Modern Perspectives on Medical Halacha

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Halacha (Jewish law) encompasses the entire range of human activity. The thousands of halachot (legal rulings) assembled in the four parts of the Code of Jewish Law known as *Shulchan Aruch* and in the vast sea of rabbinic literature deal with subjects which touch upon all aspects of human life, from the moment of conception to the last breath in this world. Medicine, on the other hand, is traditionally limited in its scope to certain aspects of life. Only recently have technological developments expanded the impact of modern medicine on human life. These developments naturally lead to many new points of contact between the world of halacha and the world of medicine. The purpose of this essay is to survey some of those points of contact. The first two sections deal with fundamental matters, the remaining ones focus on medical-halachic problems in the chronological order of human life, beginning with the inception of life and ending with difficult moral issues relating to death.

Contradiction or Prejudice?

From time to time we are led to question whether it is possible to bridge the gap between modern medicine and halacha. In this question there lurks a tacit assumption of a contradiction between medicine and halacha. This prejudicial assumption is based on a misunderstanding of the basic characteristics of medical theory and the essence of halacha. Halacha is a system composed of law, ethics, and a way of life. Jewish law, the operative element of halacha, requires the fulfillment of positive precepts, such as paying one's debts on time and donning of phylacteries (*tefillin)*, it also involves negative precepts, such as the prohibition against theft and eating pork and shellfish. Science, on the other hand, is not a moral or legal system. Scientific research (including medical research) is merely a powerful *tool* to investigate the laws of nature, and medical technology is a wonderful tool for saving life and improving its quality. As tools, however, medicine and technology can be put to improper use. An example is the guillotine, which was developed by a French physician in December 1789 for scientific purposes. Nuclear devices, as well as biological and chemical warfare materials, are further examples of potentially improper use of technological or scientific developments. Nonetheless, it is clear that science and technology do *not* contradict human morals, despite the possibility of their misuse. The principle is simple: a tool itself cannot contradict a system of law and values, but the *use* of a tool can contradict such a system. A word processor does not contradict Jewish ethical or halachic values, although it can be used to write pornography. Similarly, technology and medical science do not contradict the moral values of halacha, although there are examples of medical practice that stand in opposition to such values. Friction between medicine and halacha can occur when medical technology is used in opposition to halacha. Occasionally, a specific social or professional norm may stand in opposition to Jewish law. Such oppositions are not new. In olden times, for example, the concept of absolute slavery was a broadly accepted social norm that was rejected by Jewish law.

Human Intervention in the Affairs of God

Medicine poses a fundamental question. In the Torah it appears that health is the divine reward for proper conduct. Suffering and disease are the punishment for sin and transgression:

"If thou wilt diligently hearken to the voice of the Lord thy God, and wilt do that which is right in His sight, and wilt give ear to His commandments, and keep all His statutes, I will put none of these diseases upon thee, which I have brought upon Egypt: for I am the Lord that heals thee."

"But if you will not hearken to Me, and will not do all these commands.... I will even appoint over you terror, consumption and fever, that shall consume the eyes, and cause sorrow of heart."

"And also every sickness, and every plague, which is not written in the book of this Torah, them will the Lord bring upon thee, until thou art destroyed."

These verses seem to imply that medical treatment constitutes a gross interference in the divine scheme of reward and punishment. Even today, members of certain religions refuse all medical treatment so as not to interfere with "the will of God."

Halacha, however, approves of medical treatment and sometimes considers it mandatory. The basis of the halachic imperative to heal derives from the verse "Cause him to be thoroughly healed." Our sages taught "Hence do we have permission to heal." From which it is derived that it is *incumbent* upon us to heal and save life, and withholding treatment is equivalent to shedding blood.

This unambiguous attitude of the halacha regarding the obligation to heal calls for an explanation. If healing appears to represent an act of opposition to divine will, why should such intervention be permitted?

The homiletical work known as *Midrash* discusses this matter as follows:

Rabbi Ishmael and Rabbi Akiva were walking in Jerusalem together with another man. A sick person met them and said: "Gentlemen, tell me how I may be healed." They responded: "Take such and such and you will be healed."

After the sick person departed, the man who was accompanying the Rabbis asked: "Who caused his disease?" They answered: "The Holy One, blessed by He." He asked: "Why do you interfere in a matter which is not yours? The Lord did smite him; why then do you heal him?"

The Rabbis asked him: "What is your occupation?"

"I work the land. Here you can see my scythe," he answered. Then the Rabbis asked: "Who created the land upon which you work?"

"The Holy One, blessed by He."

"Then you are interfering in a matter which is not yours. The Lord did create the vineyard; why then do you eat His fruits?"

The farmer responded: "Do you not see the scythe in my hand? If I did not plow and weed and put down fertilizer, nothing would grow in the land."

"Fool," the Rabbis said, "a tree cannot grow if the land is not prepared. And if the tree grows, it will die unless fertilized and watered. Similarly the body of man must be tended by the physician with proper medication."

The idea expressed by this *Midrash* is clear. The world was created with a system of natural law. Humans are permitted to use the laws of nature to earn his livelihood and to maintain health. We may engage in farming for our livelihood, and it is appropriate to engage in medical therapy for our health. Human deeds of man do not detract from divine providence. Similarly, it is no offense to divine providence to give alms to the poor for the Lord has many ways of providing for His creatures.

Rabbi Abraham Ibn Ezra had a seemingly maverick opinion on these matters. He distinguished between external injury perpetrated by humans, which one is permitted to treat, and internal disease caused by God, which one may not treat. Although this opinion is not accepted by most authorities, it is important to understand Ibn Ezra's distinction between the different kinds of injury. Did he have a philosophical objection to human interference with internal disease caused by God? Or was his opinion based on experience that led him to the conclusion that internal injury is best left untreated so as not to endanger the patient with improper therapy, which was quite common in his day? Rabbi Elijah The Gaon of Vilna, who was familiar with the standards of medical practice two hundred years ago, accepted the second explanation.

In-Vitro Fertilization and Parthenogenesis

The number of married couples who are unable to conceive has increased from 15 to 18 percent in the last decade. Various therapies are successful in treating fewer than half of these couples. Thus about 10% of married couples remain childless.

One of the common causes of female infertility is obstruction of the fallopian tubes, which prevents natural fertilization and progression of the fertilized ovum towards the womb. There are a number of causes for such an obstruction, but it generally results from inflammation in the pelvic region (sometimes a complication of induced abortion or pelvic surgery). Techniques for in-vitro fertilization developed during the last ten years, provide means for fertilization *outside the woman's body* and subsequent implantation of the embryo within the woman's uterus. In-vitro fertilization requires hormonal induction of ovulation and extraction of ova by means of either a minor surgical procedure (laparoscopy) or insertion of a syringe under ultrasound monitoring. Semen must be collected and prepared for fertilization (capacitation). The actual fertilization takes place in a laboratory. If fertilization is successful, a number of embryos can be implanted in the mother's uterus. This procedure is also effective in certain cases of male infertility, since the in-vitro fertilization technique requires fewer sperm cells than does natural fertilization. The success rate for in-vitro fertilization is approximately 20 percent, depending on the exact cause of infertility and other criteria for selecting candidates for the procedure.

Leading rabbinic authorities dealt with the halachic aspects of in- vitro fertilization shortly after the procedure was developed. A definite ruling on whether the procedure is permitted by Jewish law is by no means easy to establish. First, one must determine the halachic statues of the offspring. Does Jewish law in this case acknowledge a legal relationship between the offspring and its genetic parents? Is the offspring considered legitimate? Does it suffer any halachic disabilities? Does the genetic father fulfill the positive precept "Be fruitful and multiply"?

Answers to these questions are complicated by the fact that in halacha the relationship between parent and child does not always mirror their *genetic* relationship. For example, the Talmud characterizes converts to Judaism to be "like newborn children." This means that at the moment of conversion, the convert severs his legal relationship with his genetic relatives. This is one example of genetic relationship which is not acknowledged by Jewish law.

There are also cases in which a halachic relationship exists despite the absence of any genetic relationship. One such case is parthenogenesis the bearing of offspring by the female without male genetic contribution. Parthenogenesis is well documented in the animal world. Is human parthenogenesis possible? Are there human female progeny who were born without any paternal genetic contribution? There is no definitive answer to these questions, despite laboratory success in inducing cleavage divisions of a non-fertilized human ovum. The question is still academic, but one would have to clarify the position of Jewish law with respect to the parthenogenetic daughter if such a person is ever proven to exist. For example, is the mother's husband considered to be the girl's halachic father, despite the fact that he contributed no genetic matter? A question such as this does not have a definite answer, but there are indications that the girl *would* be recognized as the halachic daughter of the mother's husband. If so, this is an example of halachic paternity without genetic relationship.

In the light of these examples, we must seriously consider the halachic status of "test tube babies." Leading rabbis are divided on the issue. Rabbi Eliezer Yehudah Valdenberg is of the opinion that a test tube baby has no

halachic relationship with its genetic parents. He therefore concludes that the precept "Be fruitful and multiply" is not fulfilled by the birth of such a child. Moreover, the entire process of in-vitro fertilization, in his view, is halachically forbidden. Rabbi Ovadiah Yosef (the former Sefardic Chief Rabbi of Israel) disagrees and permits in-vitro fertilization *with the husband's sperm* when there is no other available method of bearing children.

Rabbi Avigdor Nebenzahl wrote comments on the opinion of Rabbi Valdenberg, and states that harmony within the family unit has such great value within the framework of Jewish law that the following should be kept in mind:

> "It is proper to remember that if we prohibit in-vitro fertilization, we will cause at least one of two things: either the husband will be unable to fulfill the precept "Be fruitful and multiply," leading to ongoing tension and bitterness within the household, or the couple will separate, thereby destroying the household. Perhaps this consideration is insufficient to decide the issue, but in my opinion it seems right to at least mention it."

The point made by Rabbi Nebenzahl has indeed decided the issue for other Rabbis.

It is not the purpose of this chapter to decide matters of halacha. The interested reader can pursue the matter further by examining halachic sources and consulting competent rabbinic authorities.

It is important to note that recent advances in microscopic surgical technique have made it possible in some cases to open up obstructed fallopian tubes, particularly if the obstruction is related to pelvic inflammation. There are even cases in which the prognosis for surgical treatment exceeds that of in-vitro fertilization, and this might influence both medical and halachic decisions.

Contemporary halachic literature has considered such subjects as embryo freezing, reduction of embryos in multiple pregnancies (specifically, "thinning" in the case of sextuplets), surrogate motherhood, the halachic status of the offspring of surrogate mothers, and other new techniques for increasing fertility, such as the Gamete Intrafallopian Transfer (GIFT) procedure.

Induced Abortion and Tay-Sachs Disease

A fetus is biologically alive. Its heart beats from the beginning of the fourth week after conception. Organogenesis, the formation of body's organs, is complete by the end of the sixth week. Thus there is no sharply defined point at which the embryo can be said to acquire biological life. The only point which we can identify with any certainty is the moment of fertilization, at which time the embryo becomes a living being from the point of view of the life sciences. It is therefore clear that induced abortion is the ending of a human life. The total dependence of the embryo upon its mother does not constitute any philosophical justification for taking its life, just as the total dependence of a newborn baby on its caretaker does not constitute such justification. The mother's convenience plays no role here.

Among the Noahide laws we find the severe prohibition of abortion in the verse: "He who spills the blood of a person within a person, his blood shall surely be spilled." The sages taught: "What is a person within a person? It is a fetus. He who destroys a fetus is worthy of the death penalty." Nonetheless, the sages taught that in Jewish law there is no death penalty for abortion. Therefore, within the system of Jewish law one must distinguish between destruction of the fetus, for which there is no death penalty, and destruction of the newborn.

In light of this, there is controversy among contemporary rabbis regarding the severity of abortion in Jewish law. Some hold that abortion is equivalent to murder and that punishment is imposed by God. Other authorities are of the opinion that there is no Torah prohibition against inducing abortion, but only a prohibition of rabbinic origin. These rabbis hold that the prohibition against inducing abortion does not apply in face of severe maternal suffering, in which case one may abort the fetus.

This controversy touches upon Tay-Sachs disease. In this genetic disease, the newborn has a deficiency of the enzyme hexosaminidase, leads to the storage of the lipid called G_{M2} ganglioside, mostly in the central nervous system.

At birth the baby appears entirely normal; but within several months, as the lipid material begins to accumulate, the baby's development regresses. Cerebral degeneration, psycho- motor retardation, and further decline in the baby's condition inevitably lead to death within a few years. A great deal of suffering is endured by family members when the inevitable result is death of the baby. Tay-Sachs disease is relatively common among Ashkenazic Jews, occurring in the offspring of one out of every 625 couples.

Amniocentesis, a test of the amniotic fluid during pregnancy, enables the physician to ascertain whether or not the fetus is affected by Tay-Sachs disease. There is no doubt that abortion in the case of positive diagnosis of Tay-Sachs disease would alleviate much suffering by the family. The halachic question is whether it is permitted to take the life of a living fetus in order to avoid what would otherwise be severe suffering by the family, primarily on the mother's part. Rabbi Moshe Feinstein prohibited abortion in such cases. In his opinion, abortion is equivalent to murder, is therefore prohibited by the Torah, and it is not justified even in cases of severe suffering, except when the mother's life is at stake. Rabbi Eliezer Waldenberg, on the other hand, permitted abortion of fetuses suffering from Tay-Sachs disease. In his opinion, we may rely upon the opinion of those who hold that the prohibition of abortion is of rabbinic origin and does not apply in cases of severe suffering.

There are other considerations. In the case of Tay-Sachs disease, the fetus is in any event doomed to death. Although the newborn with Tay-Sachs disease has a life expectancy of more than thirty days, we must still attempt to determine whether that baby has the halachic status of a *nefel* (a nonviable newborn considered to be not completely alive).

The consideration of nonviability does not apply in cases of Down's Syndrome (21-trisomy syndrome). Nonetheless, Rabbi Waldenberg found reason to permit abortion of fetuses diagnosed as suffering from this disorder. Rather than deciding the issue with a general ruling, Rabbi Waldenberg leaves the ultimate decision to a competent rabbi who knows the family and can properly evaluate their situation. The character of the parents and their ability to deal with the pressures and problems of raising a child affected by Down's syndrome will weigh heavily in deciding whether or not to abort. There are families who are able to devote themselves to raising such a child. The members of such families may even find that their mutual relationships are strengthened through the experience of dealing with a Down's syndrome child. Others may not be able to deal with the pressures. The halachic decision must therefore take both the medical situation and the spiritual strength of the parents into account. According to Rabbi Waldenberg, therefore, the rabbi most familiar with the family in question must take the final responsibility for the decision.

In a situation in which the mother's life is in danger, there is no controversy. If abortion is the only way to save the mother's life, her life comes first. However the baby may not be destroyed once its head has been delivered. At that point the guiding principle is that one life may not be set aside in order to save another. This principle is discussed in the Talmud and in later rabbinic literature.

Halachic differences between various methods of abortion, and the different periods of pregnancy in relation to its termination, are beyond the scope of this chapter.

Preserving Life *vs.* Family Values

The happy parents had a healthy baby boy. The baby developed and grew into a young man. He chose to study medicine. After four years of medical school, internship, and residency, during which he had little time for his wife and children, he was enjoying an opportunity of celebrating the Passover Seder with his family. It had been years since he had heard his children ask the "Four Questions." The family had been looking forward to this night for a long time. The father was ready to relate the story of the Exodus from Egypt and to fulfill the precept "And thou shalt tell thy son."

This was a true family celebration. The house was clean and bright. The special Passover dishes were on the table. Everyone had put on their holiday clothing. All was ready for the start of the Seder. As his wife was putting the

finishing touches on the arrangements, she thought of the traditional question: "how is this night different from all other nights?" She could not help but think: "on all other nights *Abba* is on call. But on this night *Abba* is at home!"

The Seder begins. The telephone rings. The physician, accustomed to receiving emergency calls at all hours, picks up the receiver. He hears the voice of an old man, somewhat frightened: "Doctor, I am sorry to bother you, but my wife insists. It's really not so serious. For three hours I have been feeling a pressure in my chest, and I am sweating a little, despite the cool temperature. Do I have to do anything or can I wait until tomorrow?"

The significance of this conversation is clear. The man was describing what might very well be a heart attack. He should go directly to a hospital emergency room. An ambulance equipped for cardiac intensive care should be ordered at once. The physician would of course advise the patient without unduly worrying him, knowing full well that some 50 percent of all heart attack patients die before medical help reaches them. Perhaps an ambulance will not arrive quickly enough. The physician considers going directly to the patient's home to examine him and treat him on the spot, before the ambulance arrives.

If he decides to go to the patient, he will lose the Seder night with his family. The children and his wife will be disappointed. If he drives to the patient's home, he knows that he will have to return by foot, for returning home is not a lifesaving procedure, and therefore he may not drive on Yom Tov. He will not reach home until the early hours of the morning.

In this case, is the physician morally obligated to forgo the Seder night with his family? May he rely on the ambulance service to save the patient? Since the ambulance might be a delayed is he halachically obligated to give up his night with the family and go to tend the patient?

In terms of halacha the answer is simple. Saving a life takes precedence over Shabbat and Yom Tov (Jewish Holiday): "The zealous in lifesaving are praiseworthy; those who delay treatment to ask whether it is permitted are spillers of blood." Despite all his family's preparations and expectations, despite their frustration and disappointment, the physician father must leave his family and tend to the patient.

A real "lifesaving" procedure takes precedence over Shabbat and Yom Tov, but is a resident physician's routine journey to the hospital included in this category? Does the resident have to avoid desecrating the Sabbath and stay in the hospital during the entire Sabbath of his hospital residency? Details of the conclusions of Israel's leading rabbinic authorities on this question have been published in the Hebrew journal *Assia*.

Euthanasia

In 1962, the following case was brought before a Belgium court: a woman had taken the drug thalidomide during pregnancy. This medication led to the birth of a baby girl with major defects of the arms, legs, and other parts. In desperation, the mother gave her eight-day-old baby sleeping tablets dissolved in milk. The dose proved fatal; the baby died. The mother claimed in her defence that she had committed an act of euthanasia.

"Human vegetables" – terminally ill comatose patients – are not rare in the world of medicine. May we practice euthanasia on such patients?

Prof. Yeshayahu Leibowitz offers some incisive remarks on this subject:

> If one speaks of mercy killing, one must ask: "Mercy for whom?" A human being has turned into a "vegetable" and has thus become a burden to all around him. It makes no sense to say that we want to be merciful to *the comatose patient* by permitting ourselves to do away with his life, since he is unconscious.
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> However there is no doubt that we are merciful to ourselves when we free ourselves of the physical and emotional burden entailed by the continued care of the comatose patient. Here lies the danger in our decision.

> If we do away with our fundamental assumption that it is wrong to take human life, if we find cause to justify the taking of human life under certain circumstances, then we know what results are to be expected. It will rapidly become clear to many people that the world is rife with human creatures whose elimination would be an act of mercy. The deception of dealing mercifully with those miserable creatures coincides with the impetus to act mercifully towards oneself. They will eliminate those whose existence they find disturbing. Therefore, I say that even if our sincere emotional response in certain situations of unfortunate human suffering leads us to feel that "death is better than life," we dare not listen to our emotions. The very possibility of our human existence depends upon our insistence on the prohibition of taking human life. Heaven forbid that we adopt the concept of *lebensunwert* (valueless life). Hitler determined that certain life was "valueless," and he therefore executed 70,000 mental patients and other incurables because their lives were "valueless" and they contributed nothing to society. Hitler thought that whoever freed those miserable creatures from life, and freed society from caring for them, did a favor both to the victim and to society as a whole.

Leibowitz's remarks are philosophical, not halachic: benefit to society and value of societal existence require absolute rejection of murder for any reason. Mercy killing is no less then murder.

This distinction between mercy for the patient who has a serious diseases and mercy for the relatives of the patient helps to explain an interesting feature in a legislative bill proposed by Kenesset Member M. Cohen-Avidov. In the preamble to his bill, which would obligate physicians to withhold treatment in certain circumstances, he wrote:

> Any visitor in an old-age home will be shaken by the sight of those who have lost all function.... They are suffering and their *relatives suffer emotionally* because of the condition of their loved ones.

Avidov thus reveals some of the factors that sincerely motivated him to propose this legislation. Mercy for the relatives and visitors plays a significant role in his thinking when he calls for discontinuation of vital treatment in order to hasten death.

Jewish law deals with this painful subject on the basis of halachic considerations and develops clear guidelines. Murder, the spilling of blood, is one of the severest prohibitions of the Torah. Unlike most other laws of the Torah, which are suspended in life-threatening situations, the prohibition of murder is absolute. One may not take another's life, even to save one's own. There is only one exception to this law: in the case of *rodef* – that is, when one individual pursues another with intent to kill him – it is proper to save the victim. If no other means are available, one may save the victim by killing the pursuer.

The value of human life is infinite. Therefore, no consideration, regardless how reasonable, can lessen the value of life to the extent that killing becomes acceptable. This is so even with respect to mercy killing.

The position of halacha is unambiguous. Euthanasia is absolutely prohibited. Any action which actively leads to the ending of a human life is defined as murder. On the other hand, a passive influence – the withholding of an artificial device or procedure that is merely prolonging the ill person's suffering – is not defined as murder and is permitted under certain circumstances. The main problem is the precise dividing line between permitted passivity and the kind of "passivity" that is an immediate cause of death. Is withholding food or oxygen considered a passive procedure or does it cause death? What is the status of an artificial respirator? If one removes an artificial apparatus that is supporting the life of a terminally ill patient, has one passively "removed an impediment" to death or has one actively killed the patient?

These are hard questions, and they are discussed in detail in halachic literature. The leading rabbis of our time are actively involved in elucidating these matters in practice.

Sedation of Terminally Ill Patients

Some patients who are suffering from cancer and other potentially terminal diseases may experience great pain. To alleviate that pain, it is sometimes necessary to use increasingly large doses of narcotic substances. These medications may suppress the respiratory center in the brain and might thereby inadvertently shorten the lives of some patients.

In such cases the physician encounters a moral dilemma: on the one hand, he may not shorten the patient's life; on the other hand, the patient is suffering, and the only way to alleviate that suffering is by administering large doses of medications, which may shorten the patient's life.

The halacha in such situations is unambiguous. It is permissible to alleviate the patient's pain. The decision is easily formulated but difficult to understand. In Jewish law, shortening of life is defined as murder. Euthanasia is also forbidden. Why, then, is a physician permitted to shorten the life of a patient when the intent is to alleviate pain? In the framework of halachic discussions of these principles, some rabbis stress the physician's *intent*. Unlike euthanasia, in which the intent is to kill, administering high doses of narcotic medications for alleviation of pain is intended to *help* the patient. The shortening of his life is merely an undesired side effect.

Rabbi Avigdor Nebenzahl rejects this line of reasoning. He points out that in the law of torts (damages) and in the *prohibition* of murder, it is irrelevant whether or not the damage is done by intention. Absence of the intent to kill does not make it permissible to use any procedure that might end with killing. In the conclusion of his discussion he writes:

> I cannot explain Rabbi Shlomo Z. Auerbach's opinion in this matter, unless one were to permit even active killing as a mean of alleviating pain. Later I heard him explain that each individual injection does not necessary shorten life. It is only the cumulative effect of *many* injections which shortens life.

Other explanations have been proposed for this halacha. Despite the difficulty one may have understanding the halacha, it is definitive and is applied in actual cases everywhere.

Organ Transplants

The human body has many vital organs. These organs, referred to in the Talmud as the "organs upon which life depends," include the brain, heart, lungs, kidneys, liver, pancreas, and epidermis. Until recently, functional failure of any one of these organs meant death. However, substitutes have recently been found for some of these organs, and the grave prognosis associated with their loss has largely changed for the better. There are two basic medical solutions for the actual functional loss or failure of these organs: artificial replacements or organ transplants.

Examples of artificial replacement include the use of insulin to replace the natural hormonal secretion of the pancreas in patients with diabetes; dialysis to replace the natural functioning of the kidneys in patients suffering from end-stage renal failure; use of a heart-lung machine during open heart surgery while the patient's own heart and lungs do not function; and the implantation of an artificial heart. Examples of organ transplants are kidney, liver, heart, lung, and pancreas.

From the point of view of Jewish law, medical and technological solutions of the first type (i.e. artificial replacements) are legitimate, permissible, and advisable as long as they indeed increase the patient's life expectancy. In those cases which only improvement of the quality of life is possible, it is necessary to evaluate the situation very carefully before permitting any surgical procedure that endangers the patient's life. Despite differences of opinion among contemporary rabbis, the patient is entitled to endanger his life by undergoing a therapeutic procedure that is likely to improve his quality of life significantly.

Organ transplants, on the other hand, raise difficult halachic questions. In some cases Jewish law limits the use of human organs. There are fundamental differences between taking of organs from animal donors, which is permissible with almost no restrictions, and taking organs from living human donors, which is permissible with certain restrictions intended to protect the life and health of the donor. In addition, it is prohibited to remove an organ from a patient who

is on the verge of death. This prohibition calls for a clear definition of the moment of death, since organs may be removed from the donor only after he is deceased. The definition of the moment of death has direct bearing on the permissibility of heart, liver and other vital organ transplants, as well as on the requisite duration of treatment for comatose patients connected to life- support systems.

Developments in medical technology, together with increased research in medical halacha in recent years, are leading to practical solutions that were not dreamt of in earlier years. Current halachic discussions of the definition of the moment of death rely on medical technologies that have existed for only a few years. An outstanding rabbi ruled only twenty-one years ago that heart transplants were *double murder,* killing both the donor and the recipient. In those days, the transplant procedure may have actually *shortened* the life expectancy of the recipient. It is therefore not surprising that the initial enthusiasm for the procedure abated especially – in the United States – and human heart transplants were performed less frequently for a fairly long period. In addition, the methods available in those days for establishing the death of the donor were not sophisticated. Some physicians held that reliance on a flat electroencephalogram (EEG) was sufficient to establish the death of the donor. Today, every physician knows that a flat EEG is insufficient to establish death, since it reflects the absence of electrical activity only in the cerebral cortex. This fact does not necessarily indicate death of the brain. Therefore, a flat EEG cannot be relied upon as a sign of death of the donor. Many patients who have had flat EEG patterns have subsequently recovered and are alive today.

Contemporary medical technology represents a great improvement over what was available years ago. Today's surgical techniques for organ transplantation are much more refined. Effective new medications are now used for controlling organ rejection. The life expectancy of the recipient of a transplanted heart has increased and is now significantly higher than that of patients who do not receive heart transplants. Methods for establishing death have also been improved by the addition of objective laboratory tests.

These developments called for a reevaluation of the Halacha for heart transplants. Shortly before his death, Rabbi Moshe Feinstein counseled one of his neighbors to undergo a heart transplant. It is therefore clear that heart transplants no longer constitute a case of "double murder," at least in the opinion of Rabbi Moshe Feinstein.

In 1986, the Israeli Commission on Transplants, appointed by the Chief Rabbinate, presented its recommendations. The committee included rabbis and rabbinical scholars from different sectors of the population, together with two physicians competent in medical halacha. After protracted discussions the committee wrote the following in its recommendations:

> Since this question touches upon matters of life and death, we feel obligated to establish the position of *halacha* in a clear and definitive way. Relying on the principles of the Talmud and the decision the *Chatam Sofer*, death is halachically established by the cessation of respiration.
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> Therefore, one must establish that respiration has completely and irreversibly stopped. This can be established by proving that the brain, including the brain stem which controls autonomic respiration, is totally destroyed.

The committee recommended accepting, under certain conditions, the recommendation of the Hadassah Medical Center's committee for defining brain death. But they also stipulated a requirement for an additional, objective laboratory test of the brain stem, the BAER test. This latter test is noninvasive. It involves stimulating the auditory system by sound, and then having a computer deciphers the brain waves that originate from the auditory system. If only the "first wave," which originates from the inner ear, can be detected while other waves that originate from the brain stem cannot, then the ear is functional but the brain stem is dead. In this case, the patient is incapable of autonomic breathing and is therefore halachically dead since halacha stresses spontaneous breathing as a sign of life. This is the opinion of the Commission on Transplants.

Several leading rabbis declined to participate in the discussions on this issue. Their main reason for refusal was their lack of trust in the physicians and their lack of faith in the ability of the medical establishment to impose obligatory norms.

More than forty years ago, the two Chief Rabbis of Israel, Rabbi Isaac ha-Levi Herzog and Rabbi Ben-Zion Uziel permitted autopsies in spite of prohibitions against desecrating the dead and deriving benefit from the dead *if* the results might immediately save lives. The conditions they established for permitting autopsies have not always been followed, and the law that was subsequently passed has not always been obeyed. There were alleged cases of physicians' signatures added to blank autopsy request forms. Such incidents led to public pressure and a change in the law. In order to deal with problems of physicians not following halachic guidelines, the Chief Rabbinate formulated their decision on heart transplants with a number of administrative restrictions. These restrictions are in- tended to define the moment of brain death when the donor's heart continues to beat. Rabbis are divided on the usefulness of these restrictions in the State of Israel. Only time will tell whether the restrictions function as intended.

In addition to life-saving transplants, there are also transplant procedures that improve the quality of life. Among these are cornea and bone marrow transplants. Also not to be overlooked are "skin transplants" which generally serve as a temporary biological dressing and which can be life-saving. According to halacha, one is permitted to use the skin of a cadaver in order to save a patient's life. This observation was one factor in the creation of a skin bank in the State of Israel.

The issue of removal of organs from the deceased for transplantation into living patients is often discussed. Among the most important precepts in this area are the requirement for prompt burial, the prohibition of deriving benefit from a cadaver, and the moral conflict between the personal rights of the deceased and the needs of the living patient. Without consent prior to death no postmortem surgical procedure is permitted. Saving the life of another person is the only reason to violate the body of the deceased without his or her prior consent.

Conclusion

This chapter has presented some of the many controversial issues in medical halacha. Other such issues – for example, halacha in regard to proving paternity by tissue typing, as well as family planning, full disclosure to patients, geriatrics, and priorities in live saving, – are discussed in detail elsewhere.

I have attempted to present the reader with a sense of the current research in the field of medical halacha. It is my hope that this chapter will increase reader's awareness of the values of Torah and ethics in contemporary society.

Source: ***ASSIA – Jewish Medical Ethics****,*
Vol. I, No. 2, May 1989, pp. 11-19

1. Exodus 15:26
2. Leviticus 26:14-16
3. Deuteronomy 28:61
4. Exodus 21:19
5. *Baba Kamma* 85a; B*erachot* 60a
6. *Shulchan Aruch, Yoreh De'ah* 336:1
7. *Midrash Shm'uel 4; Midrash Temurah 2,* quoted in *sefer ha-Pardes;* cf. C. Kahn's introduction to *sefer Assia* Vol. 2, ed. A. Steinberg (Jerusalem: Rubin Mass, 1981), p.5
8. M. Maimonides, Commentary on the *Mishma*, *Pesachim*, at the end of chapter 4
9. Commentary on Exodus 21:19
10. M. Weinberger, "Call for Medical Help According to Halacha." In *Emek Halacha-Assia*, ed. M. Halperin (Jerusalem: Schlesinger Institute, 1985), pp. 11-34, note 10
11. S.J. Behrman, "Evaluation of Fertility in the 1980s" In *Progress in Fertility*, 3rd ed. , ed. S.J. Behrman (Boston: Little, Brown, 1988), p. 1.
12. E. and B. Lunenfeld, "The Struggle against Infertility," *Madda* (Jerusalem), vol. 25 (1967), pp. 72-75. The statistics cited on p. 75 relate to couples married in 1966. Of these, 12.2 percent remained childless after ten years of marriage.
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14. P.L. Matston, "Oligospermic Infertility Treated by In Vitro Fertilization," *Australian and New Zealand Journal of Obstetrics and Gynecology*, vol. 26 (1986), pp. 84-87; D. Martin and R.C. Pan, "Drug Treatment of Oligospermia of Idiopathic Origin: Critical Review," *Annals of Urology* (Paris), vol. 20 (1986), pp. 9-14
15. P.A. Lancaster, "Obstetric Outcome," *Clinical Obstetrics and Gynecology*, vol. 12 (1985), pp. 847-864
16. Genesis 1:28; Isaac of Corbeil, *sefer Mitzvot Katan*, Known as *Semak*, Positive Commandment no. 49; M. Maimonides, *sefer ha-Mitzvot*, Positive Commandment no. 212
17. *Yebamot* 22a
18. M. Maimonides, *Mishneh Torah, Hilchot Issurei Bi'ah* 14:11-15; see also R.E. Mizrachi's commentary on Leviticus 20:17; and Y. Rozenes, *Parshat Derachim, Derech ha-Atarim* 1
19. U. Mittwoch, "Parthenogenesis (review)," *Journal of Medical Genetics*, vol. 15 (1978), pp. 165-181
20. In the absence of male genetic material the offspring of parthenogenesis cannot have a Y chromosome, and therefore such offspring must be female. See Mittwoch, op. cit., p. 20
21. Ibid., pp. 176-178; for laboratory experience with parthenogenesis, see pp. 177-178
22. M. Halperin, "Parthenogenesis in Ashdod?" In *Sefer Assia*, vol. 5, ed. M. Halperin and Y. Schlesinger (Jerusalem: Rubin Mass, 1986), pp. 179-184
23. *Responsa Tzitz Eliezer*, cited in *Sefer Assia*, ibid., pp. 89-92
24. A.S. Abraham, *Lev Avraham*, 3rd ed., Vol. 1. (Jerusalem, 1977) 30:3; *Nishmat Avraham, Even ha-Ezer* (1987), 1:5 (3)
25. *Sefer Assia*, op. cit., pp. 922-923
26. *Chullin* 141a (cf. Numbers 5:23)
27. *Op. cit.*
28. O. Yosef, *Responsa Yabbia Omer*, Vol. 2, no. 1:12
29. A. Bremond, *et al*., "Sterility of Tubal Origin: Microsurgery and Fertilization In Vitro." *Revue Francaise de Gynecologie et Obstetrique*, vol. 8, (1986), pp. 227-242; K. Luber, et al., "Result of Microsurgical Treatment of Tubal Infertility: Implications for In Vitro Fertilization," *American Journal of Obstetrics and Gynecology*, vol. 154 (1989), pp. 1264-1270
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36. *Mishma, Niddah* 3:7; cf., *Anatomy of the Human Body, op. cit.*
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38. Ibid., pp. 9-10
39. *Sanhedrin* 47b
40. Genesis 9:6
41. *Sanhedrin* 47b
42. *Mishma, Niddah* 5:3 (cf. Exodus 21:22-23)
43. Ibid., M. Maimonides, *Mishneh Torah, Hilchot Rotze'ach* 2:6
44. Rabbi Meir Simchah Ha-Kohen of Dvinsk's commenary *Meshech Chochmah* on Exodus 35:2. Additional sources include *Nishmat Avraham, Choshen Mishpat* 425:1a; A. Steinberg, *Sefer Assia*, Vol. 1 (Jerusalem: Schlesinger Institute, 1976), pp. 107-124
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48. op. cit., vol. 13, p. 102, and vol. 14, p.100
49. D.A. Kelig, *Responsa Lev Aryeh* 2:32, quoted in *Nishmat Avraham, Choshen Mishpat* 425:1(15); M. Halperin, "Heart Transplants," Assia, vol. 11 (1986), pp. 5-29, note 40
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52. *Sanhedrin* 72b; Palestinian Talmud, *Shabbat*, end of chapter 14
53. *Sanhedrin* 59a, *Tosafot* s. v. *Lekka Midi*; M. Maimonides, *Mishneh Torah, Hilchot Rotze'ach* 1:9. Additional sources include *Sefer ha-Mafteach*, in S. Fraenkel's edition of *Mishneh Torah*, ibid.
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61. *Mishma, Sanhedrin* 8:7
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63. *Nishmat Avraham, Yoreh De'ah* 399:4, s.v. *lachen*
64. Ibid., note 66

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66. *Nishmat Avraham*, op. cit.
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72. R.S. Braun, *She'arim ha-Metsuyyanim be-Halacha* 190:4; R.J. Emdin, *Mor u-K'tsiah, Orach Chayyim* 328; *Nishmat Avraham, Yoreh De'ah* 155:2(2)
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74. Ibid., 252:2
75. See A. Steinberg, "Establishing the Moment of Death for Heart Transplants," *Special Report to the Chief Rabbinate Committee on Heart Transplants* (Jerusalem, 1986)
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81. *Yoma* 85
82. *Yoreh De'ah* 338
83. See *Iggerot Moshe Yoreh De'ah* III
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86. Report of the state Comptroller, 1969
87. W. Silberstein and L. Wischlitsky (ed.) *Medical Guide Based on Jewish Tradition*, pp. 96-99; *Assia*, vol. 10 (1985), p. 82; *Assia*, vol. 11 (1986), pp. 22-24.

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92. *Shulchan Aruch, Yoreh De'ah* 349:1
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98. *Sefer Assia*, vol. 3 (Jerusalem: Rubin Mass, 1983), pp. 343-344, 472-473