they might improve the

chances of a successful organ transplant.

2.7 Pastoral Care will provide assistance as needed during possible DCD cases to assist the patient, family, staff and/or physician with the emotional, moral, and ethical concerns that they may have about organ donation decisions.

2.8 If there is significant disagreement between the attending physician and surrogate and/or the patient's family about the decision to make organ donation through DCD, the following options are available both to the attending physician and to the surrogate and/or family for the resolution of disagreement in the following order:
   a. Continued discussion between attending physician and surrogate and/or family.
   b. A Multidisciplinary Care Conference involving caregivers, surrogate and/or family.
   c. Transfer of care to another physician by attending physician.
   d. Surrogate request for another physician.
   e. Time-limited trials.
   f. Consultation with the Ethics Committee.

2.9 Staff members who have a conscientious objection to DCD may opt out of taking part in the protocol. Patient care, however, ought to never be compromised in an attempt to honor the employee's wishes.

3. Qualifying patients for DCD include those who meet all of the following criteria:

3.1 Patients who want to be (or whose surrogates want them to be) removed from artificial ventilation on which they are irreversibly dependent and who have either:
   a. Irreversible brain damage that permits no interaction with the environment.
   b. The patients (through their surrogate) wish to donate their organs after death. AND
   c. In the opinion of the health care team, cardiopulmonary death will likely occur within sixty to one hundred-twenty (60-120) minutes following withdrawal of life support, a Transplant Network (TN) coordinator will assist in this determination.

3.2 TN, in coordination with the attending physician and/or specialty physician involved in the patient's care, will determine if the patient is a suitable candidate for DCD and will utilize the most current criteria in determining the patient's suitability for organ transplantation. A second physician will examine the patient and concur that the patient is a candidate for DCD.

4. Procedure

4.1. Potential DCD donors will be identified based on the above criteria.

4.2. Imminent neurological deaths will be referred to Transplant Network within sixty (60) minutes of identification (1-800-xxx-xxxx).
Definition: Imminent Neurological Death is defined as: a patient who 1) is severely brain injured, ventilator dependent, with either clinical findings consistent with a Glascow Coma Score of less than or equal to five; or 2) a plan to discontinue mechanical/pharmacologic support.

Clinical triggers for this referral include the following:
   a. Severe brain injury
   b. Patient on mechanical support
   c. Discussion of deceleration or withdrawal of mechanical and/or pharmacological support
   d. Absence of two (2) or more of the following brain stem reflexes (determination must be made with the absence of drug intoxication, hypothermia, severe hypotention, neuromuscular blockade, CNS depressants, and metabolic disturbances):
      1. Absence of cough
      2. Absence of gag
      3. Absence of pupilary response
      4. Absence of respiratory effort
      5. Absence of response to pain

4.3. An initial phone screening will be performed by the TN person-on-call.

4.4. If the patient meets initial criteria for potential organ donation, a representative from TN will come to the hospital unit for further evaluation and to collaborate with hospital staff regarding approaching the family.

4.5. Consent:
   a. Only after the family and medical staff have determined that life support will be discontinued, the Transplant Network representative, in collaboration with the chaplain or house administrator, will inform the patient's legal next of kin of their opportunity for organ donation.

b. When the request for donation is made, an associate (need to define) of [name of health care organization] must be in the room as either the designated requestor or to offer support, information, and/or services.
c. The patient's legal next of kin will be informed of donation options and recovery procedures by the TN coordinator.
d. The legal next of kin must be available in the hospital or by phone to grant consent. TN will be responsible in phone-recording consent as required by the Uniform Anatomical Gift Act (UAGAS).
    1. The TN coordinator will provide the following information to the legal next of kin to ensure informed consent:
        - the process of withdrawal of life-sustaining therapy in conjunction with medical/nursing staff
        - the determination and declaration of death/time of death
        - options for organ donation
        - reason(s) a case could be aborted
        - the process of organ procurement
        - evaluation process including consults, laboratory work, and medications
        - the role of the medical examiner, if applicable
        - follow-up communication
        - coercion shall not be used to obtain/maintain consent
        - a contingency plan will be discussed regarding comfort care should the patient not expire within sixty to one-hundred twenty minutes (60 to120) from withdrawal of life-sustaining therapy
        - if any conflict among next of kin, the MTN coordinator will consult the MTN risk management or administrative supervisor to obtain legal guidance
    2. Explicit, informed consent must be obtained from the appropriate surrogate for administration of medications that offer no benefit to the patient (ie- heparin). This consent must be listed separately and signed by the surrogate.

4.6. Medical management and evaluation:
a. The medical staff, in collaboration with TN, will implement management guidelines in the care and evaluation of the patient while in the ICU. Physicians will be responsible for writing orders.
b. The patient must be maintained on a ventilator and hemodynamically supported for organ perfusion until the withdrawal of life support.
c. The TN staff member is responsible for arranging the donation, including notifying the OR staff, arranging the arrival of the procuring surgeons, and arranging for a bed for the patient to receive palliative care if the patient does not expire within the prescribed time limits or is otherwise found unsuitable for donation.
d. Withdrawal of life support may take place in the ICU or operating room, always accommodating loved ones' wishes to remain with the patient. Loved ones should be informed of the need to move the patient quickly to surgery after death if withdrawal occurs in the ICU. If family will not be with the patient, the withdrawal of life support will take place in the OR.
e. Within the planned and designated location, withdrawal of life support then occurs.
f. A standard OR team is needed for the DCD process; to include a circulating RN and scrub technician/RN.
g. The patient shall be extubated and non-essential monitoring devices are disconnected under the direction of the attending physician or designee. EKG, SpO2 and arterial pressure monitoring will continue. At least one intravenous line will remain in place for medication administration if necessary and ordered by the pronouncing physician.
h. No sooner than five minutes after cardiac arrest (as demonstrated by asystole and lack of measurable arterial blood pressure), the attending physician or designee will pronounce death.
i. In accordance with the Uniform Anatomical Gift Act (UAGA), the physician pronouncing death cannot be involved with the retrieval or transplantation of organs.
j. The physician will write an appropriate progress note and complete the death certificate attesting to the death.

k. If cardiac arrest does not occur within the 60-120 minutes after life support has been withdrawn, the organ recovery effort will be aborted. The patient will be transferred to a palliative care bed for continued care. Support measures will not be re-initiated.

l. Once the patient is declared dead, organs and tissues are recovered by the procurement surgeons, and or technicians.

m. If the family wishes to view the patient's body after procurement, every effort will be made to ensure the patient is suitable for viewing. A location for viewing will be determined by the house supervisor.

REFERENCES:

Edwards, J., et al. "Maximizing Organ Donation Opportunities Through Donation After Cardiac Death. *Critical Care Nurse* 26 (2006): 101-115.

Reiner, M., D. Cornell, and R.J. Howard. "Development of a Successful Non-Heart-Beating Organ Donation Program." *Progress in Transplantation* 13 (2003): 225-231.

Snell, G.I., B.J. Levvey, and T.J. Williams. "Non-heart-beating Organ Donation. *Internal Medicine* 34 (2004): 501-503.

U.S. Conference of Catholic Bishops. *Ethical and Religious Directives for Catholic Health Care Services.*Washington, D.C., Fourth Edition, 2001.

Sample Policy 2: Donation After Cardiac Death

PURPOSE:

The purpose of this policy is to assist families, health care representatives, physicians and health care professionals to appropriately implement the right of each patient to choose both to have artificial support withdrawn and to donate their organs by establishing principles and procedures to be followed in these cases. [Name of health care organization] believes it is ethically appropriate to consider Donation after Cardiac Death (DCD). The policy will apply to those patients deemed medically acceptable for donation of at least one organ but who do not meet brain death criteria. This policy is a reflection of our mission and values and places the highest emphasis on patient dignity and family support.

DONOR SUITABILITY

1. The patient has a devastating irreversible neurological illness or injury with a hopeless prognosis requiring ventilator support.

2. The patient, family or other authorized party has chosen to discontinue life support and a formal DNR order is placed in the patient's chart. **This decision is made entirely independently of and prior to any consideration of organ donation.**

3. Medical suitability for donation after cardiac death will be determined by [name of local organ procurement organization].

4. The patient is expected to die within 120 minutes after termination of ventilator support.

I. CONSENT PROCESS

1. The option of organ donation will be offered only after the decision to terminate life support has been made. The donation option will be made through collaboration with [name of local organ procurement organization], the ICU team and a member of spiritual care. [Name of local organ procurement organization] should be notified when the family meeting or discussion will take place to allow an appropriate amount of time to evaluate the patient prior to offering the option of donation.

2. After consultation with the patient's attending physician or his/her designee, the [name of local organ procurement organization] coordinator will discuss the possibility of organ donation with the patient's family or other authorized party. This conversation should include a member of the health care team and/or spiritual care.

3. A general overview of the DCD process will be shared with the family, including the need to perform testing to determine medical suitability and the likelihood of the patient dying soon after the withdrawal of support, and the need to administer medication prior to withdrawal of support.

4. If after testing the patient appears to be an acceptable candidate for DCD, the family (or other authorized party) will be given a detailed account of the entire DCD process including the possibility that their loved one may not die as expected, in which case he or she will be returned to a predetermined area and supportive care will be provided. Family members will also be told that they may accompany their loved one to the operating room and be present during the withdrawal of support care, but they must leave the operating room as soon as cardiopulmonary arrest occurs.

5. Once all the family's questions have been answered and they have had time to assimilate the information, they will be asked to give consent for organ donation after cardiac death.

6. If consent is given, the [name of local organ procurement organization] Consent Form for Organ Donation will be completed.

7. The family will be provided emotional support throughout the entire process by the health care team, spiritual care and [name of local organ procurement organization] staff.

II. PRERECOVERY DONOR MANAGEMENT

1. The patient must be maintained on a ventilator and

hemodynamically supported until withdrawal of support takes place.

2. With the cooperation of the patient's attending physician (or his/her designee), the Procurement Transplant Coordinator will request consultations and studies needed to determine the suitability of the organs for transplantation and the likelihood of the patient dying soon after withdrawal of life support. [Name of local organ procurement organization] staff, associated recovery teams, and recovery surgeons will not write orders in the patient's chart prior to the pronouncement of death.

3. If the case falls under the jurisdiction of the coroner/medical examiner, the Procurement Transplant Coordinator will contact the appropriate person(s) to arrange for organ/tissue recovery.

4. The well-being of the patient is the primary responsibility of the attending physician and healthcare team. Comfort measures for the patient should be made available as per usual hospital policy.

III. STAFF COMMUNICATION

1. The [name of local organ procurement organization] Coordinator will obtain and review copies of the hospital's Withdrawal of Support and Organ Donation after Cardiac Death policies.

2. The [name of local organ procurement organization] Coordinator will contact the appropriate hospital staff, which may include the attending physician, clinical nurse manager, spiritual care, OR, anesthesiologist (lung recovery), supportive care and any other responsible party deemed appropriate by hospital staff or [name of local organ procurement organization] personnel.

3. The [name of local organ procurement organization] Coordinator will review the case and the details of the DCD procedure with all medical, surgical, anesthesia and nursing staff that will be involved with the case.

4. No employee or medical staff member of [name of health care organization] shall be required to participate in a DCD recovery because of personal, moral or ethical objection. [Name of health care organization] will not discriminate against any employee or medical staff member who informs [name of health care organization] that he/she does not wish to participate in the DCD organ recovery.

5. The Ethics Committee is available for consult when requested.

IV. PRERECOVERY PROCEDURES

1. Operating room staff will be briefed on the procedure and prepared for the patient.

2. The [name of local organ procurement organization] Procurement Transplant Coordinator will assemble the organ recovery team.

V. WITHDRAWAL OF SUPPORT

1. Withdrawal of support will take place in the Operating Room. OR staff members will have the option to be present during the withdrawal of support.

2. The patient will be transferred to the operating room fully supported and accompanied by the ICU nurse, respiratory therapist, spiritual care (if not attending to family needs), and the [name of local organ procurement organization] Procurement Transplant Coordinator.

3. Prior to the withdrawal of life support, the organ recovery team will prep and drape the patient. Once prepping is completed, the organ recovery team will leave the operating room.

4. The organ recovery team may not be involved in the withdrawal of support, provision of comfort care, or the determination of and declaration of death.

5. Blood samples will be obtained as needed prior to the administration of medication and withdrawal of support.

6. Medication may be administered at this time at the discretion of the responsible attending physician or his/her designee.

7. The withdrawal of support will be performed by an attending physician, house physician/officer or resident in collaboration with the ICU team.

8. Family members may accompany their loved one to the operating room and be present during the withdrawal of support, but they must leave the operating room as soon as cardiopulmonary arrest occurs. Family presence in the OR will be coordinated with the [name of local organ procurement organization] Family Support Liaison and a member of the spiritual care team.

9. The organ recovery team will only reenter the operating room after the patient experiences cardiopulmonary arrest.

10. Comfort measures should be continued as per hospital protocol and at the discretion of the attending physician, house physician/officer or resident.

Process for Lung Procurement

1. If bronchoscopy is ordered, attending physician/designee will perform procedure in ICU or OR. Organ procurement team may observe bronchoscopy, but not take an active role in procedure. When procedure is complete, procurement team is excused from room.
2. The following procedure will be utilized:
   a. Prior to extubation, the attending physician, anesthesia or designee must verify that re-intubation can be easily performed, in the event it is deemed that re-intubation may be difficult, consider the use of an ET Tube exchanger.
   b. If reintubation is not feasible, then the patient must remain intubated with a room air T-piece or flow-by system in place.
   c. The RN/RT/MD or designee will withdraw ventilator support
   d. Cardiac monitoring and invasive blood pressure monitoring will be maintained.

VI. PRONOUNCEMENT OF DEATH

The donor recovery will not be initiated until either:

a. The donor is pronounced dead by the attending physician or his/her designee independent of the transplant team after a determination that there has been a five-minute interval of asytole determined accurately by continuous arterial pulse pressure monitoring and that the donor has sustained irreversible cessation of circulatory and respiratory function.
b. The donor is pronounced dead by the attending physician of his/her designee, independent of the transplant team, after a determination that the donor has sustained irreversible cessation of circulatory and respiratory function, followed by a five minute interval of continuing asystole determined accurately by continuous arterial pulse pressure monitoring from the time of pronouncement.

1. Death will be pronounced by the attending physician, resident or house physician/officer who may not be part of a transplant or procurement team.

2. If the patient dies within 120 minutes, organ recovery will begin.

3. If the patient does not die within 120 minutes, or there are extenuating circumstances that precipitate abandoning the case, organ recovery will not take place and the patient will be transferred to a previously designated area. Supportive care will be provided for the patient and the family.