

Critical Pathway for Donation After Cardiac Death



Collaborative Practice	Phase I Identification & Referral	Phase II Preliminary Evaluation	Phase III Family Discussion & Consent	Phase IV Comprehensive Evaluation & Donor Management	Phase V Withdrawal of Support /Pronouncement of Death/Organ Recovery
<p>The following health care professionals may be involved in the Donation After Cardiac Death (DCD) donation process:</p> <p>Check all that apply:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Physician (MD) <input type="checkbox"/> Critical Care RN <input type="checkbox"/> Nurse Supervisor <input type="checkbox"/> Medical Examiner / Coroner <input type="checkbox"/> Respiratory Therapy (RT) <input type="checkbox"/> Laboratory <input type="checkbox"/> Pharmacy <input type="checkbox"/> Radiology <input type="checkbox"/> Anesthesiology <input type="checkbox"/> OR/Surgery Staff <input type="checkbox"/> Clergy <input type="checkbox"/> Social Worker <ul style="list-style-type: none"> <input type="checkbox"/> Organ Procurement Coordinator (OPC) <input type="checkbox"/> Organ Procurement Organization (OPO) 	<p>Prior to withdrawing life support, contact local OPO for any patient who fulfills the following criteria:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Devastating neurologic injury and/or other organ failure requiring mechanical ventilatory or circulatory support <input type="checkbox"/> Family and/or care giving team initiate conversation about withdrawal of support <p>Following referral, additional evaluation is done collaboratively to determine if death is likely to occur within one hour (or within a specified timeframe as determined by caregiving team and OPO) following withdrawal of support</p> <p>Patient conditions might include the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Ventilator dependent for respiratory insufficiency: apneic or severe hypopneic; tachypnea ≥ 30 breaths/min after DC ventilator <input type="checkbox"/> Dependent on mechanical 	<p>Physician</p> <ul style="list-style-type: none"> <input type="checkbox"/> Supportive of withdrawal of care and has communicated grave prognosis to family <input type="checkbox"/> Review DCD procedure with OPC <input type="checkbox"/> Will be involved in withdrawal/pronouncement <input type="checkbox"/> Will designate a person to be involved with withdrawal and/or pronouncement <p>Family</p> <ul style="list-style-type: none"> <input type="checkbox"/> Has received grave prognosis <input type="checkbox"/> Understands prognosis <input type="checkbox"/> In conjunction with care giving team, decide to withdraw support <p>Patient</p> <ul style="list-style-type: none"> <input type="checkbox"/> Age _____ <input type="checkbox"/> Weight _____ <input type="checkbox"/> Height _____ <input type="checkbox"/> ABO _____ <input type="checkbox"/> Medical Hx _____ <input type="checkbox"/> Surgical Hx _____ <input type="checkbox"/> Social Hx _____ <input type="checkbox"/> Death likely < 1 hour following withdrawal (determined 	<ul style="list-style-type: none"> <input type="checkbox"/> Support services offered to family <input type="checkbox"/> OPC/Hospital Staff approach family about donation options <input type="checkbox"/> Legal next-of-kin (NOK) fully informed of donation options and recovery procedures <input type="checkbox"/> Legal NOK grants consent for DCD following withdrawal of support <input type="checkbox"/> Family offered opportunity to be present during withdrawal of support <input type="checkbox"/> OPC obtains _____ Witnessed consent from legal NOK for DCD _____ Signed consent Time _____ Date _____ Detailed med/soc history <p>Notification of donation</p> <ul style="list-style-type: none"> <input type="checkbox"/> Hospital supervisor <input type="checkbox"/> ME/Coroner notified ME/Coroner & 	<ul style="list-style-type: none"> <input type="checkbox"/> MD, in collaboration with OPO, implements management guidelines. <input type="checkbox"/> Establish location and time of withdrawal of support <input type="checkbox"/> Review plan for withdrawal to include: <ul style="list-style-type: none"> - Pronouncing MD (should be in attendance for duration of withdrawal of support, determination of death, and may not be a member of the transplant team) - Comfort Care - Extubation and discontinuation of ventilator support - Establish plan for continued supportive care if pt survives > one hour or predetermined time interval after withdrawal of support <input type="checkbox"/> Notify OR/Anesthesia _____ Review patient's clinical course, 	<ul style="list-style-type: none"> <input type="checkbox"/> Withdrawal occurs in _____ OR _____ ICU _____ Other _____ <input type="checkbox"/> Family present for withdrawal of support _____ yes _____ no <input type="checkbox"/> OR/Room prepared and equipment set up <input type="checkbox"/> Transplant team in the OR (not in attendance during withdrawal) <input type="checkbox"/> Care giving team present <input type="checkbox"/> Administration of pre-approved medication (e.g. Heparin/Regitine) <input type="checkbox"/> Withdrawal of support according to hospital/MD practice guidelines Time _____ Date _____ <input type="checkbox"/> Vital signs are monitored and recorded every minute (See attached sheet) <input type="checkbox"/> Pt pronounced dead and appropriate documentation completed

	<p>mechanical circulatory support (LVAD; RVAD; V-A ECMO; Pacemaker with unassisted rhythm < 30 beats per minute.</p> <ul style="list-style-type: none"> ○ Severe disruption in oxygenation: PEEP ≥ 10 and SaO₂ ≤ 92%; FiO₂ ≥ .50 and SaO₂ ≤ 92%; V-V ECMO requirement ○ Dependent upon pharmacologic circulatory assist: Norepinephrine, epinephrine, or phenylephrine ≥ 0.2 ug/kg/min; Dopamine ≥ 15 ug/kg/min ○ IABP and inotropic support: IABP 1:1 and dobutamine or dopamine ≥ 10 ug/kg /min and CI ≤ 2.2 L/min/M²; IABP 1:1 & CI ≤ 1.5 L/min/M² 	<p>(determined collaboratively by evaluating: injury, level of support, respiratory drive assessment)</p>	<p>releases for donation _____ ME/Coroner has restrictions</p> <p><i>Stop Pathway if –</i></p> <ul style="list-style-type: none"> ○ <i>Family, ME/Coroner denies consent</i> ○ <i>Patient determined to be unsuitable candidate for DCD</i> ○ <i>Patient progresses to brain death during evaluation – refer to brain dead pathway</i> 	<p>withdrawal plan and potential organ recovery procedures _____ Schedule OR Time</p> <ul style="list-style-type: none"> ○ Notify recovery teams ○ Prepare patient for transport to pre-arranged area for withdrawal of support ○ Patient transported to prearranged area ○ Note: Should the clinical situation require premortum femoral cannulation, the following should be reviewed: <ul style="list-style-type: none"> - family consent or understanding - MD inserting cannula - Time and location of cannula insertion - If death does not occur, determine if cannula should be removed 	<p>Time _____ Date _____ MD _____</p> <ul style="list-style-type: none"> ○ Transplant Team initiates surgical recovery at prescribed time following pronouncement of death ○ Allocation of organs per OPTN/UNOS policy ○ If cardiac death not established within 1 hour or predetermined time interval after withdrawal of support – Stop Pathway. Patient moved to predetermined area for continuation of supportive care. ○ <i>Post mortem care administered</i>
Labs / Diagnostics		<ul style="list-style-type: none"> ○ ABO ○ Electrolytes ○ LFTs ○ PT/PTT ○ CBC with Diff ○ Beta HCG (female pts) ○ ABG 		<p>Repeat full panel of labs additionally:</p> <ul style="list-style-type: none"> ○ Serology Testing infectious disease profile ○ Blood cultures X 2 ○ UA & Urine culture ○ Sputum Culture ○ Tissue typing 	
Respiratory	<ul style="list-style-type: none"> ○ Maintain ventilator support ○ Pulmonary toilet PRN 	<p>_____</p> <p>_____</p> <ul style="list-style-type: none"> ○ Respiratory drive assessment RR _____ VT _____ VE _____ NIF _____ 	<ul style="list-style-type: none"> ○ ABGs as requested ○ Notify RT of location and time of withdrawal of support 	<ul style="list-style-type: none"> ○ Transport with mechanical ventilation using lowest FiO₂ possible while maintaining the SaO₂ >90% 	<p>→</p> <p>→</p>

		Minutes off ventilator _____ ○ Hemodynamics while off ventilator HR _____ BP _____ SaO ₂ _____			→
Treatments / Ongoing Care	Maintain standard nursing care to include: ○ Vital signs q 1 hour ○ I & O q 1 hour				○ Post mortem care at conclusion of case →
Medications				○ Provide medications as directed by MD in consult with OPC	○ Heparin and other medications prior to withdrawal of support
Optimal Outcomes	The potential DCD donor is identified & a referral is made to the OPO.	The donor is evaluated & found to be a suitable candidate for donation.	The family is offered the option of donation & their decision is supported.	Optimal organ function is maintained, withdrawal of support plan is established, and personnel prepared for potential organ recovery.	Death occurs within one hour of withdrawal of support and all suitable organs and tissues are recovered for transplant.

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