

Heart Transplants in Israel: the Decision of the Chief Rabbinat Council*

Jerusalem, 3 November 1986 — א' חשוון תשמ"ז

The Decision of The Chief Rabbinat Council of Israel on Transplants

Today, the first day of Rosh Chodesh Marcheshvan 5747 (3 November 1986),¹ the Chief Rabbinat Council has unanimously decided to endorse the recommendations of the Transplant Committee² as follows:

1. The Ministry of Health³ requested the Chief Rabbinat to determine the position of Jewish Law regarding heart transplants in Israel. For this purpose the Chief Rabbinat appointed a committee of rabbis and physicians⁴ to study the halachic and medical aspects of the question. The committee consulted leading physicians specializing in this area at Hadassah⁵ and Shaare Zedek⁶ Medical Centers in Jerusalem.
2. Seventeen years ago, when the first heart transplants were performed abroad, both Rabbi Moshe Feinstein⁷ and Chief

* English translation of the original Hebrew decision. The original Hebrew decision is published in *ASSIA – Jewish Medical Ethics*, Vol. I, No. 2, May 1989, pp. 2-10. The notes are intended to explain the Decision as understood by the editor. They do not obligate the Chief Rabbinat Council. It is not our intent to interfere with leading rabbinic authorities in these difficult halachic matters.

1. Read 1 Marcheshvan (3 November) as above.
2. The Transplant Committee was appointed by the Chief Rabbis of Israel and included rabbinic scholars, rabbis representing various sectors of the religious population, and two physicians (see note 4 below).
3. Prof. Dan Michaeli, then the Director General of the Ministry of Health, presented the request to the Chief Rabbinat.
4. The Chief Rabbis had two physicians specializing in medical halacha appointed to the Committee.
5. On Tuesday, 4 Tishri 5747 (7 October 1986).
6. On Tuesday, 7 Menachem Av 5746 (12 August 1986).
7. *Iggerot Moshe Yoreh De'ah* II: 174.

Rabbi Y. Unterman⁸ held that the procedure constituted murder of both the donor and the recipient. During the last ten years there have been fundamental medical changes affecting heart transplants as follows:

- A. The survival rate has risen. Approximately 80% of heart transplant recipients now survive at least one year (“*Chayei Olam*”⁹), and approximately 70% survive five years.¹⁰
 - B. There is now a reliable method to establish whether the respiratory system of the deceased donor has irreversibly failed.¹¹
 - C. We have received evidence that even Rabbi M. Feinstein recently permitted a heart transplant procedure in the United States.¹² Further, we know of other leading rabbis who have advised cardiac patients to undergo a transplant.¹³
3. Since heart transplants are matters of life and death,¹⁴ we feel obligated to decide the question of their permissibility in a clear and definitive manner.
 4. Relying on principles in the Talmud (Tractate *Yoma* 85),¹⁵

8. “*Be`ayat Hashtalat ha-Lev le`Or ha-Halacha*,” *No`am* 13 (5730), pp. 1-9.

9. *Darcho Teshuvah Yoreh De`ah* 155:2 in the name of Rabbi Shlomo Kluger (quoted in *Nishmat Avraham Yoreh De`ah* 155:2); *Iggerot Moshe Choshen Mishpat* II:74 (b); Rabbi Moshe Weinberger, “Priorities in the Treatment of Patients (in Case of Insufficiency of Staff or Medication),” *Emek Halacha* (Schlesinger Institute: 1985, Jerusalem), pp. 109-117 (Section IV: “*Mahem Chayye Sha`ah*”).

10. Cohen, *et al.*, “Cyclosporine A: A new agent for immunosuppressive organ transplantation,” *Ann Intern Med* 101 (1984), pp. 667-682.

11. See Appendices I and II below and the references in *Emek Halacha*, p. 93, note 55. See also A. Starr, “Auditory brainstem response in brain death,” *Brain* 99 (1976), pp. 543-554.

12. Rabbi Moshe Tendler in a letter dated 5 July 1986 to the Director of the Hadassah Medical Center-Jerusalem. Rabbi S. Rappaport in Jerusalem, the husband of Rabbi Moshe Feinstein’s granddaughter, provided further verification for this fact.

13. The Transplant Committee was informed that Rabbi Y.Y. Weiss, Head of the Rabbinic Court of the *Eidah ha-Charedit* in Jerusalem and author of *Resp. Minchat Yitschak*, recently signed a letter supporting a patient who was raising funds for a heart transplant procedure abroad. (See *Emek Halacha*, pp. 106-108.)

14. Candidates for heart transplant are severely sick patients whose life expectancy without transplant range from several weeks to several months. These patients are in constant danger of death due to their heart condition. In Hadassah Medical Center – Jerusalem about four cardiac patients whose only hope for survival is a heart transplant die each month (reported by Prof. M. Gottesmann, Director of Cardiology at Hadassah Medical Center – Ein Karem, Jerusalem).

15. “יתיר עד היכן הוא בודק? עד חוטמו, ויש אומרים: עד ליבו (גירסת ר”י). לגירסת ר”ח במקום

Rabbi Moshe Sofer decided that halachic death depends on cessation of respiration (*Chatam Sofer Yoreh De'ah* Sect. 338;¹⁶ see *Iggerot Moshe Yoreh De'ah* III, Sect. 132^{17,18}). Therefore, one must verify that respiration has permanently and irreversibly ceased.

This can be done by proving that the brain, including the brain stem which controls automatic respiration, has been totally and irreversibly functionally injured.¹⁹

5. In medical practice²⁰ there are five prerequisites for establishing the state of brain death:

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- "ליבו" יש גרוס "טבורו")... אמר רב פפא: מחלוקת ממטה למעלה. אבל מלמעלה למטה – כיון דבדק ליה עד חוטמו – שוב אינו צריך."
- מבואר, שלכל הדעות, אם אין סימני חיים בחוטמו ("מלמעלה למטה") אין צורך (ובשבת אסור) להמשיך לחפור עד בדיקת סימני החיים בלב. מכאן נובע שהסימן הבלעדי הקובע מוות הוא העדר הנשימה, כנלמד בגמרא מן הפסוק "כל אשר נשמת רוח חיים באפיו". לכן, אם הנבדק איננו נושם אפילו נשימה קלה במשך חמש דקות רצופות כשיש סימנים והוכחות שלעולם לא ישוב לנשום, הרי הוא מת מדינא דגמרא.
- מצד שני, פעימות לב כשלעצמן אינן מהוות סימן חיים אם נקבע המוות באופן ברור, כמבואר במשנת עדויות א, ו. שכן מי שהותז ראשו, פרכוסי גופו נחשבים כפרכוסי "זנב הלטאה", וגם, כפי שמעריכים מומחים נוירולוגים, לבו של המתוזה יוכל להמשיך לפעום שעות וימים אם יקשרו כלי הדם הצוואריים, ויוכנס צינור של מכונת הנשמה לקנה הראיה החתוד.
16. שם ד"ה "ונחזי אנו": "...אז נמסר לנו שיעור מיתה... או שסמכו עצמן אקרא כל אשר נשמת רוח חיים באפוד הכל תלוי בנשימת האף וכמבואר ביומא פה ע"א ופסקו רמב"ם וטושי"ע."
17. תשובה לחתנו הרב משה דוד טנדלר. בתשובה מודגש שהפסקת הנשימה היא הסימן הקובע מוות על פי ההלכה, אלא שלעיתים יש לבצע גם בדיקה נוירולוגית (דקירת מחט) כדי לוודא שלא מדובר ב"התעלפות". לגבי נפגעי תאונת דרכים נדרשת גם בדיקה פיזיולוגית המאשרת חוסר זרימת דם למוח (בדיקת פעימות לב איננה מוזכרת כלל בכל התשובה):
- "...וכיון שאתה אומר שעתה איכא נסיון שרופאים גדולים יכולין לברר ע"י הגידים לידע שנפסק הקשר שיש להמוח עם כל הגוף, שאם לא יבוא זה להמוח הוא ברור שאין להמוח שום שייכות להגוף, וגם שכבר נרקב המוח לגמרי והוי כהותז הראש בכת... (התיאור מתאים לאנגיוגרפיה של כלי הדם המוחיים, תהליך שבאמצעותו ניתן להראות חוסר זרימת דם למוח).
- משמע שהרס מוחי נחשב כהתזת ראש בפרטנציה (=בכח), ואז פרכוסי הגוף נחשבים כפרכוס זנב הלטאה ואינם משנים את קביעת המוות (אהלות א, ו).
- אמנם יש קשיים אחדים בהבנת כוונתו של הגאון זצ"ל, ראה נשמת אברהם חיו"ד, שלט, ס"ק ב; ספר אסיא ז' עמ' 123-238.
18. According to Rabbi S. Rappaport, Rabbi Feinstein holds that destruction of the entire brain is tantamount to death, just as decapitation is tantamount to death, even if the heart is still beating.
19. a) Numerous experiments and observations on human patients with cerebral damage have demonstrated that damage to the brain stem leads to immediate cessation of breathing. This, however, is not the case following damage to higher or lower areas of the central nervous system.
- b) Electrical stimulation of certain areas of the brain stem will cause contraction of the respiratory musculature.
20. Dr. A. Steinberg, *Kevi'at Rega' ha-Mavet ve-Hashtalat Lev*, Special Report for the Members of the Transplant Committee of the Chief Rabbinate (Tishri 5747), Sect. 2.

- A. Clear knowledge of the cause of the injury.²¹
 - B. Absolute cessation of spontaneous breathing.²²
 - C. Detailed clinical proof of injury to the brain.²³
 - D. Objective proof of destruction of the brain stem by objective scientific tests, such as the BAER test.²⁴
 - E. Proof that the absolute cessation of respiration and inactivity of the brain stem continue for at least twelve hours despite full, customary intensive care.²⁵
6. We have examined the Recommendation for Establishing Death proposed by physicians at Hadassah Medical Center on 5 Tammuz 5745 (5 July 1984) and submitted to the Chief Rabbinate on 5 Tishri 5747 (8 October 1986). We find that this recommendation could be acceptable according to Jewish law, if an objective, scientific test of the brain stem (BAER) is added to it.
7. In light of the above, the Chief Rabbinate of Israel is prepared to permit heart transplants (from accident victims²⁶) at Hadassah Medical Center, Jerusalem,²⁷ under the following

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21. If the cause of the damage is unknown, the current state of medical knowledge does not definitively exclude the possibility of an exceptional condition with some unknown factor which is either misleading or which mimics indications of death. Cardiac arrest is similarly not acceptable for establishing death if its cause is unknown. In such cases one must immediately attempt resuscitation.
 22. Presence of spontaneous, or even attempts at spontaneous breathing by the patient, unambiguously indicates that at least part of the brain stem is functioning. Therefore this condition was included in Section 3. In the Decision, Section 2 was separate because of the halachic significance of the absence of breathing.
 23. Detailed in Appendix I below.
 24. Detailed in Appendix II below.
 25. As long as brain death has not been established, the patient is considered alive despite cessation of spontaneous breathing. Therefore, artificial respiration and other intensive care procedures must be continued.
 26. The requirement of "accident victims" restricts the permissibility of removing the deceased donor's heart exclusively to accident victims. Such accident victims, if they fulfill the requirements in Appendices I and II below, are halachically considered at least *terefah*, even if not halachically dead. This, therefore, is a further reason for permitting the transplant procedure according to those rabbis quoted in *Emek Halacha*, pp. 100-108.
 27. The decision is limited to Hadassah Medical Center because the Ministry of Health requested the opinion of the Rabbinate at a time when only Hadassah was to be authorized (by the Ministry of Health) to perform heart transplants. The Transplant Committee was probably influenced as well by the control exercised by the administration of Hadassah Medical Center. This control allows better supervision than would be possible at many other medical institutions. See Y. Yarkoni, General Hospital, *Kol ha-Ir* 8 Sivan 5747 (5 June 1987), pp. 34f., 37, 71.

conditions:

- A. All the conditions outlined above for establishing the death of the donor must be fulfilled.
- B. A representative of the Chief Rabbinate of Israel will participate as a full member of the team which establishes the death of the donor.²⁸ The Ministry of Health²⁹ will appoint this representative from a list which the Chief Rabbinate will present once each year to the Ministry of Health.³⁰
- C. The donor or his family must give prior, written consent for the donation of the heart.³¹
- D. The Ministry of Health, with the participation of the Chief Rabbinate, will establish a Review Committee to examine all cases of heart transplant in Israel.³²
- E. The Ministry of Health will issue regulations in accord with all the above procedures.³³

8. Heart transplants are prohibited in Israel until the conditions

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28. This refers to the appointment of a physician who specializes in medical halacha and who is independent of the hospital administration. In many countries it is customary to separate the transplant team from the team which establishes death. This is intended to eliminate conflict of interest which might adversely affect the donor. The Chief Rabbinate broadened this requirement by including an independent physician with medical halachic training in the team. The judgement of such a physician could be acceptable to all elements of the public.
 29. The appointment by the Ministry of Health is intended to assure his legal and medical status in the team establishing death.
 30. The limitation of the appointment to one year, and the reappointment on the basis of an updated list submitted by the Chief Rabbinate, will prevent the development of undue collegiality on the committee and will contribute to the Chief Rabbinate's supervision over decisions.
 31. The requirement for the family's approval is intended to protect the right of the individual to decide what will be done with his body. In addition, it prevents forced donation of an organ in opposition to the conscience of the family. If the family's opposition is not in accord with halacha, it would be the responsibility of the rabbi to convince the family to act in accord with the *Shulchan Aruch*.
 32. A Review Committee with power is internationally considered a deterrent, preventing deviations from the decisions. It has a positive impact on the level of medical decisions which are then taken with greater care.
 33. Without legally binding decisions, there is not much value in agreements between the Chief Rabbinate and private physicians or institutions. Examples from the recent past have shown that even agreements between the Chief Rabbinate and senior physicians and administrators have been observed for only short periods. In-vitro fertilization is an example. Many of the limitations set by the Chief Rabbinate at that time were observed for only a brief period. Today they are not observed in certain medical centers, including centers which received the Chief Rabbinate's approval at that time.

in Paragraph 7 are accepted.³⁴

9. If we permit heart transplants in accord with the conditions in Paragraph 7, the Chief Rabbinate will establish its own Review Committee to verify full compliance with all the required conditions for permitting the procedure.³⁵

Appendix I to the decision of the Chief Rabbinate Council of Israel on 1 Marcheshvan 5747 (3 November 1986)

This protocol was written at Hadassah Medical Center, Jerusalem. Section 4.3.6 and Section 5 were added to the original text in accord with the decision of the Chief Rabbinate Council on 1 Marcheshvan 5747 (3 November 1986).

1. General

This protocol is an application of the decision of the administration of Hadassah Medical Center and the Medical Committee regarding procedures for establishing brain death. Diagnosis of brain death is based on three essential steps. Complete compliance on the part of the medical team with these three steps, as detailed in this protocol, can establish brain death.

2. Purpose

The purpose of this protocol is to establish uniform principles for establishing brain death, the requisite composition of the medical team, criteria for establishing brain death, and accountability.

3. Definitions

3.1 Brain Death

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34. This Section is important from both halachic and legal points of view. Heart transplants are prohibited by Jewish law until all of the conditions are fulfilled. This prohibition is very severe. The aim of these conditions is to assist the Ministry of Health in guaranteeing that the heart will be taken from the donor only after death has been definitively established. Without this condition it is impossible, in the opinion of the Chief Rabbinate, to guarantee that no heart will be taken from a live patient. Therefore, considerations of public benefit, the welfare of the donor, as well as purely halachic considerations, will permit the procedure only if all of the conditions are fulfilled in their entirety.
 35. The Review Committee will verify that none of the conditions has been overlooked in establishing the death of the donor whenever his heart is still beating. Without review, procedures are liable to be undertaken which would prevent verification that the heart was not removed from a live donor.

Absolute absence of any brain stem function.

3.2 Severe Cerebral Trauma

Injury of the brain tissue following an accident or injury according to clinical criteria.

3.3 Severe Cerebral Hemorrhage

C.A.T. scan evidence of hemorrhage in the brain tissue.

3.4 Anoxic Brain Damage

Damage to the brain tissue due to even a temporary insufficiency of oxygen supply.

3.5 Coma

State devoid of wakefulness in which the patient is unresponsive and cannot be wakened. A comatose patient does not open his eyes, does not communicate, does not hear instructions, and does not move his extremities in response to pain stimulus (except spinal reflex).

4. Criteria for Establishing Brain Death

General

Diagnosis of brain death is to be based on the following three essential steps:

Step I: Presence of prior conditions.

Step II: Identification of misleading conditions which might confuse test results.

Step III: Essential tests which establish brain death.

4.1 Step I: Presence of prior conditions

4.1.1 A state of coma and the absence of spontaneous respiration (the patient is ventilated by a mechanical respirator).

4.1.2 Clear evidence of irreversible damage of known etiology to the structure of brain tissue.

4.1.3 If irreversible damage to the structure of brain tissue is found, it must be confirmed for a specific, minimum period of time. During that minimum period of time, one may not proceed to further steps of this protocol and the patient must receive every possible and reasonable treatment.

4.1.4 The following are the specific, minimum waiting times during which one may not proceed to further steps of this protocol:

Diagnosis

Minimum Waiting Time

Severe Cerebral Trauma	12 hours
Severe Cerebral Hemorrhage	12 hours
Anoxic Cerebral Damage following Cardiac Arrest, Narcosis, Suffocation, or Drowning	24 hours

4.2 Step II: Identification of misleading conditions

4.2.1 The following are conditions which might lead to error in establishing death and which therefore require halting the procedure of establishing death.

- I. Hypothermia at 35⁰C [95⁰F] or below.
- II. Relevant medications or drugs (e.g. barbiturates, muscle relaxants, etc.).
- III. Metabolic factors which might cause coma and inhibit respiration.
- IV. Endocrine factors which might cause coma and inhibit respiration.

4.2.2 If indications of one or more of the above conditions is present, one may not proceed to the third step of this protocol as detailed in Section 4.3. One may proceed only after unambiguously confirming that the conditions are no longer present or after eliminating them.

4.3 Step III: Essential tests which establish brain death.

One can establish brain death if, and only if, all the following conditions in all the following tests are fulfilled:

4.3.1 Clinical proof of coma as defined in Section 3.5

4.3.2 Absence of abnormal muscle tone throughout the body and in the facial muscles as a result of:

- a. Decerebration.
- b. Decortication.
- c. Trismus.

4.3.3 Absence of any spontaneous muscular contractions.

4.3.4 Verification of the absence of all brain stem reflex as follows:

- a. Oculocephalic reflex (Doll's eyes).
- b. Pupillary response to light stimulus.
- c. Corneal reflex.
- d. Vestibular ocular reflex (tested by infusing ice water into the external ear after verifying that there is no obstruction in the external ear).
- e. Response of facial muscles to strong, somatic pain stimulus.
- f. Cough or gag reflex.

4.3.5 One must verify the absence of spontaneous respiration even in the presence of arterial PCO₂ concentration of at

least 50 mm Hg. This test is to be done as follows:

- a. Prior artificial respiration with 100% oxygen for 10 minutes in order to prevent hypoxemia during the test.
- b. Stopping artificial respiration while performing oxygen- ation diffusion for at least 5 minutes.
- c. Partial pressure of oxygen in arterial blood after this time must show arterial PCO_2 to be no less than 50 mm Hg.
- d. If PCO_2 pressure is less than 50 mm Hg, then the test is to be repeated. The patient is to be disconnected from the respirator until his PCO_2 level exceeds 50 mm Hg.
- e. In a patient with chronically high levels of CO_2 , the rise in PCO_2 must be at least 70 mm Hg.

4.3.6 Objective Test of Electrical Functioning of the Brain Stem – Auditory Nerve-Brainstem Response (ABR, BAER, or BAEP).

- a. This test cannot be done on a patient who has prior bilateral deafness or who has suffered bilateral injury in the vicinity of the ears. In these cases brain stem death cannot be established by ABR. Therefore, such a patient cannot be considered dead as specified below in section K.
- b. One must examine the patient's ear and verify that they are clean and free of wax, inflammation and debris
- c. One must provide sound stimulus under conditions which optimize the possibility of response (viz. 10 stimuli per second at maximum volume).
- d. The test should be repeated 4 times to identify (or not to identify) the waves (or their absence) in a consistent way.
- e. If it becomes necessary to eliminate electrical interference, one may switch off any electrical heating device or even an ECG, if they are causing electrical interference with the test.
- f. One must verify that there is no conductive artifact and no electrical induction from the ear phones. This is done by blocking the sound emitted from the earphone with an appropriate surface.

- g. The test is to be repeated under the same conditions after at least 12 hours.
- h. Only the exclusive presence of the first wave (from the auditory nerve) can be taken as evidence of brain stem death.
- i. If the first wave is also absent, then one should try to record it from the promontorium with an appropriate electrode. This test requires piercing the tympanic membrane.
- j. If there is still no response, the apparatus should be checked by trying to record waves from a normal person in the vicinity of the patient.
- k. If, after all these efforts, ABR records the exclusive presence of the first wave, the test can be taken as proof of death of the brain stem and one can proceed to Section 5 of this protocol.

If the first wave is not recorded, or if additional waves are also recorded, the patient cannot be considered dead until cardiac arrest [or other tests which might be approved in the future, such as somato-sensory evoked potential].

5. Procedure for Established Brain Death

5.1 Diagnosis of brain death shall be established by a team of four members, consisting of three qualified physicians and a fourth member to be selected from a list approved by the Ministry of Health in accord with the decision of the Chief Rabbinate Council. The request to convene such a team will be made by the qualified physician who is caring for the patient, after having executed the following procedures:

5.1.1 Complete execution of the three steps required for establishing brain death as detailed in section 4 of this protocol.

5.1.2 A waiting period of at least 3 hours after having completed the three steps.

5.2 After a request has been submitted, the team of four shall be convened.

5.3 The team of physicians will convene simultaneously and will independently supervise the execution of all three steps as detailed in section 4 of this protocol.

5.4 The determination of brain death must be unanimous. If there is a divergence of opinion, then brain death cannot be established and one must wait until a second meeting of the committee as detailed in section 5 of this protocol.

5.5 If brain death is established by all the members of the committee, then the continued treatment of the body of the deceased will be in the hands of the staff of the Transplant Department according to standard procedures.

6. Composition of the Medical Team for Establishing Brain Death

Members of the team will be qualified physicians who are on duty in the following areas of specialization:

- a. Neurology
- b. Anesthesiology
- c. Internal Medicine or Cardiology

7. Accountability

The following are accountable, each in his own area of activity: the qualified, principle physician; the senior resident on duty; the senior residents in neurology, anesthesiology, medicine, and cardiology; the Director of the Medical Center or his Assistant; and the Directors of the Departments and Medical Units responsible for the execution of this protocol.

*Source: ASSIA – Jewish Medical Ethics,
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The Decision is still controversial. Regarding the opinion of the *poskim* on the brain death issue, see *Sefer Assia* vol. 7 (1993), pp. 123-238 and *Assia* 53-54 (1994): 5-58.

Source: The Schlesinger Institute for Jewish Medical Ethics