

Donation After Circulatory Death

Your Guide to the DCD Process



Donation After Circulatory Death (DCD)

1. What is DCD?

- The process in which organs are recovered AFTER circulatory death is declared with the intent to transplant.
- Differs from donation after brain death, during which mechanical support is maintained throughout the organ recovery procedure.

2. Who can be a DCD donor?

- Ventilated patients who do not meet criteria for brain death and whose family has elected withdrawal of life-sustaining therapies (WLST).
- Patients with a severe neurological injury or grave prognosis resulting in dependence on life-sustaining treatments.

3. When does the donation conversation occur?

- Lifeline of Ohio will huddle with hospital staff and then make a plan to discuss donation with the family after they (the family) have made the decision to WLST.
- Discussion about WLST is separate from the donation discussion to prevent any perceived conflict of interest.

4. What happens after authorization occurs?

- Ensure the patient and their family are supported and the patient is treated with the utmost care and respect throughout the process.
- Patient remains under the care of the hospital team who works in collaboration with Lifeline of Ohio.
- Lifeline of Ohio will request implementation of the DCD order set to assist in evaluating organ suitability and obtaining necessary testing for organ allocation.

5. What does the withdrawal process look like?

- Occurs in a controlled environment, most often the OR or PACU, to ensure the recovery process can happen efficiently post-circulatory death.
- Withdrawal process and comfort measures should otherwise remain identical to what the patient would receive in the ICU.
- Provider, or appointed declaring physician, and nurse will accompany the patient to the OR to provide end-of-life care. Both remain with the patient until circulatory death or until the time frame is reached.

6. What does the OR process look like?

- Once the patient has circulatory arrest, the appointed physician pronounces death after a mandatory hands-off period (5 minutes, per hospital policy).
- No personnel from the transplant team can be involved in the WLST or declaration of death, although they may assist in prepping the patient.
- If the patient does not expire within the time frame, the patient will be returned to the ICU (or palliative unit) to continue receiving comfort care.
- The patient is no longer a candidate for organ donation but may still be eligible for tissue donation.

7. How are families supported?

- Family members may request to be present in the OR for WLST. Lifeline of Ohio staff will work with the OR team to facilitate this.
- A Lifeline of Ohio Family Services Coordinator will escort the family into the room at the time of WLST and escort them out of the room once the patient has a non-perfusing heart rhythm.
- The patient's family will be supported by the Lifeline of Ohio Aftercare team regardless of patient outcome.

Only essential hospital staff are permitted in the OR for these cases to ensure that the family's final moments with their loved one are as peaceful as possible.

MY ROLE AS THE BEDSIDE NURSE

Donation After Circulatory Death (DCD)

Prior to Withdrawal

- Be familiar with hospital DCD policy and have a clear understanding of end-of-life care.
- Assist in carrying out DCD orders and maintaining stability until WLST in OR.
- Ensure functioning A-line and reliable IV access (large-bore PIV x 2 or central line).
- Ensure ability to remain off unit for up to 2-3 hours (until TOD is declared in OR or time frame is reached).
- Verify comfort care plan is in place with enough medications and flushes/syringes for up to 3 hours.
- Verify Lifeline of Ohio OR medications have been ordered (Heparin). Complete any hospital-required death paperwork.
- Attend ICU pre-OR huddle led by Lifeline of Ohio Coordinator.
- At least 1 hour prior to OR time:
 - Begin preparing patient for transport and remove unnecessary equipment.
 - Place patient on portable monitor with posterior lead placement to allow prepping of anterior body.
 - Bring power cable to portable monitor.
 - Prepare KVO line x2 (with extension tubing if IV access is not IJ) for easy access to IV once patient is draped.
 - Ensure palliative medications and OR medications are in hand to take to OR.
 - You will be asked to draw additional blood tubes for Lifeline of Ohio.
 - You will need either a bunny suit or surgical scrubs to enter the OR.
- Coordinate with charge nurse to establish location of continued comfort care measures if patient does not expire within DCD time frame .
- Assist Lifeline of Ohio Coordinator and charge nurse with logistics of Honor Walk (if permission obtained from family).

During OR

- Assist in moving patient to OR table.
- Prior to completion of prep/drape by surgical teams, verify presence of an accurate A-line reading, O2 sat waveform, EKG tracings, respiratory rate and all alarms silenced.
 - May use anesthesia's monitor if brick is compatible.
- Create a space near the anesthesia cart (HOB) for you to monitor the patient and administer medications. Ensure you are able to access the patient's head and injection ports on IV lines.
 - This space is also needed to accommodate any family members who will be present.
- Administer Heparin at the direction of the Lifeline of Ohio Coordinator PRIOR to WLST.
- Provide comfort care medications as ordered by declaring provider/per hospital policy.
- Once cleared by the Lifeline of Ohio Coordinator and declaring provider, assist RT with extubation.
- Once patient expires and TOD is declared, you may return to your unit.
- If the patient does not expire within the allotted time frame, please assist with patient transport to pre-determined location for continued comfort care. Contact Lifeline of Ohio when cardiac death occurs.

MY ROLE AS THE DECLARING PROVIDER

Donation After Circulatory Death (DCD)

Prior to Withdrawal

- Be familiar with hospital DCD policy including pronouncement section.
- Review documentation in EMR of family's decision to withdraw life-sustaining therapies (WLST).
- Enter orders for DCD withdrawal process:
 - Extubation and DNR/DNI orders.
 - Comfort care per hospital protocol for a duration of up to 3 hours (accounts for transport, prep in OR and post-extubation).
 - Recovery-related medications per OPO which may include:
 - **Adult:** Heparin 30,000 units
 - **Pediatric:** Heparin (300 units/kg) _____ units
- Ensure bedside RN has enough medications for up to 3 hrs.
- Verify presence of arterial line and reliable IV access (large-bore PIV x 2 or central access).
- Attend ICU pre-OR huddle led by Lifeline of Ohio Coordinator and review plan for extubation in OR.
- Provider must remain with the patient in OR until death is declared or the DCD time frame is reached.
- You will need either a bunny suit or surgical scrubs to enter OR. You will also need to bring a stethoscope.

During OR

- Be present at bedside for extubation AND remain in OR to declare time of death.
- Direct the administration of comfort care in accordance with hospital policy.
- Lifeline of Ohio Coordinator will request recovery-related medications to be given IV just prior to extubation.
- Once cleared with Lifeline of Ohio Coordinator, instruct RT to extubate patient.
- Alert Lifeline of Ohio Coordinator and family when patient has a non-perfusing rhythm and is apneic.
- Monitor the patient for an additional **5 minutes** (no touch time) to ensure no return of spontaneous circulation.
- Announce TOD at the end of the waiting period and give permission for surgery to begin.
- Ensure death note is signed and dated immediately after TOD is declared, per hospital policy. Some items include:
 - Life-sustaining therapies were withdrawn in accordance with family's wishes.
 - Patient was pronounced deceased after **5 minutes** of non-perfusing rhythm.
 - Patient was pulseless via arterial catheter, unresponsive to stimuli and apneic.
 - Correct EKG placement was confirmed.
 - TOD was declared at the conclusion of the waiting period at _____ (date/time of death)

MY ROLE AS THE RESPIRATORY THERAPIST

Donation After Circulatory Death (DCD)

Prior to Withdrawal

- Attend ICU pre-OR huddle led by Lifeline of Ohio Coordinator.
- Gather supplies needed for extubation and bring to OR/PACU.
- May need re-intubation supplies if lungs are being recovered.
- Assist with transporting the patient and ventilator to the OR/PACU.
- Transport on the ICU ventilator is ideal if lungs are being pursued.
- You will need either a bunny suit or surgical scrubs to enter the OR.

During OR

- Assist with airway stabilization when moving patient to OR table.
- The patient may be in the OR for 30-45 minutes undergoing prep/drape and medication administration before you are instructed to extubate.
- DO NOT EXTUBATE until you receive verbal communication from both the Lifeline of Ohio Coordinator and the declaring provider.
- If lungs are not being recovered, you may discreetly exit the OR with the ventilator and return to your unit.
- If lungs are being recovered, you may be asked to remain in the OR and assist the transplant surgeon with ventilator settings/re-intubation.

MY ROLE AS THE CHARGE NURSE

Donation After Circulatory Death (DCD)

Prior to Withdrawal

- Be familiar with hospital DCD policy.
- Plan unit staffing and patient assignments accordingly, as the bedside nurse must remain with the patient in OR and may be off the unit for up to 3 hours.
- Assist with determining location for continued comfort care if patient does not expire within the allotted time frame.
- Assist bedside nurse to ensure all proper documentation is available for patient to enter the morgue.
- Attend ICU pre-OR huddle led by Lifeline of Ohio Coordinator.
- Assist Lifeline of Ohio Coordinator and bedside nurse with logistics of Honor Walk (if permission obtained from family) including:
 - Determine path of Honor Walk.
 - Ensure hospital staff notification of Honor Walk.
 - Timing of Honor Walk is dependent on OR readiness. Please check with Lifeline of Ohio Coordinator prior to making any announcements regarding Honor Walk start time.
 - If applicable, work with Lifeline of Ohio to obtain authorization for photography/filming of Honor Walk and notify any staff participating of plans to film.
 - Ensure privacy of other patients/visitors on unit.
 - Arrange support to assist any additional family members not being escorted by Lifeline of Ohio Family Services Coordinator out of the hospital once Honor Walk is complete.

MY ROLE AS THE OR SCRUB/CIRCULATOR

Donation After Circulatory Death (DCD)

Prior to Withdrawal

- Lifeline of Ohio's Surgical Recovery Team will arrive 1-2 hours prior to OR to assist with setting up OR suite.
- Attend OR DCD Huddle (typically 1 hr. prior to OR time). Ensure all staff participating in recovery are present.
- Assist Lifeline of Ohio personnel in obtaining OR scrubs for ICU staff and incoming teams.
- WLST will not occur until the recovering surgeons are on-site and scrubbed in.
- Identify an area in which the recovering surgeons will wait from the time of extubation until they are allowed to re-enter the OR/PACU suite.
- Test the sternal saw prior to patient entering OR/PACU suite.
- If family is planning to be present in the OR for withdrawal of life-sustaining therapies (WLST):
 - After patient enters OR, you will still have an additional 30-45 minutes before family enters the room.
 - Assist in establishing waiting area for family outside of the OR suite and provide either bunny suits or surgical scrubs.
 - Place all surgical equipment behind privacy screens if using only one room.
 - Arrange seating for family near the head of bed.
 - Assist with creating a peaceful environment including dimming all lights in the OR suite, covering any windows and placing all phones/pagers on vibrate. Family may also request to play music.
 - A designated Lifeline of Ohio Family Services Coordinator will escort family into the room closer to the time of extubation and remain with the family the entire time while in the OR area.

Upon Entry into OR/PACU

- Proceed with ID check of patient, assist with transfer of patient to OR table followed by prep/drape by surgical teams.
 - If family will be present, patient's face and one arm will remain exposed.
- If ME case, photos or video may be taken prior to prep/drape and recovery may be recorded (includes video and audio).
- Lifeline of Ohio Coordinator will direct administration of recovery-related medications.
- Declaring provider and nurse will direct and administer comfort medications, per hospital policy.
- Once patient is ready for extubation, Lifeline of Ohio Coordinator leads the time-out.
 - Patient comfort is a factor in determining the location and volume of time-out.

After WLST

- Once the patient has a non-perfusing rhythm, family will be escorted out of the room by the Lifeline of Ohio Family Services Coordinator.
 - Surgical teams will re-enter once family has exited the room (if in PACU, patient will be transported to procurement OR room).
- After **5 consecutive minutes** of a non-perfusing rhythm (exact time frame dependent on hospital policy), the declaring provider announces TOD and incision is made by the organ recovery teams.
- Organ recovery then proceeds in the standard but more expedited fashion.



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