

# The Case of L.W.: An Argument for a Permanent Vegetative State Treatment Statute

ROBYN S. SHAPIRO\*

## I. INTRODUCTION

Advances in medical science that permit the artificial maintenance of circulation, respiration, and nourishment functions are forcing changes in the way the law looks at death. Historically, cardiopulmonary cessation was the sole criterion for determination of death.<sup>1</sup> Now, however, the vast majority of states supplement the cardiopulmonary test for death with a whole brain death standard, pursuant to which death is declared when there is irreversible cessation of all functions of the entire brain, including the brain stem.<sup>2</sup> The condition of permanent vegetative state, as exists in the patient in a recent Wisconsin case<sup>3</sup> and as many as 25,000 other patients in the United States,<sup>4</sup> is today pressing the law for yet another supplement to the legal definition of death. The absence of readily available and absolute diagnostic tests for determining whether a patient is in a permanent vegetative state, however, may render premature any consideration of neocortical brain death, or permanent vegetative state,<sup>5</sup> in the legal definition of death. This article examines the development of the whole brain definition of death, the clinical realities of permanent vegetative state, case law treatment of decisions to withhold treatment from those in a permanent vegetative state, and a proposed Model Permanent Vegetative State Treatment Statute.

## II. WHOLE BRAIN DEATH

Due to the development of sophisticated life-support technologies over the last twenty years, society has reexamined and attempted to clarify the legal definition of death. Since the 1968 publication of the "Harvard Criteria" for

---

\* J.D. Harvard Law School, 1977, Director of Center for Study of Bioethics, Associate Professor of Bioethics Medical College of Wisconsin; Associate, Quarles & Brady, Milwaukee, Wisconsin.

1. President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research, *Defining Death: A Report on the Medical, Legal and Ethical Issues in the Determination of Death* 5 (1981) [hereinafter President's Commission, *Defining Death*]. Cardiopulmonary death is indicated by absence of pulse and a flat-line electrocardiographic response. Youngner & Bartlett, *Human Death and High Technology: The Failure of Whole-Brain Formulations*, 99 ANN. INTERN. MED. 252, 253 (1983).

2. See President's Commission, *Defining Death*, *supra* note 1, at 32-8.

3. In the Matter of the Guardianship of L.W., Case No. 89-1197, Wisconsin Court of Appeals.

4. *Persistent Vegetative State and the Decision to Withdraw or Withhold Life Support*, 263 (3) J.A.M.A. 426, 427 (1990). Report of the American Medical Association's Council on Scientific Affairs and Council on Ethical and Judicial Affairs [hereinafter "Persistent Vegetative State"].

5. Neocortical brain death embraces the condition of permanent vegetative state. It defines a clinical condition in which the critical elements of the central nervous system have been destroyed, leaving the patient in an irreversible unconscious condition. It occurs "when the brain damage is permanent and sufficiently severe that the individual is thereafter unable to maintain homeostasis (i.e., gives no self-awareness and is unable to respond behaviorally in any major or appropriate way to the environment), even though the brain stem may continue to maintain internal (vegetative) homeostasis." F. PLUM & J. POSNER, *THE DIAGNOSIS OF STUPOR AND COMA* 313 (3d ed. 1982).

brain death,<sup>6</sup> a growing consensus has rejected the traditional exclusive reliance on heart-lung death criteria, wherein a person is deemed to be legally dead if he has sustained irreversible cessation of circulatory and respiratory functions. Forty states and the District of Columbia now have statutes that incorporate whole brain death into their definitions of death;<sup>7</sup> and courts in six other states have adopted a whole brain death definition.<sup>8</sup>

In addition, numerous professional groups, including the American Bar Association, the American Medical Association, the American Academy of Neurology, the American Electroencephalographic Society, the National Conference of Commissioners on Uniform State Laws, and the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research (hereinafter "President's Commission") have endorsed the Uniform Determination of Death Act,<sup>9</sup> which incorporates both cardiopulmonary and whole-brain-based criteria for the determination of death:

An individual who has sustained either (1) irreversible cessation of circulatory and respiratory functions, or (2) irreversible cessation of all functions of the entire brain, including the brain stem, is dead.<sup>10</sup>

Once death (by either standard) has been diagnosed in accordance with accepted medical criteria, the pronouncement of death and discontinuation of life support systems are mandatory. The ethical principles of autonomy and beneficence, as well as the patient's previously expressed wishes, and the wishes of the family, are not relevant to the decision to discontinue life support systems. While some contend that the main objective of the development of brain death was to enhance the ease and efficiency in transplanting donated organs, the President's Commission notes that a major benefit is to replace artificial support

6. Report of the Ad Hoc Committee of the Harvard Medical School to Examine the Definition of Brain Death, *A Definition of Irreversible Coma*, 205 (6) J.A.M.A. 337 (1968).

7. ALA. CODE § 22-31-1 (1984); ALASKA STAT. § 9.65.120 (1983); ARK. STAT. ANN. § 20-17-101 (1987); CAL. HEALTH & SAFETY CODE § 7181 (West 1990); COLO. REV. STAT. § 12-36-136 (1985); CONN. GEN. STAT. ANN. § 19a-279(h)(b) (West Supp. 1989); D.C. CODE ANN. § 6-2401 (1989); FLA. STAT. § 382.085 (Supp. Pamphlet); GA. CODE ANN. § 31-10-16 (1979 & Supp. 1984); HAWAII REV. STAT. § 327 C-1 (1976 & Supp. 1984); IDAHO CODE § 54-1819 (1988); ILL. ANN. STAT. ch. 110 ½ para. 302 (Smith - Hurd 1978); IND. CODE ANN. § 1-1-4-3(a) (Burns 1988); IOWA CODE ANN. § 702.8 (West 1979); KAN. STAT. ANN. § 77-205 (1984); KY. REV. STAT. ANN. § 446.400 (Michie/Bobbs-Merrill 1988); LA. REV. STAT. ANN. § 9:111 (West Supp. 1990); ME. REV. STAT. ANN. tit. 22, § 2811 (1989); MD. HEALTH - GEN. CODE ANN. § 5-202 (Supp. 1985); MICH. COMP. LAWS § 333.1021 (1980); MINN. STAT. ANN. § 145.135 (West Supp. 1990); MISS. CODE ANN. § 41-36-3 (1972); MO. REV. STAT. § 194.005 (1983); MONT. CODE ANN. § 50-22-101 (1989); NEV. REV. STAT. § 451.007 (1986); N.H. REV. STAT. ANN. § 141-D:2 (1989); N.M. STAT. ANN. § 12-2-4 (1978); N.C. GEN. STAT. § 90-323 (1985); OHIO REV. CODE ANN. § 2108.30 (Anderson Supp. 1988); OKLA. STAT. ANN. tit. 63, § 3122 (West Supp. 1990); OR. REV. STAT. § 146.001 (1983); PA. STAT. ANN. tit. 35, § 10203 (Purdon Supp. 1989); R.I. GEN. LAWS § 23-4-16 (1989); S.C. CODE ANN. § 44-43-460 (Law. Co-op 1976); TENN. CODE ANN. § 68-3-501(b) (1987); TEX. HEALTH & SAFETY CODE ANN. § 4447t (Vernon 1990); VT. STAT. ANN. tit. 18, § 5218 (1987); VA. CODE ANN. § 54.1-2973 (1988); W. VA. CODE § 16-10-1 (1989); WIS. STAT. § 146.71 (Supp. 1985); WYO. STAT. § 35-19-101 (1988).

8. *State v. Fierro*, 124 Ariz. 182, 185-86, 603 P.2d 74, 77-78 (1979); *Commonwealth v. Golston*, 373 Mass. 249, 251-55, 366 N.E.2d 744, 747-49 (1977), cert. denied, 434 U.S. 1039 (1978); *State v. Meints*, 212 Neb. 410, 419-20, 322 N.W.2d 809, 814 (1982); *State v. Watson*, 191 N.J. Super. 464, 466, 467 A.2d 590, 591 (1983); *People v. Eulo*, 63 N.Y.2d 341, 356-57, 472 N.E.2d 286, 296, 482 N.Y.S.2d 436, 444-45 (1984); *In re Bowman*, 94 Wash. 2d 407, 421, 617 P.2d 731, 738 (1980).

9. See A. MORACZEWSKI & J. SHOWALTOR, DETERMINATION OF DEATH 27-28 (1982).

10. Unif. Determination of Death Act § 1, 12 U.L.A. 271 (Supp. 1985).

with more fitting and respectful behavior once a person has become a dead body.<sup>11</sup>

### III. PERMANENT VEGETATIVE STATE

When total brain death occurs, there is cessation not only of higher cerebral functions (consciousness, awareness, control of important voluntary and involuntary actions), but also of all brain stem functions. Persons who are in a permanent vegetative state are not totally brain dead because their brain stems are relatively intact. They thus demonstrate a number of normal brain stem functions, such as cycles of sleep and wakefulness (with eyes open), the ability to breathe and maintain blood pressure unassisted, pupillary responses to light, the utterance of unintelligible instinctive grunts or screams, sporadic movements of facial muscles and non-paralyzed limbs, and gag and cough reflexes. In addition, cardiorespiratory activity, swallowing, and digestive and other nonneurological vital functions are usually preserved to an extent that standard nutritional and supportive measures will sustain life indefinitely.<sup>12</sup>

Nonetheless, persons in permanent vegetative state demonstrate a total loss of cerebral cortical functioning;<sup>13</sup> they are permanently and irreversibly devoid of any awareness, thought, or feelings.<sup>14</sup> Thus, for permanently vegetative patients, "personality, memory, purposive action, social interaction . . . joy, satisfaction and pleasure [are forever gone]."<sup>15</sup> Moreover, such patients do not and will never experience pain or suffering. According to the American Academy of Neurology,

[p]ersistent vegetative state patients do not have the capacity to experience pain or suffering. Pain and suffering are attributes of consciousness requiring cerebral cortical functioning, and patients who are permanently and completely unconscious cannot experience these symptoms.<sup>16</sup>

Permanent vegetative state often results when a patient suffers a cardiac or respiratory arrest causing lack of blood flow (ischemia) or oxygen (hypoxia) to the brain for a period of time.<sup>17</sup> The cerebral cortex is the part of the brain most vulnerable to blood flow deprivation because of its high metabolic rate, which requires a constant supply of blood, oxygen, and glucose. The brain stem, however, is fairly resistant to ischemia or hypoxia.<sup>18</sup>

---

11. President's Commission, *Defining Death*, *supra* note 1, at 23-24.

12. *Persistent Vegetative State*, *supra* note 4, at 427.

13. *Position of the American Academy of Neurology on Certain Aspects of the Care and Management of the Persistent Vegetative State Patient*, 39(1) *NEUROLOGY* 125 (1989) [hereinafter *Care and Management*].

14. F. PLUM & J. POSNER, *supra* note 5, at 313.

15. President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research, *Deciding to Forego Life-Sustaining Treatment*, 174-75, 181-82 (1983) [hereinafter *Deciding to Forego Life-Sustaining Treatment*].

16. *Care and Management*, *supra* note 13, at 125.

17. Cranford, *The Persistent Vegetative State: The Medical Reality (Getting the Facts Straight)*, 18 *HASTINGS CENTER REP.* 27, 28 (February/March 1988).

18. *Id.* The condition of total cognitive loss can also develop more slowly as an end result of progressive structural disorders, such as Alzheimer's disease, that in their end stages can also destroy the psychological functions of the cerebrum. *Persistent Vegetative State*, *supra* note 4, at 427.

A diagnosis of the permanent vegetative state usually can be made with a reasonably high degree of reliability within weeks or months after the original injury by a physician skilled in neurological diagnosis.<sup>19</sup> However, unlike whole brain death, while there are generally accepted criteria for diagnosis of permanent vegetative state, there does not exist one single, detailed, published set of specific and certain medical criteria that can be applied to determine with certainty whether a person is in a permanent vegetative state.<sup>20</sup> Moreover, there have been a few unexpected recoveries of cognitive functions in situations where neurologists diagnosed permanent vegetative state using the generally accepted criteria.<sup>21</sup> Furthermore, there are no specific, widely used laboratory tests to *confirm* the clinical diagnosis of permanent vegetative state.<sup>22</sup> After weeks or sometimes months, magnetic resonance imaging (MRI) and computerized axial tomography (CAT) scanning "will show extensive structural damage to the cerebral hemispheres consistent with the clinical diagnosis, but these studies are not quantifiable."<sup>23</sup> In addition, depending on the cause and duration of the condition, brain imaging studies may not reveal multifocal or diffuse lesions and cortical atrophy.<sup>24</sup>

There is one diagnostic tool that may supply the required certainty to a diagnosis of permanent vegetative state. The positron emission tomography (PET) scan can quantitatively measure the metabolic rates of glucose and oxygen in various parts of the brain, including the cerebral cortex.<sup>25</sup> Since consciousness cannot be sustained below certain quantifiable levels of metabolism, the PET scan is an important index in the confirmation of a clinical diagnosis of permanent vegetative state.<sup>26</sup> The PET scan, however, is extremely expensive, and few medical centers throughout the country currently have equipment necessary to perform it. In addition, there are still insufficient data to confirm unequivocally the value of this test in diagnosing permanent vegetative state.<sup>27</sup>

It is not uncommon for a patient in a permanent vegetative state to survive for five to twenty years.<sup>28</sup> The variable survival periods of such patients depend on age (older patients develop more medical complications secondary to prolonged immobility and unresponsiveness than do younger patients); economic,

---

19. Cranford, *supra* note 17 at 29; *Care and Management*, *supra* note 13, at 125.

20. Cranford, *supra* note 17, at 29.

21. *Id.* See also *Deciding to Forego Life-Sustaining Treatment*, *supra* note 15, at 179-80 (1983) (citing two known cases of recovery of consciousness after a year of being in a persistent vegetative state); *Persistent Vegetative State*, *supra* note 4, at 428 (noting that "these rare examples [of recovery of consciousness] notwithstanding, data indicate with high probability the lengths of time, according to age and the nature of the disease, when patients can safely be regarded as having reached a permanent, hopeless vegetative state. . . . If the handful of reported occurrences of cognitive recovery in patients [in a persistent vegetative state] are divided by the total estimated number of [those] cases in this country, the odds of recovery are less than 1 in 1,000.").

22. Cranford, *supra* note 17, at 30.

23. *Id.*

24. *Persistent Vegetative State*, *supra* note 4, at 427.

25. Cranford, *supra* note 17, at 30.

26. *Id.*

27. *Id.*

28. Karen Ann Quinlan lapsed into irreversible persistent vegetative state in 1975, and died in June of 1985. N.Y. Times, March 30, 1986 at 8, col. 1.

family, and institutional factors; natural resistance of the patients' bodies to infections; and the effectiveness of the patients' gag and cough reflexes.<sup>29</sup>

The cost of maintaining patients in a permanent vegetative state varies by state and type of institution.<sup>30</sup> For example, in Minnesota, yearly costs are 18,000 to 25,000 dollars; in Massachusetts, costs are approximately 120,000 dollars per year.<sup>31</sup> One neurologist estimated that with costs<sup>32</sup> from a monthly low of 2,000 dollars to a high of 10,000 dollars, and assuming there are 5,000 to 10,000 permanent vegetative state patients in the United States, the annual national health bill for these patients ranges from 120 million dollars to 1.2 billion dollars. This estimate does not include the high costs of the first year of care after the original injury when most such patients spend extensive time in intensive care.<sup>33</sup>

#### IV. CASE LAW INVOLVING TERMINATION OF TREATMENT OF PATIENTS IN PERMANENT VEGETATIVE STATES

Many state and federal courts have recognized that an individual's federal and state constitutional rights to privacy encompass the right to control his or her medical course and to be free of unwanted treatment, including artificial nutrition and hydration.<sup>34</sup> Case law has also firmly established that the right to refuse treatment is not lost merely because the "noncognitive and vegetative condition of the patient prevents a conscious exercise of the choice to refuse further extraordinary treatment."<sup>35</sup> Courts have followed two different approaches to accommodate the meaningful implementation of an incompetent patient's right to refuse medical treatment: the substituted judgment approach and the best interests approach.

The substituted judgment approach is "a decisional process whereby an attempt is made to ascertain what an incompetent patient would have done if he

---

29. Cranford, *supra* note 17, at 31.

30. *Id.*

31. *Id.*

32. Cranford, *supra* note 17.

33. *Id.* at 31-2.

34. See, e.g., Gray v. Romeo, 697 F. Supp. 580, 585-86 (D.R.I. 1988); Rasmussen v. Fleming, 154 Ariz. 207, 214, 741 P.2d 674, 682-3 (1987); Drabick v. Drabick, 200 Cal. App. 3d 185, 207, 245 Cal. Rptr. 840, 853 (Cal. Ct. App. 1988); Bartling v. Superior Court, 163 Cal. App. 3d 186, 196, 209 Cal. Rptr. 220, 225 (Ct. App. 1984); McConnell v. Beverly Enter., 209 Conn. 692, 701, 553 A.2d 596, 601 (1989); Foody v. Manchester Memorial Hosp., 40 Conn. Supp. 127, 132, 482 A.2d 713, 717-18 (Super. Ct. 1984); Severns v. Wilmington Medical Center, Inc., 421 A.2d 1334, 1347 (Del. 1980); Corbett v. D'Alessandro, 487 So. 2d 368, 371-72 (Fla. Dist. Ct. App. 1986); John F. Kennedy Memorial Hosp., Inc. v. Blutworth, 452 So. 2d 921, 924 (Fla. 1984); *In re* L.H.R., 253 Ga. 439, 446, 321 S.E.2d 716, 722 (1984); Brophy v. New England Sinai Hosp., Inc., 398 Mass. 417, 430-31, 497 N.E.2d 626, 633-64 (1986); Superintendent of Belchertown State School v. Saikewicz, 373 Mass. 728, 738-40, 370 N.E.2d 417, 424-25 (1977); *In re* Torres, 357 N.W.2d 332, 339 (Minn. 1984); *In re* Quinlan, 70 N.J. 10, 41, 355 A.2d 647, 663 (1976); *In re* Farrell, 108 N.J. 335, 348, 529 A.2d 404, 410 (1987); Leach v. Akron General Medical Center, 68 Ohio Misc. 1, 9, 426 N.E.2d 809, 814 (C.P. 1980); *In re* Colyer, 99 Wash. 2d 114, 120, 660 P.2d 738, 742 (1983).

35. John F. Kennedy Memorial Hosp., Inc. v. Blutworth, 452 So. 2d 921, 924 (Fla. 1984). *Accord In re* L.H.R., 253 Ga. 439, 440, 321 S.E.2d 716, 722 (1984). See also Foody v. Manchester Memorial Hosp., 40 Conn. Supp. 127, 132, 482 A.2d 713, 718 (Super. Ct. 1984); Superintendent of Belchertown State School v. Saikewicz, 373 Mass. 728, 739-40, 370 N.E.2d 417, 424 (1977); *In re* Torres, 357 N.W.2d 332, 339 (Minn. 1984); *In re* Conroy, 98 N.J. 321, 359-60, 486 A.2d 1209, 1229 (1985).

were competent."<sup>36</sup> While some courts have authorized termination of treatment of patients in a permanent vegetative state and of patients who are otherwise severely ill on the basis of the substituted judgment test,<sup>37</sup> others have applied evidentiary standards that have been so stringent as to be insurmountable, despite the eminent reasonableness of nontreatment in the circumstances. In *In re Westchester County Medical Center*,<sup>38</sup> for instance, the daughters and a co-employee of an elderly patient who was severely and irreparably brain damaged testified that she had repeatedly stated that she would not want artificial means used to sustain her life if she were to become unable to care for herself. Both the trial court and intermediate appellate court found this evidence of the patient's prior intent to refuse treatment to be persuasive.<sup>39</sup> Nevertheless, the New York Court of Appeals required insertion of a nasogastric feeding tube, on grounds that the patient's prior expressions of distaste for artificial life-supporting measures did not meet the "clear and convincing" evidentiary standard.<sup>40</sup>

In a previous New York case,<sup>41</sup> the court also required evidence regarding a patient's treatment termination preference to be clear and convincing in order for the treatment to be terminated.<sup>42</sup> Brother Fox, the patient in the case, was placed on a respirator after he suffered a heart attack during surgery that resulted in severe brain damage and an inability to breathe.<sup>43</sup> In past discussions about the *Quinlan* case,<sup>44</sup> Brother Fox had stated that he did not want any "extraordinary business" done for him if he became respirator dependent.<sup>45</sup> In ruling on a request for discontinuation of his respirator, the court held that in order for such a ruling to issue, evidence concerning Brother Fox's preferences had to meet the clear and convincing standard.<sup>46</sup> As the court itself noted, the clear and convincing standard approaches the "beyond a reasonable doubt" quantum of proof necessary to convict a criminal defendant.<sup>47</sup> Because Brother Fox had made clear statements which the court labeled "solemn pronounce-

---

36. *United States v. Charters*, 829 F.2d 479, 497 (4th Cir. 1987). See also *Deciding to Forego Life-Sustaining Treatment*, *supra* note 15, at 132.

37. *In re Jobes*, 108 N.J. 394, 424, 529 A.2d 434, 444-45 (1987). See also *In re Peter*, 108 N.J. 365, 384-85, 529 A.2d 419, 429 (1987).

38. 72 N.Y. 2d 517, 531 N.E.2d 607, 534 N.Y.S.2d 886 (1988).

39. *Id.* at 523, 530-35, 531 N.E.2d at 608, 612-615, 534 N.Y.S.2d at 887, 982-94. The patient, Mrs. O'Connor, suffers from multiinfarct dementia, which resulted from a series of strokes. This condition has substantially impaired her cognitive abilities, but she is not in a coma or vegetative state. *Id.* at 524, 531 N.E.2d at 609, 534 N.Y.S.2d at 888.

40. *Id.*, at 523, 531 N.E.2d at 608, 534 N.Y.S.2d at 887.

41. *In re Eichner*, 102 Misc. 2d 184, 423 N.Y.S.2d 580 (Sup. Ct. 1979), *aff'd sub nom. Soper v. Storar*, 52 N.Y.2d 363, 379-80, 420 N.E.2d 64, 72, 438 N.Y.S.2d 266, 274 (1981).

42. *Id.*

43. *Id.* at 372, 420 N.E.2d at 67, 438 N.Y.S.2d at 269.

44. *In re Quinlan*, 70 N.J. 10, 355 A.2d 647 (1987). For many people, the *Quinlan* case aroused widespread debate and "symbolized the ethical problems posed by the development of life-sustaining treatment that could prolong a life that was bereft of virtually everything that made life meaningful." N.Y. Times, June 13, 1985 at 2, col. 5.

45. *Soper*, 52 N.Y.2d at 373, 420 N.E.2d at 68, 438 N.Y.S.2d at 270.

46. *Id.* at 379-80, 420 N.E.2d at 72, 438 N.Y.S.2d at 274.

47. *Id.* at 380, 420 N.E.2d at 74, 438 N.Y.S.2d at 276.

ments"<sup>48</sup> specifically mentioning respirators, the court allowed discontinuation of the respirator.<sup>49</sup>

In *Cruzan v. Harmon*,<sup>50</sup> a Missouri trial court concluded after three full days of evidence that the permanently vegetative patient *would* have chosen to forego the ongoing intrusion of her gastrostomy tube, based on the patient's conversations with her friends and family and on the overwhelming evidence of "her lifestyle."<sup>51</sup> Yet, the Missouri Supreme Court reversed, holding that this evidence as to the patient's wishes was inherently unreliable and thus insufficient to support the co-guardians' claim of right to exercise substituted judgment on the patient's behalf.<sup>52</sup>

The evidentiary standards applied by courts in these cases are simply unworkable because they require persons to exercise foresight that they do not and could not possess. Many persons never express their preferences, either in written or oral form, regarding specific treatment options under specific circumstances. Yet, nothing other than such explicit statements for or against treatment termination seems more than merely inferential in such cases. While surrogates may be able to use their knowledge of the incompetent patient's views about life, about the afterlife, and about the illnesses of others to assert the patient's intent, pursuant to the substituted judgment test, even inferences from this type of evidence cannot lead to the clear, unambiguous proof required by the *Westchester County Medical Center*, and *Cruzan* courts. Moreover, it is impossible to apply the substituted judgment approach when incompetent patients, such as L.W., have no close family members or friends, and knowledge of their values and previously expressed treatment preferences is unavailable.

#### V. THE CASE OF L.W. AND THE "BEST INTERESTS" APPROACH TO TREATMENT TERMINATION

L.W. is a seventy-nine year old man who currently resides in a nursing home. Even prior to his cardiorespiratory arrest in May 1989, he suffered chronic undifferentiated schizophrenia, chronic obstructive pulmonary disease, and iron deficiency anemia, and on account of these conditions, was placed under guardianship. L.W. has no close family members or friends; his guardian is an employee of a corporation which services incompetent patients. In May 1989, L.W. suffered three generalized convulsive episodes at his nursing home, the last of which was associated with pulselessness and an apparent respiratory arrest. On transfer to the hospital, and throughout his hospital stay, L.W. appeared comatose. Within a few days of his hospital admission, L.W.'s respiratory effort diminished and he required ventilatory support. During his hospital stay, tests were done which confirmed acute myocardial infarction, and a tracheostomy was placed for chronic ventilator support. L.W.'s mental status

---

48. *Id.* at 380, 420 N.E.2d at 72, 438 N.Y.S.2d at 274.

49. *Id.* at 384, 420 N.E.2d at 74, 438 N.Y.S.2d at 276.

50. 760 S.W.2d 408 (Mo. 1988), *cert. granted sub nom. Cruzan v. Director, Mo. Dept. of Health*, 109 S. Ct. 3240 (1989).

51. *Id.* at 443-44 (Higgins, J., dissenting from order denying rehearing, quoting trial court opinion).

52. *Id.*

never improved; his attending and consulting physicians have all opined that he is in a permanent vegetative state.

In June 1989, L.W.'s physicians asked his guardian to authorize the withdrawal or withholding of support systems and emergency treatment, including artificial nutrition and hydration. L.W.'s guardian then filed a motion for declaratory relief, asking the court to construe applicable state law pertaining to the authority of the guardian or the court to direct the withdrawal of life-sustaining treatment.

Pursuant to case law development to date, the implementation of L.W.'s right to direct his care must be guided by the best interests approach, not the substituted judgment approach, because L.W.'s values and previously-expressed treatment preferences (if any) are unknown. The best interests principle instructs the surrogate decisionmaker to determine the net benefit for the patient of each treatment option, by assigning different weights to the options to reflect the relative importance of the various interests they further or thwart, and then subtracting the detriments from the benefits for each option.<sup>53</sup> The course of action to be followed is the one with the greatest net benefit to the patient.<sup>54</sup>

Several courts have employed the best interests approach in ordering the withholding or withdrawal of treatment from patients in a permanent vegetative state. In *Rasmussen v. Fleming*,<sup>55</sup> for instance, the Arizona Supreme Court specifically adopted the best interests approach in approving a "Do Not Resuscitate" (DNR) and "Do Not Hospitalize" (DNH) order for an elderly woman in a permanent vegetative state who had given no prior indication of her desires.<sup>56</sup> The court noted that her condition did not warrant the expenditure of every medical effort in her behalf.<sup>57</sup> Similarly, in *In re L.H.R.*,<sup>58</sup> the court determined that parents of an infant born in a chronic vegetative state with no hope of developing cognitive functions could refuse treatment for him.<sup>59</sup> And in *In re Hamlin*,<sup>60</sup> the Washington Supreme Court relied on the best interests test in authorizing treatment termination for a permanently vegetative patient who had been severely mentally retarded since birth and who therefore had never expressed his wishes about termination of life support.<sup>61</sup>

Nonetheless, the awkwardness of applying the best interests approach to reach the decision to withhold treatment from L.W. and others in a permanent vegetative state, together with philosophical considerations regarding personhood, argue strongly in favor of adoption of a neocortical brain death standard. Attempts by courts to apply the best interests approach to order termination of treatment of individuals in a permanent vegetative state have been

---

53. A. Buchanan & D. Brock, *Deciding for Others*, MILLBANK QUARTERLY 64, 67-80 (Supp. 2 1986) [hereinafter *Deciding for Others*].

54. *Id.*

55. 154 Ariz. 207, 741 P.2d 674 (1987).

56. *Id.* at 222, 741 P.2d at 689.

57. *Id.*

58. 253 Ga. 439, 321 S.E.2d 716 (1984).

59. *Id.* at 447, 321 S.E.2d at 723.

60. 102 Wash. 2d 810, 689 P.2d 1372 (1984).

61. *Id.* at 815, 689 P.2d at 1376. See also *In re P.V.W.*, 424 So. 2d 1015 (La. 1982) (parents authorized to discontinue life-support systems of irreversibly comatose, respirator-dependent newborn infant).

heroic but unavoidably confused. A patient in a permanent vegetative state cannot experience pain or discomfort from life-sustaining treatments. Thus, it is difficult to argue that it is in the patient's best interests to withhold such treatments on grounds that the pain and discomfort outweigh any benefits they confer. Literally construed, the best interests approach might seem to *require* perpetual life-sustaining treatment for those in a pain-free permanent vegetative state.<sup>62</sup>

A closer examination of the notion of "interests" relevant to the best interests principle, however, reveals that this principle is logically inapplicable to those in a permanent vegetative state. Indeed, recently, in two well-reasoned opinions, the New Jersey Supreme Court recognized that an objective analysis of benefits and burdens is impossible in the case of permanently vegetative patients. In *In re Peter*,<sup>63</sup> the court explained that

Even in the case of a patient like Claire Conroy [an elderly, incompetent nursing home resident who had severe and permanent mental and physical impairments, but who was not in a permanent vegetative state] it can be difficult or impossible to measure the burdens of embarrassment, frustration, helplessness, rage, and other emotional pain, or the benefits of enjoyable feelings like contentment, joy, satisfaction, gratitude, and well-being that the patient experiences as a result of life-sustaining treatment.

. . . .

While a benefits-burdens analysis is difficult with marginally cognitive patients like Claire Conroy, it is essentially impossible with patients in a persistent vegetative state. By definition such patients . . . do not experience any of the benefits or burdens that the *Conroy* balancing tests are intended or able to appraise.<sup>64</sup>

Since the permanently vegetative patient lacks and always will lack consciousness of any sort, it is not only pain and suffering that becomes irrelevant—whether he lives or dies cannot ever matter to him either. Thus, the best interests principle, which imposes a positive obligation to do what is most conducive to the patient's good, is simply inapplicable to individuals in a permanent vegetative state.

It might be argued that so long as there is some possibility that the prognosis of permanent vegetative state is erroneous, the patient does have an interest in returning to a cognitive state.<sup>65</sup> In other words, if there is a *chance* of recovery, however slim, application of the best interests principle requires that we sustain patients in a permanent vegetative state for as long as possible. However, assuming *arguendo* the relevance of the best interests principle, such an argument does not reflect an accurate application of the best interests approach. An accurate application must take into consideration not only the possibility that the patient may return to a cognitive state, but also the probability that the patient would be severely disabled if he/she regained consciousness. The only well-documented cases of adults regaining consciousness after a year of permanent vegetative state from hypoxia include one person who is paralyzed in three

---

62. *Deciding for Others*, *supra* note 53.

63. 108 N.J. 365, 529 A.2d 419 (1987).

64. *Id.* at 376, 529 A.2d at 425 (footnotes omitted). *Accord In re Jobes*, 108 N.J. 394, 427, 529 A.2d 434, 443 (1987).

65. *Deciding for Others*, *supra* note 53.

limbs, emotionally unstable, and totally dependent on others for the remainder of his life, and another person who is severely depressed and remains in a "locked-in" condition, completely paralyzed except for the ability to blink his eyes.<sup>66</sup> Being returned to such a disabled state would be regarded as of limited benefit by most patients;<sup>67</sup> many may consider it particularly harmful, in light of the severe financial and emotional burdens that long-term treatment could impose on their families and loved ones.

Clearly, then, even considering the extremely remote possibility that the diagnosis of permanent vegetative state is wrong and the patient may regain consciousness, the best interests principle, properly applied, does *not* require that permanently unconscious patients be sustained indefinitely.<sup>68</sup> And if the possibility of an erroneous diagnosis is discounted as too remote, the best interests approach is of no help to treatment decisionmakers at all, since the best interest principle is appropriately applied only to cases where treatment or non-treatment can either serve or thwart a patient's interests. Permanently unconscious patients have no more interests of the sort that the best interest principle is designed to protect than do those who are dead. A more direct and intellectually honest approach to terminating treatment of such patients, therefore, may be to define them as "dead."

Redefining death to include those who are permanently vegetative would not only resolve present treatment decisionmaking dilemmas regarding such patients and avoid the awkward utilization of the best interests approach in that regard; it would also accord with philosophical notions of what "being alive" means. Many philosophers have convincingly argued that a given person ceases to exist with the destruction of whatever processes there are that normally underlie the person's psychological continuity and connectedness.<sup>69</sup> Since these processes are those which occur in the upper brain, it may forcefully be argued that irreversible cessation of upper-brain functioning—or permanent vegetative state—constitutes the death of that person.<sup>70</sup>

Clinical uncertainties prevent the acceptability, presently, of redefining death to include those in a permanent vegetative state. A key factor in expanding the definition of death to include whole brain death, after all, was the certainty of diagnosis. The medical profession thus far has been unable to achieve the same degree of certainty of diagnosis and prognosis in vegetative state as in cardiorespiratory or whole brain death. Although there is no more benefit from continued treatment or continued existence for those in a permanent vegetative state than there is for patients who are dead, nearly total cer-

---

66. *Deciding to Forego Life-Sustaining Treatment*, *supra* note 15, at 179-80; G. Rosenberg, S. Johnson & R. Brenner, *Recovery of Cognition after Prolonged Vegetative State*, 2(2) *ANNALS OF NEUROLOGY*, 167-75 (1977).

67. *Deciding to Forego Life-Sustaining Treatment*, *supra* note 15, at 182.

68. *Deciding for Others*, *supra* note 53.

69. See Green & Wikler, *Brain Death and Personal Identity*, 9 *PHIL. & PUB. AFF.* 105, 131 (1980); Fletcher, *New Definitions of Death*, 2(1) *PRISM* 13 (1974).

70. See also ARISTOTLE, *NICOMACHEAN ETHICS* 265 (1965) ("Now, in the case of animals, life is defined by their capacity for sense perception, and in the case of man by the capacity for sense perception or for thought. But a capacity is traced back to its corresponding activity, and it is activity that counts. Consequently, life in the true sense is perceiving or thinking.").

tainty of prognosis must be achieved before a higher-brain death statute may seriously be considered.

Nonetheless, since irreversible unconsciousness can, today, be diagnosed with certainty in a significant number of cases, there should be a strong presumption against medical treatment and preservation of biological functions for a person who is in a permanent vegetative state. As would be true with a neocortical brain death standard, such a presumption would avoid the awkwardness of applying a strictly construed substituted judgment approach and the best interests approach to treatment termination decisions involving permanently vegetative patients. Moreover, it would more appropriately accord with the physician's role and result in a wiser use of limited health care resources. The President's Commission noted that "treatment ordinarily aims to benefit a patient through preserving life, relieving pain and suffering, protecting against disability, and returning maximally effective functioning."<sup>71</sup> A physician's continued treatment of a permanently vegetative patient cannot, by definition, bring about improvement or recovery; and it serves no "caring" purpose, because, by definition, the patient cannot and never will be able to understand or even perceive his care, much less become comforted by it. Thus, since the goals of medicine can no longer be served by continued treatment, the human and fiscal health care resources of treatment are more wisely focused on preserving health and rehabilitating patients who could benefit from treatment.

The following is a proposed model statute which would create a presumption of nontreatment for patients reliably diagnosed as permanently vegetative.

*Model Permanent Vegetative State Treatment Statute*

For the purpose of this statute, "permanent vegetative state" means the irreversible loss of consciousness and cognitive functions. A diagnosis of "permanent vegetative state" under this section must be made in accordance with reasonable medical standards and procedures, and it must be confirmed by a second physician who is skilled and experienced in making neurological diagnoses.

Upon a medical determination of permanent vegetative state, there is a presumption that treatment will be terminated.

If the individual has not expressed a desire to be maintained on artificial life-support systems in the event of permanent vegetative state, all artificial life-support systems, including the provision of artificial nutrition and hydration, will be withheld or withdrawn.

No person, firm or organization will be subject to criminal responsibility or civil liability or charged with unprofessional conduct for participating in the termination of artificial life-support in accordance with the procedure herein.

The termination of treatment pursuant to this chapter does not, for any purpose, constitute suicide.

The termination of treatment pursuant to this chapter may not be used to impair any life insurance policy in any manner.

---

71. *Deciding to Forego Life-Sustaining Treatment*, *supra* note 15, at 181.

This chapter does not impair or supersede any person's legal right or responsibility to withhold or withdraw life-sustaining procedures under other circumstances.