



# Donation after Circulatory Death (DCD) Fact Sheet



## DCD Process:

- Organ donation takes place after the declaration of death by neurologic criteria (brain death) or after asystole (circulatory death). Although DCD is less common, both pathways successfully provide organs for transplant.
- The LifeLink coordinator will work in partnership with the healthcare team throughout the donation process by communicating frequently from the time of referral, family discussion, donor management and organ recovery.
- The table below compares the brain death and DCD donation processes, followed by a brief outline of the healthcare team's roles.

## Donation after Neurological Death (Brain Death) vs. DCD:

Brain Death		DCD
<b>Injury</b>	Severe brain injury from trauma, cerebral vascular accident, anoxic event, respiratory failure or other injury, resulting in dependence on life-sustaining therapies	
<b>Meets Criteria for Brain Death</b>	Yes <ul style="list-style-type: none"> <li>• Two clinical exams</li> <li>• Confirmatory testing if needed (as determined by physician)</li> </ul>	No
<b>Prognosis</b>	Brain death	No long-term prognosis for recovery from injury; cannot survive without mechanical ventilator
<b>Action</b>	<ul style="list-style-type: none"> <li>• Referral to LifeLink</li> <li>• Brain death declaration by two board-certified or board-eligible physicians</li> <li>• LifeLink verifies donor designation</li> <li>• LifeLink discusses donation with the legal next of kin</li> <li>• LifeLink assumes medical management of patient</li> <li>• Patient remains on ventilator until organs recovered</li> <li>• Transplant team recovers organs</li> <li>• Heart, lungs, liver, pancreas, kidneys and intestines can be recovered for transplant</li> </ul>	<ul style="list-style-type: none"> <li>• Referral to LifeLink</li> <li>• LifeLink discusses donation when family is considering compassionate withdrawal</li> <li>• Death is determined by cardiac criteria per hospital policy</li> <li>• Patient remains under care of hospital attending physician</li> <li>• Terminal extubation occurs in OR by hospital medical team per hospital policy</li> <li>• Patient expires within the designated timeframe per organ, approximately 1-2 hours</li> <li>• Transplant team begins organ recovery 5 minutes after asystole with death declaration</li> <li>• Heart, lungs, liver, pancreas and kidneys can be recovered for transplant</li> </ul>

## DCD Organ Recovery - Roles and Responsibilities of the Healthcare Team:

### Physician

- Maintains medical management of patient until death is declared in OR
- Provides orders for organ-specific tests
- Initiates brain death declaration in the event the patient becomes areflexic

### Critical Care Nurse

- Provides ongoing care to families throughout the patient's hospitalization
- Coordinates the clinical management of the patient and support for the family
- Makes the referral call to LifeLink when indicated by clinical triggers
- Provides plan of care updates to LifeLink if end-of-life therapies are being considered
- Serves as designee(s) to declare death in the operating room per hospital policy

### Respiratory Therapist

- Participates in planning conversations surrounding withdrawal of life-sustaining therapies
- Performs O<sub>2</sub> challenges
- Assists in transporting patient to OR
- Extubates patient in OR

### Pastoral Care and Spiritual Services

- Meets spiritual, religious and other needs of the patient and family
- Serves as family advocate in collaboration with medical and nursing staff



# Donation after Circulatory Death (DCD) Checklist & Reminders



*When patient does not meet brain death criteria and Family Readiness Cues are identified, or family is discussing end-of-life or considering withdrawing life-sustaining measures, notify LifeLink to determine DCD criteria:*

**Note:** LifeLink assumes care of the donor **AFTER** the patient has reached asystole. Between authorization for DCD and asystole, LifeLink may request orders from the physicians/healthcare providers to maintain organ viability.

*LifeLink responsibilities are notated in blue.*

- Refer the patient to LifeLink of Florida (1-800-64-DONOR).
- Healthcare team is considering prognosis discussion with family.
- Family initiates questions about end-of-life planning or withdrawal of life-sustaining measures.
- LifeLink consults with medical team and/or evaluates for DCD potential.
- LifeLink coordinator responds to referral and discusses donation with family.
- LifeLink discusses case and obtains organ/tissue donation clearance from the medical examiner when applicable.
- When proceeding with DCD, treating/primary physician retains medical care.
- LifeLink discusses medical recommendations and testing with treating/primary physician.
- Determine compassionate withdrawal and comfort measure, enter orders into hospital's EMR.
- LifeLink huddles with the RN and RT to discuss roles and next steps.
- LifeLink provides OR with notification of potential DCD donor.
- LifeLink notifies OR if family requests to be present for extubation and time of death.
- LifeLink will accompany family in OR and guide family out of the OR after asystole.
- Initiate donor tribute practices or protocols (i.e., Honor Walk, Flag Raising).

*LifeLink coordinators communicate/huddle with healthcare providers as follows:*

- Treating MD**
  - o Plans for withdrawal of supportive measures
  - o Medical support for donation evaluation
  - o Orders, which may include but not limited to heparin, a-line/TLC insertion, bronch/chest CT
  - o DNR orders prior to OR
  - o Extubation order
  - o Overall timing of process
- RN and charge/supervisor**
  - o Education – case progression
  - o Plans for declaration in OR per hospital policy
  - o Family support, including if family requests to be present in OR
  - o Confirm DNR is ordered
  - o Transport patient to OR – RN(s) will be off floor for an hour or more
  - o Bed assignment in the event case is terminated
  - o Administration of comfort measures (brought from ICU) per MD order
  - o Administration of 30,000 units of heparin prior to asystole
- RT**
  - o Education – case progression
  - o Portable vent for transportation
  - o Family presence
  - o RT accompanies patient to OR/set up vent
  - o How to contact RT if they leave OR prior to extubation?
  - o Extubating patient
- OR charge and other team members**
  - o Education – case progression
  - o Extubation in the OR
  - o Set-up per preference card
  - o Family support (if family requests to be present in OR)
  - o Process if case is terminated
  - o Pathology involvement
- Additional team members (chaplain, social work, etc.)**
  - o Education – case progression
  - o Family needs

### ***Patient OR transportation preparations are made:***

- Arrange transportation to OR.
- Confirm comfort measures are ordered and will be brought from ICU to OR.
- Add IV extension tubing to the infusing maintenance IV fluids.
- Ensure RT is aware of the time that the patient is going to the OR.
- Arrange bed assignment in the event the patient does not expire in the required timeframe.
- Assign RNs to declare the patient in the OR.
- Confirm completed DNR and other required forms are on the patient's chart.
- Confirm Death Report form has been started and is present on the patient's chart.

### ***Organ recovery process:***

- RT accompanies the patient to the OR.
- ICU charge nurse ensures a room is on hold to be utilized if the patient does not expire.
- Complete "time out" with OR staff and assist team to position the patient on the OR table.
- OR staff assists LifeLink team to prep and drape patient.
- Administer IV Heparin as requested by LifeLink.
- RT extubates patient (all DCD patients, regardless of ME case status, will be extubated in the OR).
- Discontinue all vasoactive infusions and gives comfort measure medications as needed; continue to monitor and document vital signs.
- If patient expires within designated time after withdrawal of mechanical support, designee will establish time of death per policy and will complete the Death Report form.
- For lung recovery, RT assists anesthesia with intubation, re-inflation and bronchoscopy procedures.
- Ensure Op Note is provided to the appropriate staff/circulator.
- If patient does not expire, transfer the patient to the room assigned or back to the ICU if appropriate.
- LifeLink will notify family of outcome.



# Donation after Circulatory Death (DCD) Resource for Attending Physician/Designee



**Note: this checklist is intended as a general reference. Please refer to your hospital policy.**

## Request for Authorization for Donation

- The physician, healthcare providers and LifeLink will collaborate to determine a plan for next steps when the healthcare providers or family are considering withdrawal of life-sustaining measures.
- A LifeLink family care coordinator (FCC) will then inform the family about donation and discuss DCD with the legal next-of-kin (LNOK).

## Medical Management of the Donor

- **LifeLink cannot give or write orders prior to the declaration of death; management of the patient remains the responsibility of the attending physician/hospital.**
- LifeLink coordinator will suggest organ-specific tests, such as labs and scans. The hospital attending physician/designee will be responsible for placing the orders.
- Goals for optimizing organ function and successful transplant outcomes (intended as a guideline only):
  - SBP >90 mm HG
  - CVP 4-10
  - Na < 155
  - MAP > 65
  - Creatinine <1.2
  - pH 7.30-7.45
  - Pulse 55-125
  - Urine output 0.5-4 cc/kg/hr
  - PaO<sub>2</sub>/fio<sub>2</sub> ratio > 250
- Physician/designee to initiate brain death declaration in the event the patient becomes areflexic.

## Consent for Procedures

- Consent for tests, procedures and medications to optimize organ donation outcomes is obtained by LifeLink from the LNOK.
- Possible procedures include:
  - Bronchoscopy and/or chest CT for evaluation of potential lung donors
  - Arterial lines and central lines placed for donation purposes
  - Heparin (30,000 units) necessary to help prevent thrombosis in the recovered organs
  - Cardiac catheterization for evaluation of potential heart donors

## Preparing the Operating Room

- LifeLink makes every effort to set an acceptable OR time for hospital's pronouncing physician/designee, surgical staff, family and transplant teams.
- OR preparation includes:
  - LifeLink verifies code status (DNR) with physician/designee's approval, per hospital policy
  - Physician/designee writes orders for comfort medications in accordance with hospital policy; ICU RN arranges for medications prior to transport to the OR
  - Physician/designee and ICU RN plan to be off the unit for approximately 120 minutes
  - LifeLink and hospital teams huddle to clarify roles and responsibilities in the OR
  - Specific pronouncement procedures are reviewed as detailed in the hospital policy
  - Family may request to accompany donor in the OR (if applicable per hospital policy)
  - Anticipate need for bronchoscopy and reintubation by hospital staff in the OR for lung donation
  - In the event organ donation does not occur, the patient will be transported to a pre-determined bed space for continued comfort measures
  - The healthcare team is responsible for notifying the medical examiner of the cardiac time of death per hospital policy