

Donation After Cardiac Death (DCD)



Trillium Gift of Life Network's Position on 'DCD'

When medically feasible, every family should have the opportunity of considering the option of organ and tissue donation across the province.

Until very recently in Canada organs for transplantation were recovered only from patients who have been declared dead by neurological criteria (brain dead), which accounted for about 1.5 percent of all in hospital deaths or about 450 patients a year.

In December of 2005 the Canadian Council for Donation and Transplantation (CCDT) released a report "Donation after Cardiocirculatory Death" in which Canadian health care professionals supported proceeding with organ donation after cardiocirculatory (cardiac) death. Trillium Gift of Life Network announced in March 2006 a series of initiatives to increase organ and tissue donation in Ontario, DCD was one of those initiatives.

The first case came in June when a health care team from The Ottawa Hospital in cooperation with Trillium Gift of Life Network worked together with a committed family to make their daughter's wish to be an organ donor a reality.

What is Donation After Cardiac Death and Why is it Important?

Organ donation after cardiac death – or DCD -- is a procedure whereby organs for transplantation are recovered shortly after the pronouncement of death based on cardiorespiratory (cardiac) criteria rather than neurological (brain) criteria. For the last two decades, individuals who have died from cardiac death have been considered potential tissue donors only; they have not been able to donate organs for transplantation.

Organ donation after cardiac death will make it possible for more individuals and families to have donation wishes fulfilled and will help to address the large gap between those waiting for a transplant and available organs.

For Ontarians, the need to consider new opportunities to increase the availability of organs for transplantation is clear:

Today in Ontario over 1600 patients are on the organ transplant waiting list.

Patients who meet the criteria for organ donation after cardiac death are critically ill on life support, and there has been a decision by the family and treating physician to withdraw life-sustaining therapy. Only after prior and independent decision by the patient or family to withdraw life support will the option of organ donation after cardiac death be considered.

Several jurisdictions in the United States and Europe have had successful programs for DCD for many years, and more are considering introducing the protocol because it can:

- a) help fulfill the wishes of the patient and his/her family to donate life; and
- b) its potential to significantly increase the availability of organs for transplantation.

Other jurisdictions in Canada are also studying the possibility of introducing organ donation after cardiac death.

Frequently Asked Questions:

What does DCD mean?

Organ donation after cardiac death or DCD offers families the option of donation in cases where neurological criteria for death has not been met, and the decision to withdraw life-sustaining treatment has been made.

DCD occurs where following pronouncement of death based on "irreversible cessation of circulatory and respiratory functions."

How does this differ from the current procedure?

Currently only those patients who have been declared neurologically dead may be considered as organ donors, this accounts for approximately 1.5 of total in-hospital deaths/year or 450 patients.

What kind of patient could donate after Cardiac Death?

A DCD patient has no hope of survival or meaningful recovery, but does not meet brain death criteria. They would be linked to life sustaining breathing machines and remain in the hospital until their heart stopped.

If this is a viable means of increasing donor rates, why has it not been considered previously?

DCD was the only way that organs could be donated by deceased donors prior to 1968 when a Harvard study defined 'death from cerebral cause'.

Time, research and better technology has led to improved outcomes of DCD.

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What elements are considered when deciding medical suitability of a potential donor?

Among the elements considered in discussions with members of the health team are, age, clinical status, test results and past history.

How do you bring up the subject of donation after cardiac death?

When do you speak to the family about donation after cardiac?

The most important aspect of the support of the family is to ensure that donation options are not introduced or discussed in any way by the health care team **until** they have made their decision to withdraw life-sustaining support.

TGLN supports the protocol that highlights that options for donation will be discussed **only after** the family has acknowledged and accepted the patient will not survive.

How will the doctor be sure that the patient is dead?

TGLN supports the protocol that ensures that out of respect for the patient, an additional minimum of 5 minutes must elapse after the death is declared by the physicians before the organ retrieval team can begin their procedures.

When can the donated organs be recovered?

Only after cardio respiratory arrest has occurred – the heart has stopped beating and the patient is no longer breathing. Following a minimum 5 minute waiting period, recovery begins.

Where will the patient actually be when the death occurs?

Depending on the individual hospital policies, the patient may be in the operating room or in the intensive care unit.

Can the family be there at the patient's death?

Yes. Every effort is made to support the patient's family in a compassionate way and in all instances the family may be present for the withdrawal of life sustaining therapy if they so wish.

Why is the timing so critical?

Once death has occurred, various perfusion/preservation techniques must occur fairly rapidly to maintain the health and viability of the donated organs.

What happens if the patient's heart doesn't stop beating after removal of life sustaining therapy?

The patient would be returned to a care area designated in hospital policy, kept comfortable with standard end of life care. The family would be informed immediately and support provided.

Could DCD be opposed on religious grounds?

As with any donation, the vast majority of religious groups have actively supported organ donation because of the life saving benefits, compassion for the needs of others and the alleviation of suffering for the recipient. Several major religions leave the decision to the individual. For some religions, death has traditionally been considered as occurring when the heart stops beating, so in fact, DCD may be more readily accepted than neurological death.

Does donation impact plans for visitation?

Donated organs are removed surgically in a similar operation to a gallbladder or appendix removal. Donation does not change the appearance of the body for the funeral service and those wishing open caskets may still have that option after donation.

Taking Action

Making Your Wishes Known

There are two steps to indicating your wishes to be an organ and tissue donor:

Talk to your loved ones about your decision so they can understand, support and respect your wishes in the future. It is important they know about your intentions, as they will be asked to give final consent to your organ/tissue donation in the event of your death.

Register as an organ and tissue donor with OHIP. You can register your intentions through OHIP's donor registry. Information is held in a central information bank and coded into health cards. OHIP Organ and Tissue Donation Forms can be obtained by visiting your local OHIP office or by downloading from the TGLN website (www.giftoflife.on.ca).

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