Ch. IV-32 Terminal Withdrawal of Life Support

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ISSUE: A patient is transitioning to comfort care. How do you do this compassionately?

ETHICS OF DISCONTINUING LIFE SUPPORT

Since the inception of modern intensive care, it was recognized that otherwise fatal illnesses ending in respiratory arrest might be mitigated. The condition of Brain Death was raised to allow termination of critical care support in patients who lost all neurological functions (see Chs. IV-37, IV-39, and IV-40). Those in the middle between full recovery and brain death however constitute a considerable group and limiting, withholding or withdrawing medical treatments require careful consideration by skilled medical professionals.

There is ethical equivalence of withholding, limiting and withdrawing artificial medical care. Chapter 6.17 describes some of the case law supporting this legally. Your expertise as a medical professional gives you the authority to manage a patient in a manner you consider correct. You are not obligated to provide any care that is considered "medically ineffective." (Notice that I avoid the word "futile" and use the legal standard term.) Your judgment about use of a particular antibiotic, ordering a diagnostic angiogram, or treating ICP with mannitol are all common examples of medical procedures. Perhaps the most challenging however are those surrounding the duration and intensity of artificial life support. These decisions are the same ethically as a decision around mannitol and are governed by the same principals. The goal is to provide medically effective treatments (beneficence and non-maleficence) but also to stop treatments that are medically ineffective. It is this later point that challenges all medical providers.

A family may tell you that their elderly parent who had a severe left MCA stroke with brain herniation had expressed a desire to never live disabled. Since he is intubated for airway protection, you can conclude that you are providing medically ineffective care and should move to extubate when appropriate. Such do-not-resuscitate cases are clear.

The more common scenario involves a patient who has not made her wishes known ahead of time. There is no advanced directive, POLST and no DPOA was assigned. In this setting, neurocritical care physicians utilize skill in identifying what the patient would have wanted in this setting rather than what the family wants for the patient. To preserve patient autonomy, the focus needs to be on the patient's wishes. The nuance of this discussion varies by experience and physician. Some physicians are proactive and make a recommendation for comfort care, while others leave the conclusion open for another family meeting to follow. Regardless of the method, it is important to be a compassionate leader. Compassionately decline to do things that the family may request that are medically ineffective and/or do not align with the agreed-upon goals of care. You can provide alternatives (second consult, offer transfer to a different hospital), but if you feel that what you are being asked to do is wrong, you must decline ethically.

WITHDRAWING LIFE SUPPORT

Once a decision is made to withdraw life-sustaining therapies, the patient's code status should be changed to Do-Not-Resuscitate. Some families wish to be present during terminal extubation. Explain ahead of time that some patients do exhibit some respiratory distress on extubation and that you will give medications to help with any air hunger. It is common to prescribe oral atropine (1% ophthalmic solution) given on the tongue to help dry secretions. Depending on what amount of sedation the patient is on, administering additional morphine or fentanyl prior to extubation is compassionate care. Continuing opioids and perhaps some benzodiazepines following extubation should be at the discretion of an experienced provider with the goal to alleviate suffering but not to terminate respiration. If the doses of opioids need to be escalated for patient comfort, this can be done at the expense of blunting respiratory drive. This rule of

"double effect" is well accepted and considered ethical and legal. Stopping tube feeds, IV fluids, pressors and all other artificial support is appropriate at the time of extubation. Referral to inpatient hospice or palliative care specialists may be appropriate if the patient continues to breathe and is stable from a comfort standpoint.

Many things can go wrong during this process.

- Avoid any other medication than opioids and benzodiazepines. Propofol, dexmedetomidine, barbiturates, etc. are unnecessary and do not have the same legal protections (case law) as opioids and benzodiazepines
- Never terminally extubate a patient who is chemically paralyzed; document train-of-four return prior to extubation
- Do not use a drug like potassium chloride (see Ch. IV-41)
- Explain to the family that some patients may have abnormal reflexive movements, including the "Lazarus sign" where they can flex the trunk and sit up somewhat, following cardiac arrest
- Some patients cannot be made fully comfortable because of slow dose escalation, etc. It is okay to use BiPap or even re-intubate to ensure comfort then try again once the patient is comfortable.

OTHER CONSIDERATIONS

Patients who are being considered for Donation Following Cardiac Death (see Ch. IV-40) are a special extubation circumstance. In such cases the patient has been consented (most commonly via surrogate) to have their organs removed rapidly following cardiopulmonary death. Organ viability is limited by the warm ischemia time, so the choice of which organs to remove is assessed minute-by-minute following cardiac cessation. In cases where the patient maintains circulation beyond the maximal warm ischemia time, the patient is simply continued in comfort care as above. For those who expire soon enough, surgeons remove the organ(s) rapidly for procurement.

It is most efficient to extubate the patient in the operating room. However, many centers perform the extubation and declaration of death in the ICU or other locations such as the post-anesthesia care unit (PACU) then rapidly transfer the body to the OR. This allows for family member presence but may prolong ischemia time.

The key challenge here is to avoid excessive dosing of narcotics during the extubation process in order to enhance organ recovery. That is active euthanasia and not allowed. Rather, use doses of medications that you would otherwise use for terminal extubation. Some centers utilize an anesthesiologist not formally connected with the patient to make dosing decisions; many centers also disallow the physician declaring death from choosing or administering drugs for comfort care to attempt to eliminate potential conflicts.

SUGGESTED READING/REFERENCES

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