Organ Donation Clinical Pathway
Organ Donation Clinical Pathway

Table of Contents

1. Rationale
2. Background
3. EC and ICU Triggers
4. ICU Pathway
   I. Organ Donation Clinical Pathway
5. Management of Potential Donor in ICU
6. Situational Awareness
7. Lifelink’s Role
8. Special Circumstances
9. JHACH Order Sets
10. Outcome Measures
11. References
12. Appendix A: Lifelink Donor Information
13. Organ Donation Review Team Information and Disclaimer

This pathway is intended as a guide for physicians, physician assistants, nurse practitioners and other healthcare providers. It should be adapted to the care of specific patient based on the patient’s individualized circumstances and the practitioner’s professional judgment.
Johns Hopkins All Children's Hospital
Organ Donation Clinical Pathway

Rationale

This clinical pathway was developed by a consensus group of JHACH team members including emergency medicine, critical care, neurology, neurosurgery, and organ procurement organization (LifeLink) to standardize the management of children with devastating neurologic injury who could become organ donors.

Please refer to:
- Determination of Brain Death Policy 23370
- Donation after Brain Death Policy 23671
- Donation after Circulatory Death Policy 23662

Background

Successful organ donation occurs with early collaboration and referral to LifeLink to explore the child's eligibility and prepare each team and LifeLink to support the donation process. Pediatric organ donation involves healthcare providers actively working to preserve the option of donation before the death of the child and ensure donation occurs after authorization has been obtained from the family. This requires the expertise of a multidisciplinary medical team.

Emergency Center (EC) and Intensive Care Unit (ICU) Triggers

Acute change in neurologic status and Glasgow Coma Scale (GCS) ≤ 5 after trauma, cardiac arrest or other conditions are a clinical trigger to notify LifeLink of the child with a potential irreversible neurologic injury (See Triggers for LifeLink referral). The organ procurement agency will collaborate with the EC and ICU Staff to assess the potential for donor status either by face-to-face conversations or over the phone.

ICU Pathway

The child should receive full support until a diagnosis of neurologic death or the family's decision to withdraw life-sustaining therapy is made.
Organ Donation Clinical Pathway
Patient enters clinical pathway when clinical triggers for early referral to LifeLink are met

**LifeLink Clinical Triggers:** Regardless of age or diagnosis, refer within one hour if the child
- Is intubated **AND**
- Has a neurologic injury/insult i.e. trauma, anoxia, stroke, intracranial hemorrhage (ICH)

**AND**
- Meets any of the following criteria:
  - GCS equal to or < 5
  - No pupillary, corneal, cough, gag reflexes
  - No spontaneous respirations
  - Hypothermia protocol initiation

**PRIOR TO**
- Discussion of DNR or comfort measures only with the family
- Withdrawal of life sustaining measures or terminal extubation orders
- Brain death testing

---

**LifeLink and ICU staff huddle to discuss organ donation potential**

Patient condition improves

- Continued patient care

Patient condition deteriorates and progresses towards neurologic death

- First brain death examination and documentation

- Age based observation period or ancillary study per brain death policy

- Second brain death examination or ancillary test done with documentation of brain death if criteria are satisfied

LifeLink and team huddle prior to meeting family

Patient deteriorates but does not meet neurologic death criteria

- LifeLink and team huddle prior to meeting family

Discuss donation after circulatory death with family

Authorization for Organ Donation

- **Yes** Physiologic support continues

- **No** Physiologic support stopped

Attempt organ recovery

---
Management of Potential Donor In ICU

A child can attain the organ donor status after:

- Diagnosis of neurologic death - Neurologic death is a clinical diagnosis based on serial examinations with time intervals determined by the child’s age. Ancillary testing is performed only if clinical exam could not be performed or completed.

OR

- Donation by circulatory death - Devastating neurologic injury where family/legal guardian is considering withdrawal of life-sustaining therapy.

In both of the above situations, physiologic support should continue until the LifeLink representative can discuss the option of organ donation with the family/legal guardian.

**Donation By Neurologic Death**

When the child is declared neurologically dead, LifeLink should be introduced to the family/legal guardian. LifeLink will obtain authorization from family/legal guardian.

- If the family/legal guardian does not authorize for organ donation, life-sustaining therapies will be stopped after notifying the family/legal guardian.
- If there is authorization for donation, LifeLink assumes care of the child until the organ procurement is coordinated with the operating room. LifeLink will continue to communicate the plan with the family/legal guardian and the healthcare team.

**Donation By Circulatory Death (DCD)**

When the family/legal guardian decides to withdraw support, LifeLink should be introduced for further communication and authorization.

- If the family does not authorize for organ donation, all therapies except for comfort measures can be stopped.
- If there is authorization for donation, the physiologic support and comfort measures should continue until the organ recipients are identified, surgical team and operating room are available. The physiologic support should be stopped in the vicinity of the operating room, with child’s comfort as the goal providing high-quality end-of-life care. A multi-disciplinary medical team comprised of physician, advance practice provider, nurse, chaplain, Child-Life and Music Therapy, family members/legal guardian may be allowed to be present at the bedside until the child becomes asystolic. The surgical team and LifeLink will decide if the child can donate organs based on the time interval from withdrawal of life-sustaining therapy to asystole.
Situational Awareness

Transparent separation of care of the potential donor and the management of possible recipients is important, especially in the pre-mortem phases of care.

a. Whenever feasible, determination of the neurologic death, prognostication decisions and decisions about stopping life-sustaining therapy for potential donation after circulatory death should be assigned to physicians not caring for the potential transplant recipients.

b. Early involvement of the surgical transplant team results in a clearly defined conflict of interest.

c. LifeLink acts as the liaison between the medical and surgical teams prior to donation after cardiac death.

d. Healthcare privacy laws include the privacy of potential donors; thus, discussing the donor with potential recipients or their families must not occur.

LifeLink’s Role

LifeLink will follow the clinical course, and communicate with the Intensivist Attending prior to getting involved with the family at most appropriate time to discuss donation. Not every child that is referred to LifeLink is medically suitable for organ donation, and some DCD referrals may survive longer eliminating the possibility of being an organ donor. If the family brings up donation to the medical team, LifeLink should be notified so that they can have a face to face discussion with the family.

In the time interval between family’s consent and organ donation, LifeLink will manage the donor, but can approach the Intensivist Attending for assistance regarding management of the pediatric donor as needed.

Special Circumstances

Collaboration with the investigative teams, and the medical examiner is essential to successfully recover organs for transplantation. Fear of losing evidence to prosecute suspected homicide cases can be a challenge. Early consultation to the medical examiner may lead to requests for additional noninvasive imaging that can enable investigation of the death without precluding donation. The U.S. National Association of Medical Examiners supports organ donation in suspected child abuse, homicide, and sudden unexpected death in an infant.

JHACH Order Sets

1. LifeLink Coordinator Consult
2. Critical Care Pediatric Organ Donation, LifeLink

Outcome Measures

Timely LifeLink referral of potential organ donors from EC and ICU
Communication between the ICU and LifeLink
References

APPENDIX A: Lifelink Donor Information (adapted)

**LifeLink**

Donor Referral Line

1-800-64- DONOR (36667)

- Call *immediately* if family mentions donation
- Do NOT mention donation or LifeLink to family
- If family asks what’s next... state, “I have contacted someone to come discuss the next steps and answer your questions.”
- After initial referral call LifeLink immediately if decline in neurological function or change in plan of care.
- Refer all patients within one hour of asystole for tissue donation, evaluation, even if previously referred.

**LifeLink**

Donor Referral Line

1-800-64- DONOR (36667)

Regardless of age or diagnosis, refer within one hour if your patient...

- Is intubated **AND**
- Has a neurological injury/insult, ie. Trauma, anoxia, stroke, ICH **AND**
- Meets ANY of the following criteria:
  - GCS is equal to or less than 5
  - No Pupillary or corneal reflex
  - No cough or gag
  - No spontaneous respirations
  - Hypothermia protocol is initiated **PRIOR TO**
  - Discussion of DNR or CMO with family
  - Withdrawal of life sustaining measures or terminal extubation orders
  - Brain death testing
### Organ Donation Pathway
**Johns Hopkins All Children’s Hospital**

**Owners:** Sue Sreedhar, MD and Laura Vose, DO; Critical Care
Deborah Bill, RN; Pediatric Intensive Care Unit
Danielle Hirsch, MD; Emergency Center
Kailey Lancelllo, LifeLink

**Reviewed by:** Luis Rodriguez, MD; Neurosurgery
Thomas Geller, MD; Neurology

**Clinical Pathway Management Team:** Joseph Perno, MD; Courtney Titus, PA-C

**Approved by JHACH Clinical Practice Council:** December 17th, 2019
**Available on Connect:** December 17th, 2019
**Last Revised:** December 17th, 2019

---

**Disclaimer**

*Clinical Pathways are intended to assist physicians, physician assistants, nurse practitioners and other health care providers in clinical decision-making by describing a range of generally acceptable approaches for the diagnosis, management, or prevention of specific diseases or conditions. The ultimate judgment regarding care of a particular patient must be made by the physician in light of the individual circumstances presented by the patient.*

*The information and guidelines are provided "AS IS" without warranty, express or implied, and Johns Hopkins All Children’s Hospital, Inc. hereby excludes all implied warranties of merchantability and fitness for a particular use or purpose with respect to the information. Johns Hopkins All Children’s Hospital, Inc. shall not be liable for direct, indirect, special, incidental or consequential damages related to the user’s decision to use the information contained herein.*