

A CHRISTIAN RESPONSE TO “END-OF-LIFE” DECISIONS

Brad Harrub, Ph.D. and Bert Thompson, Ph.D.

[EDITOR’S NOTE: The following article deals with topics of an extremely sensitive nature. I wanted our readers to know that we did not make the decision lightly to write on these issues. Dr. Harrub and I have been involved in multiple situations where we have had to make, or counsel others as they made, critical end-of-life choices. My late Father, C.A. Thompson, D.V.M., entered a coma and experienced brain death resulting from a stroke following heart surgery, which unexpectedly thrust my Mother and me into a surrogate decision-making role regarding his continued hospitalization. Dr. Harrub’s brother, Calvin (one of a pair of twins), went into anaphylactic shock and a coma as a result of a drug reaction, which resulted in the family having to reach a decision about his future care. The information below is thus presented as a result of our combined medical backgrounds, as well as our personal experiences in this area. We hope this material will be of assistance to others who one day may find themselves struggling with the same type of life-and-death situations that we, and others, have had to face.]

It was the call that every parent dreads. A telephone ringing at that time of the night could only mean one thing. As the parents wrestled to answer the phone and turn on the lamp, their brains tried to comprehend what the person on the other end of the line was saying. Their 18-year-old daughter had been in a car wreck, and she was in critical condition. They needed to come to the hospital as quickly as possible. Once at the hospital, the nightmare only worsened. It turned out that this young lady had suffered a traumatic brain injury, and she was now in a coma. Hours turned into days, which then turned into weeks. Slowly, the young lady emerged from her coma, only to proceed into a vegetative state. The parents tried to comprehend what

their daughter’s attending physicians were saying—using medical terms like “Glasgow coma scale,” “persistent vegetative state,” “cerebral atrophy,” “low theta activity,” etc. But all they could really understand was that their beautiful daughter was lying unresponsive in a hospital bed, hooked up to all kinds of machines and tubes. She didn’t eat, she couldn’t speak, she was incontinent, and her eyes—even though open—would not fix on them or on anything else in the room.

Having a family member rendered unconscious is one of the most troubling of all scenarios. But in this day and age, when modern medical technologies often prevent the death of critically injured individuals, families sometimes are forced to face a new and even more stressful dilemma—what to do when a person **remains** in that “persistent vegetative state.” Do we “pull the plug”? Do we “end the pain”? As the Baby Boomer generation ages, many are now facing difficult decisions about what to do with their parents. Diseases such as Alzheimer’s and Parkinson’s often ravage the mind, but leave the body intact enough that the person continues to live in such a way as to be unresponsive to the world around them. Additionally, increased production of automobiles has multiplied the number of motor-vehicle accidents, filling hospital beds with brain-injured patients. And even infants in neonatal intensive care units occasionally are subject to neurologic deficits that can leave them in a vegetative state.

What is a Christian to do during this most stressful of times? How do we make informed decisions that not only are wise medically, but also in accordance with the

will of God? In the past, the only option was to listen to the doctors and do whatever they advised. Today, however, things have changed. Yet while more options exist, and while our justice system may consider a procedure “legal,” that does not mean that the new procedure is right in the eyes of God. Medicine was traditionally a **holy** kind of work, based on care and compassion. But in our society, it has become a business in which the principle of respect for “the sanctity of life” sometimes is lost amidst the desire to generate dollars. As a result, Christians need to prayerfully arm themselves with the wisdom required to make informed choices—should they ever find loved ones in life-or-death situations. In this era, in which church leaders and preachers often find themselves counseling grief-stricken families through times of crisis, it is important for both groups to have a firm foundation on which to give and receive counsel.

Here, we would like to analyze several life or death choices in light of God’s Word, understanding that it is impossible to present every possible scenario. We must recognize that various diseases and injuries result in different physiological outcomes—because we are all unique individuals. In the “real world,” scenarios are not always “cut and dried.” This is not to suggest, of course, that Christians should adopt a view based upon situation ethics. Rather, we should look at each individual case, keeping the sanctity of life in the forefront of our minds. All decisions should thus be formulated around biblical knowledge, a respect for human life, prayer, and a denial of self-interests or emotional desires. Also, let us note that the object of this pres-

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ent investigation is not to criticize or condemn those who previously might have made what turned out to be uninformed choices, or to call into question a doctor's advice. After all, physicians deal with these scenarios on a daily basis, whereas many of us may never have to make such decisions. Like a lighthouse, the information provided here is intended to allow the reader to set his or her course, guided by the beacon of God's Word. This study is merely a response to a need—the need to make sure that Christians have the essential biblical knowledge they require in order to face these new and pressing end-of-life matters.

DEFINING THE PROBLEMS

On rare occasions, we as writers find ourselves caught between the proverbial “rock and hard place.” In order to convey accurate information, we must present certain somewhat “mundane” details, many of which the average reader would be quite content to do without. And yet, we know that without those details, the “rest of the story” will remain, at best, confusing, and, at worst, unintelligible. So we ask you to please bear with us as we present the material in the next section, which will define and give a brief background of the terms that accompany so many ethical dilemmas. We believe your diligence and persistence will be richly rewarded.

Coma

Stedman's Medical Dictionary defines coma as “a state of profound unconsciousness from which one cannot be roused” (McDonough, 1994, p. 210). Following a traumatic injury, unconscious patients are said to be in a coma. After several days (or weeks), patients who do not regain consciousness sometimes will make a transition into a persistent vegetative state.

Persistent (Permanent) Vegetative State

The term “persistent vegetative state” (PVS) was first described by Jennett and Plum in 1972 (1:734-737). [Many physicians find the original term “persistent” to be potentially misleading, as it suggests irreversibility. Thus, over the last thirty years or so, many health workers have opted to use instead the diagnosis of “vegetative state.”] Persons diagnosed in a vegetative state show no behavioral evidence of awareness of self or environment. There is brain damage, usually of a known cause, consistent with the diagnosis. In order for a person to be diagnosed in a “permanent” vegetative state, there should be no reversible causes present, and at least six (or, more frequently, twelve) months should have passed since the initial onset.

Brain Death

Brain death (sometimes called whole-brain death) occurs when the entire brain—including the brain stem—is irreversibly damaged. In 1968, an *ad hoc* committee at the Harvard Medical School formulated a set of criteria for diagnosing brain death, which included unresponsiveness, absence of spontaneous respiration, and loss of brainstem reflex activity. All brain functions have ceased. There are no sleep-wake cycles. The President's Commission (1981) proposed an updated version of the Harvard criteria, and as such, these modified criteria are gaining acceptance for determining brain death (see the discussion in the *Resources* section of this issue).

“Locked-In” Syndrome (or Midbrain Death)

A person with locked-in syndrome shares many similarities to a PVS patient, since the person is almost completely paralyzed. But there is a major difference. Locked-in patients are aware of their surroundings, and frequently can move their eyes purposefully. They are conscious, and can communicate with those around them. Sadly, however, they are “locked-in” to a body that does not allow them to move.

Advance Directive (Living Wills, DNR Orders)

An advance directive is a document that has two parts. The first part allows a person to appoint a health-care agent to make medical decisions for them when they become unable to do so. The second part, which often is called a living will, allows people to state specifically what care they do or do not want to receive at the end of their life. Contrary to popular opinion, most state laws regarding living wills do not allow an individual to avoid pain and suffering from an illness. Do not resuscitate (DNR) orders are directives placed in the medical chart to prevent heroic measures and allow patients to die as a result of disease or injury.

Artificial Feeding (Tube Feeding)

Most of us know it as “tube feeding.” This procedure provides patients with artificial nutrition (from a chemically balanced mix of nutrients) through a tube. This artificial enteral feeding takes place primarily by three different methods. The first is via a tube that is inserted through the nose (nasogastric or “NG” tube). The second is a gastrostomy tube (G-tube). The most common of these are the percutaneous endoscopic gastrostomy tube (PEG tube) or a surgically placed feeding button (Mic-key or Bard button). These require a safe, fairly routine surgical procedure to implant the tube directly into the stom-



ach. Most patients receiving PEGs are elderly, while feeding buttons are seen more commonly in pediatric patients. Between 1988 and 1995, the number of elderly hospitalized patients undergoing this procedure annually increased from 61,000 to 121,000 (Grant, et al., 1998). The third is a jejunal tube. During a jejunostomy, a tube is inserted surgically through the abdominal wall into the small intestine.

Glasgow Coma Scale

The Glasgow Coma Scale is a standardized system physicians use to assess the degree of brain impairment in order to determine the seriousness of injury in relation to an expected outcome. The Glasgow Coma Scale involves three determinants: (1) eye opening; (2) verbal responses; and (3) motor response (movement). Each determinant is evaluated separately, according to a numerical value that indicates the level of consciousness and the degree of dysfunction. Scores run from a high of 15 to a low of 3. Persons are considered to have experienced a “mild” brain injury when their score is 13 to 15. A score of between 9 and 12 is considered to be indicative of “moderate” brain injury, and a score of 8 or less reflects “severe” brain injury.

DECISIONS AND THE LAW OF CAUSE AND EFFECT

One of the arguments sometimes employed in the creation/evolution controversy is the law of cause and effect. Creationists correctly argue that for every material effect, there must be an adequate antecedent cause. Thus, in looking at the Universe as an effect, one must answer the question of what caused it. It is valuable to use this same line of reasoning when considering ethical decisions. Is the person going to die naturally—as an effect of some disease or injury? Or is their death caused by some effect (or decision) a family member makes? If we learn to approach medical situations in this manner, biblical answers become a little easier to identify. Obviously, all humans inevitably will die (Hebrews 9:27), and thus we should not fear or shun death. After all, for faithful Christians, this is a time to rejoice as we prepare for our “heavenly homecoming” (John 14:1-3). But as loved ones get closer to that heavenly goal, we must make sure that **our decisions** do not become the actual **cause** of their deaths.

Prior to the 1960s, physicians made the majority of decisions regarding particular treatments. This paternalistic role for physicians was readily accepted by both patients and doctors as “the way things should be.” But as the number of treatment options have increased, and with the emer-

gence of the legal doctrine of “informed consent,” the concept of patient autonomy has taken over medical paternalism. Individual patient’s values now take precedence over the values or intentions of clinicians. So, as modern medical technology has afforded us more (and often more difficult) choices, the role of decision-making has shifted from the physician to the patient. As such, we must understand that we are responsible to God for our lifestyle and health-care choices. To complicate matters, many individuals now are having to make these difficult choices for a variety of loved ones—without always being fully informed of their loved ones’ desires.

Life is a gift from God. In fact, Paul, as recorded by Luke, noted that we are the offspring of God (Acts 17:28). Writing to the church in Rome, he noted: “For whether we live, we live unto the Lord; and whether we die, we die unto the Lord: whether we live therefore, or die, we are the Lord’s” (14:8). Thus, we must respect the integrity of the life processes that God created—from birth to death, since Christ is “Lord of both the dead and the living” (Romans 14:9). Our decisions for our own care and treatment must reflect this divine truth. Rather than focus on each and every ethical decision an individual must make in regard to his or her own life, **we will focus here primarily on the topic of surrogate decision makers.** That is to say, as Christians, what decisions are we allowed to make, once a loved one has been traumatically injured or has contracted a terminal disease? What will the effect be of the decisions we make for our loved one?

DO I NEED AN ADVANCE DIRECTIVE OR LIVING WILL?

In 1967, Louis Kutner proposed a written document that allowed a person to express his or her treatment wishes—he called it a living will. His proposal went virtually unnoticed until several landmark cases made headline news. Less than ten years later, in 1976, California became the first state to enact law (The Natural Death Act) recognizing the validity of an advance directive. In 1990, the Patient Self-Determination Act was passed by Congress as an amendment to the Omnibus Budget Reconciliation Act, requiring all health-care facilities that received federal funds to ask each patient on admission if he or she has an advance directive. Generally, there is no legal difference between an advance directive and a living will—both refer to the legal agreement that gives someone the authority to make medical decisions for another person (the legal terms do vary from state to state, so be aware of the terms used

in your state). Today, living wills allow a person, while still competent, to communicate to family or physicians what he or she wants done, should incapacitation occur.

Living wills and advance directive forms are almost standardized. In fact, forms that meet your specific state requirements often can be printed from the Internet. However, since most states have passed some form of “advance directive” legislation, it is important for individuals to know exactly what is accepted and required in their home state. These forms normally discuss the extent of treatment options that individuals desire regarding pain medicine, life support, feeding tubes, antibiotics, etc. Additionally, many states require a “durable power of attorney,” which designates a **person whom you choose** to make your treatment decisions in the event that you are unable to do so. In many ways, this has an advantage over the living will, in that it is more flexible and can accommodate most types of medical situations. Living wills often are constrained, in that they cannot predict every possible case scenario. Also, living wills are subject to some “interpretation,” as not everyone would define “extraordinary” treatment the same way (e.g., are food and water ordinary or extraordinary treatment?). The difference between a living will and a durable power of attorney is that the durable power of attorney gives someone you trust the legal authority to review your case when you find yourself in a specified medical condition.

The controversy over advance directives is not unwarranted. Many right-to-life supporters suspect that this is merely a method for right-to-die advocates to impose their values. Because words like “comfort” and “dignity,” are employed, they fear that, over time, procedures like euthanasia will be worked into the forms. Trevor Major noted:

Discussions at several euthanasia conferences in the mid-1980s made it evident that living will acts are simply the first item on the agenda (Hobbs, 1986, pp. 6-9). Once the “right to die” idea is accepted and its meaning broadened, then the “right to kill” can be incorporated into living wills (1991).

But the forms themselves are not inherently bad. Is there anything inherently wrong with a document that details the specific type of care you want to receive? Utilizing these forms can help ensure that you are treated in a manner in accordance with God’s will. If we make these decisions with the sanctity of life and the sovereignty of God in mind, then there is no conflict. In fact, this will leave little confusion in the mind of your family and physician as to how you expect to be treated.

Unfortunately, the effectiveness of living wills leaves much to be desired. Often-times, unless a family member is waving it in the face of an emergency room physician, or it is placed clearly on the medical chart of a hospitalized patient, then physicians are unaware of its existence; thus, the living will is ignored in an emergency situation. Frequently, a “do not resuscitate” order (DNR), or its close cousin, the “do not escalate care” order (DNEC), proves much more useful in a clinical setting. The DNR order often is specifically tailored to a loved one’s situation, because caregivers will sit down with the family and explain all the things that can happen in a “code” (potentially fatal) situation. This allows the family to give very specific orders regarding what to do should the patient’s organs begin to fail, or should the heart stop beating. The DNEC order is similar, and allows families to withhold “heroic measures” if a patient is near death and begins to deteriorate in health. Again, however, the key is knowing what the patient wants before he or she is in that situation, and ensuring that nothing occurs that violates the sanctity of life.

WHAT SHOULD A CHRISTIAN DO IF A LOVED ONE IS IN A COMA?

Head trauma is the number one cause of death and disability among people between the ages of one and forty-four. As such, most people have heard of, or are somewhat familiar with the term, “coma.” Since this can be the initial state in which head injury patients find themselves, it is the ideal starting place for examining ethical decisions. For families, frustration and anguish are only exacerbated by questions about the best choices for care, insurance coverage, and moving the comatose person to or from various hospital units such as the Coronary Care Unit (CCU), the Surgical Intensive Care (SIC), Neuro Intensive Care (NIC), etc. And that does not even take into consideration the mind-numbing issues that are raised as a result of the loved one’s sudden coma condition. Normally, coma patients are “graded” using the Glasgow coma scale.

Coma involves two different concepts: (1) **Reactivity** refers to the innate (or in-born) functions of the brain, i.e., the tele-receptors (eyes and ears), the nociceptors (responses to pain), the arousal reaction (wakefulness), and the orienting response (turning one’s head toward the source of sound or movement). We also could refer to these as reflexive movements; and (2) **Perceptivity** refers to the responses of the nervous system to stimuli, which have been learned or acquired, i.e., language, communication skills, individual methods of movement such as gestures, etc. Perceptiv-

ity also refers to less-complex learned or acquired reactions, such as flinching when threatened. We also can think of these as conscious movements.

A person in a coma does not exhibit reactivity or perceptivity. He/she normally cannot be aroused by calling his/her name, or as a response to pain. Many people are surprised to learn that not all stages of coma resemble what we have been taught to expect—a deep sleep. The person in the coma may exhibit movement, make sounds, and experience agitation. It is important to keep in mind that the coma patient may exhibit reflex activities, which mimic conscious activities. However, these movements are not reactive or perceptive in their nature.

Individuals caring for critically injured patients stress that it is very important to remember to speak positively to, and in the presence of, the person in a coma. Some patients claim to remember very distinctly some of the events that occurred while they were in a coma. And although we cannot be positive about the level of awareness in any particular case, studies show that a positive attitude may be beneficial to the recovery of the patient. In making decisions concerning someone in a coma, it is best to be longsuffering. Since the brain is confined in a hard, bony case, it does not have the space to swell, as an arm or a leg might. This initial swelling, or edema, suppresses the brain. Sometimes this suppression is severe enough that a coma results. When the edema subsides, the suppression of the brain that resulted from the swelling ceases, and the individual often regains consciousness. By allowing **the edema to decrease or disappear**, often the individual can be properly evaluated to determine the extent of the injury that has been sustained. [NOTE: There are some clinical conditions—such as untreatable uncal herniation, severe diffuse axonal injury, bacterial meningitis with large cerebral abscesses, etc.—that **are caused by or can cause cerebral edema.**] Normally, patients will either expire or emerge after a given period of time. One of the difficulties doctors have in assessing comatose patients is that they receive no verbal feedback from the patients themselves; thus, they are dependent on information that can be gleaned from a physical examination (i.e., pupillary light reflex, corneal reflex, oculocephalic reflex, gag reflex, apnea test, etc.). As Robert Veatch noted: “Measuring irreversible loss of capacity for a brain function such as consciousness involves fundamentally nonscientific value judgments” (1993, p. 23). Thus, while that comatose individual is still alive, and while his or her future is uncertain, we must be patient and help those who are weak (Romans 15:1).

AN EXAMINATION OF THE VEGETATIVE STATE

“Mom, I love you.” According to the *New England Journal of Medicine*, these were the words written by the young 18-year-old girl more than fifteen months following the car accident mentioned in the introduction of this article (Childs and Mercer, 1996, 334:24). At fifteen months, nurses began to notice rare and inconsistent responses to certain commands. Three years after the injury, she was communicating using eye blinks to signal “yes” and “no.” Five years after the injury, she could follow conversations, and could communicate by uttering words and short phrases. The article noted: “She enjoyed pampering, and her mood was usually euphoric.... She had no behavioral evidence of depression or despondency over her deficits. She enjoyed humor, making jokes and teasing her caregivers” (334:24). While she remained wheelchair bound and totally dependent for her care, the young lady was discharged and allowed to return home **5.2 years** after the injury. The importance of this story should not be overlooked, and, in fact, was not missed by the authors of the article, who lamented:

More relevant is the risk of prognostic error in patients in a persistent vegetative state who survive for 12 months. The available data are insufficient to provide a trustworthy estimate of the incidence of late improvement, because of erratic follow-up, incomplete reporting, and uncertain diagnosis. ...In retrospect, one could not predict the eventual improvement in our patient (334:24).

This recovery should not come as a total surprise. In a 1994 Multi-Society Task Force review of the scientific literature, half of the head-injury patients who were vegetative at one month, had regained consciousness after a year, as had one-third of those who were vegetative for three months. In fact, one study concluded: “**The diagnosis of the permanent vegetative state cannot be absolutely certain.** There is no standard test of awareness and data on prognosis are limited” (Wade, 2001, 322:352, emp. added). Persistent (or permanent) vegetative state is clinically defined as “a loss of any meaningful cognitive responsiveness, presumed lack of awareness and therefore consciousness, while there is spontaneous breathing and a range of reflex responses as well as periods of wakefulness (eyes open)” (Adams et al., 2000, 123:1327, parenthetical item in orig.). Jennet noted that “it is often described as loss of function in the cerebral cortex while the function of the brainstem is preserved” (1997, 12:1-12).

As Christians, we must understand that there is a very real danger that those who have been diagnosed as being in a vegetative state will, in fact, be viewed as “vegetables” and, therefore, “subhuman.” These patients are still very much alive by all commonly accepted medical and ethical criteria. Life is life. An individual’s self-worth is not dependent on mobility and/or function. Rather, it rests in the fact that every human has been created in the “image and likeness of God.” God—not man—is the One Who establishes humanity’s significance. Another key problem with PVS is the name of the syndrome itself: persistent (or permanent) vegetative state—the notion being that the individual lying there is never going to recover to live any type of “useful” life. However, the above case (and others like it) suggest(s) otherwise.

The American Medical Association estimates that 10,000 to 25,000 adults, and 4,000 to 10,000 children, currently are living in a PVS in the United States. The vast majority of those **do not** require assistance to breathe, but some do require artificial feeding. Disconnecting those people from food and water would incontrovertibly result in the death of more than three-to-five times the number of people killed in the 2001 World Trade Center attack! Yet, given proper nutrition and care, these patients can live in such a state for many years (the longest PVS case on record is 41 years—the person not having improved much if any during the intervening time). The legal argument is straightforward. Patients must consent to any treatment they receive; otherwise, the doctor is liable for battery to

that person. But vegetative patients are unable to give consent, and therefore can be treated only if it is in their best interest—something that must be decided by a surrogate decision maker. The fact is, individuals who are in a vegetative state **are alive!** In spite of current efforts to “update” the definition of death, someone with measurable brain activity, yet in a PVS, is not dead.

Biblical teaching regarding the nature of man acknowledges that he is composed of two distinct parts—the physical and the spiritual. In 2 Corinthians 4:16, Paul wrote: “...but though our outward man is decaying, yet our inward man is renewed day by day.” By definition, that which is spirit “hath not flesh and bones” (Luke 24: 39). In some fashion, then, God has placed within man a portion of His own essence—in the sense that man possesses a spirit that will never die. The prophet Zechariah spoke of Jehovah, Who “stretcheth forth the heavens, and layeth the foundation of the earth, and formeth the spirit of man within him” (12: 1). The Hebrew word for “formeth,” *yatsar*, is defined as “to form, fashion, or shape (as in a potter working with clay;” Harris, et al., 1980, 1:396). The same word is used in Genesis 2:7, indicating that both man’s physical body (of which that passage is speaking) and his spiritual nature (of which Zechariah 12:1 is speaking) were formed, shaped, molded, or fashioned by God.

In James 2:26, James observed that “the body apart from the spirit is dead.” The point, of course, was that when the spirit departs the body, death results. But there is an obvious, and important, corollary to that statement. If the body is alive, it must

be the case that the spirit is present. This is a biblical principle that cannot, and must not, be ignored—especially in light of the present controversy. Is the person who is ill still alive? Yes. Is the soul present? Again, according to the Bible, the answer is clearly yes. God’s command, “Thou shalt not kill” (Exodus 20:13; Mark 10:19), never has been rescinded.

This realization—that Christians should not prematurely terminate the life of someone in a PVS—may not be welcomed by certain individuals. In fact, family members who have had to struggle with watching their loved one exist in a state far removed from their previous existence may take offense at such a suggestion. After all, they are the ones who have to bathe, feed, turn, change, and tend to the individual. They are the ones who watch bedsores come and go, and who are forced to shuffle their lives, careers, and families around ICU visiting hours. Seeing their loved one so helpless, has led many to subscribe to the mantra that those in a vegetative state “have no quality of life; there is not a person ‘at home’ in the body.” How, then, would one explain the awakening of Gary Dockery after 7½ years in a PVS? Upon awaking, he talked eighteen hours, recalling family members’ names, names of pet horses, etc.

Or how about the 18-year-old girl who remained in a vegetative state for 2½ years following a traffic accident? She then began to show signs of responsiveness. Six years after the accident, she was able to comprehend and communicate and, according to her doctors, “shows considerable interest in her surroundings and is able to establish interpersonal relationships. **Moreover, the improvement is still continuing**” (Arts, et al., 1985, 48:1300, emp. added). In 2003, Marcela Lippert-GrUner, Christoph Wedekind, and Norfird Klug analyzed 24 patients in an effort to determine the outcome of prolonged coma following severe traumatic brain injury (Lippert-GrUner, et al., 2003). One year after suffering the initial traumatic brain injury, six patients had died, three remained in a vegetative state, six were severely disabled, six were moderately disabled, and three achieved a relatively good recovery. These results indicate that there is a full spectrum of possibilities when dealing with those who have brain injury. [Consider as a case in point 39-year-old Terry Wallis, who awoke after **19 years** in a coma!]

As evinced by Dockery’s case and this one-year-long study, there are no 100% fool-proof methods of determining one’s outcome. In fact, brain pathology is not even a good indication of the syndrome itself.



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Adams and colleagues

have considerable experience of the neuropathological abnormalities in patients who remained severely disabled but not vegetative as a result of an acute brain insult. In some of these brains, there were lesions similar to those found in some of the vegetative patients, particularly the traumatic group.... It is clear...that this condition can occur in patients in whom there are no identifiable structural abnormalities in the cerebral cortex, the cerebellum or the brainstem (2000, 123: 1336).

In a paper titled “Misdiagnosis of the Vegetative State: A Retrospective Study in a Rehabilitation Unit,” specialist Keith Andrews noted:

...of the 40 patients referred as being in the vegetative state, 17 (43%) were considered as having been misdiagnosed.... Most...were blind or severely visually impaired. All patients remained severely physically disabled, but nearly all were able to communicate their preference in quality of life issues—some to a high level.... Recognition of awareness is essential if an optimal quality of life is to be achieved and to avoid inappropriate approaches to the courts for a declaration for withdrawal of tube feeding (1996, 313:13-16).

Given that diagnoses can be difficult, and recognizing that the person is alive, Christians must ensure the sanctity of life, and comfort the afflicted loved one through this traumatic period (Psalm 82:3-4). **We must ask: Are we trying to end our loved one’s suffering, or our own?**

BRAIN DEATH: WHOLE OR PARTIAL?

Brain death (BD) is not the same as persistent vegetative state. The two conditions are totally different, and families making decisions regarding a patient who is brain dead must remember this. As Cabrera-Lima noted:

If we keep in mind the present concepts of BD, it’s not correct to homologate both terms.... **It is not ethical to withdraw a medical treatment of a patient, when we know there is the structural possibility of recovering some functions** [as occasionally is the case with PVS—BH/BT] (1999, 28:1104, emp. added).

Frequently, when we hear people discussing “pulling the plug,” they are referring to an individual who has been classified as brain dead. Individuals who are brain dead cannot breathe on their own; thus, ventilators are required to oxygenate their blood (see the *Resources* section of this issue for a history regarding determination of brain death).

Robert Veatch, director of the Kennedy Institute of Ethics at Georgetown University, has been highly influential in recent discussions of the definition and determination of death. Veatch observed that there is

widespread agreement that two separate issues are really at stake in the debate over the determination of death. The first question is essentially philosophical, conceptual, and ethical: Under what circumstances do we consider a person dead? The question is asked in several ways. What are the necessary and sufficient conditions for a person to be alive? What is the essential characteristic of persons such that its loss can be said to constitute death?... Once a concept of death has been chosen, one can turn to a second, more scientific question: How, empirically, does one measure the irreversible loss of whatever functions have been determined to be essential for life? (1986, pp. 144-145).

One of the four categories Veatch suggested for defining death is “neocortical death.” This is a new definition for brain death that some are attempting to defend, in an effort to free up additional donor organs—a position that clearly is a slippery slope. This places the locus of death in the neocortex (the outer layer of the brain covering the cerebrum). This sometimes is referred to as “cerebral death,” “higher brain death,” or the “ape-like syndrome.” According to Robert Rakestraw,

when neocortical functioning is irreversibly lost (as determined by a variety of criteria, including the EEG) the person is dead, because the concept of death in this case is the “irreversible loss of consciousness or the capacity for social interaction” or both. This is the condition of PVS individuals. According to definition three, these are not dead. Those who would say that such are dead focus on the neocortex because it appears to be the biological precondition for consciousness and self-awareness, the basis of personal life and social interaction. But because those in PVS are clearly not dead biologically, and because cases of recovery—though extremely rare—have been known for those who were thought to have lost neocortical function, no national or state government nor any religious body has officially endorsed neocortical death as an acceptable understanding of death (1992, parenthetical item in orig.).

Rakestraw correctly noted: **“While neocortical destruction is a necessary condition for diagnosing death, it is not considered sufficient by various official bodies.”**

Some might ask, why not proceed with “extraordinary” measures for brain-dead patients. After all, aren’t vegetative patients and brain-dead patients in the same predicament? No. Comatose or vegetative patients suffer from a **decrease** in brain function, and thus, the person is alive—with a chance of regaining consciousness. Brain death is the irreversible **absence** of all brain function. There is no chance of recovery with brain death. When someone is brain dead, it means there is no oxygen or blood flow to the brain. Their brain no longer is functioning in any capacity, and never will again. Neurons are undergoing necrosis. However, it does not mean that all other organs, such as the heart, kidneys or liver, are no longer viable. And this is where the confusion arises.

Legal death happens at the point of irreversible cessation in brain activity. Brain activity is a necessary condition to legal personhood, and, perhaps with the exception of early stage embryos, it is a sufficient condition for legal personhood. The recorded time of death is when the physician actually pronounces the patient dead. Many patients are pronounced dead on the basis of brain death (with the heart still beating). Medically and legally, the patient is dead at that point (others are pronounced dead after all of the support machines have been turned off and the heart stops beating). But here again we must realize the caution that Christians must take in making these decisions. Great care must be taken not to declare a person “dead” even one moment before death actually has occurred. **Death should be declared only after, not before, the fact.** A person who is dying is still alive, even a moment before death, and must be treated as such. Thus, Christians must realize that whole-brain death is a necessary criterion for making end-of-life decisions. “Pulling the plug” on an individual who has suffered from “only” neocortical death is, in essence, killing a living person (cf. Genesis 9:6).

SHOULD CHRISTIANS STOP ARTIFICIAL FEEDING AND HYDRATION?

It was January 11, 1983, when Nancy Cruzan’s car hit a tree, throwing her out of the car into a nearby ditch. The paramedics found her approximately 18 minutes later. She was not breathing, and had no heartbeat. Although they were able to reestablish her heartbeat and breathing, she never regained consciousness. Her parents were appointed guardians, and eventually asked the hospital staff to terminate the artificial nutrition and hydration procedures that kept her body functioning. However, the staff refused to comply without

court approval. The Missouri court ruled in favor of the family, but the State's Supreme Court and the U.S. Supreme Court ruled against them. It was only after hearing "clear and compelling" evidence that the court allowed Joe and Joyce Cruzan to remove the tubes that were providing their daughter with food and water. Twelve days later, at the tender age of 33, Nancy died from dehydration.

The courts have ruled that the termination of ventilation, hydration, artificial nutrition, and other forms of medical treatment is legally and medically acceptable. **We argue strongly against such a position,** and insist instead that air, food, and water represent necessary requirements for any living individual (and even animals!), since they are the sustenance of life.

Stopping food and water will **undoubtedly** lead to death within 14 days. Plainly put, **the individual will die from dehydration—not the disease or injury that caused their hospitalization.** Who would intentionally withhold food and water from any loved one, regardless of age or physical condition? Jesus cautioned: "For I was hungry and ye gave me to eat; I was thirsty and ye gave me to drink" (Matthew 25:35).

Additionally, there is ample evidence that unconscious people **do suffer** if they die from dehydration (see Steiner and Bruera, 1998), and yet we submit individuals (who are unable to respond) to this cruel and inhumane treatment. Removing food and water would undoubtedly result in the imminent death of the individual. Some would argue that sustaining an individual with nutrition and hydration merely prolongs that person's "existence," not their life. **Christians, however, must not accept or embrace any procedure that deviates from a general rule in which the sanctity of life is upheld.** Joseph Howard wrote:

We must recognize that the deliberate denial of food and water to innocent human beings in order to bring about their deaths is homicide, for it is the choice to kill by starvation and dehydration. Such killing is seriously immoral, and should never be legalized.... The fact that the killing is done by an act of omission makes it no less reprehensible (1994, p. 61).

We as Christians must recognize that the presence of brain activity constitutes a living person who has a right to nourishment. Having a feeding tube in place is not a "heroic measure," nor is it providing some type of "extraordinary care," but rather it is quite "ordinary" care. We must ask, then: Other than hastening the death of someone, what possible motive could a person possess for withholding food and water—the most fundamental of all human needs?

Have we forgotten that these individuals reared, molded, and loved us? Are we then to turn our backs on them when they need us the most? Should we give in to evolutionary teachings which suggest that we must abandon the weak, leaving only the strong to survive? King David pleaded with God: "Forsake me not when my strength faileth" (71:9). Would our plea today be any different? Our decisions regarding our loved ones must take this into account, must they not?

CONCLUSION

God's Word tells us that death is a fact of life for all humans (Hebrews 9:27). Ecclesiastes 3:2 points out that there is "a time to be born, and a time to die." For the average "armchair" reader, these issues may seem crystal clear. But to the husband contemplating the loss of a wife of forty years, or to parents faced with the decision of quitting their jobs and going on welfare in order to stay home and care for their invalid child, the matter is far less esoteric. In an age where values cling all too closely to pocketbooks, some are finding more and more ways to "free up" hospital beds. Thus, it appears that the best "treatment" for individuals suffering from Lou Gehrig's disease (ALS), Parkinson's, Alzheimer's, or traumatic injury is—death!

At times, the laws of man are of little use, since what is **legal** may not be what is **right** in the eyes of God. Similarly, our instincts and insights may be of no use, since they often are clouded by pain or emotion. Therefore, we must prayerfully request the wisdom that God has promised to give to those who ask (James 1:5). Mature Christians understand that even in suffering, there can be reward. Sometimes, our own suffering permits us to comfort others who find themselves in a similar situation. And, sometimes, others are afforded the same blessing as a result of our suffering. When we come to end-of-life decisions—as many of us will—our decisions must be based, first and foremost, on God's Word. Of all the times in our lives when we need to search earnestly for a "thus saith the Lord," or for the principles contained within the "perfect law of liberty" (James 1:25), surely these are such times.

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INTRODUCING OUR NEW SCIENTIFIC ILLUSTRATOR—THOMAS TARPLEY

As I suspect you have noticed, the last several issues of *Reason & Revelation* have made extensive use of professional artwork, drawings, tables, and graphics to illustrate the content of the articles. The old saying, “a picture is worth a thousand words,” has a lot of truth to it. And, in the future, we plan to include even more artwork and graphics, where appropriate, in our articles. Unfortunately, however, those pictures do not come cheap. While we have been extremely successful at keeping our costs down for the artwork and graphics that we do use (by working with other non-profit groups, receiving special consideration from artists and authors, etc.), the fact of the matter is that we frequently have to purchase copyrighted materials for use in *R&R*. We want the journal to be as professional as possible, and we do not want to employ an old adage—“a dollar waiting on a dime.” Timely articles deserve the very best illustrations.

We have long recognized the need for an in-house, professional scientific illustrator—someone to whom we could convey our ideas, and who then could take those concepts and turn them into the type of full-color artwork that we use in *Reason & Revelation* and *Discovery*, in our books and tracts, and on our Web sites. By the time 2003 ends, we will have published 3-4 new books, and will have submitted six manuscripts to scientific journals—all of which required expensive illustrations. Rather than wrestling with copyright and cost issues, it would have been nice to have our own images to use in those publications as we please.



Komodo dragon (©Thomas Tarpley)

in science illustration from the graduate program of the University of California, Santa Cruz (which accepts only ten students a year into its program in this area). Equally impressive is the fact that he served his internship in the Department of Vertebrate Paleontology at the vaunted American Museum of Natural History in New York City. However, Thomas did not want his biological and artistic talents used in support of evolutionary theory. So, for approximately two years he worked as a scientific illustrator for Answers in Genesis, a creationist organization in Florence, Kentucky.

For quite some time, we had been thinking about hiring someone of Thomas’ caliber, and so when I learned that there was a possibility that he might be available, I invited him and his wife Debbie (an elementary schoolteacher) to visit our facilities, which they did in mid-June. During their visit, my staff and I carried out extensive interviews with Thomas—interviews that confirmed what we already suspected: Thomas is exactly the man to do what we need done. I therefore offered him a position, and he has accepted. He and Debbie moved to Montgomery in mid-July to join us in our work at Apologetics Press.

Thomas is a young man of incredible talent and extraordinary humility. You will be witnessing a lot of that talent in the future as you read *Reason & Revelation* or *Discovery*, and as you visit our Web sites. I invite you to join with me in welcoming Thomas and Debbie to the A.P. family.

Bert Thompson



And that brings me to the point of this editor’s note. Over the past couple of years or so, I’ve had my eye on a young man whom I’ve known since he was in the sixth grade in Chattanooga, Tennessee. His name is Thomas Tarpley. Thomas is an unbelievably gifted, first-class scientific illustrator. He not only possesses extraordinary talent, but also is eminently qualified—from both academic and experiential viewpoints—to do exactly what we need done. He holds an earned B.S. degree in biology from Freed-Hardeman University, and an earned master’s certificate