“PVS – A STILL LIFE”

Consider and discuss analytically the following statement:

‘Technological advances have allowed us to diagnose the permanent vegetative state with such accuracy, and bioethics and law have progressed to such a point that it is now surely time to redefine death in such a way as to include the PVS patient. After all, courts and doctors are already treating such patients as if they were dead.’

1.Introduction

The patient in the permanent vegetative state (PVS) has a fully functioning brainstem, albeit the higher cerebral functions of the brain have been lost. The person in this condition maintains standard sleep cycles with full or partial hypothalamic and brain stem autonomic functions that facilitate coughing, sneezing, scratching, smiling, crying and sensory reactions. All are automatic responses, able to survive when the cognitive and sensory function filled higher brain dies[1]. The permanency rather than persistence of this state is a purely temporal diagnosis with the former resulting from a person being in a vegetative state for a period of twelve continuous months or more and the latter from a person being in a vegetative state for one month[2]. However the term permanent rather than persistent is itself loosing favour in light of the however small chance of recovery experienced by some of the patients suffering from this condition, physicians themselves are less inclined to label these patients as being beyond recovery. This chronic condition is most likely to be the result of either a massive impact injury to the head or of cerebral anoxia as a result of degenerative disease or metabolic disease. The cause of the condition is of paramount importance since there is an established correlation between cause and recovery, where the cause of PVS is disease, the general weakness and global deteriation of the body harbours a poor prognosis, traumatic injury, often sustained by the young and otherwise healthy body bodes relatively well for a good recovery.

2. Dead.

Dead. For some death is the continuance of our journey to eternal life, paradise entered, for others it represents the imminent pause between life cycles which facilitates the souls

[1] Kennedy And Grubb, Principles of Medical Law. Oxford, Oxford University Press, 1998.p875

[2] http://www.nhsdirect.nhs.uk/articles/article.aspx?articleId=42

search for an ultimate home, for others yet death is simply the end. Of everything. Forever. Regardless of the theological, moral, religious and deeply personal views that can be easily canvassed, death as a state is essentially a matter of law, medicine provides simply to determine if death's legal criteria has been met[3] although in unison with the other common law countries, in the UK there is a complete absence of legislation and statute which provides the exact criteria of death.[4] It is, this the legal parameters, definitions and implications of the diagnosing of death which this essay will concern itself with. In particular I will explore the development of the legal diagnosis of death from that of simple and permanent cardio-pulmonary failure, through the various technological interventions leading to the brain involvement and discuss the extent to which the extension of this premis could be applied to and should be applied to the patient finding himself in a permanent vegetative state, clearly identifying the medical physical and biological differences between the two conditions and consider whether, having been legally recognised as being alive in all cases, the PVS patient at the centre of legal action is not dying as a result of actual bodily decay into death, but as a result of the doctors legally permitted killing of their unresisting body[5] unkindly named as vegetable in order to dehumanise the act of murder and desensitise the medics moral sensitivities.

Prior to the 1960's death in the UK was judged primarily by the diagnosis of cardio-pulmonary failure, the final seconds of a lived life being determined by the stopping of the heart and the resting of the chest. The significance of the failure of these organs is related to the cessation of the flow of fluid around the body, the oxygenated liquid of life – blood. Up until this period, the persistent absence of a heartbeat and an accompanied absence of breathing provided the only legal justification for generations of medics to pronounce the patient dead. This manner of dying still occurs today and from the relative's point of view, the body's transition between being legally alive to being pronounced legally dead is plain to see, obvious and easily appreciated. A blatant non-breathing body, sometimes accompanied often by a continuous monotone alarm tone and the ominous, but well recognised flat line on the monitor, often provides the undeniable physical evidence that shock and grief conspire to deny. This type of death is an event.

But even in the 1960's the concept of cardio-pulmonary failure as being the only criterion of legal death was dying. "Brain death" had been described as a medical phenomenon in 1959[6] and in 1968 The World Medical Assembly[7] declared, " Death is a gradual process at the cellular level, with tissues varying in their ability to withstand deprivation of oxygen. But clinical interest lies not in the state of preservation of isolated cells but in the fate of a person. Here the point of death of the different cells and organs is not so important as the certainty that the process has become irreversible, whatever techniques of resuscitation may be employed." Death had now been officially defined as a process.[8] The defining of dying as being an event had been forever undermined by technology and scientific advancement. The recent introduction of assisted ventilation and heart by pass

[3] Kennedy And Grubb, Principles of Medical Law. Oxford, Oxford University Press, 1998.p869
[4] Kennedy And Grubb, Principles of Medical Law. Oxford, Oxford University Press, 1998.p874

[5] Brazier, Medicine, Patients and The Law, Third Edition, Penguin, London 2003 p38
[6] Kennedy, Grubb, Medical Law third Edition, Butterworths, London 2000 p2191
[7] 22nd World Medical Assembly Sydney, Australia, August 1968
[8] Kennedy, Grubb, Medical Law third Edition, Butterworths, London 2000 p2193

machines had demonstrated that the essential flow of fluid could be maintained mechanically, the biological system essential for the delivery of oxygenated blood to the body could be replaced artificially with the result that technically, legally and medically the cardio-pulmonary system could no longer be judged to be constitutive of human life. In 1967 Christian Barnard performed the first human heart transplant in Cape Town's Groote Schuur Hospital. Of limited success with the recipient surviving for only eighteen days, this milestone procedure nonetheless illustrated that the heart, previously considered to be the centre constituent of human life and perversely its corollary death, could be bypassed and even replaced. In this period of unique scientific and technological advances the single organ that remained irreplaceable was the brain. The medical demotion of the heart and lungs led to the necessary legal promotion of the brain as a criterion for deciding legal death. In France a particular condition had been noted. "Come depasse"[9] occurred in intensive care patients who had lost all ability to spontaneously breathe, with respiration being entirely instigated by mechanical ventilation. The end result was always the entire destruction of the rest of the system. In the UK this became known as 'brain death".

The common law first addressed and ultimately accepted the concept this criterion in Kansas, USA in 1967[10] where a man shot first his terminally ill wife and then himself. Conventional analysis based on heartbeat would have led to the judgment that she had survived him by a short time, but the court found that the five bullets to the her head would have led to immediate death. They simply could not reason otherwise, surmising that with her injuries death would automatically have been instantaneous. Although the ruling in Kansas was based on a rather crude and unscientific assessment of the victims brain function, the very first attempt at describing what we now know to be brain stem death was proffered the next year in the report of the Ad Hoc Committee of the Harvard Medical School to Examine the Definition of Brain Death[11] "irreversible coma" was defined by the report as a proposed new criterion for death. They argued that this change was much needed firstly to allow the humane and legal withdrawal of subsistence, nutrition and resuscitation to the permanently and irreversible comatose and secondly to facilitate a less controversial organ retrieval process, to free medics from the unjust accusations that they were harvesting organs from the living. Crucially the report also laid the foundation for medics and professionals to biologically and physiologically assess the state of the patient (specifically excluding the hypothermic and drug toxined patient)

1. Unreceptivity and unresponsitivity--patient shows total unawareness to external stimuli and unresponsiveness to painful stimuli;
2. No movements or breathing--all spontaneous muscular movement, spontaneous respiration and response to stimuli are absent;

[9] Mollaret and Goulon 1959
[10] Kennedy And Grubb, Principles of Medical Law. Oxford, Oxford University Press, 1998 p870
United Trust Co. v. Pyke, 199 Kan. 1, 427 P.2d 67 (1967)
[11] originally published in the 5 August 1968 issue of JAMA

3. No reflexes--fixed, dilated pupils; lack of eye movement even when hit or turned, or ice water is placed in the ear; lack of response to noxious stimuli; unelicitable tendon reflexes.

This formula has been developed and modified over the years and had proved the foundation for determining brain stem death in many countries including the UK where in 1976 the newly founded Conference of Medical Royal Colleges an their faculties in the United Kingdom Report "Diagnosis of brain death"[12]. Described within the report were the procedures and clinical signs and evaluations required to be conducted by medics in order to determine with accuracy brain death with the main assertion being that brain death is essentially the permanent and irreversible complete loss of all function within the brainstem. What the report crucially failed to promote was the equation between brain death and the death of the of the body, of the patient himself. Instead the report describes brain death as being "accepted as being sufficient to distinguish between those patients who retain the functional capacity to have a chance of even partial recovery from those in whom no such possibility exists."[13] This clearly states that the brain dead patient has absolutely no chance of recovery but fall short of stating that the patient with brain death is himself dead, just in an unrecoverable position. This advancement in logic was not realized until the report was supplemented in 1979. [14] It's title in itself (Diagnosis of Death) the diagnostic protocol of brain death remained exactly the same but the report clarifies the issue of bodily death noting that "brain death represents the stage at which a patient becomes truly dead."

However this assertion was made without ethical, moral or scientific explanation. The reason for the medical association between the two was not clarified until the Physicians Report of 1995.[15] Together with encouraging the more technically correct terminology for patients in this condition as being brainstem dead, this document for the first time attempted to clearly define death an its association and correlation with the irreparable damage to the brain stem 'It is suggested that irreversible loss of the capacity for consciousness combined with irreversible loss of the capacity to breathe' should be regarded as the definition of death'. This in recent years has appeared to have been given legal effect by our courts.[16][17]

3. Brains And Breathing – The Locus Of Life.

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[12] Lancet 1976; 2: 1069-1070
[13] Lancet 1976; 2: 1069
[14] Diagnosis of death. Memorandum issued by the honorary secretary of the Conference ... Colleges and their Faculties in the United Kingdom on 15 January 1979.
[15] Criteria for the diagnosis of brain stem death: review by a working group convened by the Royal College of Physicians and endorsed by the Conference of Medical Royal Colleges and their Faculties in the United Kingdom. J R Coll Physicians Lond 1995; 29: 381-38
[16] Re A (A minor) [1992] 3 Med Law Rev 303 Family Div
[17] Kennedy And Grubb, Principles of Medical Law. Oxford, Oxford University Press, 1998 p872

Death comes to every living thing and in that manner it is a characteristic of life. The nature of human beings, of people, demand that we examine "the essential human characteristics"[18] in order that we can easily determine when the body or person is without them and as a result dead. Veitch discusses these "characteristics" and their evaluation, with the possibilities including the permanent stopping of the flow of bodily fluids, the soul's leaving the body, the loss of ability of the body of the capacity for integration and "the irreversible loss of the capacity for consciousness"[19]. The attributes awarded to the capacity to maintain and attain consciousness and capacity include the rationality, the awareness of personal identity, the consciousness and the personal identity to maintain the capacity necessary for meaningful social interaction and so it is obviously the brain which is the "locus" of life. However Lamb[20] argues that the perception of death simply as the loss of social interaction and the capacity to behave in a social manner relates entirely to a subjective, cultural expectations of life and that using Veitche's criteria of death can often be satisfied by the voluntary actions of the alive and the well, for example by the entering of a religious order, this does not mean that they are physically dead although they may be dead to the ordinary or expected interactions of their society and consequently these criteria are lacking in the determination of death. Death is more.

The brainstem consists of the mesencephalon, which largely controls vision, hearing, eye movement, and body movement and motor function, the pons important for the level of consciousness and for sleep and the caudal-most part of the brain stem the medulla oblongata which is responsible for maintaining vital body functions, such as breathing and heart rate. Brainstem death is usually indicated by a total lack of brainstem reflexes, ventilator dependency and coma. As has been established brainstem death has been accepted as a legal criteria for death in the UK with the definite diagnoses of the condition being aided by the definitive neuroanatomy and neurophysiology displayed by the condition[21]. However the brainstem is one part of the brain, which like any other organ, is capable of sustaining damage in a variety of different areas. If a patient has a healthy brain in the main, but has a severely damaged brainstem diagnosed as brainstem death, then the patient has satisfied the legal criteria for death.

If however the patient has a healthy and functioning brainstem, but has suffered damage and perhaps irreversible damage to other areas of his brain, he has not legally fulfilled the criteria requirement for death and so is alive, medically, legally and morally[22]. The requirement for clear legal and medical direction and differentiation between the various forms of brain death including whole brain and part brain and brain stem death first came to public attention in 1976 with the American case of Quinlan, where a respiratory support was lawfully removed from a patient in PVS, not on the basis that she was dead,

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[18] Kennedy, Grubb, Medical Law third Edition, Butterworths, London 2000 p2195. Death, Dying, and the Biological Revolution : Our Last Quest for Responsibility Veatch, Robert p17

[19] Kennedy, Grubb, Medical Law third Edition, Butterworths, London 2000 p2195. Death, Dying, and the Biological Revolution : Our Last Quest for Responsibility Veatch, Robert p19

[20] Lamb, Death, Brain Death and Ethics Albany, NY: State University of New York Press, 1985 p120

[21] Wade, Derick T. "Ethical issues in diagnosis and management of patients in the permanent vegetative state.(Education and Debate)." British Medical Journal 322.7282 (Feb 10, 2001): 352. Expanded Academic ASAP. Thomson Gale.

[22] Airedale NHS Trust v Bland [1993] 1 All ER 821

but on the basis that her lawful State rights to privacy were being invaded [23] "Having concluded that there is a right of privacy that might permit termination of treatment in the circumstances of this case, we turn to consider the relationship of the exercise of that right to the criminal law. We are aware that such termination of treatment would accelerate Karen's death."[24] In this case the patient was not treated "as if she were already dead" but perversely as if she were very much alive with the same statutory right to privacy as any other living and breathing citizen of the State and a privacy that was worthy of protection in accordance with her parents wishes.

It cannot be denied that some like Rachel would question the validity of this view citing that the state of being biologically alive is itself not living, realizing life with all of its aspirations ambitions and disappointments is the real business of the living, simply powering a functioning respiratory system is not and so the PSV patient would be by Rachel's accounts dead.[25]I would not subscribe to this point of view; if we are not dead we are alive. The higher cerebral functions of the brain include controlling our cognitive and sensory functions and is, like every other part of the body, dependent on the brain stem for adequate oxygen delivery. However the brain stem is independent of the higher-brain and so it is possible for a person to live dispossessed of their higher brain so long the fully functional brain stem survives. In these instances medics and professionals alike are deprived of the comforting and well-established criteria that clearly define brain stem death, the only medical and legal certainty regarding patients in these circumstances is that they are alive. The main diagnostic difficulty with the persistent vegetative state is one of awareness. There exits a full spectrum of degrees of awareness ranging from fully aware and fully conscious to the vegetative state, with the low awareness state nestling between these two extremes. Low awareness has never been medically or scientifically definitively defined.[26] It is impossible to determine a patients internal mental state using only external proof, and in an attempt to overcome this difficulty a umber of tests have been developed to attempt to more fully assess the patient considered to be PVS including glucose metabolism, EEG, CT scans, and positron-emission tomography (PET) – but all have ultimately proved to be inconclusive.

This uncertainty has translated to many patients having been incorrectly diagnosed with PVS, variously 11 out of 62 patients in a nursing home, and a further 18 of 49 hospital patients had been misdiagnosed according to Borthwick's study.[27] This is perhaps the most striking contrast between PVS patients and those with either brain stem death and or cardio-pulmonary failure whose physical an biochemical responses to an established array of widely accepted medical tests betray an irreversible death of their body, with the physician certain and sure there is no doubt of the condition of these patients – dead. With PVS it is quite different. The patient may be in a state of PVS, or may be profoundly handicapped or blind - one physician may be certain that he is viewing a patient in the PVS condition, with the associated prognosis and another examining

[23] re Quinlan, 70 N.J. 10, 355 A.2d 647 (1976) (NJ Sup Court)
[24] re Quinlan, 70 N.J. 10, 355 A.2d 647 (1976) (NJ Sup Court) Hughes P34
[25] Rachels, The End of Life: Euthanasia and Morality. Oxford, Oxford University Press, 1986. p5
[26] Wade, Derick T. "Ethical issues in diagnosis and management of patients in the permanent vegetative state.(Education and Debate)." British Medical Journal 322.7282 (Feb 10, 2001): 352. Expanded Academic ASAP. Thomson Gale.
[27] Borthwick The Permanent Vegetative State;Ethical Crux, Medical Fiction? March 11, 2000

exactly the same patient may in all good faith apply a differing criteria and diagnose an altogether differing disorder of the brain, a handicap or a sensual impairment.

Compounding the scope for uncertainty and error with this condition is the possibility, however slight, of recovery even for those diagnosed patients who genuinely inhabit this state. Again in contrast to brain stem death and cardio-pulmonary failure, where the essence of the diagnosis of death is the unrecoverability of the patient's consciousness, even with patients in a genuine and agreed PVS state, recovery has been documented. Even the long-term PVS patients have been documented as having made an adequate if not full recovery, progressing from PVS into the now recognized post vegetative state, regaining the ability to think and communicate whilst for those patients who have inhabited the PVS state for a shorter period of time full recovery to a pre PVS state has also been documented. Again in contrast to those unfortunates diagnosed as being brain stem dead of which none have been recorded as progressing to a post brain stem death condition or more importantly recovering to a pre brain stem death state[28].

4. Tony Bland – "as if he were dead"?

In the UK every year an average of 1500 patients are diagnosed as being in a state of PVS[29] with perhaps the most famous victim in recent years being Tony Bland. A casualty of the Hillsborough football stadium disaster the teenager was left with a fully functioning brain stem but a fatally damaged 'watery mass"[30] of a higher cortical brain. Legally an adult and lacking the guardianship principle applied to Quinlan, Bland was not in a position to personally instruct the removal of his feeding tube. Three years after the accident, the courts decided that by applying the best interest tests outlined in a previous case,[31] where the incompetent patient was incapable of reaching a decision, that this action would not constitute murder of the capable of being murdered Tony (the majority of their Lordships accepted the premise that the doctors ultimate intention was to kill Tony Bland)[32]. Rather the removal of the feeding tube was to be viewed as being a medical omission to provide treatment as opposed to a specific commission or provision of medical care, not only legally lawful but in addition a legally required act.

The defining of this positive act as an "omission" is of crucial importance and it can be argued is one of the most common methods of cloaking the pursuance of active euthanasia by medics as being a legally justified and even humanitarian act. Euthanasia is the ending of a life by another in response to a normally terminal illness, intended to relieve the victim of the distress of bearing the suffering and anguish associated with the process of dying, often cited as facilitating a dignified death it can be either voluntary or

[28] http://www.guardian.co.uk/medicine/story/0,,2029185,00.html The Guardian Newspaper UK March 2007
Matsuda,. Sugimoto, . Sato, Watanabe, Yanaka, Matsumura. Nose. 1999. A Case of Primary Brain-stem Injury Recovery From Persistent Vegetative State After L-dopa Administration. No To Shinkei. 51(12): 1071-4.
[29] Jennet "Letting Vegetative Patients Die" Keown Euthanasia Examined: Ethical Clinical And Legal Perspectives, Cambridge, Cambridge UP 1997 p172-173
[30] Airedale NHS Trust v Bland [1993] AC 789
[31] F v West Berkshire Health Authority [1989] 2 All ER 545
[32] Airedale NHS Trust v Bland [1993] AC 789, 876 Lord Lowry, 881 Lord Browne-Wilkinson And 896 Lord Mustill

involuntary but in either sense is illegal. The intentional act intended to cause death, where the causing of death is the primary motive for the actor constitutes active euthanasia. Passive euthanasia would concern an omission, a failure to treat, where the negative act of refraining causes death. The underlying strength of both acting and not acting can be said to be of equal potency as both result in the death of a human being, and therefore no moral distinction can be drawn between the two ethical positions with regards to the medic. "some omissions create just as strong a possibility of death as their corresponding acts".[33]However the medic is strongly affected by the legal position regarding the technical and fundamental differences between an act and an omission on criminal law, with the actor engaging in active euthanasia being immediately liable to prosecution under the criminal law, whilst the actor who facilitates a death in similar circumstances by failing to act, by an omission will not face the same consequences.[34]

Equating the continuance of treatment by a doctor that he or she perceived to be against a patients best interest as being tantamount to the crime of battery, and therefore it would be the practitioner's duty to avoid committing this crime in this instance by stopping ng nutrition.[35] The uneasy inference from this is the judiciary's easy acceptance of which actions are in the patient's best interest with what the doctors perceive to the patients best interest[36], harping back to the days of "Bolam"[37]. What emerged from Bland was the undoubted legal attribution of life to the patient in PVS. There is no doubt that the PVS patient remains alive and accordingly is capable of being wrongfully killed and capable of being murdered; therefore Tony was not treated "as if he were dead"

The views expressed in Bland have been shown to be inconsistent with the manner in which the courts have subsequently approached similar situations. As is illustrated below the particular principles developed in Bland defining the future approach to patients suffering from PVS have been consistently eroded appearing to justify Singer praising their Lordships for exposing the honesty and true nature of the doctors request i.e. a request to kill Tony Bland via ng nutrition withdrawal, by the majority recognising the sanctity of life, that they discarded "the fig leaf that might have hidden the true nature of their decision: that it can be lawfully intentional to bring about the death of an innocent human being"[38] the fact that the court recognised and distinguished this intention to kill differentiates their viewing of the PVS as an individual alive and legally protected by the same laws and rights as you or I and a patient who "is already dead"

4 After Tony

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[33] Glover. Causing Death and Saving Lives. London, Penguin, 1977 p 98.
[34] Kennedy And Grubb, Principles of Medical Law. Oxford, Oxford University Press, 1998.p844, 845, 846
[35] Airedale NHS Trust v Bland [1993] AC 789, 833 and 876
[36] Mason and Laurie Mason and McCall Smith's Law and Medical Ethics. Seventh Edition. Oxford UP 2006
[37] Bolam -v- Friern Hospital Management Committee [1957] 1 WLR 582; [1957] 2 All ER 118
[38] Singer Rethinking Life and Death: The Collapse of Our Traditional Ethics. Oxford, Oxford UP, 1994 p73

Whilst it is fundamentally untrue to suggest that the courts are currently treating PVS patients as though dead, it is true that the proud standards set by Lord Goff as additional safeguards in Bland[39] have been continually and consistently eroded by the UK courts in recent years allowing as they have, barely a year later, the accidentally disconnected feeding tube to remain disconnected without seeking reassurances that the unfortunate patient, a previously very healthy 22 year old male was even in a genuine PVS state.[40] Instead they followed the most negative ruling in Bland Lord Browne Wilkinson's musings that such a positive act as inserting (or reinserting a feeding tube) might be construed as assault, the patient died. Eroding the ethos of Bland even further in a number of UK cases the patients involved in these rulings were clearly not inhabiting the PVS state, in some instances they were experiencing some transient episodes of awareness to such an extent that even the medics could not honestly testify as to the permanency of their conditions. However the courts accepted the prevailing medical opinion that "meaningful life" was absent and subsequently allowed the discontinuation of ng feeding.[41]This worryingly extended what to all intents and purposes is legally sanctioned active euthanasia to citizens thought to be almost in a PVS state. These rulings clearly defied the Bland ruling that the patients should be known to have inhabited a PVS state for at least twelve months, perversely in one rare instance when the patient was though to be medically undeniably inhabiting this condition permission was sough to discontinue nutrition after only nine months.[42] Further safeguards requiring the medical confirmation of the PVS state by at least two other independent experts have also been disregarded when Butler Sloss P relied on only one expert testimony to prove evidence of same[43] with the "great weight" which should have been automatically attributable to the patients family similarly being overridden, when despite a mothers please, the discontinuance of another PVS patients life sustaining treatment was upheld[44]. Denied of their basic Human Rights PVS patients remain unaffected by the ECHR.[45]

4. Conclusion

As has been demonstrated there are a number of conditions which are specific to the patient inhabiting the PVS state that clearly differentiate them from the medical dead patient regardless of whether medical death is viewed as being a process or a spcific event, a gradual cellular and molecular decay spreading with varying rapitidy through every element of the body or an abrupt cessation of the respiratory sytem and cardiac arrest, the conditions are fundamentally different. The primary differnces include the difficulty in accuratly diagnosing PVS, the inconcistency of the various tests with no international agreement on the medical criteria required. The fully functioning brain stem possesed by the patinet in PVS defines us all as being medically and legaly alive. The

[39] Airedale NHS Trust v Bland [1993] AC 789 870 - 871
[40] Frenchay Healthcare Trust v S [1994] 2 All ER 403
[41] Re D, Re H (A Patient) [1998] 2 FLR 36, NHS Trust A v H [2001] 2 FLR 501
[42] NHS Trust B v H [2001] Fam 348
[43] Re G (adult incompetent: withdrawal of treatment) 65 BMLR 6 (2001
[44] Re G(Persistent Vegetative State) [1995] 2 FCR 46
[45] Herczegfalvy v Austria (Series A, Volume 242-B; Application No 10533/83) EUROPEAN COURT OF HUMAN RIGHTS (1993) 15 EHRR 437, 24 SEPTEMBER 1992 NHS Trust B v H [2001] Fam 348

lack of research into possible treatments and therpaies and the uncertainty surrounding the atients recovery, its permanence and extent, with full ad partial recoveries already having been deocumented. The lack of information regarding PVS patients and possible treatments and therapies is frustrated by both the relatively low number of patients in any one place at any one time and the lack of medical funding in this area.With an estimated care cost of approx $7 billion per annum[46] in the USA, the PVS condition is a costly one and arguable a cost which society, NHS Trusts and Health Insurance providers would rather not bear. Pro active euthanasia has moved from being an ethical, moral and religious consideration to becoming a straight forward cost benefit and tellingly has been explored by science and the judiciary in much greater detail than any of the possible PVS therapies and treatments. Despite promising devlopments in the areas of gene therapy and fetal brain tissue grafts the continued medical and legal controversy over the continued care of these patients has distracted medicine from developing treatments necessary to progress PVS recovery from the chance, natural and spontaneous event that it is today, to the medically based drug and science based recovery of tomorrow.

The technicalities of rendering acts as omissions in order to preserve reputations and avoid prosecution clearly signpost the courts difficulties in sanctioning the effective killing of these patients, recognizing as they do the undisputable essence of their "aliveness'. If already medically dead this problem would be rendered irrelevant. These patients are alive with perhaps only paused consciousness, functioning brain stems and respiratory systems their biorhythms separating night from day. Disturbing as the trend towards expanding the criteria and principles clearly state in "Bland" this situation is not yet out with judicial control, but the continued and expanded deference to medical opinion will surely escalate the number of patients denied basic nutrition on account of their consultant determined worthless existences with treatment being futile. Aside from the obvious subjective nature of the determination of another lifes value, to determine that a life, any life is worthless demands that a comparison is made between the life lived by that person and the death to be experienced by that same person, only then can it be decided that it would be beneficial for the person to die. The problem is that "death is not an event in life: we do not live to experience death"[47]. PVS patients are alive, and the arrogance of medics in determining that their life is worthless requires that the doctors view the patients existence from his point of view, which is impossible.[48] Regardless if inhabiting the PVS state or not, the weak, vulnerable and under represented of all ages will be exposed to doctor determined evaluations of their value to society versus their bed blocking, budget wrecking cost to the Trust, ultimately if they live or die, aided by the courts salving their consciences with rulings of omissions and best interests. Yes I agree the best interest test is being applied, but to whom does the interest belong?

[46] Borthwick The Permanent Vegetative State;Ethical Crux, Medical Fiction? March 11, 2000
[47] Ludwig Wittgenstein
[48] Glover. Causing Death and Saving Lives. London, Penguin, 1977 p53

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