

## Organ Donation and Transplantation: Islamic view

Hassan Chamsi-Pasha FRCP, FACC<sup>1</sup>,  
Majed Chamsi-Pasha MBBS, SBIM<sup>2</sup>,  
Mohammed Ali Albar MD, FRCP (Lond)<sup>3</sup>

*1 - Consultant Cardiologist, Dept of cardiology, King Fahd Armed Forces Hospital, Jeddah, Saudi Arabia,*

*2 - Senior Registrar, Department of Internal Medicine, International Medical Center, Jeddah, Saudi Arabia,*

*3 - Director of Medical Ethics Center, International Medical Center, Jeddah, Saudi Arabia,*

Correspondence: Dr. Hassan Chamsi-Pasha, [drhcpasha@hotmail.com](mailto:drhcpasha@hotmail.com)

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### Abstract

Organ transplantation has been accepted as a modality of treatment that improves the patient's suffering from end-stage organ failure. There is a wide gap between organ supply and demand, resulting in a very long waiting time for organ transplantation, and an increasing number of deaths of the patients while on the waiting list. Islam has given permission for organ and tissue transplantation to save human lives or vital organs. Although brain death has been accepted as true death by many Muslim scholars and medical organizations, the consensus in the Muslim world is not unanimous. The public attitude toward donation is pivotal in all transplantation programs, and increasing the awareness of the leaders of religion is extremely vital.

### Introduction

Organ donation is the donation of biological tissue or an organ of the human body, from a living or dead person to a living recipient in need of transplantation. Organ transplantation has become one of the most effective ways to save lives and improve the quality of life for patients with end-stage organ failure in developing and developed countries. (1)

Nowadays, many diseased organs are being replaced by healthy organs from living donors, cadavers, and from an animal source. Successful bone marrow, kidney, liver, cornea, pancreas, heart, and nerve cell transplantsations have been taken place. The incidence is limited only by cost and availability of the organs. The discovery of effective immunosuppressive drugs in the late 1970s was an important step toward increasing the success rate of organ transplants, and thus paved the way for organ transplantation to become a medical routine affair in the 21<sup>st</sup> century.(2)

The increasing incidence of vital organ failure, and the inadequate supply of organs, especially from cadavers, have created a wide gap between organ supply and organ demand, which has created a very long waiting time to receive an organ as well as an increasing number of deaths while waiting.(1) These events have raised many ethical, moral, and societal issues regarding supply, methods of organ allocation, and use of living donors including minors. It has also led to the practice of organ sale by entrepreneurs for financial gains in some parts of the world through the exploitation of the poor, for the benefit of the wealthy. In his editorial, Kaf Al-Ghazal (3) pointed out that the issue of organ donation still remains an incredibly important one attracting a lot of discussion amongst medics, ethicists, healthcare policymakers and wider society. It stimulated a lively debate within the Muslim community in UK with a recent positive shift towards organ donation. (3)

Despite the fact that transplantation programs are dependent on brain-dead patients as a supply of organs, these two questions should be separated. Accepting the concept of brain death is one thing, and allowing organs

to be procured from a dead loved one is a different question, with additional difficulties and concerns for the family. (4)

## The history of organ transplantation in Islamic culture

Muslim jurists sanctioned transplantation of teeth and bones, which had been practiced by Muslim surgeons over a thousand years ago. Imam Nawawi (631-671H/AD1233-1272) fully discussed the subject of bone and teeth transplantation in his voluminous reference textbook Al Majmu Imam Nawawi allowed bone graft from slaughtered animals (eg. Goats, sheep and cattle). He refused porcine bone graft but he stated that if it is already implanted and it is dangerous to remove it, it should not be removed.(5) Al Imam Al-Shirbini commented on the same subject in his book "Mughni Al Muhtaj".(6) The bone to be implanted could be from the same person (autograft), or the corpse of another person (allograft), or an animal (xenograft). The latter could be from a slaughtered (Halal) animal or a Najas, i.e., a dead (Carcass), or of porcine origin, both of which will not be allowed unless there is no other alternative, and is deemed necessary. However, Zakariya al-Qazwini, a grand Qadhi (judge) in Iraq (600-682H/1203-1283AD), noticed that porcine bone grafts function more efficiently than other xenografts, and reported this fact in his book "Wonders of Creatures." (7) Ibn Sina (Avicenna 607-687H/1210-1288AD) (the greatest Muslim physician) in his voluminous textbook "Canon" mentioned in his encyclopedic book of Medicine "Canon", bone grafting operations for long bone fractures which were taken from dead bodies or slaughtered animals. He regarded bone transplantation as a hazardous operation that he would never attempt to perform! (8)

## No Harm

The majority of contemporary Muslim scholars legalized organ donation, with clear conditions as means of preserving life. Other scholars refused even the concept of donation claiming that: bodies are ultimate possession of God, no one has a right to donate what he does not possess, and donation of any human tissue is a violation for the rule of being vicegerents.

The human being should always maintain his/her dignity even in disease and misfortune.

The human body, living or dead, should be venerated likewise. "A funeral procession passed in front of the Prophet (PBUH) and he stood up. When he was told that

it was the coffin of a Jew, he said, "Is it not a living being (soul)?" (9)

Mutilation of humans or animals is not allowed. The Prophet Muhammad (PBUH) said: "Breaking the bones of the deceased is like breaking his bones when he is alive." (10)

However, performing postmortems or donating organs from a cadaver is not tantamount to the mutilation of the corpse or an act of disrespect. (11) The harm done, if any, by removing an organ from a corpse should be weighed against the benefit obtained and the new life given to the recipient. The principle of saving human life takes precedence over whatever assumed harm would befall the corpse.(12) Nevertheless, Sheikh Mohammed Mitwalli Al-Shaarawi, a renowned commentator on the Holy Qur'an, but not a Mufti (Jurisconsult), rejected all types of organ donation.

In the case of a living donor, the principle of doing no harm is invoked. The donation of an organ whose loss would usually cause no harm or a minimal increased risk to the health or life of the donor is acceptable, if the benefit to the recipient is much greater than the harm. It invokes the principle of accepting the lesser harm when faced with two evils. The harm done by the disease, which can kill a human life, is not to be compared with the harm incurred by donation. (13)

## Act of Charity

Organ transplantation can save many human lives and improve the quality of life for many others. Islam encourages a search for a cure and invokes Muslims not to despair, for there is certainly a cure for every ailment, although we may not know it at present. The donation of organs is an act of charity, benevolence, altruism, and love for humankind. God loves those who love fellow humans and try to mitigate the agony and sorrow of others and relieve their misfortunes. Any action carried out with good intentions and which aims at helping others is respected and encouraged, provided no harm is inflicted. The human body is the property of God; however, man/woman is entrusted with the body as well as other things. He/she should use it in the way prescribed by God as revealed by his messengers. Any misuse will be judged by God on the day of judgment, and transgressors will be punished. (14) Donation of organs should not be considered as acts of transgression against the body. Human organs are not a commodity, and they should be donated freely in response to an altruistic feeling of brotherhood and love for one's fellow

beings. Encouraging donation by the government is allowed by Islamic jurists and is practiced in Saudi Arabia, Gulf Countries, and Iran.

### Islamic jurists' fatwas (juridical resolutions) regarding organ transplantation

The majority of the Muslim scholars and jurists belonging to various schools of Islamic law invoked the principle of priority of saving human life and hence gave it precedence over any other argument. Sheikh Hassan Mamoun (the Grand Mufti of Egypt) sanctioned corneal transplants from cadavers of unidentified persons, and from those who agree to donate upon their death (Fatwa No. 1084 dated April 14, 1959). His successor, Sheikh Hureidi, extended the fatwa to other organs in 1966 (Fatwa No. 993). In 1973, the Grand Mufti, Sheikh Khater, issued a fatwa allowing harvesting of skin from an unidentified corpse. The Grand Mufti Gad Al Haq sanctioned donation of organs from the living, provided no harm was done, and provided it was donated freely in good faith, and for the love of God and the human fraternity. He also sanctioned cadaveric donors provided there was a will, testament, or the consent of the relatives of the deceased. In the case of unidentified corpses, an order from the magistrate should be obtained before harvesting organs (Fatwa No. 1323 dated December 3, 1979).

The Saudi Grand Ulama sanctioned corneal transplant in 1978 (Decree No. 66 H1398/1978). In Algiers, the Supreme Islamic Council sanctioned organ transplantation in 1972, while in Malaysia, the International Islamic Conference sanctioned organ transplantation in April 1969.(15)

The Saudi Grand Ulama Fatwa No. 99, 1982, addressed the subject of autografts, which was unanimously sanctioned. It also sanctioned (by a majority) the donation of organs both by the living and by the dead, who made a will or testament, or by the consent of the relatives (who constitute the Islamic next of kin). The Kuwaiti Fatwa of the Ministry of Charitable Endowments No. 132/79, 1979 sanctioned live and cadaveric organ donation. The Kuwaiti law No. 7, 1983 reiterated the previous Fatwa and pointed out that living donors should be over the age of 21 years to give their consent. (15).

### Brain Death

The subject of the brain death was not addressed in any of these fatwas. It was discussed for the first time in the Second International Conference of Islamic Jurists held

in Jeddah in 1985. No decree was passed at that time until further studies and consultations were obtained. In the Third International Conference of Islamic Jurists (Amman 1986), the historic resolution (No. 5) was passed with a majority of votes, which equated brain death to cardiac and respiratory death.(16) Death in the true Islamic teaching is the departure of the soul, but as this cannot be identified, the signs of death are accepted. This decree paved the way for an extension of organ transplantation projects, which were limited to living donors. Campaigns for organ donation from brain-dead persons were launched in Saudi Arabia, Kuwait, and many Arab and Muslim countries.

The Islamic Fiqh Council of Islamic World League held in Makkah Al Mukarramah (December 1987), which passed Decree No. 2 (10<sup>th</sup> session), did not equate cardiac death with brain death. Although it did not recognize brain death as death, it did sanction all the previous fatwas on organ transplantation. This decree received little publicity in the media, and cardiac and kidney transplants from brain-dead individuals continued without any hindrance from the jurists. (17)

The most detailed fatwa on organ transplantation was that of the Fourth International Conference of Islamic Jurists held in Jeddah in February 1988 (Resolution No. 1). It endorsed all previous fatwas on organ transplantation, clearly rejected any trading or trafficking of organs, and stressed the principle of altruism.(18)

Later, the Islamic jurists started to discuss new subjects related to organ transplantation, namely, transplantation of the nerve tissue as a method for treating Parkinsonism or other ailments; transplantation from anencephalic; transplantation of tissues from embryos aborted spontaneously, medically, or electively; and leftover preembryos *in vitro* fertilization projects.

The Sixth International Conference of Islamic Jurists, held in Jeddah in March 1990, addressed all these issues fully. It sanctioned transplantation of nerve tissues to treat ailments such as Parkinsonism if this method of treatment proved superior to other well-established methods of treatment. The source of the nerve tissues could be: the suprarenal medulla of the patient himself (autograft), the nerve tissues from an animal embryo (xenograft), cultured human nerve cells obtained from spontaneous abortion or medically indicated abortions.(19)

However, the conference deplored the performance of abortion for the sake of procuring organs. It reiterated the

Islamic views against elective abortion, which is only allowed to save the life or health of the expectant mother. If, however, the fetus is not viable, organs can be procured if the parents donate and only when the fetus is declared dead. The aborted fetus is not a commodity and commercialism is not allowed. (19)

Anencephalics cannot be used as organ donors until declared brain or cardiac dead. The fully informed consent of the parents should be obtained in every case. Of note, a few cases of kidney transplantations from anencephalic were performed, where kidneys were transplanted to children with end-stage renal failure. The jurists also discussed transplantation of genital organs. They did not allow the transplantation of gonads as they carry all the genetic inheritance from the donor. However, they sanctioned the transplantation of the other internal sex organs. (19)

In 2003, the Islamic Fiqh Council of Islamic World League, Makkah Al Mukarramah, in its 17<sup>th</sup> session passed a Fatwa No. 3, which allowed using leftover preembryos for stem cell research and treatment of serious ailments.(20)

### Organ Donation among Muslims in Europe

In his article, “Religio-ethical discussions on organ donation among Muslims in Europe,” Dr. Ghaly sheds light on the discussions among Muslim religious scholars on organ donation particularly related to Muslims living in Europe. The article examines three main religious guidelines (fatwas) issued, respectively, by the UK Muslim Law (Shari'ah) Council in 1995 in the UK, the European Council for Fatwa and Research (ECFR) in 2000 in Ireland, and the Moroccan religious scholar Mustafa Ben Hamza during a conference on “Islam and Organ Donation” held in March 2006 in the Netherlands. The three fatwas examined in this article shared one main purport; organ donation is in principle permitted in Islam.(21)

The fatwa issued by the ECFR in 2000 stated that if the deceased did not make up his/her mind before death about organ donation, then the deceased's family has the right to decide. The ECFR went even further by giving the same right to “the authority concerned with the Muslims' interests in non-Muslim countries” if the deceased's family was missing.

The second fatwa was issued by the UK Muslim Law (Shari'ah) Council in 1995. Different to the ECFR fatwa, this fatwa was much less dependent on the religio-ethical

discourse in the Muslim world. The UK fatwa also dedicated much more space to the concept of brain death and argued that this death criterion is accepted from the Islamic perspective. The fatwa also clearly stated that Muslims might carry donor cards. Like the ECFR fatwa, the UK fatwa expressed no objection to the idea that the deceased's family can decide, if the deceased did not have a donor card, nor expressed his/her wish before death. Finally, the fatwa stressed that organ donation should be done freely without reward and that trading in organs is prohibited. (21)

The third fatwa was issued by a Moroccan scholar, Mustapha Ben Hamza, during a conference on “Islam and organ donation” held in 2006 in the Netherlands. This fatwa approved for a Muslim to donate his/her organs to a non-Muslim. A similar fatwa was issued by Mufti of Singapore Sheikh Bin Sumait in the early 1990s.

More recently, Mufti M. Zubair Butt issued a fatwa in 2019 on Organ Donation and Transplantation in Islam. (22) Regarding brainstem death, both the ECFR and Mufti M. Zubair Butt fatwa rejected the UK criteria for determining death. The ECFR only recognizes whole brain death when all functions of the brain have stopped (23) and Mufti M. Zubair Butt even rejects that as not conforming to the definition of Islamic death. The Muslim Law Council fatwa of 1995 is the only fatwa which recognizes brainstem death as legal death allowing for organ donation. (24)

Both the fatwa of the ECFR and of Mufti M. Zubair Butt require actual irreversibility of the heart which cannot be said to have been achieved after only 5 minutes of asystole as happens in the donation after circulatory death in the UK and elsewhere. We concur with the opinion that no clinician will testify that the heart cannot be restarted after 5 minutes of asystole. (24)

Even within medical circles, the notion that brain death represents complete death has been met with some resistance. (25,26) The debate about the concept of brain death continues among physicians. Year after year, there are media reports about patients who have been diagnosed as “brain-dead” and who have apparently experienced miraculous recoveries. Troug et al states that in every case, careful examination of the evidence has shown these reports to be false. There has never been a case in which brain death was correctly diagnosed and the patient subsequently recovered any neurological function whatsoever. (27)

Reported cases of brain death in which certain brain functions persist show that the current tests for brain death may need to be tightened.(28) Strategies to lessen the mismatch between the whole-brain criterion and brain death tests include: improving brain death determination training for physicians, mandating a test showing complete intracranial circulatory arrest, or revising the whole-brain criterion.(29)

We think that confirming the absence of intracerebral brain flow, for example, by transcranial Doppler, is feasible, inexpensive and will reduce the resistance against accepting brain death as a true death.

## Opt-In and Opt-Out Organ Donation Systems

Many countries use what is commonly referred to as the “opt-in” organ donation system, in which individuals have to sign up to become a donor before their death, and then the final decision to use the organs from a given individual’s body rests with the potential donor’s family after his death. Some European countries have shed the restrictions of the opt-in system in favor of an opt-out system. The opt-out system presumes that all individuals would presumably consent to have their organs used for transplant. In practice, many countries have legislation allowing for “implied consent” which pays little regard to the informed consent and autonomy. Implied consent is a consent which is not expressly granted by a person, but rather inferred from a person’s actions and the facts and circumstances of a particular situation. (14)

The law around organ donation in England has changed, effective from 20.5.2020. The ‘Organ Donation (Deemed Consent) Act 2019’ is popularly known as Max’s and Keira’s Law, after a boy whose life was saved when he received the heart of a nine-year-old girl who died in a car crash. The sole aim of the law reform is to increase the supply of organs from deceased donors for transplantation to meet ever-increasing demand (30). All adults in England are now considered to have agreed to be an organ donor when they die, unless they have recorded a decision not to donate, or are in one of the excluded groups. This is commonly referred to as an ‘opt out’ system.

The excluded groups are those under the age of 18, people who lack the mental capacity to understand the new arrangements and take the necessary action, visitors to England, people who have lived in England for less than 12 months before their death, and those not living in England voluntarily (32,33). In cases where the individual hasn’t expressed a decision, specialist nurses

will support families to make a decision, based on what their loved ones would have wanted. (33,34,35)

The absence of an expression to opt out by a person does not imply a consent to donate.

The consent of the donor is a must, and consultation of the family (particularly the *wali* [guardian]) of the potential donor’s understanding of these wishes needs to be considered. (36)

If a person is not keen on organ donation after his/her death, it would be essential for him/her to sign the form expressing his/her refusal. This can be done by filling out an NHS Organ Donor Register withdrawal form.

## Organ Donation and Transplantation in North America

In December 2018, the *Fiqh* Council of North America (FCNA) issued an Islamic ethico-legal verdict (*fatwa*) on organ donation and transplantation. The FCNA judges organ donation to be morally permissible from the perspective of Islamic law and ethics, subject to several conditions. These include first-person authorization, that donation occur either while living or after circulatory declaration of death, and that harm to the donor is minimized. Organ transplantation, in general, was also deemed licit. (36) Deceased donation must occur after cardiac determination of death. There are different opinions in the medical field itself when it comes to the definition of death. “Brain death” or neurological determination of death is a highly contentious issue among medical scientists and bioethicists, and stirs controversy among jurists. Some Islamic scholars consider a person deemed to have met neurological criteria for death as having met the standards for legal death in Islam, others hold the person to be in a dying but not dead state, and others reject neurological criteria as too uncertain to meet Islamic legal standards for death determination. (36)

## Conclusion

Islam has given permission for organ and tissue transplantation to save human lives or vital organs. Islamic juridical deliberations around brain death largely took place over thirty years ago and this debate within Muslim bioethics need updating. To change the views of religious people about accepting the diagnosis of brain death and donating organs, there must be an education process which involves religious and spiritual leaders from the local community as well.

## References

- 1- Chamsi-Pasha H, Albar MA. Kidney transplantation: Ethical challenges in the Arab world. *Saudi J Kidney Dis Transpl* 2014; 25:489-95.
- 2- Schmidt VH. Transplant medicine as borderline medicine. *Med Health Care Philos* 2003; 6:319-21.
- 3- Kaf Al-Ghazal S. Editorial. JBIMA .2019 (August) .Volume 2. <https://jbima.com/article/jbima-editorial-volume-2-2019-august/>
- 4- Segal E. Religious objections to brain death. *J Crit Care*. 2014;29:875–7. [PubMed: 25085509]
- 5- Al Nawawi MS, Al Majmou Sharh Al Mohazab. In: Al Mutteei M, editor. Vol. 1. Cairo: Al Fajalah Press; 1969. p. 293.
- 6- Asshirbini M. Mughni, al muhtaj (Resource for the needy). Beirut: Dar Al Fikir; 1973. p. 190-1.
- 7- Al Qawzini Z. Ajayib al makhlohat (Wonder of creatures). Dar Al Afaaq Al Jadidah; 1978. p. 422.
- 8- Avicenna: The Canon in Medicine. Dar Alkotob alelmiah, Beirut.
- 9- Sahih Al-Boukhari (The Book of Funerals).Vol. 3, Book 21, Hadith 1922.
- 10- Sunan Ibn Majah. Vol. 1, Book 6, Hadith 1616.
- 11- Ibn Hanbal A, Musnad Ahmad. Cairo: Dar Almaarif Publishing Co.; 1958.1;338.
- 12- Chamsi-Pasha H, Albar MA. Western and Islamic bioethics: How close is the gap? *Avicenna J Med* 2013;3:8-14.
- 13- Sharafuddin A. Al Ahkam Asriyah Lil-Amal Attibiyah National Council for Culture, Arts, and Literature. Kuwait; 1983. p. 89-160.
- 14- Al-Bar MA, Chamsi-Pasha H. Contemporary Bioethics: Islamic Perspective. Springer; 2015. Available from: <http://link.springer.com/book/10.1007%2F978-3-319-18428-9>.
- 15- Albar MA. Islamic ethics of organ transplantation and brain death. *Saudi J Kidney Dis Transpl* 1996; 7:109-14
- 16- Fiqh Academy Book of Decrees, Decree No. 5, 3rd Conference of Islamic Jurists (Amman: 11-6 October 1986). Jeddah: Fiqh Academy and Islamic Organization of Medicine Sciences; 1988. p. 34. Available from: <http://www.iifa-aifi.org/cs>.
- 17- The Islamic Fiqh Council of Islamic World League Held in Makkah Al Mukaramah, Decree No. 2. (10th session); December, 1987. Available from: <http://themwl.org/downloads/Resolutions-of-Islamic-Fiqh-Council-1.pdf>.
- 18- The Islamic Fiqh Council of Islamic World League Held in Makkah Al Mukaramah, Decree No. 2. (10th session) 1987. Dec. Available from: <http://themwl.org/downloads/Resolutions-of-Islamic-Fiqh-Council-1.pdf> .
- 19- Seminar on New Issues in Organ Transplantation (Kuwait: October 1989).Jeddah: Fiqh Academy and Islamic Organization of Medical Sciences (not yet published); & Fiqh Academy Decree and Recommendations for the 6th Conference of Islam Jurists (Jeddah, 14-20 March 1990).Decrees No. 56/5/6; 58/8/6. Available from: <http://www.iifa-aifi.org/cs>.
- 20- Islamic Fiqh Council, Islamic World League, Makkah-Saudi Arabia, Session 17, 2003, Fatwa No. 3, Book of Resolutions. 17th Session, 13-17 December 2003, Makkah: Islamic World League; 2003. p. 33-5. Available from: <http://themwl.org/downloads/Resolutions-of-Islamic-Fiqh-Council-1.pdf>.
- 21- Ghaly M. The ethics of organ transplantation: How comprehensive the ethical framework should be? *Med Health Care Philos* 2012; 15:175-9.
- 22- Organ Donation and Transplantation in Islam, An opinion, Mufti Mohammed Zubair Butt [Available from <https://nhsbtdbe.blob.core.windows.net/umbraco-assets-corp/16300/organ-donation-fatwa.pdf>]
- 23- Badawi Z. Organ Transplant 1995 [Available from: <http://www.iol.ie/~afifi/Articles/organ.htm>]
- 24- Hussain A. An Islamic Perspective on the Dead Donor Rule in the UK. April 2020 .Vol. 4 - No. 2 || [www.jbima.com](http://www.jbima.com)

- 25- Rady MY, Verheijde JL, Ali MS. The practice of medicine and the utilitarian redefinition of the beginning and end of human life. *Saudi Med J* 2010; 31:718-20.
- 26- Padela AI, Arozullah A, Moosa E. Brain death in Islamic ethico-legal deliberation: Challenges for applied Islamic bioethics. *Bioethics*. 2013; 27:132-9.
- 27- Truog RD, Berlinger N, Zacharias RL, Solomon MZ. Brain Death at Fifty: Exploring Consensus, Controversy, and Contexts. *Hastings Cent Rep*. 2018;48 Suppl 4:S2-S5. doi:10.1002/hast.942
- 28- Dalle Ave AL, Bernat JL. Inconsistencies Between the Criterion and Tests for Brain Death [published online ahead of print, 2018 Jan 1]. *J Intensive Care Med*. 2018;885066618784268. doi:10.1177/0885066618784268.
- 29- Bernat JL, Dalle Ave AL. Aligning the Criterion and Tests for Brain Death. *Camb Q Healthc Ethics*. 2019;28(4):635-641. doi:10.1017/S0963180119000574
- 30- Manning J. Changing to Deemed Consent for Deceased Organ Donation in the United Kingdom: Should Australia and New Zealand Follow?. *J Law Med*. 2020;27(3):513-526.
- 31- <https://www.organdonation.nhs.uk/get-involved/news/max-and-keira-s-law-comes-into-effect-in-england/>
- 32- <https://www.organdonation.nhs.uk/uk-laws/organ-donation-law-in-england>
- 33- <https://www.organdonation.nhs.uk/helping-you-to-decide/about-organ-donation/get-the-facts/>
- 34- Shaw DM. The side effects of deemed consent: changing defaults in organ donation. *J Med Ethics*. 2019;45(7):435-439. doi:10.1136/medethics-2019-105482
- 35- Ali M. Organ Donation: ‘Redressing the Reality’. JBIMA .2019 Vol. 2 - No. 1. [https://jbima.com/wp-content/uploads/2019/08/E01\\_0819\\_Ethics\\_Organ\\_donation\\_redressing\\_the\\_reality.pdf](https://jbima.com/wp-content/uploads/2019/08/E01_0819_Ethics_Organ_donation_redressing_the_reality.pdf)
- 36- Padela AI, Auda J. The Moral Status of Organ Donation and Transplantation Within Islamic Law: The *Fiqh* Council of North America's Position. *Transplant Direct*. 2020;6(3):e536. Published 2020 Feb 18. doi:10.1097/TXD.0000000000000098