**2.8 ~~Model Elements~~ Requirements for Controlled Donation after ~~Cardiac~~ Circulatory Death ~~Recovery~~ (DCD) Protocols**

*~~Introduction:~~* ~~Donation after Cardiac Death (DCD) has been accepted by the Institute of Medicine and the transplant community as an ethically and medically acceptable option for patients and families making end of life decisions.~~

~~The intent of~~~~developing model elements for OPO and transplant hospital DCD recovery protocols is to establish model elements for OPOs and transplant hospitals to meet in developing, reviewing and improving their respective DCD recovery protocols. This outline is intended to set standards of what must be addressed in a DCD recovery protocol by OPOs and hospitals without being prescriptive regarding practice; each hospital and each DSA is specific in its practice, culture, and resources. The continuing collaboration between OPOs and transplant hospitals is encouraged to allow for the constant development of DCD best practices. The joint OPO Committee/MPSC Working Group is available as a continuing resource for OPTN member hospitals that experience delay or difficulty in adopting a DCD recovery protocol.~~

~~In order to recover organs from a DCD donor, an OPO must follow an established protocol that contains the standards of the DCD Model Elements as adopted below.~~

*Introduction:* Donation after Circulatory Death (DCD) describes the organ recovery process that may occur following death by irreversible cessation of circulatory and respiratory functions. Potential DCD donors are limited to patients who have died, or whose death is imminent, whose medical treatment no longer offers a medical benefit to the patient as determined by the patient, the patient’s authorized surrogate, or the patient’s advance directive if applicable, in consultation with the healthcare team. Any planned withdrawal of life sustaining medical treatment/support will be carried out in accordance with hospital policy. Prior to the OPO initiating any discussion with the legal next-of-kin about organ donation for a potential DCD donor, the OPO must confirm that the legal next-of-kin has elected to withdraw life sustaining medical treatment. The timing of a potential DCD donor evaluation and donation discussion shall be coordinated with the OPO and the patient’s healthcare team, in accordance with hospital policy. Death is declared by a healthcare team member in accordance with hospital policy and applicable state and local statues or regulation. A DCD donor may also be called a non-heartbeating, asystolic, or donation after cardiac death donor.

These policies will help OPOs and transplant centers develop necessary DCD protocols. These set the minimum requirements for DCD recovery but do not address local practices, cultural and resource issues, and therefore should not be the only resource consulted when developing DCD protocols. DCD protocols should continue to be developed through collaboration between OPOs, transplants centers, and donor hospitals.

1. **Agreement**
The OPO must have a written agreement with all hospitals that participate in DCD recovery.
2. **Protocols**
OPOs and donor hospitals must establish protocols that define the roles and responsibilities for the evaluation and management of potential DCD donors, organ recovery and organ placement in compliance with OPTN policy.
3. **~~A. Suitable Candidate~~ ~~Selection~~ Potential DCD Donor Evaluation**

The primary healthcare team and the OPO must evaluate potential DCD donors to determine if the patient meets the OPO’s criteria for DCD donation.

~~1. A patient (from age newborn to the DSA’s defined upper age limit, if applicable) who has a non-recoverable and irreversible neurological injury resulting in ventilator dependency but not fulfilling brain death criteria may be a suitable candidate for DCD.~~

~~2. Other conditions that may lead to consideration of DCD eligibility include end stage musculoskeletal disease, pulmonary disease, and high spinal cord injury.~~

~~3. The decision to withdraw life sustaining measures must be made by the hospital’s patient care team and legal next of kin, and documented in the patient chart.~~

~~4. The assessment for DCD candidate suitability should be conducted in collaboration with the local OPO and the patient’s primary health care team.~~ ~~OPO determination of donor suitability may include consultation from the OPO Medical Director and Transplant Center teams that may be considering donor organs for transplantation.~~

~~5. An assessment should be made as to whether death is likely to occur (after the withdraw life sustaining measures) within a time frame that allows for organ donation.~~

**D ~~B~~**. **~~Authorization/Approval~~** **Consent for DCD**

Conditions involving a potential DCD donor being medically treated/supported in a conscious mental state shall require that the OPO confirms that the healthcare team has assessed the patient’s competency and capacity to make withdrawal/support and other medical decisions.

~~1~~. The OPO must confirm that consent has been obtained for any DCD related procedures or drug administration that occur prior to patient death. ~~The legal next of kin may elect to consent to procedures or drug administration for the purposes of organ donation (e.g. heparin, regitine, femoral line placement, lymph node excision, ECMO, and bronchoscopy). No donor related medications shall be administered or donation related procedures performed without consent.~~

~~2. Clearance from medical examiner/coroner must be obtained when applicable~~

~~3. There should be a plan for patient care if death does not occur within the established timeframe after the withdrawal of life sustaining measures. This plan should include logistics and provisions for continued end of life care, including immediate notification of the family.~~

~~4. For purposes of these model elements, “legal next of kin” shall also include the patient, a designated health care representative, legal next of kin, or appropriate surrogate.~~

**E. Authorization for DCD**

 For the purpose of obtaining authorization for a DCD recovery, “legal next of kin” can include any of the following:

1. the patient who authorizes deceased donation

2. persons defined by state/local laws to authorize organ donation.

**F. ~~C.~~ Withdrawal of Life Sustaining Medical Treatment/Support ~~Measures/Patient Management~~**Prior to the donor hospital withdrawing life-sustaining medical treatment or ventilated support, the OPO is required to conduct a timeout to confirm:

1. the patient’s identification.

2. the process for withdrawing life-sustaining treatment or ventilated support.

3. roles and responsibilities of the primary patient care team, the OPO team, and the organ recovery team.

4. the hospital’s plan for continued patient care in the event that the patient does not become a donor and appropriate communication with the next of kin.

~~1. A timeout is recommended prior to the initiation of the withdrawal of life sustaining measures. The intent of the timeout is to verify patient identification, roles and the respective roles and responsibilities of the patient care team, OPO staff, and organ recovery team personnel.~~

~~2~~. No recovery personnel (surgeons and other recovery practitioners) ~~member of the transplant team~~ may ~~shall~~ be present for the withdrawalof life-sustaining ~~measures.~~ medical treatment or ventilated support.

~~3~~. No member of the organ recovery team or OPO staff may guide or administer ~~participate in the guidance or administration of~~ palliative care, or declare ~~the declaration of~~ death.

~~4.~~ ~~There must be a determination of the location and process for withdrawal of life sustaining measures (e.g. ETT removal, termination of blood pressure support medications) as a component of the patient management.~~

~~5.~~ ~~If applicable, placement of femoral cannulas and administration of pharmacologic agents (e.g. regitine, heparin) for the sole purpose of donor organ function must be detailed in the consent process.~~

**G. ~~D~~. Pronouncement of Death**

~~6. The patient care team member that is authorized to declare death must not be a member of the OPO or organ recovery team.~~

~~7. The method of declaring cardiac death must comply in all respects with the legal definition of death by an irreversible cessation of circulatory and respiratory functions~~ **~~before~~** ~~the pronouncement of death.~~

The donor hospital healthcare team member who is authorized to declare death must not be a member of the OPO or the organ recovery team. Circulatory Death is death defined as the irreversible cessation of circulatory and respiratory functions.  Death is declared in accordance with hospital policy and applicable state and local statutes or regulation.

**H. ~~E.~~ Organ Recovery**

~~Following the declaration of death by the hospital patient care team, the organ recovery may be initiated.~~

Organ recovery will only proceed after circulatory death is determined, inclusive of a predetermined waiting period of circulatory cessation to ensure no auto-resuscitation occurs.

1. **~~Financial Considerations~~**

~~OPO policy to ensure no donation related charges are passed to the donor family.~~

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