THE INSTITUTE FOR THE REVIVAL OF TRADITIONAL ISLAMIC SCIENCES

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HARVESTING THE HUMAN: Traditional Sunnī Islamic Perspective

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Abstract

The Dead Donor Rule is in place to ensure that organs are not procured from living humans as society has deemed it morally acceptable to remove organs from dead humans. In this paper we set out to analyse and assess whether the DDR is practically being applied to patients who are near death. Also we wish to explore which of the two models of determining death; cardiopulmonary or brain, in order to show the correct criteria. We argue that death does not occur in either case, but rather due to the speed at which organs are required to be removed, the DDR is not being applied. This means humans are alive before the process of organ removal is intiated or that revival is highly probable. The conclusion from the research was that death could not be determined by science but was rather a moral decision. It was understood from a traditional sunnī perspective that the killing of a near dying human in order to remove his body parts to give to another dying human was unequivocally immoral and impermissible. It was clear that there was no difference between how a living human should be treated compared to a dead one.

It was shown clearly that organ procurement was immoral in absolute terms; traditional sunnī Islam does not differntiate between a live or dead human. The fact that procurement is from living humans compounds this situation tremendously.

Keywords: brain death, cardiopulmonary, organ procurement, organ transplantation, Islam, sunnī, fiqh, medicine

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11th Rabī al-Thānī 1439/30th December 2017

Introduction

Death is the inevitable termination of all creatures and humans are no exception. However, human life is sacred to many and even those that are not of a religious inclination apply a moral code which differentiates the death of a human from other creatures. The focus of our study is from an Islamic perspective but can be equally understood from any world view which has high regard for the inviolability and sacredness of human life. In many scenarios, death is clear and even the efforts of those in the medical profession are to no avail, and a death certificate is issued and that is not of interest in our paper. Our research is focussing in the grey area where death needs defining as there are many subsequent situations which are brought about when death has occurred. For instance, the marriage between husband and wife will cease to exist when one is determined dead and as a result the issues of maintenance, marriage to another person, relationship towards the ex-spouse and other marital issues will change. Similarly, with death the individual's estate is distributed amongst the heirs. However, most of these matters become clear due to decisions which loved ones and family members make with the advice of the medical experts when it comes to removing mechanical ventilation and a death certificate is issued. But it is the procurement of human body parts that needs a thorough analysis to determine if death has occurred, or that the removal of parts of the body caused the death. Therefore, the focus of our study will be on organ removal for transplantation from an Islamic perspective taking into consideration a holistic approach towards the human, body before and after death.

The bulk of the study will focus on determining death in order to see at what point organs are removed and will be our first point of discussion. This will be followed by the Islamic view on the use of another human's body parts and if death has been determined the harvesting of a human body. Finally, a conclusion in order to bring the study to a close. However, first we set out to determine death.

Determining Death

Prior to the 19th century death was relatively straightforward to understand and was determined by the visual appearance of the human and what could be determined by touch; so if a human did not look like they were breathing and was blue in colour, cold to touch and had started to stiffen then the person was dead (Truog, 2008). This is similarly documented in the books of fiqh in that death is determined by the absence of life so those characteristics which are associated with life would be determined by sight and smell, and if no longer observed then it would be deemed that the soul had been removed from the body. These were as follows, but are not restricted to nor are all required to be observed; the limpness of his feet (*istirkhā' rijlayh*), the secession of his palms (*infiṣāl kaffayh*), inclination of his nose (*mayl anfih*), the elasticity of his facial skin (*imtidād jaldati wajhih*) and sinking of his temples (*inkhisāf ṣudghiyyih*) (Ibn Qudāma, 1983; al-Nawawī, 1991; Niẓām, 2000; Ibn ʿĀbidīn, 2000). This is understood through modern understanding that a person was considered dead when there was no evidence for circulation, respiration and

neurological functioning (Pernick, 1988). Usually, the human loses these functions over a very short period of time, as the loss of one leads to an almost immediate loss of the other two (Truog, 2003). However, the organs of these humans cannot be used for transplantation (Truog, 2008); a practice initiated in 1954 by Joseph Murray who transplanted a kidney from one identical twin to another (Sade, 2011) and followed by the first heart transplant in 1967 by Christian Barnard which paradoxically worked in the recipient (DeVita, 1993). Hence the demand for procuring of organs can only be from dead patients and in order to protect the living from being killed by having their organs removed a 'dead donor rule' was required (Tuohey, 2009; Younger, 1993; Verheidje, 2007); as demanded by the Hippocratic Oath, 'first do no harm' (Kuhner, 2014). With the advent of modern medicinal practices death was determined by what is referred to as the cardiopulmonary death (CPD); in that when breathing and circulation permanently ceased then the individual was considered dead (LiPuma, 2016). This was found to be a good means to determine death, albeit in a few circumstances was found to have misdiagnosed death (Bondesen, 2001). However, it was not until the 1950s due to the invention of mechanical ventilation that greyed the view that CPD could be viewed as death, as some patients had beating hearts and breathing lungs albeit in a deep coma. As the CPD model was not considered suitable now to determine death as the organs were not viable for transplantation in the late 50s and early 60s, another criteria was devised, referred to as the Harvard criteria and two new terms were introduced, 'irreversible coma' and 'brain death'. The Harvard Criteria (Beecher, 1968) used the following measures:

- Unreceptivity and unresponsivity,
- No movements or breathing,
- No reflexes and,
- Flat electroencephalogram (EEG)

This was repeated twenty-four hours later to ensure no change was recorded. If that was the case, then this was referred to as irreversible coma and became the new criterion for death.

This criterion stumbled through the seventies and it was not until the early eighties when the Presidents Commission for the Study of Ethical Problems in Medicine and Biomedical Behavioural Research of 1981 brought about the Uniform Determination of Death Act (Presidents Commission for the Study of Ethical Problems in Medicine and Biomedical Behavioral Research, 1981). This new criterion was referred to as whole brain death (WBD) and it determines death when a person is dead if either a) irreversible cessation of circulatory and respiratory functions or b) irreversible cessation of all functions of the entire brain, including the brain stem. Others, notably in the UK, confined brain death to brain-stem death only, based on its crucial and indispensable role of holding the critical nerve centres that in fact make life in the brain possible, and that it facilitates us to wake, hear, taste and sense touch (Plum, 1999; Conference of Royal Medical Colleges and their Faculties in UK, 1976).

The following table details the features associated with life and whether they are found in CPD or WBD patients.

Table 1 – Features of life observable in the living and those determined to be CPD and WBD

Features of Life	Living	CPD	WBD
Heart beating, warm, well perfused	Yes	No	Yes
Breathing	Yes	No	Yes[1]
Vital organs functioning (kidneys, liver)	Yes	No	Yes
Capable of somatic growth[2]	Yes	No	Yes
Capable of reproducing[3]	Yes	No	Yes
Capacity for consciousness	Yes	No	No

[1] – with mechanical ventilation. Some may argue that breathing must be spontaneous in order for it to be associated with life, yet quadriplegic patients are considered alive even though their breathing is not spontaneous (Truog R. D., 2003). [2] - (Shewmon, 1998). [3] - (Townsend, 1996) and (Field, 1988).

Even though CPD shows no sign of life this could be reversed and maintained as discussed earlier through mechanical ventilation. As can be observed from Table 1, there are many features of life which questioned the validity of WBD as determining death because these and other functions were found to exist. Shewmon found amongst others, the healing of wounds, maintaining body temperature, sexual maturation and the gestating of a foetus in so-called 'dead' patients as defined by WBD (Shewmon, 2001). Another argument posited is that as they are permanently unconscious then they are dead, but based on this definition patients in a permanent vegetative state (PVS) who breathe unassisted would have to be declared dead, which is clearly unacceptable (Truog, 2008). Therefore, WBD individuals do not have 'irreversible cessation of all functions of the entire brain, including the brain stem' as required by the Uniform Determination of Death Act (UDDA). Some have subsequently argued that WBD is an approximation and some remaining functions are insignificant; but then who and how is a function of the brain determined to be significant or insignificant? For instance, in a study it was shown that 11 out of 56 consecutive patients diagnosed as brain dead continued to have spontaneous cortical electrical activity, in which both low-voltage theta or beta activity was observed (Griggs, 1987). As Truog (2003, p 2392) raises this very conundrum, "[I]t is hard to understand why we place great emphasis on the pupillary light and corneal reflexes (neurologic functions of minimal physiologic significance) and ignore the neurologic regulation of salt and water homeostasis (neurological functions of critical physiologic significance)." Some have argued that the whole argument is circular based on tautologous definitions in that 'death' is being defined as the loss of 'critical functions' of the brain and then define 'critical functions' as the functions necessary for life (Collins, 2010). Furthermore, even at the destruction of all brain function, many aspects of bodily integration are maintained outside of the brain (Shewmon, 2001; Potts, 2001). Collins (2010, p. 7) struggles to see the difference between a human "with a completely nonfunctioning brain who is maintained on a ventilator (and has a spontaneous perfusing cardiac rhythm)" and a human "with a completely nonfunctioning renal system who is maintained on a dialysis machine."

In fact, it is the eagerness of procuring organs after cardiac arrest of brain-dead patients in that they are pronounced dead between two and five minutes after the onset of asystole, when they can be resuscitated, but a decision has been made not to do so. Even though the dead donor rule states 'irreversible' this is applied in the real world as a decision not to reverse. Putting it another way, the circulatory arrest is too short to be certain that the

cardiac arrest is not irreversible (Rodriguez-Arias, 2011). What we observe is that practically 'permanent' substitutes 'irreversible' which means that the cessation of the circulation was not to be restored, not even by resuscitation efforts (Bernat, 2010). In order to exemplify this point, it has been noted that longer than ten minutes of absent circulation is required in order to declare irreversible cessation of the entire human brain, which includes the brain stem function. However, in order to avoid ischemia, the process of procurement is initiated within five minutes by medications that are administered in order to suppress brain and heart functionality (Whetstine, 2006; DeJohn, 2006). This leads to the paradox that patients who are determined to be dead, due to the irreversible loss of cardiac function have their hearts successfully transplanted into the torso of another and are fully functional (Truog, 2008; Boucek, 2008). It is due to the ischemic time which can bring about a negative impact on the organs that death needs to be declared and organs procured almost immediately. However, there is no uniform definition for warm ischemic interval as it varies according to physicians. The current trend is to associate it with the onset of hemodynamic instability, referred to as functional warm ischemia. (Neyrinck, 2013); also see Neyrinck (2103, p. 384) Table 2 below. The warm ischemic time is the time duration that the organ remains at body temperature after its blood supply has stopped; bearing in mind that this is almost instantaneous in brain-dead organ procurement. The quick procurement of human organs is vital in order to protect them from damage due to ischemia as a result a heart-beat is required literally up to the point of removal (Collins, 2010). There is also this time during organ transplantation from chilling the organ until reperfusion when the blood supply is restored which is termed the cold ischemia time (Halazun, 2007).

Table 2 – Definition of When Warm Ischemia Starts

Action/Observation	Warm Ischemia?
Withdrawal of Mechanical Ventilation	Starts
Hemodynamic Instability	Starts
Circulatory Arrest	Starts
Declaration of Death	
Start of Cold Profusion	
Cold Ischemia	

Being dead was as a result from the above discussions, for legal, ethical and public policy purposes, when a fellow human was deemed to 'have lost full moral standing as a member of the human community (Veatch, 2003).

This clearly demonstrates that the medical profession has been defining death in such a way in order to be most favourable for transplantation (Truog, 2008). In fact, this was evident by comments made in the 1968 Ad Hoc Committee of Harvard by none other than the committee chairperson Dr Beecher, that organ procurement was a major motivation for the committee (Padela, 2012). It is also acknowledged that this uncertainty around death is not due to the state of scientific knowledge, but due to the different and incompatible understandings about what is death. Therefore, scientific knowledge alone will not determine death (Truog, 2003). In other words, the moment of death cannot be determined

by scientific or a logical process but by some other means; in our democratic societies it will be by societal consensus and those of a religious persuasion will be directed by their faith. There are two certainties on both ends of the spectrum when life nears the end, life and death; but it is the grey in the centre where death occurs. Muslims associate death by the removal of the soul, which cannot be determined though the scientific process.

Some could argue that physicians switching off mechanical ventilation is no different than a physician procuring organs, from what is now clear, a living person. This is demonstrated by the scenario that if two identically ill patients had their mechanical ventilation switched off; one by somebody who wanted to kill the patient and the other by the physician then in the first situation it would be murder but not in the second, if medical protocols were being followed. In some cases when life support is removed death does not occur, then undoubtedly organ procurement is causing the death (Miller, 2008). In some cases, the premedication of opioids and other sedatives and medication which is administered prior to and post mechanical ventilation withdrawal, can bring about the patient's death (Truog, 2001). If the patient, or their legally-assigned proxy when incapable, upon advice of the physicians refuse medical intervention or life-sustaining treatment, then that would legally be valid. This principle of self-determination or autonomy is enshrined within medical law which states,

> "An adult patient who...suffers from no mental incapacity has an absolute right to choose whether to consent to medical treatment...This right of choice is not limited to decisions which others might regard as sensible. It exists not withstanding that the reasons for making the choice are rational, irrational, unknown or even non-existent."
>
> Lord Donaldson. Re T (Adult) [1992] 4 All ER 649 (British Medical Association, 2013)

In summary, the current practice of organ procurement from WBD and CPD patients are inconsistent with the dead donor rule (Sade, 2012); in other words, patients who are brain-dead, but hearts continue to beat due to mechanical ventilation, and ones who are considered dead by the cardiopulmonary model after life support is withdrawn, are not dead as one would understand it and defined by the dead donor rule (Miller, 2008). Miller (2008, p. 44) makes the point clear,

> "There is no way we can solve the "paradox" that Greenberg noted – "the need for both a living body and a dead donor." Instead, in order to sustain the lifesaving practice of organ transplantation without moral obfuscation, *we must face the fact that this requires extracting vital organs from living donors*." [Emphasis added]

The choice is then to either stop organ procurement from dying patients, which will arguably bring an end to the organ transplantation enterprise or to facilitate the removal of organs from dying, but not dead patients (Truog, 2003). Furthermore, if the intentional killing of an innocent human cannot be justified for the betterment of other members of the human society than neither can the practice of procuring organs from brain dead, but living donors, be justified (Collins, 2010).

In order to move the argument forward, as the demand for organs is increasing and will continue to do so, we must frame the debate not as a technical medical one but rather what it should have been from the outset, which is a moral discussion around the question – is it morally acceptable to remove the organs from a near-dying or unconscious human to give to a conscious but dying human due to the absence of that particular vital organ?

We turn our attention next to tackle this very question from the paper's perspective.

Moral Guidance from Traditional Sunnī Islam

Before we tackle the question set out at the end of our last section let us discuss a number of issues which were brought out whilst discussing the determination of death and are worthy of addressing.

The first point is that even though the DDR is not practically applied, but there in theory in order for organ procurement to be morally and socially acceptable, it is important to note that it is based on the premise that the human can feel no harm after death (Rodriguez-Arias, 2011); hence organs can be procured, but this is based on an atheistic view of the world in that we are an organic creature with no soul or Afterlife. Some have supported this argument to say autopsies and cremations are acceptable to most people so there is clearly less protection over the human when she dies. However, that is not how Islam understands it as the soul remains somewhat attached to the body even after death. The belief is fundamental in Islam, that a domain between the world and the Afterlife referred to as the Barzakh exists, in which the soul remains connected with the body. In fact, the harm which affects the living body also affects the dead body; there is no difference between the living and the dead.

وقد قال صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ : (كَسْرُ عَظْمِ الْمَيِّتِ كَكَسْرِهِ حَيًّا). رواه أبو داود (٣٢٠٧) ، وعند ابن ماجه (١٦١٧) بلفظ : (كَسْرُ عَظْمِ الْمَيِّتِ كَكَسْرِ عَظْمِ الْحَيِّ فِي الْإِثْمِ) ، وصححه النووي في "خلاصة الأحكام" (١٠٣٥/٢)

قَالَ الطِّيبِيُّ : " إِشَارَة إِلَى أَنَّهُ لَا يُهَان مَيِّتًا كَمَا لَا يُهَان حَيًّا ". انتهى من "عون المعبود"(١٨/٩).

وقال الباجي : " يُرِيدُ أَنَّ لَهُ مِنْ الْحُرْمَةِ فِي حَالِ مَوْتِهِ مِثْلَ مَا لَهُ مِنْهَا حَالَ حَيَاتِهِ ، وَأَنَّ كَسْرَ عِظَامِهِ فِي حَالِ مَوْتِهِ يَحْرُمُ ، كَمَا يَحْرُمُ كَسْرُهَا حَالَ حَيَاتِهِ " . انتهى من " المنتقى شرح الموطأ" (٢ / ٦٣) .

The Prophet's statement is clear in that he does not differentiate between a living or dead human. The only permissibility would be if the individual needed to be operated on in which the body could be cut and the part of the body which, for instance is cancerous, be removed.

On the point of medical intervention, one finds it is not obligatory according to the Ḥanafī school; so, there is no sin if a person dies due to not accessing medical treatment (Niẓām, 1999). Those items which if one does not take or consume which it is known will keep the person alive is obligatory and the person who refrains would commit sin. Therefore, food, water and oxygen must be consumed even if from an illegal source in order to stay alive if

legal alternatives are inaccessible. There is a clear difference between items which one categorically knows will bring about restoration and continuation of life compared to those which will probably bring the continuation. Medicinal treatment generally, and organ transplantation specifically come under the probable and as a result cannot be made compulsory. The Shāfiʿī school suggest that medicinal intervention is recommended rather than obligatory; even though there are differing views within the school where some suggest it is better to avoid if one is strong in faith but if one is weak of faith then it would be better that he sought medicinal assistance (al-Haytamī, 2010). We see similar positions of permissibility, rather than obligatory, as we saw in the Ḥanafī school in the two remaining schools; Mālikī and Ḥanbalī. What we must also bear in mind is that even if successful organ procurement and transplantation takes place there are many other issues which need to be considered like rejection of organ, longevity and quality of life are a few not to forget lifelong medications which have their own issues and the significant associated costs (Padela, 2012).

Additionally, invasive autopsies are morally wrong as it is considered mutilation which is a forbidden practice and causing harm to the human as documented above. As for cremation this is also an impermissible act for traditional Muslims as the body is to be buried; in fact, all body parts are to be buried including the placenta and umbilical cord after birth, the removed problematic body parts after operations and down to finger and toe nails and hair removed regularly from the living human. All human parts are considered sacred and must not be incinerated, but buried as commanded by scripture.

The second point is the view of Muslim boards of scholars with respect to organ procurement. There has been much discussion and deliberation amongst the various Muslim juristic boards to determine the definition of death and subsequently the Islamic perspective with respect to organ procurement. As expected there were various positions adopted because they were following advice from the medical professionals; some who accepted brain death as death and others who stated that a human was alive if circulation and respiration existed even if maintained mechanically (Padela, 2011; Padela, 2012). This as we have found is due to the fact that science cannot determine that point and a moral decision needs to be made. However, the argument for considering death as determined by brain death is not acceptable when applying legal maxims like ‘Certainty is not removed by doubt’ (*al-yaqīnu lā yuzīlu bi’l-shak*); in that one is certain he is alive but unsure that he has died. Similarly, if one applies the rule of the presumption of continuity (*al-istiṣḥāb*) then it will mean that the person is alive until proven to be dead.

What we can observe throughout the body of religious scripture is that there is absolutely and categorically, no moral legitimacy for taking the life of one person, albeit a person probably dying, to save another person who is also dying from an organ failure. Not only that, but we have in fact seen that there is no difference between a living human or a dead one. We will finally discuss the use of human body parts from a dead person, not a dying person, for the sake of completion and then conclude our findings.

When we explore the use of human parts by another human from the Ḥanāfī perspective then the school is quite clear (Ibn ʿĀbidīn, 1984);

> "It is said that the skin of a human when it is tanned [becomes] pure however it is not permissible to take benefit from it similar to the rest of the body parts due to what has been transmitted in *al-Ghiyā*."
>
> "So, it does not [become pure for use] by tanning due to [the need of] being treated with respect and [due to] its honour, therefore if it was tanned [it would be pure, even though its use is illegal; to such an extent that if his bones were ground to a powder they would not be permissible to eat according to the most correct opinion due to its honour and [the need for it to] be treated with respect." (Vol 1, pp. 148-50)

Further on during this discussion he adds the illegality of consuming a human corpse to stay alive no matter what level of starvation, even if death is imminent. This needs to be understood in the context that the sharīʿa removes the illegality of consumption of carrion or swine, both categorically illegal and considered as impure in its essence, when under compulsion due to starvation or when under duress and threat of death (Jīwan, 2011).

There is only one scenario which Ibn ʿĀbidīn (1984) cites the Shāfiʿī school who permit the cutting of the human after their death;

> "The principle is 'the greater harm is removed by the lesser' which is a legal maxim in *al-Ashbā*, then he states that if an individual was to swallow a pearl and he was to die then his torso would not be split [in order to access the stomach to remove the pearl] because the sanctity of the human is superior than the sanctity of wealth, and its equivalent price will be taken from his bequest. However, Shāfiʿī permits it, by applying analogical reasoning upon the splitting of the torso [of a dead woman] in order to remove the child." (Vol. 5, p. 135)

The only circumstance in which permissibility is granted is when it affects another individual's rights, then the honour (rights) of the deceased can be waived. In fact, this is also observed when due to an operation the living body has to be cut or have body parts removed, if they are proven to cause him harm as discussed when analysing mutilation above.

Conclusions

Medicinal techniques have developed which allow the transplant of one human part into another human which give the receiver the possibility to live. This coupled with mechanical ventilation has meant many who were possibly about to die could live on. The moral dilemma this raised was to ensure humans were dead before the body parts could be removed and the dead donor rule was brought into existence. However, as we have seen the human is not dead when organs are procured. This is fundamentally immoral according to traditional sunnī Islam as there is no permissibility to take the life of an innocent individual even at her request to save another person. Traditional Islam drew no distinction between a living or dead human; so even if in the future the medicine world could determine death it would have no impact on this position unless the context changed considerably. In summary, organ procurement is considered immoral based on current understanding and procedures.

References

al-Haytamī, I. H., 2010. *Tuḥfat al-Muḥtāj bisharḥ al-Minhāj.* Beirut: Dar al-Kotob al-Ilmiyyah.
al-Nawawī, Y., 1991. *Rawdat al-Talibin wa Umda al-Muftīn.* 3rd ed. Beirut: al-Maktab al-Islami.
Beecher, H. K., 1968. A Definition of Irreversible Coma: Report of the Ad Hoc Committee of the Harvard Medical School to Examine the Definition of Brain Death. *JAMA,* Volume 205, pp. 337-40.
Bernat, J. L., 2010. How the Distinction between Irreversible and 'Permanent' Illuminates Circulatory-Respiratory Death Determination. *The Journal of Medicine and Philosophy,* Volume 35, pp. 242-55.
Bondesen, J., 2001. *Buried Alive.* New York: WW Norton and Company.
Boucek, M. M. M. C. D. S. M. F. R. E. L. P. B. a. C. D., 2008. Pediatric Heart Transplantation After Declaration of Cardiocirculatory Death. *New England Journal of Medicine,* 359(7), pp. 709-14.
British Medical Association, 2013. *Medical Students Ethics Tool Kit.* [Online]
Available at: www.bma.org.uk/advice/employment/ethics/medical-students-ethics-toolkit/2-autonomy-or-self-detrmination
[Accessed 21st December 2017].
Collins, M., 2010. Reevaluating the Dead Donor Rule. *Journal of Medicine and Philosophy,* Volume 0, pp. 1-26.
Conference of Royal Medical Colleges and their Faculties in UK, 1976. Diagnosis of Brain Death. *British Medical Journal,* Volume 2, pp. 1187-8.
DeJohn, C. a. Z. J. B., 2006. Ethical Implications of Extracorporeal Interval Support for Organ Retrieval (EISOR). *American Society for Artificial Internal Organs Journal,* 52(2), pp. 119-22.
DeVita, M. A. S. J. V. a. G. A., 1993. History of Organ Donation by Patients with Cardiac Arrest. *Kennedy Institute of Ethics Journal,* Volume 2, pp. 113-29.
Field, D. R. G. E. A. a. C. R. K., 1988. Maternal Brain Death During Pregnancy: Medical and Ethical Issues. *The Journal of the American Medical Association,* Volume 260, pp. 816-22.
Griggs, M. M. K. M. A. C. G. G. G. M. W. a. R. E. R., 1987. Electroencephalographic Activity after Brain Death. *Archives of Neurology,* Volume 44, pp. 948-54.
Halazun, K. J. A.-M. A. A. A. W. a. A. N., 2007. Warm Ischemia in Transplantation: Search for a Consensus Definition. *Transplantation Proceedings,* 39(5), pp. 1329-31.
Ibn ʿĀbidīn, M. A, 1984. *Radd al-Muḥtār ʿalā al-Durr al-Mukhtār.* Karachi: Maktaba Rashīdiyya.
Ibn ʿĀbidīn, M. A., 2000. *Radd al-Muḥtār 'alā al-Durr al-Mukhtār.* Damascus: Dar al-Thiqafa wa'l-Turath.
Ibn Qudāma, A., 1983. *al-Mughnī.* Beirut: Dar al-Kitab al-Arabi.
Jīwan, M., 2011. *Nūr al-Anwār: Sharḥ Risālat al-Manār.* 4th ed. Karachi: Al-Bushra Publishers.
Kuhner, M. a. K. M., 2014. The 'Gift' that Kills? On the Ethics of Organ Transplantation. In: J. P. I. I. O. o. C. a. P. Formation, ed. *Humanum - Issues in Family, Culture and Science.* Washington: Humanum Review, pp. 1-4.
LiPuma, S. H. a. D. J. P., 2016. Defending a Functionalsit View of Higher Brain Death. *Journal of Clinical Research & Bioethics,* 7(2), doi:10.4172/2155-9627.1000262.
Miller, F. G. a. T. R. D., 2008. Rethinking of the Ethics of Vital Organ Donations. *Hastings Center Report,* 38(6), pp. 38-46.
Neyrinck, A. R. D. V. a. M. D., 2013. Donation after Circulatory Death: Current Status. *Current Opinion in Anesthesiology,* 26(3), pp. 382-90.
Niẓām, 2000. *al-Fatāwā al-Hindiyya.* Beirut: Dar al-Kotob al-Ilmiyah.

Padela, A. I. A. A. a. M. E., 2011. Brain Death in Islamic Ethico-Legal Deliberation: Challenges for Applied Islamic Bioethics. *Bioethics,* doi:10.1111/j.1467-8519.2011.01935.x.
Padela, A. I. a. B. T. A., 2012. Brain Death: The Challenges of Translating Medical Science into Islamic Bioethical Discourse. *Medicine and Law,* Volume 31, pp. 433-50.
Pernick, M. S., 1988. Back from the Grave: Recurring controversies over Defining and Diagnosing Death in History. In: M. D. Zaner, ed. *Death: Beyound Whole Brain Criteria.* Boston: Kluwer Academic Publishers, pp. 17-74.
Plum, F., 1999. Clinical Standards and Technological Confirmatory Tests in Diagnosing Brain Death. In: S. J. A. R. M. a. S. R. Youngner, ed. *The Definition of Death: Contemporary Controversies.* Baltimore: John Hopkins University Press, pp. 34-65.
Potts, M., 2001. A Requim for Whole Brain Death; A Response to D. Alan Shewmon's "The Brain and Somatic Integration". *Journal of Medicine and Philosophy,* 26(5), pp. 479-91.
Presidents Commission for the Study of Ethical Problems in Medicine and Biomedical Behavioral Research, 1981. *Defining Death: Medical, Legal and Ethical Issues in the Determination of Death,* Washington DC: Presidents Commission for the Study of Ethical Problems in Medicine and Biomedical Behavioral Research.
Rodriguez-Arias, D. S. M. J. L. N. M., 2011. Donation after Circulatory Death: Burying the Dead Donor Rule. *The American Journal of Bioethics,* 11(8), pp. 36-43.
Sade, R. M., 2011. Brain Death, Cardiac Death and the Dead Donor Rule. *Journal of South Carolina Medical Association,* 107(4), pp. 146-9.
Shewmon, A. D., 2001. The Brain and Somatic Integration: Insights into the Standard Biological rationale for Equating 'Brain Death' with Death. *Journal of Medicine and Philosophy,* Volume 26, pp. 457-78.
Shewmon, D. A., 1998. Chronic 'Brain Death': Meta-analysis and Conceptual Consequences. *Neurology,* Volume 51, pp. 1538-45.
Townsend, M. F. R. J. R. a. W. M. A., 1996. Artificially Stimulated Ejaculation in the Brain Dead Patient: A Case Report. *Urology,* Volume 47, pp. 760-2.
Truog, R. D. a. R. W. M., 2003. Role of Brain Death and the Dead Donor Rule in the Ethics of Organ Transplantation. *Critical Care Medicine,* 31(9), pp. 2391-6.
Truog, R. D., 2001. Recommendations for End-of-Life Care in Intensive Care Unit: The Ethics Committee of the Society Care Medicine. *Critical Care Medicine,* Volume 29, pp. 2332-48.
Truog, R. D. a. M. F. G., 2008. The Dead Donor Rule and Organ Transplantation. *The New England Journal of Medicine,* 359(7), pp. 674-5.
Tuohey, J., 2009. Redifining Death as a Way to Procure More Vital Organs: A Response. pp. 2-5.
Veatch, R. M., 2003. The Dead Donor Rule: True by Definition. *The American Journal of Bioethics,* 3(1), pp. 10-11.
Verheidje, J. L. R. M. Y. a. M. J., 2007. Recovery of Transplantable Organs after Cardiac or Circulatory Death: Transforming the Paradigm for the Ethics of Organ Donation. *Philosophy, Ethics and Humanaties in Medicine,* 2(8).
Whetstine, L., 2006. An Examination of the Biophilosophical Literature on the Definition and Criteria of Death; When is Dead Dead and Why Some Donation After Cardiac Death Donors are not. In: *Department of Heath Care Ethics Volume PhD Dissertation.* Pittsburgh: Duquense University; Department of Heath Care Ethics.
Younger, S. J. a. A. R. M., 1993. Ethical, Psychosocial and Public Policy Implications of Procuring Organs from Nonheart-Beating Cavader Donors. *The Journal of the American Medical Association,* Volume 269, pp. 2769-74.