

A study of the Fatawa on Brain (stem) Death

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Abstract

This paper explores the information that is freely available on the internet to the English reader regarding the Islamic ruling on the legality on brain death. The information available in the medical literature, Islamic websites and search engines, and general google search is analysed. Medical professionals are not unanimous in the acceptance of brain death as a form of death and so are the Islamic scholars. Although, medical literature seems to suggest that majority of the Islamic scholars approve of brain death as a form of death, the information available, in English, on Islamic and fatwa websites imply a general disapproval of this concept. Transplantation, organ donation and brain death are three different, albeit inter-related concepts that deserve independent fatwas. Many fatwas tend to homogenise them adding to the confusion of the end user. This pattern transcends both Sunni and Shia schools of thought. A uniform verdict agreeable to all Islamic scholars is not available.

Introduction

Modern science has garnered many comforts in life - improved healthcare being a pertinent example. A common medical cause for death is failure of one or more of the vital organs including the heart, brain, liver, kidney and the like. Humans have gained the knowledge of replacing some of these failed organs in order to preserve life- preservation of life being one of the five maqasid (aims and intentions) of shariah. (1) The question then arises as to where these organs come from. Currently, modern medicine has two solutions to this issue. One is to use the organs from dead people and the other is to remove it from alive people. However, while some organs like blood, kidney, part of the liver etc can be removed from alive persons with reasonable safety, certain other organs like heart, pancreas etc will be available only from dead people. Cause of death, in modern medicine, has been divided into two types- death due to stoppage of heart and death due to brain failure. (2) While death due to stoppage of heart is compatible with the Islamic teachings regarding

death, death due to brain failure - also called brain death or brain stem death- is not so explicit from traditional Islamic teachings. (3) Brain death, as a form of death, is a relatively new diagnosis that emerged in the 20th century, with the advent of ventilators and other organ support systems. It is an accepted diagnosis and a legally endorsed form of death among almost all the countries in the world. Brain death is determined not only to inform decisions regarding direction of medical care but also to explore the possibility of organ donation. This has led to various Islamic organisations, governmental and non-governmental institutions providing various Islamic rulings (fatawa/ fatwas), sometimes contradictory, on the Islamic legality, of brain death.

We aimed to assimilate the information regarding the position taken by various Islamic organisations on the Islamic validity of brain death.

Definition of the term used (operational definitions) :

Fatwa: A fatwā is an Islamic legal pronouncement, issued by an expert in religious law (mufti), pertaining to a specific issue, usually at the request of an individual or judge to resolve an issue where Islamic jurisprudence (fiqh), is unclear. (4) Plurals can be fatawa or fatwas.

Brain death: Diagnosis and confirmation of death based on the irreversible cessation of functioning of the entire brain, including brainstem. Although both 'brain death' and 'brain stem death' has been used, sometimes interchangeably, in medical literature, I will be using the term 'brain death' as it is the more commonly used term. From a medical point of view, for all practical purposes, they mean the same thing. (2)

Organisation: Any body that has issued a fatwa on brain death. This can be state policy, governmental body, learned society, individual or anonymous fatwa issuing body.

Methodology

In this exploratory study, the source of data is the world wide web. In order to capture most, if not all, of the available literature in English language, the following 3 step (A-C) strategy was used.

A. Literature search in Islamic search engines.

The following search words were used in Google search engine: 'Islamic search engine'

Each of the identified website was searched using the following search words:

(Islam OR Islamic OR Muslim OR Fatwa OR Fatawa) AND (Brain OR Brainstem) AND (death OR dead)

B. Fatwa search in English fatwa websites

The following search words were used in Google search engine:

(fatwa website english OR fatawa website english).

The following search words was used is each of the identified islamic websites:

Brain death OR Brainstem death

C. Literature search in Internet Search engines

The following search words were used

(Brain death OR Brainstem death) AND (Islam)

Results

A. Fatwa search in English fatwa websites. The online searches were conducted on 25 Dec 2019 using the search

word 'fatwa website english' in www.google.com. A total of 14,80,000 hits were received. These were confined to 14 pages and 39 websites. Table 1 summarises this search. Among the 39 websites only 13 provided any result for the search word 'brain death' or 'brain stem death'. Table 2 provides the summary of the fatwa obtained, among the websites that had a positive response.

B. Literature search in Islamic search engines

The online searches were conducted on 25 Dec 2019. Google search 'Islamic search engine' provided 2,76,00,000 hits. Search engines that are used to browse Quran or Hadith only were intentionally avoided. Each search engine was individually accessed and the word 'brain death' or 'brain stem death' was used to search for relevant material.

Date of individual website search was 28 Dec 2019. Results of the search are tabulated in Table 3.

C. Literature search in Internet Search engines

The following search words was typed in Google search Engine on 6 Jan 2020.

(Brain death OR Brainstem death) AND (Islam).

23,700,000 hits were recorded and all hits were screened for suitability.

The following added information was received from the search on internet search engines that was not available with the earlier searches.

1. Singapore, Indonesia and Malaysia approved on brain death as a form of death in 1987,1996 and 2006 respectively (5)

2. Qatar law supports brain death (6)

3. Dar al-Ifta Jordan and The National Fatwa Council of Malaysia says that the death of a person's brain is considered as dead according to Islamic law after it is confirmed by an expert physician after following certain conditions. (7)

Discussion

This is the first study that we are aware of, that specifically looked at the information readily available in English on the internet on the topic of Islam and brain death. We divided the sources of information into 3 categories- Islamic fatwa websites, Islamic search engines and 'Google' searches. This paper does not critique individual fatwas nor explores individual/group blogs available on the internet. Whilst brain death, organ donation and organ transplantation are related, it is important to be aware that they are independent entities that deserve different fatwa. This study does not deal with organ donation or

transplantation. Not all brain dead patients can be organ donors and not all organ donors need to be brain dead. Also, not all organs can be transplanted. Brain death is a medical diagnosis to decide if a person is legally dead or not.

Brain death: Origin and Evolution

The human brain is situated within the skull, and the brainstem, is a part of the brain, that connects the brain with the spinal cord. The parts of the brain that control breathing, heart beat and blood pressure are located in the brain stem (Figure 1). The basic premise of the concept of brain death is that if the life sustaining functions of a human being i.e., heart and lung functions, cannot be maintained without the support of machines due to irreversible brain damage, then the patient is dead. A brain dead patient cannot initiate breath, is ventilator dependent, is unconscious and has no response to external stimuli. The cause of the irreversible brain damage has to be determined and a series of objective, verifiable tests need to confirm the non-functioning of heart and lung control centres. These tests are repeated atleast twice over a pre-determined time frame before death is declared. All tests are carried out by qualified medical professionals. Brain death is different from coma or persistent vegetative state.

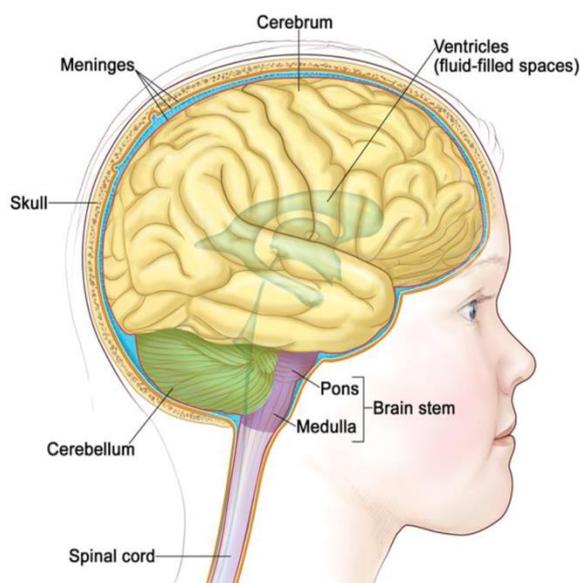


Figure 1: Anatomy of the Brain

The earliest recorded medical observation that comments on the significance of brain for maintaining breathing is from the last decade of 19th century (8). The committee of the Harvard Medical School came up with the first widely accepted definition of brain death in 1968. (9)

They described 4 criteria for the diagnosis of this condition, namely

- Non-responsiveness to external stimuli,
- Absence of spontaneous breathing activity
- Absence of any reflex activity -brainstem mediated and spinal reflexes
- Absence of brain electrical activity

A similar attempt to define brain death occurred at the Conference of Medical Royal Colleges and their Faculties in the United Kingdom, in 1976, and they defined this entity as brain stem death. They agreed on similar parameters to the American counterpart, except that absence of brain electrical activity was not mandatory (10). The British argued that since brain stem was the seat of the most important brain function, a damage serious enough to cause destruction of the most important brain structures was enough to irreversibly damage the brain and therefore, monitoring or absence of the whole brain electrical activity was inconsequential. This conceptual difference is important to bear in mind as many of the subsequent criticisms by bioethicists stem from the fact that the activity or the absence thereof, of whole brain is not monitored. In the 2000s, there was a general convergence in the guidelines for certification of brain death following the publication of the code of practice for the diagnosis and confirmation of death by the Academy of the Royal College in 2008 and the Evidence based guideline update published by the American Academy of Neurology in 2010. (11)

Islamic Viewpoint of Brain Death

While the overwhelming majority of medical literature gives the impression that brain death is accepted from an Islamic perspective, there is a small but significant active minority that question this, namely Dr MY Rady, Ahmet Bedir, Sahin Aksoy Aasim Padela (12,13,14,15). However, many Islamic and fatwa websites inform that brain death is not considered equivalent to legal death. We were, however, not equipped to find about the website traffic/hits and to what extent each website is able to influence decision among lay Muslims seeking a legal opinion in English language.

Most of the information regarding Islamic viewpoint on brain death, that is available in medical literature, can be divided into two categories of fatwas. In the countries with a majority Muslim population, there are fatwas from nationally accredited or acknowledged fatwa bodies. (Table 4) (14, 16, 17, 18). Among the countries where Muslims are a minority, fatwas from loco-regional

religious bodies and individuals predominate. The European Council for Fatwa and Research (ECFR), based in Dublin, Ireland, was established in 1997 and it focuses on issues with specific relevance to Muslims living as religious minorities in the West. It is usually argued that the fatwas issued by this council enjoy growing acceptance among Muslims living in Europe in addition to increasing interest from the European political authorities (19). The Islamic Medical Association of North America (IMANA) was established in 1967 by doctors of North America and provide medical and non-medical support to clinicians and lay persons of North America and beyond. While they do not claim to be a fatwa organisation, they have provided an opinion on brain death, from an Islamic perspective, in their publication 'The IMANA Perspective' (20). The fatwas from organisations from Singapore, India and South Africa are not regulated by the respective governments and do not have a bearing on national law. It is important to note here, that as there is no hierarchical structure in Islam, a fatwa given by a person or a group of persons is not binding on any individual and they may seek the opinion of the local imam, who may have his own view about brain death (21, 22). To summarise, it seems that none of the fatwa organisations, both in Muslim majority and minority countries, seem to have a nationally applicable legal nature. They can, at best, serve to guide the individual who seeks to gain from that information. Table 5 gives the chronology of some of the landmark meetings and fatwas in this field.

Concept of death in traditional Islamic scholarship

Next, I shall try to explore why would there be a difference in opinion among the scholars regarding the legality of brain death. The primary sources used by the scholars—the nusus, the Quran and the Sunnah, are the same. The secondary sources namely, qiyas and ijma'a, and the order of preference given to them and the use of ijtihad can vary depending on the school of thought and the legal upbringing and training.

The Holy Qur'an emphasizes the universality of death

3:156: And it is Allah who gives life and causes death, and Allah is Seeing of what you do.

3:185: Every soul will taste death, and you will only be given your [full] compensation on the Day of Resurrection.

29:57: Every soul will taste death. Then to Us will you be returned. (29)

From Islamic teachings, we understand that the moment of death (al-mawt) would be at the time the soul (ruh ; sometimes used interchangeably with al-nafs) is separated from the soulless body. However, a precise definition of

death or a precise description of how to recognize the departure ruh is not mentioned in either the Qu'ran or the Sunnah. At an Islamic seminar held in 1981, the participants concluded that the Qu'ran does not define death. The spirit of the ethical principle of nonmaleficence is manifest through the axiom "no harm shall be inflicted or reciprocated in Islam- la darar wa la dirar fi 'l-islam. (16, 18)

According to prior Islamic scholarship, death was defined through 9 signs

- Stoppage of breathing
- Staring eyes
- Opening of the mouth
- Dislocation of the hands from the forearms
- Stretching of the facial skin
- Shrinking of the testicles upward with drooping of the scrotum
- Crookedness or deviation of the nose
- Subsidence of the temples
- Relaxation of the feet

Some Arab scholars, subsequently, added the following signs of death:

- Cardiac arrest
- Skin color changes
- Absence of a blink reflex
- Stillness of the whole body
- Opacification of the corneas
- Absence of dorsalis pedis, posterior tibial and femoral pulses.

It is necessary to mention here that cardiac arrest was not a sign of death according to these legal scholars, although the existence of a pulse was considered proof of life (18)

The concept of brain death divided the muslim scholarship into 2 broad categories as far as the acceptance is considered- the ones who equate brain death to legal, Islamically acceptable death and the ones who do not. (Table 6)

Bamoussa and colleagues elegantly describes the reasons behind each of the thought process. The ones who equate brain death with legal death argue that

- 1) Human life ends in contrast to what started it—so, as the life started with the merging of the body and soul, life will end by them parting from each other;
- 2) The soul cannot be researched in terms of its physical and biological characteristics nor when or how it merges with or separates from the body;
- 3) The soul cannot be defined,

And they ask you, [O Muhammad], about the soul. Say, "The soul is of the affair of my Lord. And mankind have not been given of knowledge except a little." 15:85

The other group reason that

1) The Holy Quran states in Sura Al Kahf, Verse 11, 12: "So We cast [a cover of sleep] over their ears within the cave for a number of years. Then We awakened them that We might show which of the two factions was most precise in calculating what [extent] they had remained in time." Therefore, they argue that loss of senses (hearing), which is one of the 3 criteria used to define brain death, is not a sign of death.

2) If anything was in any state, it will stay in that state unless proven otherwise- therefore, as none of the previously mentioned 9 criteria are fulfilled, death cannot be declared.

3) The preservation of life is one of the 5 goals of Shariah law, and the fulfillment of that goal for a human being with the slightest chance of being alive is a strong point in favour of continuing care. (18)

The above mentioned differences of opinion exist among scholars when burden of deciding whether death has occurred or not, is on the Islamic scholars. The argument about the nature of soul and characteristics of death and their timing is bypassed when the fatwa body takes the position that the doctors decide if the patient is dead. Once that hurdle is bypassed, the next question hinges on whether continuing medical care when the person is already dead is acceptable Islamically or not. This is an easy proposition to have and an easier decision to make.

It seems the composition of the fatwa council, the decision-maker regarding who determines whether death has occurred, and possibly cultural background seem to influence the decision.

1. The composition of the fatwa council: The earlier fatwas in the Islamic world and most fatwas from the subcontinent were by Islamic scholar with no or minimal medical input. (40, Table 2)
2. The decision-maker: If the decision maker on whether the person is dead or not is made by the doctors, the fatwa is more likely to become in favour of brain death being equated with death.
3. Cultural background: The scholars from the subcontinent and those who have the roots from the subcontinent seem to overwhelmingly not equate brain death with death. The Majlis al Ulema, South Africa seem to be the only exception here.

Academic medical literature seem to suggest that majority of Muslim scholars - both the Sunni and Shia schools-

agree to brain death as a form of death, and their evidence is backed by fatwas from national politically backed religious bodies and international fatwas from influential multinational councils. Medical literature is also ripe with examples of Muslims lagging behind the rest of the population as far as acceptance of brain death is concerned (31). One possible reason for this could be that the average Muslim tends to get his religious guidance from the local scholars and possibly the internet. It has been repeatedly shown that bioethical decision among Muslims rely heavily on the religious verdicts and it is important for them to be aware of the 'religious take' on a particular issue (19, 32, 33). This has been cited as one of the reason for the decreased diagnosis of brain death in Saudi Arabia despite a state backed fatwa approving of this diagnosis. (34). Whilst many local scholars may not be familiar with the newer medical concepts of brain death and tend to err on the side of caution and deem the 'new' form of death as 'unislamic'. A search on the internet is also more likely to provide access to a fatwa that declares brain death to be 'unacceptable Islamically'. It may be assumed that most people may not discuss death and its various types among their family members as it is considered a taboo. This, therefore, follows that the first encounter, of any significance, that most Muslims have regarding the concept of brain death is during the illness of their near or dear ones. This is usually an emotionally charged situation and most relatives would not want to make 'unusual' decisions on behalf of their relatives and would want to continue treatment, hoping for a 'medical miracle'. This leads to a situation where acceptance of brain death becomes difficult.

The concept of brain death has not been universally accepted among physicians and ethicists. The arguments include, among others, inability to medically quantify awareness, 'all' neurological functions not being absent or tested, maintenance of blood flow to certain parts of the brain in selected cases, brain dead patients continuing to have certain co-ordinated biological, homeostatic and cardiovascular functions, and other higher functions like wound healing, maintenance of pregnancy after completion of brain death (with mechanical and chemical support) etc.(11, 12, 13, 14) An important argument highlighted by the ethicists, that has an Islamic parallel, is the ambiguity in defining the time of death in brain death. The ethicists argue that death is a process in which varying cells of the same human die at varying speeds. Therefore, at one point in time after the brain death is pronounced, certain cells within the body are still viable (which is why they may be used for organ transplantation), while certain others are not. The issue that medical science is confronted with is, to determine a point in time where a process is

supposed to have occurred, when the individual components, the beginning or the end of the process, can themselves, not be measured.

Limitations of this study

1. I confined my search to the information available on the internet in English language, while the vast majority of traditional Islamic literature is in Arabic, Urdu, Persian, Bengali and Turkish languages. Since brain death is a relatively new problem specific to modern medicine, the belief is that most materials would be available in English language. However, the overwhelming majority of the fatwas were written in Arabic, Urdu or Persian and what is available to the author is the English translation. It is possible that some of the nuances of the intention within the fatwa might be lost in translation.
2. The national legislation in a language other than English is not available to the author.
3. The general internet search was conducted only on Google.
4. It needs to be mentioned that brain death, organ donation and organ transplantation are three different, albeit related, issues and this thesis only intends to look at the information available on brain death. The analysis of the fatwas and the final interpretation of whether brain death is acceptable or not from an Islamic perspective is beyond the scope of this thesis.

Conclusion

1. The difference among the medical profession about the definition of brain death and therefore, the tests required to demonstrate it, also differ based on which part of the world you live in.
2. A small, but significant, minority among physicians and ethicists do not consider brain death as equivalent to death.
3. The crux of their problem is the inability to give a process (i.e., death) a definite time.
4. The reason for the different ruling among Islamic scholars can be summarised into 2 basic questions.
 - a) Who defines death- medical doctors or Islamic scholars
 - b) Death is the time when the ruh leaves. But as we cannot measure it, how can we time it?
5. Medical literature seems to suggest that most scholars equate brain death to death. However, search of the Islamic websites, including fatwa available online seem to suggest that many Sunni and Shia scholars do not accept brain death as equivalent to death. The repeated citing of the same reference seems to have led to a uniformisation in the medical literature, of an otherwise mixed message from the real world.

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Appendices

Table 1: List of the websites accessed

No	Name of the website	Host Information	Response
1	https://www.amjaonline.org/fatwa/en/	Assembly of Muslim Jurists of America	Yes
2	https://www.islamweb.net	Qatar	Yes
3	http://www.fatwaislam.com/fatwa/	Not available	No
4	http://www.dar-alifta.org	Works under the supervision of the Grand Mufti of Egypt	Yes
5	https://www.awqaf.gov.ae/en/officialfatwacenter	United Arab Emirates	No
6	https://islamqa.info/en/search	Sh. Muhammed Salih al-Munajjid, Saudi Arabia	Yes
7	http://www.darulifta-deoband.com	Deoband, India	Yes
8	http://wahidkhorasani.com/English/Fatwa	Ayatullah Wahid Khorasani, Iran	No
9	https://www.muis.gov.sg	The Council of Majlis Ugama Islam Singapura	Yes
10	https://www.islamicsupremecouncil.org	Sh. Muhammed Hisham Kabbani, Deputy Leader of the Naqshbandi Haqqani Sufi Order	No
11	https://www.sistani.org/english/book/48/	Grand Ayatollah Sayyid Ali Hussaini Sistani, Iran	No
12	http://www.fatwa-online.com	Not available	No
13	http://binbayyah.net	Chairman of the UAE Fatwa Council	No

No	Name of the website	Host Information	Response
14	http://www.fatwaonline.org	Mufti Aijaz Arshad Qasmi, Peace Foundation, India	No
15	http://www.darululoom-deoband.com/english/	Dar Ul loom, Deoband, India	No
16	https://muftitaqiusmani.com/en/	Mufti Muhammad Taqi Usmani, Pakistan	No
17	http://www.askislam.org	Not available	No
18	https://islamqa.org/hanafi/askimam/81146	Mufti Ebrahim Desai, SouthAfrica	No
19	http://fatwacommitteeuk.com	The European Council for Fatwa Research	No
20	http://www.islamic-sharia.org	Dr Suhaib Hasan, UK	No
21	https://makarem.ir/main.aspx?lid=1&typeinfo=30&catid=9001	Grand Ayatollah Makarem Shirazi	No
22	https://www.ahlehadees.org	The Ahle Hadees, India	No
23	https://aboutislam.net	Not available	Yes
24	http://www.english.shirazi.ir	Eminent Grand Islamic Authority Ayatollah Sayid Sadiq Hussaini Shirazi, Iran	Yes
25	http://www.islamland.com/english/fatawas	Not available	No
26	http://www.almeezan.qa/default.aspx?language=en	Qatar	No
27	https://www.darulfatwa.org.au/en/	Darul-Fatwa (High Islamic Council), Australia	No
28	http://www.al-mawrid.org	Pakistan	Yes
29	https://www.iacad.gov.ae/en/Pages/default.aspx	Government of Dubai	No
30	http://ahsanululoom.org/Fatwa-Service	Pakistan	No

No	Name of the website	Host Information	Response
31	https://www.eufatwa.com	Not available	No
32	http://askimam.org	Mufti Ebrahim Desai, South Africa	No
33	www.e-fatwa.gov.my	Malaysian Government	No
34	www.islamhouse.com	Islamic Propagation House, Riyadh, Saudi Arabia	No
35	www.muftionline.co.za	Mufti Zakaria Makada, South Africa	No
36	www.islamicity.org	Not available	Yes
37	www.islamquest.net	Ayatollah Hadavi Tehrani. Porch of Wisdom Cultural Institution, Iran	Yes
38	www.themodernreligion.com	Idris Palmer	Yes
39	www.askthesheikh.com	Not available	Yes

Table 2: Summary of the Fatwas available from websites

No	Name of the website	Fatwa Summary	Fatwa Identifier. (Author's comment in italics)
1	www.amjaonline.org	Once brain death is confirmed medically, removing life support becomes permissible	Dr Hatem al-Haj. Fatwa ID 85853
2	www.islamweb.net	Being brain dead is not considered terminal, and a person suffering such a condition is not considered to be dead until his death is certain. The preponderant opinion in Islamweb is that it is not permissible to remove the machines from a patient just because his brain is dead	Sheikh Bin Baz. Fatwa No 322114, 88164. <i>The committee does not seem to make a distinction between coma and brain death</i>

No	Name of the website	Fatwa Summary	Fatwa Identifier. (<i>Author's comment in italics</i>)
3	www.dar-alifta.org	<p>1. Clinical death, known as brain-stem death or brain death is of no consequence because in Islamic law it is not considered death since some of the body organs remain alive.</p> <p>2. Physicians differed on whether brain death can be considered true death. However the majority agree that it is true death and the Egyptian Islamic Research Assembly adopted this opinion in 2009</p>	<i>The two fatwas are contradictory. There is no fatwa id/number to ascertain chronology.</i>
4	http://islamqa.info.en	It is not correct to base on this diagnosis (brain death) any of the rulings having to do with death from a shar'i point of view	Fatwa ID 230086
5	www.darulifta-deoband.com	Patients should be kept on machine as long as possible, and when the guardian of the patient is not able to bear the expenses then there is no wrong in switching off the machine. This is neither murder nor a cause leading to murder. So, in the above condition case, there is no wrong in switching off the machine. (Muntakhabat Nizamul Fatawa: 349)	Fatwa: 1173/146=B/1429.
6	https://www.muis.gov.sg	A person who is brain dead is truly and unequivocally dead. This is the scientific position of international medical communities. This definition has also been accepted by the Fatwa Committee of MUIS	

No	Name of the website	Fatwa Summary	Fatwa Identifier. (<i>Author's comment in italics</i>)
7	www.aboutislam.net	If the patient is diagnosed as brain dead by specialists and this is confirmed by a flat wave on the EEG (Electroencephalogram), this means that this person is considered to be dead	Dr Maher Hathout
8	www.english.shirazi.ir	Is it permissible to switch off the support system from someone who is brain-dead, and there is no hope for his recovery? A: It is not permissible	Eminent Grand Islamic Authority Ayatollah Sayid Sadiq Hussaini Shirazi, Iran
9	www.al-mawrid.org	According to the hints in the Quran, death must encompass a total loss of all bodily functions. As a lot of organs continue to function after brain death, therefore it alone cannot be defined as death	Javed Ahmad Ghamidi
10	www.islamicity.org	Brain death to be declared by reliable medical practitioner	
11	www.islamquest.net	Mixed information Ayatollah Khamenei and Ayatollah Makarem Shirazi agree to the concept of brain death but Ayatollah Sistani and Ayatollah Gulpiagani do not.	Ayatollah Hadavi Tehrani. <i>Ayatollah Makarem Shirazi's website gives a different ruling.</i>
12	www.themodernreligion.com	Can remove life support if doctor feels patient will die	
13	www.askthesheikh.com	According to Ayatollah Sistani and Ayatollah Khamenei, as long as the heart beats, it is not permissible to remove the ventilator as much as possible, because a brain-dead person is not Islamically a dead person yet.	Sheikh Mansour Leghaei

Table 3: Islamic search engines and responses received

No	Search engine	Response	Author's comment
1	www.alalgoogling.com	No	
2	www.Imhalal.com	No	Services closed
3	www.Taqwa.me	No	Cannot find server
4	www.IslamSearch.org	Yes	13 hits. Nothing other than the currently available information.
5	www.2muslims.com	No	
6	www.sunnasearch.co.uk	No	
7	www.IslamiCity.org	Yes	564 hits. Opinion pieces and discussions. No fatwa
8	www.4arabs.com	No	Domain not active
9	www.intoislam.com	No	
10	www.islamic-directory.com	Yes	1 hit. No new information
11	www.islamicfinder.org	No	
12	www.gowister.com	Yes	6490 hits. No new reference in the first 500 hits
13	www.askmualim.com	No	Not an active website
14	https://sunniengine.com	Yes	3230 hits. No new information

Table 4: Countries/ Organisations and their Brain death legalisation timelines (14, 16)

Date of legalisation	Country	Endorsed Braindeath
1964,2000	Iran	Yes
1981	Kuwait	No
1982	Saudi Arabia	Yes
1982	Libya	Yes
1983/1984	Lebanon	Yes
1985	IOMS	Yes
1986	Kuwait (Initial legislation in 1981 didnt recognise brain death	Yes
1986	IFA-OIC	Yes
1986	IFA-WML	Yes
1987	Singapore	Yes
1993	United Arab Emirates	Yes
1993	Egypt	No
1994	Oman	Yes
1994	South Africa-Majlis al-Shura al-islami	Yes
1995	South Africa- Majlis al-Ulema	No
1995	United Kingdom	Yes
1996	Indonesia	Yes
1998	Morocco	Yes
2000	Turkey	Yes
2003	IMANA	Yes
2003	Syria	Yes
2006	Malaysia	Yes
2010	Qatar	Yes
2010	Egypt	Yes

IFA- Islamic Fiqh Academy, IMANA- Islamic Medical Association of North America, IOMS- Islamic Organisation of Medical Sciences, MWL- Muslim World League. First brain death retrieval performed in Algeria in 2019. However, date of legislation couldn't be obtained

Table 5

1981: the Islamic Fiqh Academy of the Organization of the Islamic Conference examined this issue. The academy is a subsidiary of the Organization of the Islamic Conference, created by the Third Islamic Summit Conference held in Makkah al-Mukarramah, Saudi Arabia. They pronounced that brain death is an acceptable criterion for determination of death, ruling that Islamic law allows declaration of death when all vital functions of the brain irreversibly cease and the brain begins to degenerate as witnessed by specialist physicians. (17)

1986: Resolution of the Council of Islamic Jurisprudence on Resuscitation Apparatus Amman, N0.86-07-3D (23,24). death apply if there is total cessation of all cerebral functions and experienced specialized doctors have ruled that such cessation is irreversible and the brain has started to distintegrate. (25)

1987: The Islamic Fiqh Majma (Council) of the Muslim World League (MWL; Kingdom of Saudi Arabia) issued MWL stated that brain death criterion could only be applied if three competent specialist physicians agree that brain death has occurred and is irreversible. In such case, the life support could be stopped despite the fact that the heart is still pumping and respiration is still going on by the machine. But it stated that brain death is not equal to death and the Islamic legal consequences of death could be applied only after the heart stops. (17)

1989: religious approval (fatwa) was obtained by Dr. Fazel from the Supreme Religious Leader that recognized brain death. However, organ recovery from brain-dead patients for transplantation was passed in the legislature in 2000 (17, 26)

1995: Dr Sheikh Yousef Al-Qaradawi accepts brain death as equal to death (27)

1995: UK Shariah Council states Brain stem death is a proper definition of death and constitutes end of life (28)

1996: The Islamic Organization for Medical Sciences (IOMS) revisited the issue and concluded that brain stem death is an acceptable criteria.

2003: IMANA reiterates the generally accepted criteria or the diagnosis of death and clarifies the ambiguity from the prior IFA statement regarding who determines death by embracing the key role of the physician. (20)

2005: Ben Hamza recognised brain death from an Islamic perspective (19)

Table 6: Table 6 lists the prominent Islamic Scholars based on their position on brain death. (18).

Brain death not equated with death	Brain death equated with death
Sheikh Mohammed Almokhtar Alshinqeety	Dr Mohammed Na'eem Yaseen
al-Sheikh Abd al-Aziz bin Baaz	Dr Mohammed Sulaiman Al-Ashqar
Sheikh Baker Abu Zaid	Dr Ahmed Sharaf Eldin
Dr Mohammed Sa'eed	Laila Seraj Abul'ola
Ramadan Albooti	Al-Sheikh Dr. Umar Sulaiman al-Asyqar
Dr Aqeel Bin Ahmed AlOqaily	Al-Sheikh Dr. Muhammad 'Ali al-Baar
Ayatollah Sistani	Ayatollah Khamenei
Ayatollah Saafi Gulpiagani	Sheikh Yousuf Al- Qaradawi
Dr Tawfiq Alwa'ee	Sheikh Ben Hamza
Sheikh Saalih Munajjid	Ayatollah Khomeini