

EDITORIAL VIEW

PERIOPERATIVE MEDICINE

Brain Death: The Dilemma Continues

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ABSTRACT

Despite being introduced over half a century ago and having undergone multiple refinements, the debate surrounding brain death persists within the medical community. Acknowledging the premise that brain death is not synonymous with actual deathⁱ but rather a novel construct introduced to meet societal demands gives rise to a series of quandaries for Muslim physicians. If brain death is not acknowledged as death under Islamic law, the harvesting of organs from individuals declared brain dead would be construed as an act of homicide. Additionally, granting consent for "deceased" organ donation might be perceived as granting authorization for the cessation of one's own life in the operating theatre.

Keywords: Brain Death; Islamic Death; Islamic Bioethics; Deceased Organ Donation

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Traditionally, the irreversible cessation of both respiration and cardiac activity has marked the termination of life. Subsequent to this determination, the body assumes a cold, pallid state, bereft of vitality and poised for interment.¹

However, in the latter half of the twentieth century, the introduction of mechanical ventilation and the triumphs in vital organ transplantation, notably the inaugural human-to-human heart transplantⁱⁱ in 1967, prompted the need for a redefined concept of death. Proposing a novel definition, the Ad Hoc Committee of Harvard Medical Schoolⁱⁱⁱ in 1968 advocated for the replacement of a clinical state referred to as "*le coma dépassé*,"^{iv} characterized by profound neurological impairment with irreversible coma, with the term "brain death".^v In essence, irreversible consciousness was being equated with death.

Remarkably, the Committee, in formulating this conceptual shift, presumed that individuals displaying features of "brain death" were dead, yet proffered no philosophical rationale. It is noteworthy that the withdrawal of life-sustaining interventions from a terminally ill patient was unlawful in the USA^{vi} until 1976 and in the UK^{vii} until 1993.

The President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioural Research, in 1981, put forward a rationale underpinning the brain death paradigm as the "irreversible loss of the capacity of the body to organize and regulate itself, to function as a whole",^{viii} rather than it being a purely moral judgment. However, this premise was promptly challenged by empirical evidence demonstrating sustained integrated bodily functions in some patients who fulfilled the criteria for "whole brain death". Several critics, including Shewmon,^{ix} Karakatsanis,^x Tsanakas,^{xi} Truog,^{xii} and Nair-Collins,^{xiii} questioned the concept.

In response to mounting criticisms, in 2008, the President's Council on Bioethics,^{xiv} endeavoured to reassess the rationale behind the brain death theory but fell short of appeasing its detractors. Conversely, across the Atlantic, in 1976, the Medical Royal Colleges (UK)^{xv} articulated brainstem death criteria as prognostic benchmarks to establish diagnostic criteria with such rigour that, upon fulfilment, mechanical ventilation could be discontinued with absolute certainty of irrecoverability.

Nevertheless, in 2008, the Medical Royal Colleges modified their stance, defining brainstem death as

tantamount to actual death. Attempting to justify this position, they argued that the loss of integrated biological function would invariably result in deterioration and organ necrosis within a short period.^{xvi} However, clinical experiences contradicted these assertions, as brain-dead patients were observed to persist for extended durations. In a review of the subject in 2018, Professor Veatch concluded: "It has now become clear that no reasonable person accepts the Harvard Committee position that "brain death" is a plausible definition of death".^{xvii}

In summary, brain death emerges as a socially constructed concept grounded in societal needs. It does not constitute actual death but rather signifies the initiation of the dying process or being "as good as dead" due to the absence of any viable medical treatment. The proponents of the brain death concept, cognizant of these realities, claim that it is optimum public policy^{xviii} but refrain from divulging the complete truth^{xix} to the public, apprehensive of its implications on posthumous organ donation rates. They recognize that true deceased organ donation is non-existent in current clinical practice, as only organs procured from living individuals prove efficacious, while organs from genuinely deceased donors are rendered ineffectual, with only tissues being retrievable for transplantation.

Actual death is an irreversible event, a biological state in which all homeostatic mechanisms fail leading to the decomposition of the body. There is only one kind of actual death and it is the same all over the world and in every country, every religion and every race. Brain death, on the other hand, is a legal status, the criteria for which varies from country to country.

In reaction to the global demand for organ donation, certain nations have implemented organ donation prior to death (DPD).^{xx,xxi} Simultaneously, some observers have proposed relinquishing the dead donor rule,^{xxii} a proposition that would render the debate surrounding the status of brain death as a definitive indicator of death moot. While secularists argue that death does not harm a permanently unconscious patient, this is not true in Islam since illness in Islam is a means of expiating sins.^{xxiii}

The ensuing inquiry pertains to the compatibility of these facts with the perspectives of Muslim physicians and scholars, particularly in addressing the matter of deceased organ donation from an Islamic vantage point. Most Muslim doctors largely adhere to the teachings imparted during medical education and training, accepting brain death as a conclusive demise without engaging in extensive discourse or justification. Some proponents of this perspective utilize the premise of customary practice (*'urf*) to imbue this stance with a

religious veneer. Regrettably, a minority disseminate misinformation to the public, ostensibly to promote deceased organ donation within the Muslim community.^{xxiv} Their intention may be very sincere but their methodology certainly is not.

A select few Muslim doctors, drawing from their experiences with deceased patients compared with brain-dead patients, discern a marked distinction between these two categories. Deceased patients conspicuously exhibit lifelessness, while individuals with the loss of all brainstem functions lack such overt signs and display numerous indicators of life.

A contingent of doctors feel compelled to defer to the rulings of religious scholars on this matter, but the scholars differ in their opinion on this matter.

Some religious scholars, *fiqh* councils, and certain Muslim countries assert that brain death aligns with Islamic notions of death. This includes the Muslim Law Council, which issued a *fatwa* in 1995 at the request of the Ministry of Health (UK), accepting brainstem death "as constituting the end of life for the purpose of organ transplant," without explicating any rationale for the decision and suggesting declaration of death is dependent on organ donation. Amongst the 19 signatories to the *fatwa*, three were barristers and the remaining were UK scholars/ imams but no physicians.

In 1986, the Islamic Fiqh Academy-OIC endorsed brain death as death, provided there was a "complete cessation of all vital brain functions and the brain had started to degenerate as witnessed by specialist physicians".^{xxv} This *fatwa* was adopted by the European Council for Fatwa and Research^{xxvi} and utilized by several Muslim countries to permit organ donation from brain-dead donors. However, close examination of the IFA-OIC's *fatwa* reveals that their brain death definition does not align with the clinical criteria used for declaration of brain death in any country. Furthermore, in 1987, the Islamic Fiqh Academy-MWL^{xxvii} rescinded the 1986 *fatwa*. Recent *fatāwa* by Mufti Butt^{xxviii} in 2019 and the North American Fiqh Academy^{xxix} in 2021 both reject brain death as Islamic death.

A scant number of scholars, such as Shaikh Yasin of Jordan and Sheikh Rashid of the UK, have posited that brain death equates to Islamic death on the assumption that the soul commands the body and, with the permanent loss of consciousness, sentience, and volition, the soul can be inferred to have departed, rendering the person Islamically dead.^{xxx} This concept was put forward originally by imam al-Ghazali's in his work, *Ihyā' ulūm al-dīn*. However, this assumption lacks scriptural support,²³ and the confinement of the soul to the brain remains debatable.

Rashid has argued for the permissibility of removal of organs for transplantation while acknowledging that brain death is not actual death. He draws an analogy between brain death and a state close to death, such as a sacrificial animal.³⁰ However, this analogy is challenged as brain-dead individuals can be sustained for prolonged periods, unlike sacrificial animals.

The secular and Islamic approaches to death inherently differ due to distinct beliefs and objectives. In Islam, death is a creation of God Almighty, defined as the removal of the soul by the Angel of Death. The Qur'an underscores the sanctity of life, “*And that ye slay not the life which Allah hath made sacred, save in the course of justice,*”³¹ and “*whosoever killeth a human being for other than manslaughter or corruption in the earth, it shall be as if he had killed all mankind*”.³² If brain death is not actual death, organ procurement would constitute an act of homicide, conflicting with Islamic principles, while giving consent for “deceased” organ donation could be seen as giving consent to end one’s own life, an act explicitly forbidden in Islam, as stated in the Quran, “*And do not kill yourselves,*”.³³ The brain death dilemma is likely to continue.

Conflict of interest

None declared by the author.

Author’s contribution

AH is the sole author of this editorial. Help was obtained from the published sources to construct this editorial.

REFERENCES

- Shah SK, Miller FG. Can we handle the truth? Legal fictions in the determination of death. *Am J Law Med.* 2010;36(4):540-85. [PubMed] DOI: [10.1177/009885881003600402](https://doi.org/10.1177/009885881003600402)
- Barnard CN. The operation. A human cardiac transplant: an interim report of a successful operation performed at Groote Schuur Hospital, Cape Town. *S Afr Med J.* 1967;41(48):1271-4. [PubMed]
- A definition of irreversible coma. Report of the Ad Hoc Committee of the Harvard Medical School to Examine the Definition of Brain Death. *JAMA.* 1968;205(6):337-40. [PubMed]
- Mollaret P, Goulon M. [The depassed coma (preliminary memoir)]. *Rev Neurol (Paris).* 1959 Jul;101:3-15. [PubMed]
- A definition of irreversible coma. Report of the Ad Hoc Committee of the Harvard Medical School to Examine the Definition of Brain Death. *JAMA.* 1968 Aug 5;205(6):337-40. [PubMed]
- Court and the End of Life: Karen Ann Quinlan. [web.archive.org] (Accessed 27th Dec 2023)
- Great Britain. House of Lords. Airedale NHS Trust v. Bland. *All Engl Law Rep.* 1993;[1993]1:821-96. [PubMed]
- President’s Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research, Defining Death: Medical, Legal and Ethical Issues in the Definition of Death (Washington, D.C.: U.S. Government Printing Office, 1981), 32.
- Shewmon AD. The brain and somatic integration: insights into the standard biological rationale for equating “brain death” with death. *J Med Philos.* 2001;26(5):457-78. [PubMed] DOI: [10.1076/jmep.26.5.457.3000](https://doi.org/10.1076/jmep.26.5.457.3000)
- Karakatsanis KG. ‘Brain death’: should it be reconsidered? *Spinal Cord.* 2008;46(6):396-401. [PubMed] DOI: [10.1038/sj.sc.3102107](https://doi.org/10.1038/sj.sc.3102107)
- Karakatsanis KG, Tsanakas JN. A critique on the concept of “brain death”. *Issues Law Med.* 2002;18(2):127-41. [PubMed]
- Truog RD. Brain death - too flawed to endure, too ingrained to abandon. *J Law Med Ethics.* 2007;35(2):273-81. [PubMed] DOI: [10.1111/j.1748-720X.2007.00136.x](https://doi.org/10.1111/j.1748-720X.2007.00136.x)
- Nair-Collins M. Death, brain death, and the limits of science: why the whole-brain concept of death is a flawed public policy. *J Law Med Ethics.* 2010;38(3):667-83. [PubMed] DOI: [10.1111/j.1748-720X.2010.00520.x](https://doi.org/10.1111/j.1748-720X.2010.00520.x)
- Controversies in the determination of death, A White Paper of the President’s Council on Bioethics. [repository.library.georgetown.edu] (Accessed 24th Dec. 2023)
- Conference of Medical Royal Colleges and their Faculties in the UK. *BMJ.* 1976;2:1187-8
- Academy of Medical Royal Colleges. A Code of Practice for the Diagnosis and Confirmation of Death; 2008. [FreeFullText]
- Veatch RM. Would a Reasonable Person Now Accept the 1968 Harvard Brain Death Report? A Short History of Brain Death. *Hastings Cent Rep.* 2018;48 Suppl 4:S6-S9. [PubMed] DOI: [10.1002/hast.943](https://doi.org/10.1002/hast.943)
- Bernat JL. The whole-brain concept of death remains optimum public policy. *J Law Med Ethics.* 2006;34(1):35-43, 3. [PubMed] DOI: [10.1111/j.1748-720X.2006.00006.x](https://doi.org/10.1111/j.1748-720X.2006.00006.x)
- Nair-Collins M. The Public’s Right to Accurate and Transparent Information about Brain Death and Organ Transplantation. *Hastings Cent Rep.* 2018;48 Suppl 4:S43-S45. [PubMed] DOI: [10.1002/hast.953](https://doi.org/10.1002/hast.953)
- Bollen JAM, Shaw D, de Wert G, Ten Hoopen R, Ysebaert D, van Heurn E, et al. Euthanasia through living organ donation: Ethical, legal, and medical challenges. *J Heart Lung Transplant.* 2019;38(2):111-113. [PubMed] DOI: [10.1016/j.healun.2018.07.014](https://doi.org/10.1016/j.healun.2018.07.014)
- Morrison W. Organ donation prior to death—balancing benefits and harms. *Am J Bioeth.* 2012;12(6):14-5. [PubMed] DOI: [10.1080/15265161.2012.671894](https://doi.org/10.1080/15265161.2012.671894)
- Smith AP. Abandoning the Dead Donor Rule. *J Med Ethics.* 2023;49(10):707-714. [PubMed] DOI: [10.1136/jme-2021-108049](https://doi.org/10.1136/jme-2021-108049)
- Sahih Muslim, Hadith: 2573; Al-Adab Al-Mufrad 508.
- Al-Attar N. Organ donation: Opinion of a Muslim Heart Surgeon. (Conclusion) *JBIMA.* 2021;9(3):6, para 1. [FreeFullText]
- Majalla Majma’ al-Fiqh al-Islami al-Duwalī, Majma’, Jeddah, Third Session. 1986;2:809.

26. The Sixth Ordinary Session of the European Council for Fatwa and Research. [e-cfr.org] (Accessed 24th Dec. 2023)
 27. The Islamic Fiqh Council of Islamic World League Held in Makkah Al Mukaramah, Decree No. 2. (10th session); 1987.
 28. Butt MZ. Organ Donation and Transplantation in Islam, An opinion; 2019. <https://nhsbtde.blob.core.windows.net/umbraco-assets-corp/16300/organ-donation-fatwa.pdf> (Accessed 24th Dec. 2023)
 29. Fiqh Council of North America, On Organ Donation and Transplantation. 2021; item no. 5. <https://fiqh-council.org/on-organ-donation-and-transplantation/> (Accessed 27th Dec. 2021)
 30. Rashid R. Islamic Response to the Debate on Organ Transplantation. [www.academia.edu] (Accessed 11th Dec. 2021)
 31. The Holy Qur'an 6:151.
 32. The Holy Qur'an 5:32.
 33. The Holy Qur'an 4:29.
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