

Trauma and early blood transfusion: the challenging hemorrhage management in Jehovah's Witnesses.

Trauma e transfusão sanguínea precoce: o desafiante manejo de hemorragias em Testemunhas de Jeová.

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A B S T R A C T

The management of patients, such as Jehovah's Witnesses, who refuse to receive blood transfusions, is often a medical challenge, not only because of the ethical dilemma, but also because it creates a major obstacle to rapid hemorrhage control in a setting of trauma. This article explores the reasons for this conflict between the physician's duty of care and the respect for the patient's autonomy, and draws a panorama of the main understandings of the Judiciary on the subject. Finally, it is concluded that the manifestation of the patient's will, although free, is not enough to release the doctor from his (her) duty of care. In case of danger to life, the doctor must carry out a blood transfusion, regardless of the patient's consent or the permission of those responsible for the patient.

Keywords: Bioethics. Multiple Trauma. Blood Transfusion. Hemorrhage. Jehovah's Witnesses.

INTRODUCTION

Managing a polytrauma patient in the presence of severe hemorrhagic shock is naturally a challenge. However, more challenging to the physician in this scenario is to accept the hypothesis that safeguarding one's life is not an absolute priority¹. When we add the fact that this same patient is manifestly opposed to receiving transfusion of blood components, when indicated, motivated by religious belief, we are faced with one of the most relevant bioethical dilemmas of the present time: the dilemma of regarding or disregarding life in favor of respecting the autonomy and religious freedom of the individual^{1,2}. Knowingly opposed to blood transfusion, even at the cost of their own lives, Jehovah's Witnesses are the main practical example of coping with this dilemma by physicians, primarily those dealing with trauma in emergency rooms³.

As the fastest-growing religious group in the Western Hemisphere today, accounting for more than eight million⁴ practitioners worldwide and just over 800,000 in Brazil⁴, Jehovah's Witnesses

originated in the 1870's⁵, near Pittsburgh (in the American state of Pennsylvania). In 1944, the Watch Tower Bible and Tract Society of Pennsylvania, the main entity of congregational control, prohibited blood transfusion, based on a literal interpretation of the Bible (Old Testament: Genesis 9:3-4; Leviticus 17:10-16; and Acts 15:28-29⁶). The following year (1945), the prohibition was extended: animal blood, vaccines, and organ and tissue transplantation were also banned⁶. Thus, one of the most classic ethical obstacles to the development of therapies involving the use of blood and its products, as well as the transplantation of organs and tissues¹, was inaugurated. Over time and the evolution of hemotherapy, this restrictive interpretation has been modified. Today, exceptions are allowed and many treatments involving blood are tolerated by Jehovah's Witnesses³.

The lack of knowledge of health professionals about this relative permissibility or even about the fact that their patients are Jehovah's Witnesses, when not considering this aspect in the decision-making process of

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trauma care, can be indicated as the origin of an exponential conflict involving the disrespect for the patient's autonomy and the unlimited exercise of the principle of beneficence⁶. Prevailing for what is now legally stipulated, and even if inserted in this scenario of trauma and hemorrhage, emergency physicians, including surgeons, should, whenever possible, reconcile the need to respect the patient's rights to refuse certain treatment with their own scientific and ethical impetus to do what they have been trained to do - give blood to the bleeding patient who needs it². Therefore, the present review aims to analyze the reasons for the conflict between the physician's performance, grounded in the principle of beneficence, and the right of choice and autonomy of the Jehovah's Witness patient within a surgical context, as well as to present how the Brazilian and international judiciaries have been dealing with this subject.

Hemorrhage and shock in trauma: when using blood is not an option

Shock is an abnormality of the circulatory system that results in insufficiency of organ perfusion and tissue oxygenation; and, on the other hand, hemorrhage is the acute loss of a certain volume of circulating blood⁷. In this sense, the Advanced Trauma Life Support (ATLS) indicates hemorrhage as the most common cause of shock in trauma patients⁸. Today, in its tenth edition, the protocol updates the initial hemorrhage management in trauma, indicating the early use of transfusion with blood components, and thus avoiding the consequent development of coagulopathy and thrombocytopenia⁸, if there is no favorable clinical response of the patient to an initial intravenous *bolus* of 1000ml crystalloid solution, or of 20ml/kg for pediatric patients weighing less than 40kg^{7,8}.

Still on hemorrhage management, it is known that the religious refusal of blood transfusion by Jehovah's Witnesses reflects negatively on the outcome of these patients when they are victims of trauma, since morbimortality is significantly higher among those with severe anemia (hemoglobin level less than or equal to 7.0g/dl) who do not accept blood products, if compared to patients receiving red blood cell replacement⁸⁻¹¹.

With the new statement, ATLS reopens the conflict involving the use of blood product therapies and the beliefs of Jehovah's Witnesses and exposes the front-line physician dealing with trauma to the risk of ethically and judicially responding for the decision between life and patient's autonomy, when a blood transfusion is indicated¹⁻⁵.

As options to the solution of the dilemma, the following alternative therapeutic strategies were suggested^{10,12} (not including the use of blood for the treatment of traumatic hemorrhage): use of synthetic coagulation factors, antifibrinolytics, vitamin K, recombinant human erythropoietin, supplementation with iron, folate and vitamins (such as B12 and C), and use of oxygen carriers based on hemoglobin^{9,12}. Most of them, however, because based on case reports, have limited evidence of effectiveness¹⁰.

Therefore, in light of an exceptional situation in trauma, when replacement with blood components is not an option, surgical management will require a detailed initial assessment and a dynamic multidisciplinary approach³⁻¹⁰ by the medical team. Immediate intervention (including the decision of early operating), effective identification of the bleeding source, minimization of preoperative and intraoperative blood loss, optimization of erythropoiesis, assurance of adequate hemostasis, and maintenance of intravascular volume with alternative solutions to the use of blood are all important strategies to incorporate into the care of a Jehovah's Witness patient¹⁰⁻¹².

Freedom of choice: the patient's autonomy

Human dignity is present in every corner of life, and, although there is no need of express legal recognition for it to exist, however, its protection and its imposition on the State to protect it denote how influential this right is for the other legal and social relations¹³. On its turn, the right to life is not absolute¹³, although having undeniable legal relevance. A correct analysis of the right to life urges it to be seen alongside other constitutional rights, such as freedom. In this context, the dignity of the human person arises as the guiding meta-principle of any interference among fundamental rights². Thus, it is understood that no right is absolute and enough on its own, since the exercise of any fundamental precept finds limits in the principle of the dignity of the human person^{13,14}.

The protection of freedom comes soon after life, because it is so important as life, and because it defines a great state of spirituality without which man would not live to the full. Autonomy is nothing more than "the naked expression of freedom"¹⁴. It is believed that this autonomy should be exercised in its entirety - without prejudicing the rights of third parties, even authorizing the individual to refrain from receiving the medical care he (she) needs for reasons of religious belief¹⁴. This may be visualized in the context of the denial of blood transfusion in Jehovah's Witnesses, and, beyond, in the hospital context in general, since the physician should, whenever possible, abide by what his (her) patient decides, respecting his (her) autonomy¹⁵.

It is true that because life is inviolable, so is the body; so, it is necessary to request the consent of the patient regarding the performance of transfusion procedure, discarded the hypothesis of danger to life¹⁵⁻¹⁷.

How far should physicians go because of an oath: doctors' multifaceted duty of caring

By making the maximum commitment to give life to save lives, the physician also commits himself (herself) to the welfare of the fellow in such a way that he (she) spends all efforts on this toil. When a physician has a critically ill patient on his (her) hands, he (she) weighs innumerable variables and factors in each decision made, because the minimum error can be maximized to fatal proportions¹⁰.

In this process, the physician considers the four main bioethical principles, equal in moral and cognitive status, in the construction of the final decision and the conduct to be adopted¹. They are the following: beneficence (a duty to promote the patient's welfare, whenever possible), non-maleficence (avoiding causing harm when it is no longer possible to do good), autonomy (freedom of the person to manage his/her existence, respecting his/her own values and legal limits), and justice (equitable distribution of medical resources, considering that everyone is equally entitled to them)^{1,18,19}. Figure 1 presents a representation of the application of the four principles in the care decision to any patient, including Jehovah's Witnesses, through an antagonistic bipolar model (death/life), in the evolution of a disease, using the dignity of the human person as guiding principle.

When a doctor attends to a patient, he (she) is directly tied to what happens to him (her). The physician's actions reflect on the general state of this patient, and his (her) cure, disability or death, depend almost exclusively on his (her) conduct. But this does not give the doctor the faculty to act with an exaggerated ideal of beneficence, adopting a paternalistic position, deciding for the other person. Beneficence is limited by autonomy⁴.

The 5th article, section II, of the Brazilian Federal Constitution of 1988, guarantees that no one is obliged to do or not to do anything but by virtue of

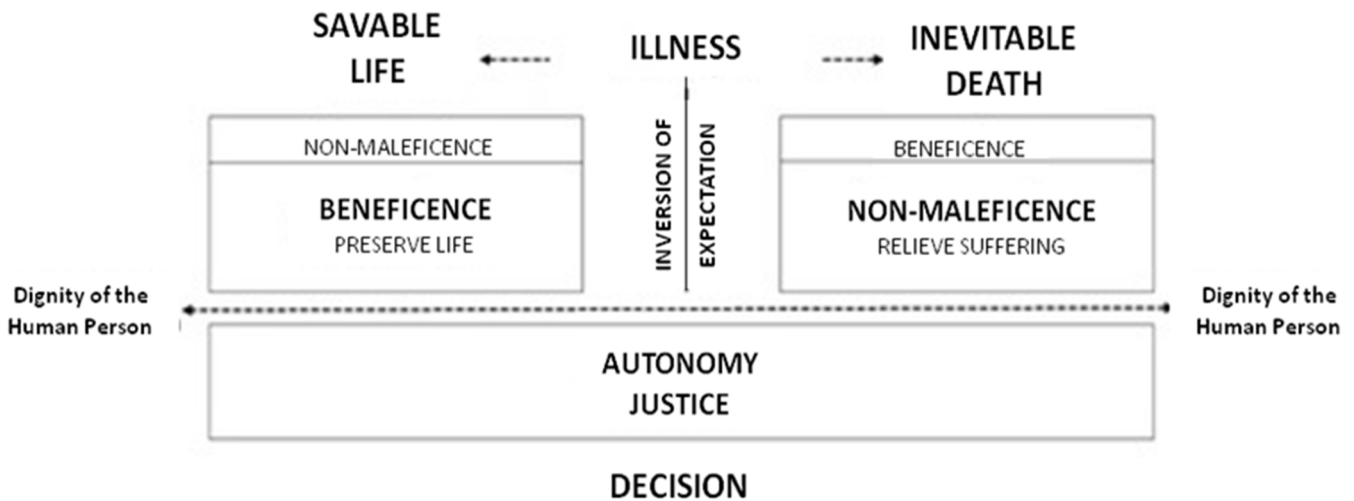


Figure 1. Proportional application of the four main ethical principles in the decision-making process and conduct during the evolution of an illness (adapted¹⁸).

the law. As there is no legal provision in the law that obliges someone to consent to any kind of treatment, no one needs to agree to undergo blood transfusion²⁰. Still in this understanding, the doctor could not try to dissuade the patient who already expressed a desire to refuse the transfusion, under penalty of committing the crime of illegal embarrassment, defined by the Penal Code in its article 146²⁰.

Risk of death: the state of necessity as an exception to the dilemma

The beliefs of Jehovah's Witnesses serve as the foundation for a moral system, a set of deontological judgments about what to do or not to do. According to this system, the refusal of transfusions constitutes a rule of conduct to be observed, even if society ignores or belittles it¹⁹. This positioning is valid only as long as there is no risk of impending death associated with the patient's condition¹⁵⁻¹⁹.

If there is risk of death, the border of the autonomy of the patient's will ends and the autonomy of the doctor's duty to act begins²⁰. As previously stated, to constrain the patient to accept a therapeutic measure with which he (she) does not agree, being under a condition in which he (she) becomes vulnerable, is a crime, with the exception directly related to the medical practice, defined in

the 3rd paragraph of the aforementioned article 146 (Penal Code): "It is not understood in the provision of this article: the medical or surgical intervention without the patient's consent or his (her) legal representative's consent, if justified by an imminent risk of death.". Thus, by legal literality, when the transfusion is necessary to save the patient's life, one should not speak of violation of Jehovah's Witnesses' will²⁰.

This understanding still has support in the Brazilian Code of Medical Ethics, in its articles 46 and 56¹⁵, as well as in Resolution 1021/8010²¹, of the Brazilian Federal Council of Medicine, which thus determines:

"In case of refusal to allow blood transfusion, the physician, in accordance with his (her) Code of Medical Ethics, should observe the following conduct:

1. *If there is no imminent danger to life, the physician should respect the will of the patient or the will of those in charge.*
2. *If there is imminent danger to life, the physician will perform blood transfusion, regardless of the patient's consent or of his (her) legal guardians."*

Minors: the limit of the decision power of those in charge

When the situation involves minors, the issue gains other connotations, as the role of protecting the patients, despite the expressed will of their legal guardians, can be expanded. The power of the father (*patria potestas*) is not absolute and exists only to protect the minor and provide the necessary conditions for his (her) welfare¹⁶. It can never be exercised in a way that endangers the minor's life. Some authors even consider the refusal of the transfusion by the parents as a clear form of child abuse, child neglect, or lack of attention to the rights of the child, and, because of these reasons, they justify the judicial limitation of the power of the father, when there is a risk situation for the minor¹⁶.

The issue that may eventually arise in the case of adolescents is that to what extent they cannot be equated, from the strictly moral point of view, with adults, as to their religious choice. The Brazilian Statute of the Child and Adolescent²², in its article 17, gives them the right to exercise their freedom of worship, also guaranteeing the respect for this manifestation. This same statute allows that, in case of adoption, the minor aged 12 or older may also manifest himself (herself)²³. In any case, it is advisable, considering the minor's degree of maturity, to obtain his (her) consent.

It is necessary to point out that the refusal by the parents does not justify the doctor's refusal to administer transfusion of blood components when it is mandatory for the maintenance of the minor's life, nor it is sufficient to impede the duty of care, as decided by the Brazilian Superior Court of Justice in judging *Habeas Corpus* number 268.459/SP²⁴.

In the eyes of the case's rapporteur in the Brazilian Superior Court of Justice, there would be no crime in refusing blood transfusion for herself or her dependents, since religious freedom and the manifestation of will are constitutional rights.

The manifestation of will is free and absolute; it does not constitute a crime. The doctor, in turn, has an obligation of duty that the patient or his (her) legal guardian does not have, a fact that subjects him (her) to appear as a defendant in a criminal case, if he/she omits help (Article 135, of the Penal Code)²⁰.

Panorama: how the courts are deciding

As mentioned before, Jehovah's Witnesses form the fastest-growing religious group around the world, taking root in a growing number of countries¹. Each country represents a unique ethical-legal universe to address the conflict of transfusion prohibition⁵. Table 1 lists countries in which there have been reports in the literature and jurisprudence of how the problem of refusing transfusion manifests itself in different cultural realities and how disputes in these countries are resolved²⁵⁻³⁰.

CONCLUSION

As can be concluded, multiple variables contribute to keeping the ethical discussion of blood transfusion alive in Jehovah's Witnesses. In the emergency room scenario, this discussion is headed by the doctor. In the care of a Jehovah's Witness patient in hemorrhagic shock, for example, the physician can fulfill his (her) duty to save lives and perform blood transfusion, but may not be satisfying the desire of life saved.

The manifestation of will is not prohibited; it is free and, in the legal system, there is no legal device that obliges someone to consent to any kind of treatment. However, the doctor has a legal and ethical duty that this patient or legal guardian does not have. The patient's will is not enough to dispel the doctor's observance of this duty in case of danger of death. In this situation, the doctor must perform a blood transfusion, regardless of the patient's consent or the permission of those responsible for the patient.

Table 1. Countries in which Jehovah's Witnesses are present and their positioning considering the "life versus autonomy" dilemma referring to blood transfusion for their populations.

Country	Total number of publishers*	Positioning
Brazil	829,743	Brazilian jurisprudence maintains a majority opinion in favor of the right to life, respecting as a general rule the patient's autonomy and his (her) right to religious freedom, until the moment when there is danger of death ^{13,24,25} .
United States	1,231,609	Until 1960, prioritization of life; if there is risk, "faith does not prohibit a forced transfusion" ¹ . Last 40 years, respect for patient's autonomy and freedom to refuse certain treatment, even involving minors ¹ .
United Kingdom	138,261	Competent adults can refuse any treatment that a doctor proposes. Alternatives to blood transfusion may be employed, but the patient's decision is absolute. Even in emergency surgeries, the surgeon is advised to operate and respect the patient's wishes, regardless of the outcome ²⁶ .
India	44,861	Any mentally competent individual has the absolute moral and legal right to refuse or reject the consent for medical treatment or transfusion, except when his (her) decision-making ability is diminished or a legal intervention determines the use of the treatment ^{22,27,28} .
Germany	165,624	The stated willingness to refuse a halogen blood transfusion is binding to the physician. If the patient does not have the capacity for reasoning and judgment to evaluate the indications for a blood transfusion and decide, it is verified if there is a previous written manifestation on this. Only if there is no other possibility, the patient's welfare should be guaranteed and the transfusion performed ²⁹ .
Russia	171,828	In 2017, the Russian Supreme Court banned Jehovah's Witnesses from the country. Among several arguments, it considered that the opposition of the adherents of this religion to undergo blood transfusions violates Russian health laws ³⁰ .

* Christians of this denomination are called publishers; total in 2016⁴.

R E S U M O

O manejo de pacientes que se recusam a receber transfusões de sangue e de seus produtos, como as Testemunhas de Jeová, apresenta-se frequentemente como desafio médico, não só pelo dilema ético, mas porque cria um importante obstáculo ao rápido controle de hemorragias num cenário de trauma. Este artigo explora as razões deste conflito entre o dever de cuidado do médico e o respeito à autonomia do paciente, e desenha um panorama dos entendimentos majoritários do Judiciário sobre o tema. Por fim, conclui-se que a manifestação de vontade do paciente, embora livre, não é suficiente para afastar o médico do seu dever de cuidado. Constatando perigo à vida, o médico deverá proceder a transfusão de sangue, independentemente de consentimento do paciente ou de seus responsáveis.

Descritores: Bioética. Traumatismo Múltiplo. Transfusão de Sangue. Hemorragia. Testemunhas de Jeová.

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