CADAVERIC DONATION OF SOLID ORGANS AND APPROACHES TO DEATH: A LEGAL CRITIQUE*

Abstract

Cadaveric donation of solid organs is the process of solid organ transplant after the demise of its owner (deceased). Consequently, many approaches to death have evolved in order to procure more solid organs in the medical sphere today as a result of science and technology. However, these approaches to death are not without controversies. Thus, this research critically aimed at cadaveric donation of solid organs and the controversies surrounding the various approaches to death. In gathering and analyzing data, the writer used doctrinal method of data collection relying on local statutes, cases laws, textbooks, journal articles, international treaties, conventions and covenants. The writer found that although it may appear unrealistic to have an approach to organ donation that will be devoid of criticisms, a holistic adherence to the recommendations herein may significantly address fears of critics and possibly reduce controversies and tensions surrounding the approaches to death.

Keywords: Cadaveric, Death, Solid Organs, Donation.

1. Introduction

So-called cadaveric donation of solid organs was developed off the back of approaches to death that are questionable and has recently been expanded in many jurisdictions off the back of approaches to death that are even more questionable. Advancements in science and technology have brought about a whole lot of practices and systematic changes in the medical field today. In the United Kingdom, the *Human Tissues Act*¹ governs issues pertaining to body donation, taking, storage and use of human organs and tissues as a whole,² of which cadaveric solid organ donation is part of. Cadaveric organ donation can best be described by the writer as the process of solid organ transplant after the demise of its owner (deceased) with his or her consent (where he or she expressed his or her wish to donate organs while alive), with the consent of the person who is in the closest 'qualifying relationship' to him or her (in his or her best interest),³ or without consent (in the interest of utility) where the deceased person did not expressly decide while alive to be an organ donor after death as well as where it is practically impossible to identify any person who is in the closest 'qualifying relationship' to the deceased.

2. Origin of Human to Human Organ Donation

The origin of human to human organ donation can be traced back to the 23rd of December, 1954 when Dr. Joseph Murray and Dr. David Hume at Brigham Hospital, Boston carried out the first successful living-related kidney transplant.⁴ These same doctors, at the same hospital, also carried out the first successful kidney transplant from a deceased donor in the year 1962.⁵ In 1963, Dr. James Hardy successfully carried out the first lung transplant at the University of Mississippi Medical Center in Jackson.⁶ This was followed by the first successful pancreas/kidney transplant in 1966 by Drs. Richard Lillehi and William Kelly at the University of Minnesota in Minneapolis.⁷ In the year 1967, the first ever successful liver transplant was led by Dr. Christian Barnard at Groote Schuur Hospital in Cape Town, South Africa.⁸ In the United States, Dr. Norman Shumway at the Stanford University Hospital, carried out the first successful heart transplant in 1968.⁹ Again, in the same year, the Uniform Anatomical Gift Act¹⁰ came into existence which gave life to the Uniform Donor Card which served as a legal document for anyone aged 18

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¹ HTA, 2004, c.30

² J Herring, 'Medical Law and Ethics', (4th edn, Oxford University Press, 2012), p. 415

³ For more details on 'best interest', see Chapter 5 of the Mental Capacity Act Code of Practice of England and Wales, 2007

⁴ New York Organ Donor Network, Inc, et al.

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

⁸ Ibid.

 $^{^{9}}$ Ibid.

¹⁰ UAGA, 1968

years and above to legally donate his or her organs upon death. The End Stage Renal Disease Act¹¹ (ESRDA) came into force to open the door to Medicare Coverage of Renal Dialysis and Kidney Transplants.¹² Equally of fundamental significance is the first successful heart/lung transplant in 1981 by Dr. Brice Reitz at Stanford University Medical Centre, Stanford¹³ and the first successful single lung transplant led by Dr. Joel Cooper from the Toronto Lung Transplant Group, at Toronto General Hospital, Canada in 1983.¹⁴

The courts have given credence to such organ donations, even in cases involving incompetent adults once it is in the best interests of the donor. This was aptly seen in the case of *Strunk v.Strunk*¹⁵ where the Court of Appeal in Kentucky affirmed the decision of the Circuit Court having found the proposed procedures to be in the best interest of the incompetent donor (Jerry Strunk) based on two principles of substituted judgement (which is the doctrine of deciding in the best interests of the incompetent adult by a competent adult relative/guardian *ad litem*) and the benefits that will accrue to the incompetent adult donor. The Court of Appeal in reaching this decision considered the case of *Exparte Whitebread*¹⁶ where it was stated that courts of equity have the inherent power to make provisions for a needy brother out of the estate of an incompetent. The principle applied in Strunk's case above was further clarified in the latter case of *Little v. Little*¹⁷ wherein the court stated that what guided the decision of the majority in Strunk's case were the benefits that the incompetent donor would derive and not the theory that the incompetent would have consented to the transplant if he were competent.¹⁸

Admittedly, solid organs transplantation holds sway today worldwide. There have been notable advancements in post-operative care, sophisticated immunosuppression in surgical techniques, all culminating in a good playing ground for recipients of solid organ transplants.¹⁹ When we use the term 'solid organ,' we simply refer to kidney, pancreas, liver, heart, lung and small bowel.²⁰ Today, the most commonly transplanted organ is the kidney. The demand for organ donation increases rapidly each year (approximately 770 cadaveric organ donors and about 2,700 transplants are performed²¹). This has brought about different approaches to death in order to procure more organs.

3. Definition of Death

The Harvard Medical School Adhoc Committee, in examining the definition of death, identified 4 main factors, the existence of which death can be said to have occurred. These are unreceptivity and unresponsitivity,²² no movements or breathing,²³ no reflexes,²⁴ and flat electroencephalogram.²⁵ These tests above shall be repeated after 24 hours if there is no change in the individual's state of health.²⁶ If no change occurs afterwards, then the patient is said to have entered the state of 'irreversible coma' (irreversible cerebral damage), and death will be declared by the physician at this point.²⁷ Miller and Campbell posit that the main issue rocking cadaveric donation of solid organs is the controversy over the definition of death.²⁸ Some commentators have described the legal definition of death as a hindrance to organ transplantation.²⁹ The Ad hoc Committee of the Harvard Medical School has adopted the definition of death by the Black's Law Dictionary (Fourth Edition). Here, 'death' is defined as 'the cessation of

- ¹³ *Ibid*.
- ¹⁴ Ibid.

¹⁵ [445 s.w. 2d 145] 1969

¹⁶ [1816] 2 Mer. 99; 35 E.R. 878

¹⁷ [Tex Civ 1979], 576 sw 2d.493

¹⁸ A Garwood-Gowers, 'Living Donor Organ Transplantation: Key Legal and Ethical Issues', (Ashgate/Dartmouth, 1999) pp. 159-160

¹⁹ R J Johnson et. al., 'Organ Donation and Transplantation in the UK – the Last Decade: A Report from the UK National Transplant Registry', 2014, p. 1

²⁰ *Ibid.*, p. 5

²¹ *Ibid.*, p. 3

²² 'A Definition of Irreversible Coma', Report of the Ad Hoc Committee of the Harvard Medical School to Examine the Definition of Brain Death, JAMA, August 5, 1968, Vol. 205, No.6, p. 85

²³ *Ibid.*, p. 85

²⁷ *Ibid.*, p. 86

¹¹ ESRDA, 1972

¹² Op. cit. n.4

²⁴ *Ibid.*, p. 86

²⁵ *Ibid.*, p. 86

²⁶ *Ibid.*, p. 86

²⁸ J Herring, 'Medical Law and Ethics' Op. cit. p. 443

²⁹ *Ibid.*, p. 443

life; the ceasing to exist; defined by physicians as a total stoppage of the circulation of the blood, and a cessation of the animal and vital functions consequent thereupon, such as respiration, pulsation, etc.³⁰

4. Definition of Death and its Attendant Problems

The problems caused by these approaches of defining death is simply due to the fact that time is of great essence in cadaveric transplantation as any form of delay might render the solid organ dead and thus unable to be used by the medical professional for transplantation. Therefore, it is paramount to look at the various definitions of death, problems caused by such definitions and solutions.

The Concept of Brain Stem Death

The quintessential position of the brain in the human body has been emphasised by the President's Commission for the study of Ethical Problems in Medicine and Biomedical and Behavioural Research in 1981. In an attempt to define death, the Commission stated that 'the heart and lungs are not important as basic prerequisites to continue life but rather because the irreversible cessation of their functions shows that the brain had ceased functioning.³¹ More so, the Uniform Declaration of Death Act (UDDA)³² provides that 'an individual, who sustains either irreversible cessation of circulatory and respiratory functions, or irreversible cessation of all functions of the entire brain, including brain stem, is dead.³³ According to Rodin, most European Countries and the United States, adopt the whole concept of brain death (that is total and irreversible loss of all functions).³⁴ DuBois posits that in defining brain death, focus should not be on loss of integrative unity, but rather on whether a person in deep apneic coma with loss of all brain-stem functions should be considered a human person or merely the body of a decapitated person.³⁵ Shewmon also argues 'that the 'physiologically decapitated' brain dead body is just as much a living 'organism as a whole' as a body with high spinal cord transection, the difference being that the former is comatose and the latter is conscious³⁶ However, Roy posits that it is only the United Kingdom that defines brain death as a non-functional state of the brainstem in which all the signs of brainstem activity are absent (the 'lower' brain concept).³⁷ Pallis and Harley, say that this concept holds sway in the United Kingdom.³⁸ This explains why the courts have adopted the brain stem definition of death as appropriate in the cases of Airedale NHS Trust v. Bland³ and ReA.⁴⁰

The Department of Health's Code of Practice for the Diagnosis of Brain Stem Death⁴¹ provides that for one to be said to be brain stem dead, three conditions must exist. These conditions include the conclusion that the coma is not due to reversible cause (like drug abuse), the demonstration that several components of the brain stem have all been destroyed permanently, and that it is proved that the patient can no longer breathe spontaneously.⁴² The Code also suggests that before brain stem death is pronounced, two medical practitioners with not less than 5 years registration, who are also specialists in this area, should agree that the brain is dead.⁴³ All international brain codes adopt these steps in order to establish brain stem death though some differences exist amongst nations.⁴⁴ In France, Luxembourg, Netherlands, Italy and the United States, confirmatory tests in order to recertify the patient's true medical condition are required by law following clinical tests but these tests are not required in countries like Poland and United Kingdom in so far as clinical guidelines are clearly met.⁴⁵

Some commentators have argued that the body loses its integrated whole once the brain stops functioning and that the absence of brain function leaves life without value.⁴⁶ Conversely, Glannon,⁴⁷ Joffe,⁴⁸ and Veatch,⁴⁹ opine that

³⁰ 'A Definition of Irreversible Coma', Report of the Ad Hoc Committee of the Harvard Medical School to Examine the Definition of Brain Death, JAMA, August 5, 1968, Vol. 205, No.6, p. 86

³¹ Zamperetti, Bellomo, Ronco, 'Defining Death in Non-Heart Beating Organ Donors', 2002

³² (1991)

³³ UDDA (1991) s.1, 12 ULA 340

³⁴ J Norman, 'British Journal of Anaesthesia: An Informal History of the First 25 Years', 2004

³⁵ Journal of Medicine and Philosophy, 2013

³⁶ *Ibid.*, p. 628

³⁷ British Journal of Anaesthesia, 2004

³⁸ J Herring, 'Medical Law and Ethics' Op. cit., p. 475

³⁹ [1993] 1 All ER 821

⁴⁰ [1992] 3 Medical Law Review 303

⁴¹ 2008

⁴² J Herring, 'Medical Law and Ethics' *Op. cit.*, p. 475

⁴³ *Ibid.*, p. 476

⁴⁴ British Journal of Anaesthesia, 2004

⁴⁵ *Ibid.*, 2004

⁴⁶ J Herring, 'Medical Law and Ethics' Op. cit., p. 476

there is more to the body than the brain (for example, growth, excretion and gestation). However, Miller and Truog,⁵⁰ in analysing the well-recognised definition of death as an 'event' and not a 'process', suggested a change in the definition as regards organ transplantation, as neither whole brain death nor the irreversible cessation of circulation best describes death. They gave 10 examples of different organs of the body that can be maintained without the brain functioning. They proffered a change in the dead donor rule to allow the procurement of organs from patients who are critically or terminally ill while this will in turn protect organ procurement professionals from prosecution.⁵¹ The above proposition contravenes the well established 'Dead Donor Rule' (DDR)⁵² which states that donors of vital organs must be declared dead before organ removal rather than dying as a result of donation. Currently, in the United Kingdom, the term 'death' has no statutory definition. The Human Tissues Act⁵³ empowers the Human Tissues Authority created by this Act, to make codes of practice (including defining what death means) for the successful operation of this Act. Nevertheless, the writer posits that the Act should expressly prescribe universal guidelines to serve as irreducible criteria for the Human Tissue Authority in its definition of what 'death' is in any given instance.

Death after Cardio Respiratory Arrest

Secondly, another approach to defining death for the purposes of cadaveric donation of solid organs is death after cardio respiratory arrest. This is now referred to as Donation after Circulatory or Cardiac Death (DCD). It was referred to in the past as Non-Heart Beating Donation (NHBD). Here, death is diagnosed by affirming the occurrence of irreversible damage to the vital centres in the brain-stem as a result of seizure of circulation to the brain for a lengthy period of time.⁵⁴ To procure organs, the patients are moved to the operating rooms designed for pre-procurement interventions before the elective withdrawal of life support. Today, we have 'controlled' and 'uncontrolled' DCD. For the purposes of this essay, discussion shall be centred on 'controlled DCD' rather than 'uncontrolled DCD'. An age long practice to identifying death after the irreversible cessation of cardio respiratory function is to observe the setting-in of simultaneous and irreversible apnoea.⁵⁵ It is therefore, pertinent to note that there are no set down criteria for affirming death sequel to irreversible cessation of cardio-respiratory function.⁵⁶ However, different approaches are adopted in many jurisdictions across the world today.

In the bid to settling the different controversies raised by the lack of standardised criteria for defining death after cardio-respiratory seizure, the Academy of Royal Colleges Code of Practice for the Diagnosis and Confirmation of Death⁵⁷ has recommended conditions that should be considered before declaring one dead.⁵⁸ Some of these conditions range from the confirmation that simultaneous and irreversible apnoea and unconsciousness have set in following the absence of circulation, or the making of full and extensive attempts to reverse the contributing cause of the cardio-respiratory arrest (for example, body temperature), or the fulfilment of either the fact that the individual in question meets all conditions for not attempting cardio-pulmonary resuscitation; or that attempts at cardio-pulmonary resuscitation have failed; as well as the fact that treatment geared towards the sustenance of life has been withdrawn for lack of further benefit to the patient.⁵⁹ The Code stipulates that 5 minutes should be allowed following asystole before the declaration of death by the person responsible for confirming death.⁶⁰ The Code has been accepted to hold sway in the United Kingdom. This was affirmed in the Consensus Meeting Report on Donation after Circulatory Death.⁶¹

In sharp contradiction to the time stipulated in the Code above, the University of Pittsburg Medical Centre Protocol⁶² adopts 2 minutes as the time to be allowed following asystole before death can be declared.⁶³ The

⁶² UPMCP, 1992

⁴⁷ *Ibid.*, p. 476

⁴⁸ *Ibid.*, p. 476

⁴⁹ *Ibid.*, p. 476

⁵⁰ F G Miller and R D Truog, 'Death, Dying and Organ Transplantation: Reconstructing Medical Ethics at the End of Life', (New York: Oxford Univesity Press), 2012.

⁵¹ *Ibid.*, 2012

⁵² Uniform Anatomical Gift Act, 2006

⁵³ 2004, s. 26 (2) (d)

⁵⁴ Academy of Royal Colleges Code of Practice for the Diagnosis and Confirmation of Death, 2008

⁵⁵ *Ibid.*, p. 12

⁵⁶ *Ibid.*, p. 12

⁵⁷ *Ibid.*, p. 12

 $[\]frac{58}{10}$ *Ibid.*, p. 12 – Refer to the Code for further reading

⁵⁹ *Ibid.*, p. 12

⁶⁰ *Ibid.*, p. 12

⁶¹ Donation after Circulatory Death Consensus Meeting Report, 2010

assumption here is that the heart will be irreversibly stopped after 2 minutes of pulselessness without resuscitative interventions.⁶⁴ The UPMC protocol based its principal scientific evidence for determining irreversibility of cardiorespiratory cessation after 2 minutes on DeVita's review wherein the case reports on 108 patients who died during the monitoring of vital signs before and after death were published between 1912 and 1970.⁶⁵ The Institute of Medicine and Society of Critical Care Medicine endorsed the UPMC protocol with a slight modification of the waiting time from 2 minutes to 5 minutes.⁶⁶ Other institutions developed their own protocols in the United States without any form of consistency or uniformity. Menikoff posits that to worsen things up, the Institute of Medicine and Society of Critical Care Medicine remained silent on the scientific, ethical and legal doubts of the death criteria for organ procurement in DCD.⁶⁷ The National Conference of Commissioners on Uniform State Laws which revised the Uniform Anatomical Gift Act⁶⁸ makes it clear that the United States Law forbids the removal of vital organs for donation except the donor is proclaimed dead, otherwise, such an act will amount to homicide.⁶⁹ Thus, the Ethics Committee of the Society of Critical Care Medicine has suggested a minimum of 2 minutes and a maximum of 5 minutes to be the observation period.⁷⁰ A good example of organ procurement from NHB Donors is the insertion of a catheter tube through the groin area of the deceased into the cadaver in order to chill the kidney in situ so as to serve as an interim measure to maintain the organ until relatives are available to either consent to the removal of vital organs or not.⁷¹ Another example is the practice carried out by the UPMC Protocol wherein patients with well-established brain damage are removed from ventilator support after two minutes of 'irreversible' loss of cardiac function in order to remove their vital organs upon death.⁷

Today, the United States has no specific standard on the length of time allowed after asystole before the declaration of death due to lack of consistency and uniformity in the various protocols in existence. The current practice in different parts of the United States is to allow 2 or 5 minutes (or even less).

In China, DCD is said to be appropriate where the patient, after the withdrawal of cardio-respiratory support in line with the judgement of the treating physician, is likely to die within 60 minutes.⁷³ The Chinese Guidelines suggests that 2 to 5 minutes of observation should be adopted in order to confirm that the absence of circulation is irreversible.⁷⁴ Again, many authors have recommended following the 'Lazarus Phenomenon Test'⁷⁵ that patients should be 'passively monitored' for at least 10 minutes after unsuccessful Cardio Pulmonary Resuscitation (CPR) before the confirmation of death as most of the cases had 'delayed ten minutes Return to Spontaneous Circulation (ROSC).⁷⁶ Sweet posits that 'the time honoured criteria of the stoppage of the heart beat and circulation are indicative of death only when they persist long enough for the brain to die.⁷⁷ In Italy, 10 minutes is allowed after apnoea whilst in Germany; the only standardised practice is to define death on the basis of brain stem death. Under Section 6(2) (c) of the Queensland Department of Health Protocol for Organ and Tissue Donation after Cardiac Death,⁷⁸ a second examination test is carried out on the patient to recertify irreversible cessation of circulation after 5 minutes following the clinical confirmation of absence of circulation.

Surprisingly, organs shortage has brought about heart transplantations in children from donors who died as a result of cardiac arrest.⁷⁹ These heart transplantations were carried out at the Denver Children's Hospital. Boucek, Aurora, Edwards and some other authors have posited that paediatric heart transplantation after the declaration of brain death in donors has been carried out for over 25 years in over 6000 recipients.⁸⁰ In two out of the three cases, the time allowed after asystole was reduced to 75 seconds instead of the stipulated 3 minutes in the experimental

- ⁶⁵ Ibid., pp. 3-4
- ⁶⁶ *Ibid.*, p. 4
- ⁶⁷ *Ibid.*, p. 4
- 68 UAGÂ, 2006

- ⁷¹ A Garwood-Gowers, 'Living Donor Organ Transplantation: Key Legal and Ethical Issues' Op. cit. p. 28 ⁷² *Ibid.*, p. 28

- ⁷⁴ Ibid., 2013
- ⁷⁵ Journal of the Royal Society of Medicine, 2007
- ⁷⁶ Ibid., 2007
- ⁷⁷ Ibid., 2007

- ⁷⁹ New England Journal of Medicine, 2008
- ⁸⁰ Ibid., 709

⁶³ *Ibid.*, p. 3

⁶⁴ *Ibid.*, p. 3

⁶⁹ Donation after Circulatory Death Consensus Meeting Report, 2010 p. 4

⁷⁰ The Circulatory-Respiratory Determination of Death in Organ Donation, 2010

⁷³ Chinese Medical Association National Guidelines for Donation after Cardiac Death, 2013

⁷⁸ Department of Health Protocol for Organ and Tissue Donation after Cardiac Death, Queensland, 2013

protocol in order to reduce the risk of injury to the transplanted hearts from warm ischemia.⁸¹ However, the consent of both the donors' and recipients' parents were first sought and obtained. Two main questions are raised here. First is whether the physicians were right in shortening the established time of 2 - 5 minutes, to 75 seconds? Second is whether the act of successfully restarting the hearts in the infant recipients runs contrary to the determination of death after cardiac arrest bearing in mind the requirement of irreversibility? To this end, Annas⁸² states that the process carried out in the above case was illegal and thus runs contrary to the Uniform Declaration of Death Act's⁸³ requirement for irreversibility of heart function. Veatch⁸⁴ also posits that 'if a heart is restarted, the person from whom it was taken cannot have been dead according to cardiac criteria.' However, the writer opines that there should be consensus amongst medical societies on the standard for death determination after the setting in of asystole.

Extra Corporeal Membrane Oxygenation (ECMO)

A further form of medical intervention in order to ensure that transplantable solid organs remain alive as well as to support cardio-respiratory functions in patients (especially with heart or lung dysfunction pending receipt of a transplantable heart) is the use of Extra Corporeal Membrane Oxygenation (ECMO).⁸⁵ ECMO is specifically invented to replace cardio-pulmonary functions for days or a few weeks instead of hours.⁸⁶ ECMO support is provided immediately before death is declared by inserting arterial and venous catheters.⁸⁷ One of its advantages is that it helps in the flow of oxygenated blood to the organs up till the time of recovery which in turn reduces warm ischemic time. It also improves the span of the transplantable organs almost in a way as that procured from a person declared to be brain dead but whose heart still beats.⁸⁸ In opposition, it has been stated that its use contravenes the death determination rule as it retroactively contradicts the physiologic justification for declaring the NHBD dead.⁸⁹ More so, the use of ECMO has been further criticised for getting in the way of inevitable advancement from permanent loss of circulation and respiration to irreversible loss.⁹⁰

Ex Vivo Extra Corporeal Membrane Oxygenation (ECMO)

Another mode of intervention geared towards solid organ procurement is the Ex Vivo ECMO wherein organs removed from an individual who is about to die are perfused and oxygenated.⁹¹ Proponents of this approach posit that it does not have any link to the declaration of death of the donor. This practice requires no perfusion of the living body and will in turn foster a good society that will trust in the medical system. Snell posits that Ex Vivo ECMO has been reported to enhance successful multi-organ donation in DCD.⁹² However, the critics of Ex Vivo ECMO posit that death is caused as a result of organ donation and thus violates the Dead Donor Rule.

5. The Way Forward

Against the foregoing background, the various ethical issues rocking cadaveric donation of solid organs will be discussed with a view of proffering change where necessary or supporting the existing practices in order to have a society that will trust in the medical system vis-a-vis cadaveric donation of solid organs. It must be noted that the informed consent of the organ donor must have been sought and obtained while still alive. In the absence of the existence of such consent before the death of an individual, or where an individual lacks capacity, the decision made on that person's behalf must be in the person's best interest.⁹³ *Rule 19* of the *Code of Medical Ethics in Nigeria*⁹⁴ provides that practitioners involved in procedures requiring the consent of the patient, his relation or appropriate public authority must ensure that the appropriate consent is obtained before such procedures, either for surgery or diagnostic purposes are done, be they invasive or non-invasive. It further provides that consent should be in printed or in written form either as a part of case notes or in separate sheets with the institution's name boldly indicated.⁹⁵ Furthermore, the *World Health Organisation Guiding Principles on Human Cell, Tissue and Organ*

⁸¹The Circulatory-Respiratory Determination of Death in Organ Donation, Op. cit. p. 976

⁸² *Ibid.*, p. 977

⁸³ UDDA (1991)

⁸⁴ The Circulatory-Respiratory Determination of Death in Organ Donation, 2010, Op. cit. p. 977

⁸⁵ *Ibid.*, p. 976

⁸⁶ Ibid., p. 976

⁸⁷ Ibid., p. 976

⁸⁸ *Ibid.*, p. 976

⁸⁹ *Ibid.*, p. 976

⁹⁰ *Ibid.*, p. 976

⁹¹ *Ibid.*, p. 976

⁹² *Ibid.*, p. 976

⁹³ Mental Capacity Act, 2005, c. 9, s. 1 (5), s. 4

⁹⁴ 2008

⁹⁵ Code of Medical Ethics in Nigeria, 2008

Transplantation in its Guiding Principle 196 provides that cells, tissues and organs may be removed from bodies of the deceased persons for the purpose of transplantation if any consent required by law is obtained, and there is no reason to believe that the deceased person objected to such removal. Also, Guiding Principle 4 provides that no cells, tissues or organs should be removed from the body of a living minor for the purpose of transplantation other than narrow exceptions allowed under national law.⁹⁷ In the same vein, Section 48 of the National Health Act⁹⁰ provides that subject to the provisions of Section 53 of the Act, a person shall not remove tissue, blood or blood product from the body of another living person for any purpose except with the informed consent of the person from whom the tissue, blood or blood product is removed granted in the prescribed manner.... The Act further provides for punishment for any contravention of the above stated provision in Section 48 (3) (a) and (b) to the tune of one million naira and one hundred thousand naira for tissue and blood or blood products misconducts respectively. Section 51 of the Act provides that a person shall not remove tissue from a living person for transplantation in another living person or carry out the transplantation of such tissue except in a hospital authorised for that purpose and on the written authority of the medical practitioner in charge of clinical services in that hospital or any other medical practitioner authorised by him or her....⁹⁹ The writer finds this provision of the law very encouraging and a step in the right direction in regulating organ transplantation in Nigeria. The pertinent question to be asked here is 'at what point is a man said to be dead as it relates to cadaveric donation of solid organs, bearing in mind that the organ needs to be alive at the time of procurement for transplantation purposes?' Attempts to answer this question have been met with a whole lot of difficulties. According to Holland, and the views expressed at Linacre Centre, critics of brain stem death approach have claimed that the concept is suspiciously convenient¹⁰⁰ for medical professionals as it easily aids organ removals.¹⁰¹ Pope Pius XII, commenting on the definition of death as 'brain stem death' stated that albeit it is left to the physician to determine the moment of death, it is the church's view that there should be a time when attempts to resuscitate a person from dying should be brought to an end, and death should be unopposed.¹⁰² This observation by the pope underscores the dilemma of the scientific in terms of finding a point at which death can be indisputably admitted.

The researcher recommends as follows. The guidelines set out by the Academy of Medical Royal Colleges Department of Health Code of Practice for the Diagnosis of Brain Stem Death¹⁰³ should be strictly adhered to in order to ascertain when a person is dead and sanctions should be put in place against any medical professional or institution that deviates from the guidelines without just cause. Attempts to keep a person alive should only be carried on based on clear clinical evidence that such an exercise would be viable otherwise; it will amount to prolonging 'imminent death' as well as the imposition of more pains to the dying person. This was aptly seen in the case of Airedale NHS Trust v. Bland¹⁰⁴ where Lord Browne-Wilkinson posited that 'if there comes a stage where the responsible doctor comes to the reasonable conclusion (which accords with the views of a responsible body of medical opinion) that further continuance of an intrusive life support system is not in the best interests of the patient, he can no longer lawfully continue that life support system: to do so would constitute the crime of battery and the tort of trespass to the person.'

Furthermore, Section 26 (2) of the *Human Tissue Act*¹⁰⁵ authorises the Human Tissue Authority to issue Codes of Practice that will inter alia set out the definition of death in cases of organ transplantation for the purposes of this Act. It is evidently clear that the Act failed to define what 'death' is, most probably because of the perceived need to leave the 'meaning' of death responsive to the dynamics of the various situations of organ transplant. However, it is recommended that an amendment of this Act should expressly prescribe universal guidelines to serve as irreducible criteria for the Human Tissue Authority in its definition of what 'death' is in any given instance.

The lack of uniformity and consistency in the time interval from the setting in of asystole to the declaration of death practised in various jurisdictions has contributed greatly to the problems of Non-Heart Beating Donation. Many jurisdictions adopt 5 minutes as the standard practice. Different protocols of many jurisdictions should adopt the

⁹⁶ As endorsed by the sixty-third World Health Assembly in May, 2010, in Resolution WHA63.22

⁹⁷ Ibid., p.4

⁹⁸ 2014

⁹⁹ National Health Act, 2014

¹⁰⁰ J Herring, 'Medical Law and Ethics' Op. cit., p. 443

¹⁰¹ *Ibid.*, p. 443

¹⁰² 'A Definition of Irreversible Coma', Report of the Ad Hoc Committee of the Harvard Medical School to Examine the Definition of Brain Death, JAMA, August 5, 1968, Vol. 205, No.6

¹⁰³ 2008

¹⁰⁴ [1993] 1 All ER 821, at 882

¹⁰⁵ HTA, 2004, c. 30

practice of 5 minutes as the minimum standard below which no medical professional shall fall before declaring death except for clear medical evidence that the reduction of this time is in line with the best practice in a given case. In sum, there should be a consensus ad idem by medical societies on the standard for the determination of death.¹⁰⁶

To encourage organ donation as well as to defuse most of the doubts expressed by the public, there should be introduced into the undergraduate programmes in various universities a compulsory module wherein students will be taught extensively about what organ donation is, the need to be properly informed before consent will be given, the ability of the individual involved to opt out mid-stream, the process of organ procurement, and the different concepts and practices in defining death for the purposes of organ transplantation. This will foist a more enlightened society and will increase the level of trust the public have in the medical professionals and the system.

Section 43 of the Human Tissue Act¹⁰⁷ which promotes the preservation of organs for transplantation purposes by institutions should be amended. Indeed, this provision is paternalistic and utilitarian in nature and thus explains why medical professionals insert catheter tube in a deceased person to chill the kidney in situ or the whole body (cold perfusion of the cadaver). It is this writer's view that such practices should only be upheld where the deceased expressly consented to being an organ donor while alive, or where the surrogates consent to such before the death of the deceased person, or in the interest of justifiable utility. Interventions other than these will amount to the invasion of the rights of the deceased as has been held in the case of *Elli Poluhas Dödsbo v. Sweden*¹⁰⁸ where an application to transfer the body of the dead from a cemetery in Fagersta to a family burial plot in Stockholm was refused out of respect for the notion of 'peaceful rest' under the Funeral Act, 1990.

ECMO support should only be used with the *informed consent* of the donor because it involves the bodily invasion of the individual involved. Alternatively, Ex Vivo ECMO should be used provided a guideline will be brought into force in various jurisdictions to stipulate organs that can be procured while the individual is alive and the informed consent of the individual first sought and obtained. It should be noted that in the use of *Ex Vivo* ECMO, regard must be had to the Dead Donor Rule¹⁰⁹ which stipulates that donors of essential organs must be declared dead before organ removal rather than dying as a result of donation.

The provisions of the Nigeria's National Health Act, Code of Medical Ethics in Nigeria, WHO Guiding Principles on Human Cell, Tissue and Organ Transplantation, 2010 on organ transplantation should be adhered to in relation to obtaining the consent of the patient as well as carrying out any tissue, blood or blood related transplantation.

Organ procurement should not be automatic. A thorough examination and recertification of the entire process should be carried out to properly examine the allograft, length of organ survival etc. This is to buttress the legal principle of *ex abundanti cautela*. The question might be asked: 'of what essence would it be to transplant an eye already damaged by glaucoma to a recipient whose eyes are already dead?' Recently, in Cardiff, Wales, 2 recipients died (including the donor) having had kidney transplants from the same donor whose organs were alleged to be infected with a parasitic worm¹¹⁰. The surrogates of the deceased stated that they would not have consented to the transplant if they were told of the parasitic infection¹¹¹. In clear terms, the donor should be properly informed.

In conclusion, although it may appear unrealistic to have an approach to organ donations that will be devoid of criticisms, a holistic adherence to the above stated intervention strategies may significantly address fears of critics and possibly reduce controversies and tensions.

¹⁰⁶ The Circulatory-Respiratory Determination of Death in Organ Donation, *Op. cit.* p. 978

¹⁰⁷ HTA, 2004, c. 30

¹⁰⁸ Application No. 61564/00, 17-01-2006

¹⁰⁹ Uniform Anatomical Gift Act, 2006

¹¹⁰ BBC News, 2014

¹¹¹ Ibid.