LifeSource Symposium

October 6, 2011

Maximizing Experiences with DCD: Improving Communication to Lead to Process Improvement

Our Background at NMMC

- A level-1 trauma hospital in the north metro area
- A mixed medical-surgical ICU with 40+ beds
- An established culture supportive of organ donation
- HOWEVER….at the time of this case, we had not had a DCD case in several years

The Baggage of DCD

- The shortage of supply in the face of ever-increasing demand for organ donation is well known
- This has spurred efforts to increase the donor pool through a variety of mechanisms, one of which is DCD.
- Amongst the public as well as even within the donation community, the DCD process engenders much more controversy than donation after brain death

The Baggage of DCD

- *Understanding the Antecedents of the Acceptance of Donation After Cardiac Death by Healthcare Professionals*—D'Alessandro, A.M., et al; Crit Care Med 2008; 36(4):1075-1081
  - Conducted a qualitative research study to understand healthcare professionals' barriers to accepting DCD
  - Interviewed 90 "key personnel" including nurses, physicians, clergy, social workers, families and hospital administrators and then interviewed 110 participants in focus groups located at hospitals which were and were not involved with DCD at the time

Groups	Examples
Nurses	
Waiting for the patient to die	*Maybe the vulture thing about we're waiting for the organs, you know, dying or waiting. I do have that feeling sometimes.*
Family not present at death	*That's the hardest thing for me to do is to say—you can't be around when your family member takes his last breath or has his last heartbeat.*
Defining death	*I would say not understanding DCD. The paradigm has changed—we worked so hard to understand brain death; now we go back to understanding another kind of death.*
Perception that physician has failed	*Many physicians feel that their patients are not going to die. You can really get yourself into some deep water by telling a patient's family their family member is actively dying if the physician hasn't already stated that to the family in person.*
Psychological stress nurses face with DCD	*Some nurses feel very uncomfortable with death—especially in the OR (DCD life support withdrawal).*
Family members' concerns about the DCD process/feelings of guilt	*I think it is probably harder because there isn't concrete evidence. You know when you say that someone is flat-lined it is a little bit easier.*
Overall lack of understanding of DCD	*I just think there's a lack of knowledge (of DCD), lack of education of what it is and what would need to be done to do something like this.*
Physicians	
Physician lack of understanding of DCD	*Physicians are trained about brain death from medical school upward. There is a clear sense of what that is, whereas this other criterion (DCD) is certainly not as well known by physicians as a way to get to organ donation.*
Role is to save lives, not organ donation	*I guess I see one of the issues being failure. You go to doctor school to figure out what is wrong with people and fix it. You don't go to learn how to make people dead.*
Potential lack of trust with DCD protocol	*I don't know of a single case where a brain death was inappropriately declared. The reliability of the criteria for this (DCD) is not as good.*
Defining death	*The methodology of going from brain death to organ donation is simple. (For DCD) you have decided we're going to stop treatment and the patient is going to die because they're almost brain dead.*
Does futility exist?	*With brain death we are able to convince people that their family member is dead. They're still on the breathing machine and their heart is beating but they're dead. (With DCD) you have to be careful telling them that they are dead when you take them to the operating room.*
Perceived conflict of saving vs. donations	*Among physicians there is a conflict of interest if you're making recommendations about organ donation and are also the treating physician.*
Clergy/social service	
Defining death	*What trips people up is that (with DCD) they don't assume death is going to happen. When brain death is declared, the patient has been "dead" for a while already.*
Overall lack of understanding of DCD	*As a whole (health professionals) are relatively uninformed about the difference between DCD and brain death. Part of that would be what are the steps and how long does it take?*
Does futility exist?	*(With DCD) if there's still some brain activity, some people would want to wait for a miracle.*
Rushing decision	*With brain death, families have time to decide what to do and how they feel. The machines are keeping the patient alive until a decision can be made. (With DCD) requesters need to communicate the process before families can understand what is happening and make a decision.*
Administration	
Lacks understanding DCD	*With DCD there is a total lack of awareness among administrators. This lack of knowledge in part relates to the fact that this procedure exists and is an acceptable way to help meet the need for organ donors.*
Defining death	*Problems relating to understanding organ donation in general, and specifically as it pertains to brain death and DCD—who would be an appropriate candidate for DCD and brain death donation?*
Perceived conflict of saving vs. donations	*Healthcare community doesn't think of DCD as an option so early in the process of the injury. The mindset is on the treatment.*
Cost issues	*DCD is very expensive for the hospital. You need to have the staff and ORs ready, the services are expensive, including drugs, surgery, postsurgery, etc.*
Healthcare team has failed	*Many healthcare professionals see the OPO when they have failed. This is very disappointing for a physician/nurse to make a referral because it means they couldn't save that patient.*
Lack of trust of OPO	*Perceptions that the transplant team is standing above an individual waiting to die, while prepped and draped for surgery.*

DCD, donation after cardiac death; OR, operating room; OPO, organ procurement organization.

DCD Dimensions	Potential Research Issues
Knowledge about DCD process	1. Self-reported measures of DCD knowledge 2. Measurable assessment of the DCD process and protocol using standardized tests and/or open-ended responses
Trust of organ procurement organization	1. Problems associated with transplant/procurement organization and attendees' having different goals 2. Perceived level of trust for transplant/procurement organization 3. Perceptions of the extent to which transplant/procurement organization places too much priority on recovering organs at patients' expense
Concerns with DCD process	1. Fear the heart won't stop after support is removed 2. Medical team has to "watch" patients die 3. Families are not with the patient when life support is removed 4. Healthcare team must "wait" for the patient to die 5. Disappointment that not all organs can be used
Psychological barriers: DCD vs. brain death	1. Ability of families to "let go" of a brain dead patient compared with a DCD patient 2. Families' comfort with DCD vs. brain death donations 3. Criteria of death for DCD vs. brain death 4. Perceptions of the DCD process vs. brain death 5. Religious beliefs for DCD vs. brain death 6. DCD vs. brain death when donors are younger
Saving vs. killing patients	1. Whether with DCD you are hastening a patient's death 2. Whether DCD "trivializes" the patient's death and/or gives the death less meaning 3. Whether healthcare professionals will feel they have an active role in "killing" DCD patients 4. Whether family members will feel they have an active role in "killing" DCD patients
Has state of death been reached?	1. Does brain death mean that a patient is not living? 2. Does DCD mean that a patient is not living? 3. Is quality of life gone? 4. Is death inevitable? 5. Has futility been reached?
Support for DCD	Multi-public support, including 1. Certified requester 2. Healthcare professionals 3. Families
Moving from care provider to organ donation	1. Nurse and physician comfort discussing end-of-life issues 2. Difficulty nurse and physicians have moving from saving lives to advocating donation

DCD, donation after cardiac death.

T.S.'s Case

- T.S. was a 17 yo man admitted to the hospital after a suicide attempt by hanging which resulted in a PEA arrest.
- He was resuscitated and underwent therapeutic induced hypothermia
- Unfortunately after re-warming it was clear he had suffered severe and irreversible anoxic brain injury
  - He had minimal brainstem reflexes and had significant cerebral edema on his CT scan now several days after his arrest

T.S.’s Case

- Family conference followed to relay the current information about T.S.’s prognosis
- His family, although somewhat fragmented with several decision-makers involved, all were clear that current life-sustaining measures should be withdrawn given the fact that there was no reasonable hope for significant and meaningful neurologic recovery

T.S.’s Case

- T.S.’s grandmother initially brought up the question of whether organ donation was possible. Ultimately, the entire family, including T.S.’s 5 year old brother, were very supportive of donation
- We then commenced with the DCD evaluation and felt it was only moderately likely that T.S. would arrest within the timeframe for donation
- Given the family’s very strong wish to pursue donation to pull out something positive from this tragedy, we elected to pursue the attempt at donation

T.S.’s Case

- Family elected not to be in the operating room at the time
- T.S. was extubated and died 61 minutes later.
- Organ procurement was attempted but no organs were able to be used for donation.

Issues Uncovered

- The OR team was palpably uncomfortable with DCD
- The ICU nurse was uncomfortable with end-of-life care in general and with DCD
- An anesthesiologist not directly involved with the case lacked knowledge about the DCD intent and process
- It was our first DCD case in several years so we all lacked familiarity with our process and policy

Attempts at Improvement

- Increased communication with all team participants particularly the bedside RN and OR team
  - Including an opportunity to allow staff to opt out of participating in the case for any reason—lead to at least one procedure change at our institution
  - Ensuring that all team members are very clear about each detail of the process to eliminate confusion
- Taking advantage of "teachable moments" to discuss the DCD process in general
- Openly discussing the emotional and psychological issues surrounding DCD in general and the case at hand
  - Both at the time and in a post-procedure debriefing process.

Resources

- *Understanding the Antecedents of the Acceptance of Donation After Cardiac Death by Healthcare Professionals.* D'Alessandro, A.M.; Crit Care Med 2008;36(4):1075-1081.
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