Ethical Considerations of Organ Donation After Circulatory Death (DCD)

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Abstract

Organ donation after circulatory death (DCD) has been increasingly utilized to reconcile the significant shortage of organ donors. The bioethical principles of autonomy, beneficence, nonmaleficence, and justice can be used to guide discussions on the unique medical and ethical challenges relating to circulatory death.

Literature Review

- In 1980, the National Conference of Commissioners on Uniform State Laws formulated the Uniform Determination of Death Act (UDDA). According to the UDDA, an individual is dead who has sustained either:
  1) irreversible cessation of all functions of the entire brain, including the brainstem, or 2) irreversible cessation of circulatory and respiratory functions.
- The 2 types of deceased organ donors are: 1) brain-dead heart-beating donors or 2) non-heart-beating donors that underwent cardiopulmonary death or circulatory death (Table 1).
- The dead donor rule is an ethical and legal rule that states organ donors must not be killed in order to obtain their organs, and that organ retrieval itself cannot cause death. Or, stated in a different way, the donor must be dead by official UDDA criteria before organ recovery begins. In all circumstances, accurate determination of death is critical to adhering to the dead donor rule.

Table 1. DCD donors classified into 4 categories.

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category I</td>
<td>dead on arrival to hospital</td>
</tr>
<tr>
<td>Category II</td>
<td>unsuccessful resuscitation</td>
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<tr>
<td>Category III</td>
<td>awaiting cardiac arrest, pending withdrawal of life support</td>
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<tr>
<td>Category IV</td>
<td>cardiac arrest after brain death</td>
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</tbody>
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References


Discussion

- The practice of organ donation is unique in that it is based on altruism of individuals and their families, and comes with several ethical issues.
- Over the past few years, many recommendations have been proposed to address deficiencies of current DCD practice in a systematic way.
- Ideally, an all-encompassing document with evidence-based guidelines will be created to serve as a gold standard prototype. This publication should be a collaboration between organ procurement organizations, transplant surgeons, anesthesiologists, palliative care specialists, intensivists, medical ethicists, and government representatives.

Conclusion

- Organ donation after circulatory death is a potentially valuable approach to expand the donor pool and increasing DCD practice is reported worldwide.
- The fundamental ideologies of law, ethics, and medical humanities ultimately shape DCD policy changes that impact donor patients and their families at the end-of-life.
- A shared theme among the current literature on DCD is a call for additional research and procedural standardization to address the ethical implications associated with organ donation after circulatory death.