



## Donation after Circulatory Determination of Death [Pre-Mortem]

Site	BCH Only
Setting/Population	ICU/OR/All Patients with Circulatory Determination of Death
Clinician	All Clinicians

### Reference

- ▶ The **Senior Clinical Leadership Council (SCLC)** approves the following eligibility criteria for DCDD:
  - Competent adults and mature or emancipated minors with donor cards or on a donor registry (i.e. first-person consent basis).
  - For families and children of all ages who are deemed eligible for DCDD and are likely to die within one hour of withdrawing the ventilator.
  - Donation of any organ provided this is performed without changing the protocol, specifically the "time to death" criteria and current limitations to pre-mortem interventions.
- ▶ The **Organ Donation Oversight Committee (ODOC)** will evaluate exceptions to the protocol on a case-by-case basis, with the final decision resting with the SCLC.
  - The Organ Donation Oversight Committee (ODOC) is responsible for the DCDD protocol at BCH and ensuring that safeguards are followed, in particular the separation of WLST and DCDD processes. The clinical director of each ICU will contact an ODOC member to provide advice and direction as needed, particularly when requests for DCDD are outside or exceptions to the protocol. The ODOC member will bring these requests to the ODOC, GCICU Chair, and either the Physician-in-Chief or Surgeon-in-Chief.

### Process

- Ideally, the progression through this algorithm occurs in a very deliberate and unhurried fashion in order to allow families and staff time to develop questions and have their questions answered.
- An ethics consult may be called at any time by staff or family when there are concerns about the decision or process.
- Staff may opt out from participation in the DCDD process at any time if they are uncomfortable or opposed to the decision.

## ICU Referral & Consent Process

**DECISION TO WITHDRAW SUPPORT:** ICU team and patient's family decide together to withdraw life-sustaining treatments (WLST) according to usual and customary practices at BCH, and independent of any concerns for organ donation.

**NEOB REFERRAL:** ICU Attending (or designee) calls NEOB to refer patient as soon as possible after the decision to WLST

**PATIENT EVALUATION:** In collaboration with ICU team, NEOB evaluates patient for contraindications to donation, organ viability, and the likelihood that patient will die within 1 hour of WLST

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If the NEOB decides the patient is candidate for DCDD

**COLLABORATIVE APPROACH:** NEOB and ICU team decide together who will introduce NEOB involvement to family. NEOB meets with family and ICU team to ascertain family's interest in organ donation (consent forms not filled out at this time).

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If the family decides that they are interested in DCDD

**TEAM MEETING:** to address any possible conflicts of interest and anticipate any clinical/ethical concerns that should be addressed in the informed consent process. The [8 Foundational Conditions for Donation after Circulatory Determination of Death](#), as determined by the DCDD Task Force and approved by the MSEC and SCLC, must be reviewed and met before continuing. BCH DCDD consent form should be reviewed.

Unit clinical and nursing directors should be notified of the preparations for meeting and should notify one of the unit's ODOC representatives if necessary. Meeting participants include the ICU team (MDs, RNs, RTs, SW), any pertinent consultants (neurosurgery, psychology, PACT, etc), pastoral care, and NEOB. Consider ethics consult for assistance with any ethical concerns.

**FAMILY MEETING/CONSENT:** NEOB and ICU team meet with family to introduce NEOB and offer DCDD.

**CONSENT:** [BCH DCDD Consent](#) is obtained by ICU Attending (or designee) and NEOB consent is obtained by NEOB. Both teams describe the basics of DCDD protocol and answer questions.

**PRE-MORTEM MEETING:** Meeting to review the protocol, timing, roles, and responsibilities.

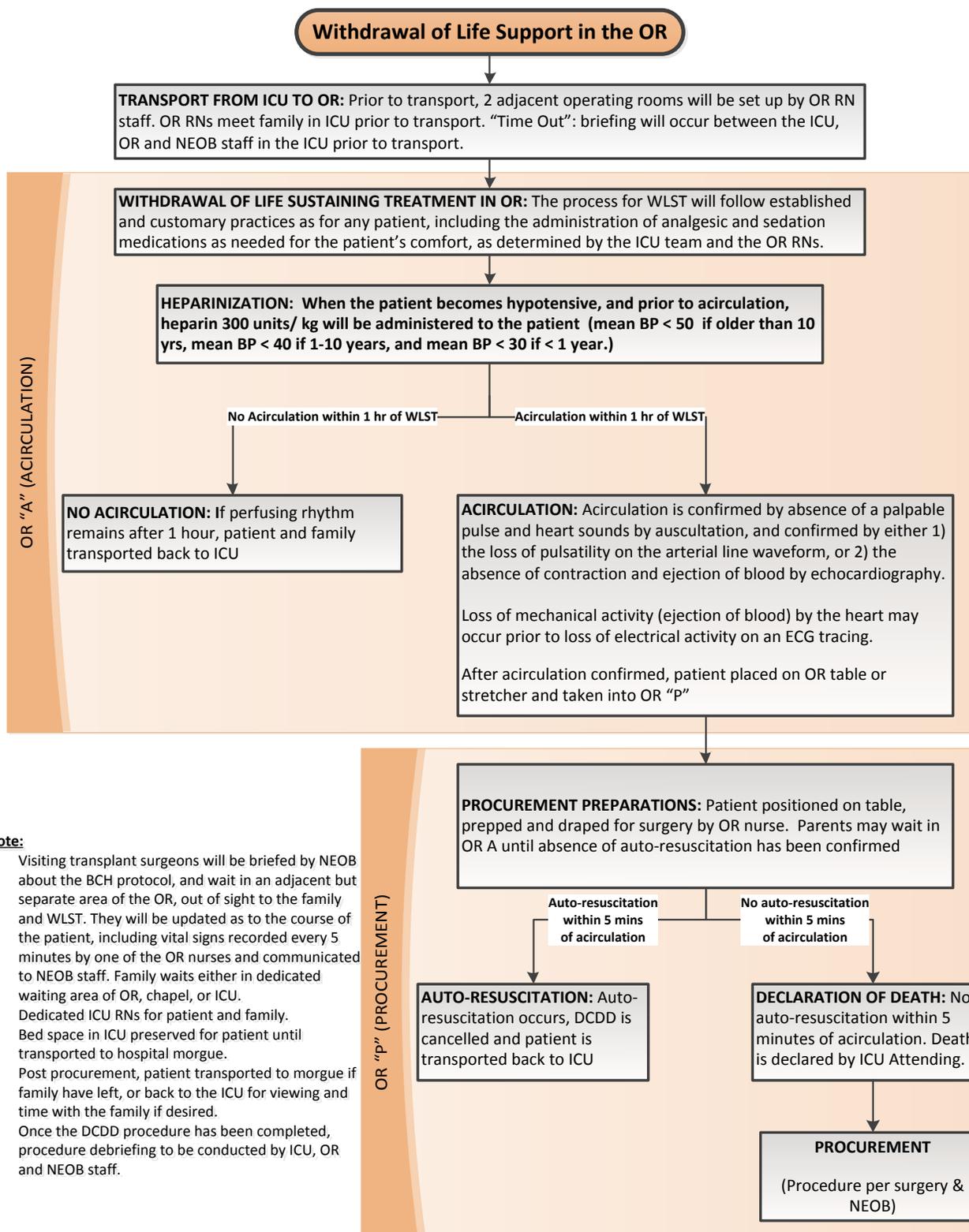
Meeting participants include the ICU Team, the OR Team, and the NEOB.

**DCDD PREPARATIONS:** NEOB organizes and arranges for DCDD, including contacting transplant surgeons and establishing time frame for organ procurement with family and staff. ICU Charge Nurse contacts the AOD.

(\*see *ICU Management Considerations*)

**\*ICU Management Considerations**

- ICU clinicians continue to manage the patient after the cessation of circulation and through the 5-minute acirculatory period until death is declared. The ICU clinician will accompany the patient from OR "A" to OR "P", declare death after 5 minutes of acirculation, and hand over care to Anesthesia and Surgery at that time. Should the patient have auto-resuscitation, the ICU clinician will continue to care for the patient while accompanying him/her back to the ICU for continued end-of-life care. NEOB or transplant surgeons may not alter or intervene with the patient's management or WLST.
- No pre-mortem interventions that may harm the patient or hasten death. The child will be protected from pain and suffering, consistent with established practices in end-of-life care at BCH.
- Minor interventions to help preserve organ function prior to WLST and organ procurement, such as fluid administration and adjustments to the ventilator or inspired oxygen concentration could be necessary if the WLST or donation process is delayed because of timing, logistics, or to allow family members to arrive. Possible interventions will be included in the informed consent signed by the parents or guardian.
- If a major change or deterioration in the patient's condition occurs requiring an escalation of hemodynamic or ventilatory support to keep the patient alive and maintain organ viability, immediate consultation between the ICU, NEOB, and family must be undertaken. There will be no major interventions or escalation to patient care, namely cardiopulmonary resuscitation (defibrillation and chest compressions) or Extracorporeal Membrane Oxygenation (ECMO).
- Percutaneous placement of a peripheral arterial or intravenous catheter for access for blood draws or monitoring purposes prior to DCDD may be considered provided this can be done without harm or prolonged discomfort to the patient, and after discussion with the staff and consent from the family.



## Related Content

### DCDD on ECMO

Patients who are dependent on ECMO or other mechanical circulatory support may be candidates for DCDD organ donation after the family and clinical team have decided to withdraw life support in anticipation of the patient's death.

- When a decision is made to attempt DCDD organ donation, *the patient is transported on mechanical circulatory support to OR "A."*
- Palliative care, including use of analgesics and sedatives, is administered using the same parameters as for non-potential-donors.
- *The patient is separated from mechanical circulatory support. Cannulae are left in place and clamped or capped, and the mechanical circulatory device is discontinued.*
- The patient is either extubated or placed on ventilator settings of room air with no rate or positive pressure.
- All medications and interventions that do not contribute to the patient's comfort are discontinued (e.g., vasopressors and antiarrhythmic medications).
- The patient is observed for acirculation.
- *Mechanical circulatory support should not be resumed under any circumstances.*

### Follow the existing patient care protocol, as follows:

- Acirculation confirmed by absence of a palpable pulse and heart sound by auscultation, and confirmed by either:
  - ❖ loss of pulsatility on the arterial line waveform, or
  - ❖ absence of contraction and ejection of blood by echocardiography
- When the patient becomes hypotensive, and prior to acirculation, heparin 300 units/kg will be administered to the patient (*this should be administered even though the patient has already been anticoagulated for mechanical circulatory support*):
  - ❖ mean BP < 50 (older than 10 yrs)
  - ❖ mean BP < 40 (1-10 yrs)
  - ❖ mean BP < 30 (< 1 yr)
- If acirculation occurs, patient is transported to OR "P".
- If no autoresuscitation after 5 minutes, death is declared. Organs are procured in the standard fashion. *Mechanical circulatory support is **not** reinstated.*
- If perfusing rhythm remains after one hour, patient and family are transported back to ICU. *Cannulae should be left in place for transport back to the ICU and continued palliative care. If prolonged survival is anticipated, the cannulae may be removed after return to the ICU.*

## Document Attributes

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