



MEDICAL EXPERIMENTATION ON HUMANS IN ALGERIAN LAW -"LIMITS OF LEGITIMACY AND CRIMINAL LIABILITY"

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Received: 01-02-2025

Accepted: 04-04-2025

Published: 10-05-2025

Abstract: *This article examines the legal framework governing medical experimentation in Algeria, highlighting the ethical and legal aspects related to conducting medical research on human subjects. It establishes the concept of medical experimentation, reviewing its importance for scientific progress while also highlighting the risks that may arise if legal and humanitarian principles are violated. The article also outlines the conditions for conducting medical experimentation in Algerian law, in accordance with Law No. 18-11 on health, particularly with regard to patient consent, legal protection, and the obligations of the physician-researcher. In its criminal section, the article focuses on the legal liability that may arise when these controls are violated. It addresses the elements of the crime resulting from an illegal medical experiment and the penalties stipulated in this context, in addition to referencing some relevant international principles, such as the Helsinki Convention.*

Keywords: *medical experiment, criminal liability, patient, Algerian legislation, medical research*

INTRODUCTION:

Research and studies conducted on humans have witnessed remarkable development in recent decades in terms of objectives, means, and methods. These experiments have varied between those aimed at advancing biological and life sciences to find effective treatments, and those based on gathering scientific information and data to gain new knowledge about disease prevention or improving preventive treatment methods. The importance of the subject is highlighted by the widespread and growing interest that medical experiments on humans have received in many countries, due to their prevalence and the risks they pose that may directly impact individuals' health.

Hence, the urgent need to regulate these experiments and guarantee human rights in this context emerges. The Algerian legislator pays special attention to this area, seeking, through legislation and legal controls, to protect human dignity and preserve human safety. Given the diversity of these experiments, ranging from therapeutic to preventive, it was necessary for the Algerian legislator to set strict conditions and controls to regulate medical experiments on humans. Within the framework of this study, we analyze this topic by highlighting the primary objectives of medical experimentation, which aim to improve healthcare and treatment standards while simultaneously ensuring the safety of participants. We also aim to clarify the legal frameworks established by Algerian legislators to regulate this type of experimentation and their effectiveness in protecting the individuals involved.

This prompted us to ask: How does the Algerian legislature regulate medical experimentation? Are the guarantees it has established sufficient to protect both the person conducting the experiment and the person subjected to it?

To answer this question, we adopted a descriptive and analytical approach. This approach helps us identify the different types of medical experiments and study the legal controls established by the Algerian legislature.



As for the plan, the study was divided into two main sections: the first addresses the concept of medical experimentation and its objectives, while the second is devoted to studying the legal controls and conditions set by the Algerian legislator to regulate these experiments.

Section One: The Nature of Medical Experimentation.

Medical experiments are of undeniable importance, a result of medical and surgical advancements and the positive outcomes they have produced in human life. This prompted us to define medical experimentation, the historical development of medical experiments, their forms, and the extent of their legitimacy. This will be clarified in this section.

FIRST SECTION: THE CONCEPT OF MEDICAL EXPERIMENTATION:

This section addresses the various definitions of experimentation, as well as the historical development of medical experiments.

Section One: Definition of Medical Experimentation

First: Medical Experimentation Linguistically:

Experience is the plural of experimentation. He tried, he tries, an experiment, an experiment. He is an experimenter, and the subject is experimented. "Jaraba" is a verb derived from "jarab" (to try something, experimenting), and it is said that he tried his capabilities, meaning he tested them. It is also said that he tried things, experimented, meaning he experimented with matters and learned what he knew. In another meaning, it is an organized test that is intended to be observed precisely to reveal a result or achieve a specific goal.¹

Second: Definition of Experiment Technically:

In medical terminology, an experiment is defined as: Scientific, technical, and medical work performed without necessity dictated by the patient's condition, to satisfy a scientific desire or to serve medicine and humanity.

As for a medical experiment, it is defined as the scientific and technical medical work performed by a physician-researcher on his patient or volunteer, with the aim of testing a specific drug or the success of a specific surgical procedure whose results are already known, in order to obtain new information for the benefit of medicine and humanity.²

Third: The jurisprudential definition of medical experimentation.

Medical experimentation has been defined in multiple ways. Legal jurisprudence defines it as: statistical processes of an experimental research method on humans, the analysis of which reveals the existence of a new scientific hypothesis or its success and validity, thereby increasing human knowledge about the subject of the medical experiment being conducted. Alternatively, it is a set of procedures to which humans are subjected, the purposes and objectives of which may extend beyond the need to prevent, diagnose, or treat diseases. It is also defined as: a set of research and studies conducted on humans with the aim of advancing medical and biological sciences. It is also defined as: any research or test conducted on humans in light of the development of biological and medical data.³

Regarding medical experimentation, according to the guidelines set by the Council for International Organizations of Medical Sciences, the term research encompasses both medical and behavioral studies related to human health. Research is usually associated with the term biomedicine, which defines it as a class of activity designed to develop or contribute to general knowledge. It consists of general knowledge, theories, principles, and relationships, or the accumulation of information on which these things depend, which can be linked by methods of observation and scientific inference. In this regard, it should be noted that the term "experiments" is not necessarily synonymous with the term "research," as scientific research is considered broader.⁴



It may be descriptive or declarative, or concerned with tracing the history of a particular case and extracting a specific fact or facts. It may also be analytical, which involves comparing specific practical data with the aim of extracting similarities and differences between them. It may also be experimental research. Experiments are part of scientific research, and therefore they are not a synonym for the term scientific research in its broad sense, but rather for experimental research, and by the latter we mean the use of experimentation to prove hypotheses, or proving hypotheses through experimentation.⁵

Section Two: The Historical Development of Medical Experimentation.

It is certain that the development of various sciences and knowledge did not occur by chance. Rather, laws govern this development and material progress. As humans discover and understand more about these things, nature becomes more subject to human control. It is no secret that conducting experiments in the field of medicine on animals for humans, or on humans for humans, has had a significant impact on medical scientific achievements. The discovery of X-rays by Madame Curie, the discovery of treatments for many malignant and non-malignant diseases, and the discovery of effective treatments for other diseases were not achieved by chance in societies, but rather by virtue of objective laws and the method of trial and error, with or without the use of medical laboratories.

Humanity has paid a heavy price for scientific achievements to reach their current state, thanks to the connected minds of scientists. In the field of medical experiments on the human body, it is necessary to briefly mention the development of this experiment on the human body.⁶

Before that, it must be stated that Islamic jurisprudence permits *ijtihad* (independent reasoning) in treating diseases. Thus, a physician is not questioned if he disagrees with some of his colleagues' opinions, as long as his opinion is based on a sound basis. Islam does not close itself off to legitimate interests, including medical and scientific experiments, nor does it prohibit disease prevention measures for health considerations. Scientific medical experiments on animals and humans have been, since ancient times, a double-edged sword that carries risks but also includes advantages and benefits for the good of humanity. Among these advantages is that without them, science and knowledge would have remained fossilized, left to mere chance, uncontrolled by law, and science and knowledge would not have reached this great level of development. From this, we can say that all successful medical achievements have been achieved by scientists through medical experiments, whether in the field of human organ transplantation, disease discovery and treatment, or other medical practices. Although some of these works have gone beyond the stage of medical experiments, such as some human organ transplants, surgical operations, and the use of drugs and medications against a specific disease, some of these medical works are still being studied and scientists are making efforts, including the practice of medical experiments to overcome diseases or reach specific medical results, such as the ongoing attempts to discover a serum against AIDS and various types of cancer.⁷

In the field of human organ transplantation, the first medical experiments in skin grafting took place. The operation was first performed in 1869 to treat deformities resulting from burns and the dangers of war. Kidney transplantation was first experimented with in 1910, when it was first conducted on animals. Blood transfusion experiments from animals to humans failed in 1668, so a law was issued in France criminalizing blood transfusions until the blood transfusion experiment between humans succeeded in 1818. The law permitted these medical procedures after the success of the experiment in 1918. During World War II, some medical experiments were conducted by German doctors, who then appeared before the American Nuremberg Military Tribunal, to which 23 defendants were referred. Their charges included conducting medical experiments on the bodies of prisoners and on members of another religion without adhering to legal conditions. These included research into the effects of high altitudes, freezing, the effects of chemicals, toxins, anti-gangrene serum, synthetic hormones, the effects of sulfamine on contaminated wounds and typhus, surgical operations on nerves, muscles, and bones, sterilization, and the extermination of the insane, the deformed, and the hopeless. Their recovery. They pleaded before the court that they were carrying out the orders of their superiors, but the court did not accept this argument and considered these medical acts as ordinary crimes, not medical experiments. Such experiments were proven to have occurred during the



Korean War in 1954 and during the Vietnam War by the United States. Therefore, it was necessary to limit such acts or regulate them in a manner consistent with human rights principles and the 1949 Geneva Convention, which was supplemented by another convention in 1977 that included the foundations of the rules of international humanitarian law.⁸

The 1949 Geneva Convention Relative to the Wounded and Sick in Armed Forces on Land criminalizes acts committed by warring parties against sick and wounded persons in the hands of an opposing party, including:⁹

- Willful killing or mutilation of sick and wounded persons
- Torture or inhuman treatment of sick and wounded persons by the opposing party
- Subjecting sick and wounded persons to biological or medical or scientific experiments.

It should be noted that the International Law Commission of the United Nations General Assembly prepared a draft law in 1951 codifying crimes against the peace and security of humanity, which was amended in 1954. The draft law defines the foundations of international responsibility and individual responsibility for crimes committed, including serious bodily harm. In 1964, the World Federation of Physicians established the ethical rules for conducting medical experiments on humans, known as the Helsinki Declarations, which were adopted by the 18th World Medical Association. This declaration is considered one of the most important international documents that define the ethical controls required when conducting medical research on humans, especially with regard to medical experiments. This declaration has been reviewed and revised several times, perhaps the most important of which was in 1983 by the 35th World Medical Association, in order to keep pace with global developments in the field of medical research, especially those related to rapid technological development. The declaration in its current version includes a preamble and 37 articles.¹⁰

SECTION TWO: FORMS OF MEDICAL EXPERIMENTATION AND ITS LEGITIMACY.

Section One: Forms of Medical Experimentation

First: Therapeutic Medical Experiments:

A therapeutic experiment refers to a deviation from accepted technical medical principles for the purpose of gathering scientific or technical data or acquiring new medical knowledge. It is also an experiment to which physicians resort to find a new treatment for diseases for which established technical rules and scientific principles have failed to achieve successful treatment.¹¹ In this experiment, the physician treats the patient to cure him, not because he wants to know what will happen. This means that the experiment is conducted within the framework of a therapeutic attempt for the patient.¹²

The therapeutic trial aims to find the best ways to treat the patient and improve his health condition. The medical purpose behind testing a new drug is not to determine its effects. In other words, the trial must be conducted within the framework of a therapeutic attempt for the patient.

Therefore, it is not permissible for any doctor to test a new method of treatment on any person just for the sake of the experiment itself, or rather to satisfy a scientific desire that has taken over him, as man is not a field for scientific medical experiments, and whenever the doctor violates this, he must be held accountable and punished. Responsibility is based on a deliberate act, whenever it is proven that the doctor practiced his experiment without a license or without the patient's consent, or intended behind his experiment merely to conduct scientific experimentation or to make money. As for the doctor who aims to heal the patient, the experiment that he conducts on him with the aim of settling on the method that is most appropriate to his condition and most suitable for achieving the desired goal is considered legitimate and is not a subject for raising the doctor's responsibility as long as he followed the path of a similar doctor.¹³

Second: Scientific Medical Experiments:

Non-therapeutic experiments can be defined as technical and scientific activities performed by a physician on a patient's body for the purpose of gaining new knowledge regarding disease prevention, preventative treatment, or cure.



From this definition, it becomes clear that what distinguishes the two types of medical experiments is the goal or purpose the physician seeks to achieve through each one. A therapeutic experiment aims to find the best possible treatment methods for the benefit of the patient, with the possibility of extending this benefit to other patients who suffer from the same disease, currently or in the future. As for a purely scientific or non-therapeutic experiment, its goal is to gain new knowledge regarding diagnosis or treatment, such as when the physician tests the effect of a new medical product or previously untested treatment methods.¹⁴

Section Two: The Extent of the Legitimacy of Conducting a Medical Experiment

First: The Legitimacy of a Therapeutic Medical Experiment

Comparative legislation regarding medical and scientific experiments on humans is almost unanimously agreed upon as being permissible if they are conducted within the framework of a therapeutic attempt. This means that the individual has a direct interest in conducting the experiment, the likelihood of success is sufficiently documented by scientific experiments, and the risk resulting from the experiment is less harmful to the individual than the expected benefit to science.¹⁵

However, the physician's intent to treat is not sufficient in and of itself. Necessary precautions must be taken to avoid harming the patient. The use of modern devices that have led to fatal accidents are considered medical errors despite the presence of a therapeutic intent. Evidence of a physician's deviation from sound intent is that conventional therapeutic methods are sufficient to cure the patient, given that the use of modern devices has uncertain results or involves numerous risks.¹⁶

Second: The Legitimacy of a Scientific Experiment:

While there is agreement on the legitimacy of therapeutic medical experiments, the situation differs with respect to non-therapeutic experiments, which are not intended to cure the disease but rather to achieve scientific progress in general. Jurisprudential and judicial trends, as well as national legislation, have differed regarding the permissibility of such experiments. Some permit them, while others prohibit them. The disagreement over the rejection of scientific experiments stems from the lack of therapeutic intent, which is a fundamental condition for the permissibility of interfering with the human body. Many experiments also lack necessity, as they jeopardize the physical safety of healthy individuals by testing new treatments or drugs. Furthermore, it is impermissible to interfere with an individual's physical safety except for legitimate necessity and for the benefit of the individual.¹⁷

As for the trend that calls for the legitimacy of conducting scientific experiments, their opinion is that this type of experimentation on a person does not aim to achieve a direct benefit for him, but rather for the benefit of others, such as if its goal is to discover a new treatment. The basis for this, from their point of view, is the legitimacy of the reason for the agreement that results in subjecting the human body to some experiments, which is that it aims to achieve a higher interest for others that is recognized by the law and does not conflict with the requirements of public order and morals. Likewise, conducting this type of experimentation achieves human benefit, as it contributes to the treatment of many diseases that afflict many members of society and for which there is no cure.¹⁸

Third: The Algerian legislator's position on medical experimentation.

The Algerian legislator stipulated and approved medical experimentation in Article 377 of the new Health Law of 2018, which called it "research in the field of biological medicine," stating: "Research in the field of biological medicine consists of conducting studies on human subjects for the purpose of developing epidemiological, diagnostic, biological, and therapeutic knowledge and improving medical practices. These studies are referred to in this law as "regular studies".¹⁹

Clinical studies can be observational or interventional and relate specifically to the following:

- Therapeutic, diagnostic, and preventive studies.
- Bioequivalence and bioavailability studies.
- Epidemiological and pharmacoepidemiological studies.²⁰

Article 378 of the same law states the following: "Clinical studies must necessarily take into account the ethical, scientific, moral, and ethical principles governing medical practice".²¹



Article 18 of the Code of Medical Ethics states: "The use of a new treatment for a patient may only be considered after conducting appropriate biological studies under strict supervision, or when it is confirmed that such treatment directly benefits the patient".

Referring to the texts of the aforementioned articles, we find that the Algerian legislature has explicitly permitted medical experiments, whether the intent is to treat the patient to cure him or alleviate his pain, or the intent is merely to observe the results and effects without any direct benefit to the person being experimented upon, provided that all conditions related to protecting the physical and mental safety of the subjects of the medical experiment, as well as other conditions of a scientific nature, are observed.

Therefore, it can be said that the Algerian legislature has followed the trend followed by many countries around the world regarding the legitimacy of therapeutic and scientific medical experiments.

Second Section: Controls Established for Conducting a Medical Experiment

Medical experiments, whether therapeutic or scientific, require a set of conditions that must be met to avoid legal action. These controls are divided into medical controls related to formal requirements and others related to the individual subject to the experiment. The second category relates to legal controls. Failure to meet these controls when conducting any experiment, whether therapeutic or scientific, will result in liability, a matter that will be addressed in this section.

First Requirement: Medical Controls

Since medical experiments are primarily the domain of medical professionals and are carried out in medical institutions, most of these guarantees relate to the conditions that must be met by the experimenting physician, the individual subject to the experiment, the institution where the experiment is conducted, and the scientific methods adopted in scientific research involving humans.

First Section: Formal Requirements

First: The practicing physician must have a license to practice the profession.

Medical or surgical intervention on a human body is not permitted unless the person performing it is legally licensed. Otherwise, he will be held responsible according to general rules, in addition to being punished for practicing the profession of medicine and surgery in a manner that violates the provisions of the law. This is because the law permits a doctor's actions because he has obtained a scientific license in accordance with the rules and conditions regulated by laws and regulations. This license is the basis for the licensing that the laws specific to the profession require before actually practicing it. The person practicing medicine must be someone who has the right to practice it, in accordance with the conditions and procedures stipulated in the laws regulating the medical profession. This is a necessary logical consequence of saying that the basis for permitting a doctor's work is a legal license or the exercise of a personal right established by law. Medical experiments, like other medical activities, can only be performed by experienced and specialized individuals in the field of scientific research.²²

They must be conducted under the supervision of a specialized physician. The person conducting the experiment must have experience in medical sciences and be familiar with the diseases and appropriate medications. These conditions can only be met if the person conducting the experiment has a license to practice medicine, as this is the foundation of a physician's work. A person who does not have the right to practice medicine is considered to be human right to bodily integrity.²³

Algerian law stipulates the following conditions for obtaining a license to practice medicine:²⁴

- Algerian nationality.
- Possession of the required Algerian diploma or its equivalent.
- Enjoyment of civil rights.
- Not having been subjected to any criminal conviction incompatible with the practice of the profession.
- Possession of physical and mental capabilities that are not incompatible with the practice of the health profession.
- Health professionals must register themselves in the register of those appointed by their respective profession's deanship.



Second: Authorization to conduct scientific and therapeutic experiments.

Article 381 of the Algerian Health Code states: "Clinical studies are subject to authorization by the Minister of Health, who shall decide within three months on the basis of a medical and technical file and a declaration regarding the conduct of clinical studies on human subjects, submitted by the promoter".²⁵

Note that previously, this procedure was subject to the approval of the National Council for Health Sciences Ethics. The legislature has restored this authority to the Minister of Health, who studies medicine and decides within three months whether to accept or reject the study.

The legislature also indicated that if there is a change to the research protocol after obtaining authorization, the promoter must notify the minister of this amendment to obtain his approval again. This may include changing the subject of the experiment, changing the subject or objective of the experiment, extending the duration, or other circumstances.²⁶

Third: Conducting medical experiments in appropriately equipped and qualified facilities.

This is confirmed by Islamic jurisprudence, as medical experiments require extensive resources and equipment, which entails significant expenditures. Therefore, hospitals are the natural venue for conducting such delicate and dangerous operations, as they are public institutions and can bear criminal and civil liability in the event of violations of regulations.²⁷

This is confirmed by the Algerian legislator in the new Health Law, as stated in Article 379: "Clinical studies must be conducted in accordance with the rules of good practice in this field in the various structures authorized for this purpose, according to the procedures specified by the Minister of Health".²⁸

Section Two: Conditions Related to the Person Subject to Experimentation.

Given the necessity of continuing these experiments, which are intended to gain new knowledge regarding disease prevention, preventative treatment, or cure, and the need to preserve and protect the safety of the person undergoing them, the legislator has therefore provided a set of safeguards for the latter in Health Law No. 18/11, such as obtaining the informed written consent of the subject or their legal representatives, and informing them of the risks, consequences, and potential alternatives arising from the experiment, its duration, and its purpose. Furthermore, medical experiments must be beneficial to the person concerned, and they must have the right to withdraw or withdraw from them.²⁹ This will be discussed in the following study:

First: Obtaining explicit, written consent from either the subject of the experiment or their legal representatives.

The legislator emphasized this condition through the text of Article 386, paragraph 1, of the aforementioned new Health Law No. 18/11, which states the following: "Clinical studies cannot be conducted unless the persons willing to undergo the clinical study, or if this is not possible, their legal representatives, express their free, explicit, and informed consent in writing,..."³⁰

Therefore, the physician must obtain the patient's consent in the case of treatment or in the case of performing operations. In the event of failure to do so, the physician is at fault and bears the responsibility for the risks arising from the treatment, even if he did not commit the slightest error in conducting it. Although the condition of consent is one of the basic conditions that must be met to affect the physical safety of the person in normal medical interventions, this condition is of particular importance in the field of medical experiments, for the same reasons, due to the seriousness of This type of medical intervention on the human body is a matter of concern for all international agreements and specific legislation regulating this field.³¹

Anyone who granted consent may also withdraw it, as stipulated in Article 387 of the Health Code.

Second: A good understanding of the risks, alternatives, and results of scientific experimentation.

The research physician or the physician who represents him must inform the persons willing to undergo the clinical study, or if this is not possible, their legal representatives, about the purpose of the research, its methodology, duration, benefits expected from it, expected risks and possible medical alternatives. This is what is stipulated in Article 386, paragraph two of the new Health Law No. 18/11, which states the



following: “Clinical studies cannot be conducted unless, and after they have been informed by the research physician and the physician who represents him, especially about:

-The purpose of the research, its methodology, and duration, the expected benefits, the anticipated difficulties and risks, and the potential medical alternatives.

-Their right to refuse to participate in a research study or to withdraw their consent at any time without incurring liability and without prejudice to their medical care.³²

Third: The medical experiment must be beneficial to the individual subject to it.

One of the new requirements introduced by Algerian law is that medical experiments must achieve a ratio of benefit to the individual involved in the study, compared to the expected risk. This is stipulated in Article 380, Paragraph 3 of Health Law No. 18/11, which states: "Clinical studies may only be conducted on human subjects if..... :

-The ratio of benefit to the expected risk is in the interest of the individual involved in the study.

With respect for the physical integrity of the subject of the experiment and their human dignity, the human body may not be touched except to achieve a therapeutic benefit or for scientific purposes, to protect the life and health of the subject, and to ensure safety, which is considered an obligation based on achieving a result and constitutes a form of objective responsibility.³³

Second Requirement: Legal Controls

The aforementioned guarantees are not sufficient to authorize medical experiments, as permitting experiments without medical supervision poses a significant risk to the safety of the individuals subjected to them, especially scientific experiments. On this basis, many systems have resorted to imposing strict oversight on the conduct of these experiments by appointing oversight bodies tasked with examining medical experiment projects, such that they only authorize experiments whose authors respect the scientific and legal controls in force in this field.

Section One: Oversight of Scientific Experiments

One of the established principles in the field of experimentation today is the necessity of subjecting human-induced medical experiments to the oversight of independent bodies to ensure that the experiment protocol complies with the legal and ethical rules governing this field.

First: Oversight by the competent authorities.

There must be strict oversight in this regard, as the field of experimentation is the human body. The importance of these bodies lies in ensuring that the experiment complies with the necessary legal rules, or does not. According to Algerian Health Law No. 18-11, the task of monitoring the conduct of medical experiments has been assigned to a new body called the Medical Ethics Committee for Clinical Studies, in accordance with Articles 382 and 383. This body is considered an independent oversight body and exercises prior and subsequent oversight over the process of conducting medical experiments, which is considered a basic guarantee for the protection of the body. Also, according to the new Algerian Health Law, it is required to consult this council regarding all medical, therapeutic, and scientific experiments in order for it to give its approval or rejection regarding its conduct.³⁴

Second: Prior legal authorization for conducting medical experiments

Article 381 of the Health Code stipulates that clinical studies are subject to authorization by the Minister of Health, who shall decide within three months, based on a medical and technical file and a declaration regarding the conduct of clinical studies on human subjects submitted by the promoter. Any amendment to the clinical study file, after obtaining authorization, is subject to the approval of the Minister of Health.

The legislator requires the submission of a medical and technical file, including the subject of the clinical study, its objective, methodology, and the expected benefits and risks, in order to obtain a license to conduct these clinical studies. The file must be submitted by the Minister in charge of the pharmaceutical



industries, who must decide within three months, and a declaration must be submitted regarding the completion of the clinical studies. The promoter must also declare to the Minister in charge of the pharmaceutical industries the individuals willing to undergo clinical studies without direct personal benefit, prior to their registration in the national registry designated for this purpose, in accordance with Article 394 of the Health Code.

Section Two: Liability arising from conducting a medical experiment.

Medical experiments go through several stages. When a researcher or group of researchers wants to conduct a specific study, they submit the study's structure and program to specialized committees that review the scientific and practical aspects of the experiment, its intended results, and the desired rules. They also review its ethical aspects and potential consequences, whether the experiment aims to find a new treatment or to discover a method. However, these experiments may still result in harm, in which case liability is established.

Some jurists generally believe that liability can be established in two cases:

-The first case: The doctor conducts an experiment on a person's body without their consent, and therefore has the right to demand compensation for any damages.

-The second case: There is a contract and written consent is obtained. In this case, the doctor is compensated for the expected damages, but not for other damages, unless the doctor's fraud or gross error is proven, in which case he is also required to compensate for the unforeseen damage. However, recently, the judiciary has abandoned the concept of gross error, as it may be described as minor, but it leads to serious harm to the injured party. Criminal, administrative, and disciplinary liability also arises for the person conducting the medical experiments.³⁵

First: Criminal liability for the person conducting the experiment.

The Algerian legislator has approved some penalties as a result of violating the guarantees for conducting medical experiments on humans. Given the importance of the consent of the person subject to the experiment and the legal protection it provides, and to avoid the exploitation of certain groups in medical experiments without their explicit consent, Article 439 of the new Health Code stipulates that: "A medical researcher who begins a clinical study without obtaining the consent of the person included in the research protocol shall be punished with imprisonment from two to five years and a fine of 100,000 to 500,000 DZD."³⁶

" The Algerian legislator also stipulated a penalty for violating the procedure related to obtaining a license from the Minister in charge of pharmaceutical industries, authorizing imprisonment from two to five years. 5 years and a fine of 5,000,000 to 10,000,000 DZD. This is stated in Article 438 of the new Health Law, which states the following: "Anyone who violates the provisions of Article 381 of this law, relating to clinical studies, shall be punished by imprisonment for a period of two to five years and a fine of 500,000 to 10,000,000 DZD".³⁷

Second: Administrative and disciplinary responsibility of the person conducting the experiment.

Disciplinary liability results from a breach of professional duties, whether ethical, related to medical law, or professional honor. Article 347, paragraph two, of Law No. 18/11 on the Health Code stipulates the following: "...without prejudice to civil and criminal prosecutions, violations of the duties specified in this law, as well as the rules of medical ethics, shall subject their perpetrators to disciplinary penalties".

Article 378 of the aforementioned Health Code also affirms that clinical studies must adhere to the ethical and scientific principles, ethics, and ethics governing medical practice.

A Medical Ethics Committee for Clinical Studies has been established within the external health services, in accordance with Article 382, paragraph one, of the aforementioned Health Code. The new Health Law No. 18/11 defined medical ethics in Chapter Seven, "Ethics, Literature, and Bio-Ethics of Medicine," through Article 339, which states the following: Medical ethics, as defined by this law, are the rules of good practice that health professionals are subject to in the exercise of their duties. These rules include the rules of




ethics, scientific ethics, and bioethics. Discipline is an absolute necessity to correct, reform, and refine the abnormal behavior of the person who conducts deviant medical experiments, and to prevent him from committing errors again. This is achieved through disciplinary sanctions imposed on him, which may be administrative sanctions for the legal person. The national and regional councils of medical ethics are responsible for disciplinary and punitive authority, and decide on violations of the rules of medical ethics, as well as violations of the provisions of this law within the limits of their jurisdiction. They also regulate the methods of organizing The work of the various national and regional councils of medical literature, as well as the rules of medical literature in the medical literature codes, are determined by regulation, according to what is stated in Article 347, paragraphs one and three of Law No. 18/11 containing the Health Code.³⁸


CONCLUSION:

Finally, and based on the above, it can be said that although medical experiments have significantly contributed to the discovery of solutions for diseases that were long incurable and widespread, this does not conceal the fact that conducting these medical experiments, whether therapeutic or scientific, may raise numerous legal problems of a modern nature related to protecting the sanctity of the human body from the risks resulting from the misuse of these experiments. Accordingly, in order to achieve a balance between the individual's interest in protecting their physical and moral being from various medical practices and the interest of society in the field of medical experimentation, the Algerian legislator has worked to remedy the existing delay in this area by introducing legal guarantees and controls that work to limit the risks that affect the physical safety of the subject of the experiment. This will help achieve a balance between ensuring legal protection for individuals and granting sufficient freedom to those conducting the experiments. However, although the Algerian legislature has reorganized the subject of medical and scientific experimentation in the new Health Law No. 11-18 of July 2, 2018, amended by Order No. 02-20 of July 2, 2020, in Section Four, entitled "Provisions Relating to Research in Biology," from Chapter Four of Part Nine, entitled "Ethics, Literature, and Bioethics," in order to better strengthen safeguards, the Algerian legislature must:

- Establish better safeguards for subjects of experimentation, especially special groups such as minors, fetuses, and pregnant women. The Algerian legislature must work to further restrict doctors and scientists to Sharia, legal, and ethical controls.
- Continuously monitor doctors and oblige them to keep pace with modern scientific developments and develop advanced methods and means, as well as avoid relying on outdated treatments and outdated technical methods.
- The Algerian legislator should separate therapeutic experiments from scientific experiments, and regulate each type separately. While the objectives of therapeutic experiments do not pose any legal or religious issues, the situation is different for scientific experiments, which increases their seriousness. Therefore, the legislator must regulate them and provide greater safeguards to ensure full precautions and avoid the negative consequences and risks that may result from them.
- Work to incorporate all legal texts related to medical experiments into a single codification. This will help doctors, researchers, and even individuals subject to these experiments to understand the legal framework for their work, which will strengthen guarantees, controls, and rights.
- Include crimes committed within the framework of medical experiments within the specialized criminal judiciary, which will increase the effectiveness of reviewing and adjudicating this type of medical dispute.

- 1) Jamal al-Din Muhammad ibn Makram (Ibn Manzur), *Lisan al-Arab*, 3rd ed., Dar al-Mufakir, Lebanon, 1994, vol. 5, pp. 261-262.
- 2) Abdul Aziz Abdul Muati Alwan: Constitutional and Legal Controls for Conducting Medical and Clinical Research, *Ruh al-Qawanin Journal*, Issue 96, 2021, pp. 297-298.
- 3) Muhammad Hamid Hussein: The Legal System for Medical Experiments on Humans, *Journal of Legal and Political Sciences*, Issue 1, 2022, p. 457.
- 4) *Ibid.*, p. 457.
- 5) Abdul Aziz Abdul Muati Alwan: The Previous Reference, p. 295.

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- 6) Munther al-Fadl: Medical Experiments on the Human Body and the Extent of Protection Guaranteed by Civil Law, Penal Laws, and Medical Laws, *Al-Kufa Journal*, Issue 7, Arab University of Amman, Jordan, pp. 13-14.
 - 7) Munther Al-Fadl: *Medical Responsibility*, 1st ed., Dar Al-Thaqafa Publishing and Distribution, Amman, Jordan, 2011, p. 24
 - 8) Munther Al-Fadl: *Criminal Responsibility*, op. cit., p. 26
 - 9) Paragraph 2 of Article 12 of the First Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field, dated August 12, 1494, states: "The Parties to the conflict in whose power they may be shall treat them humanely and care for them, without any adverse distinction founded on sex, race, nationality, religion, political opinions, or any other similar criteria. Any attack on their lives, or violence to their lives, is strictly prohibited. In particular, they shall not be murdered or exterminated, subjected to torture or to biological experiments; they shall not wilfully be left without medical assistance and care, nor shall conditions exposing them to contagion or infection be created".
 - 10) Muhammad Al-Tahir Jarmoun: *The Declaration of Helsinki: Between the Establishment of Medical Experiments and Respect for Human Rights*, *Journal of Legal and Political Sciences*, Vol. 9, No. 3, 2018, p. 434.
 - 11) Sara Ayadi: *Legal Regulation of Medical and Scientific Experiments on Human Embryos and Vaccines*, *Journal of Legal and Political Sciences*, Issue 2, 2019, p. 858.
 - 12) Muammar Muhammad Al-Hajj and Suhad Tahsin Al-Dawla: *Conducting Medical Experiments on Humans and Animals*, *International Conference: Ethics of the Medical Professions from an Islamic and Legal Perspective*, An-Najah National University, Nablus, Palestine, 2021, p. 8.
 - 13) Ashwaq Zahdour: *Research in the Fields of Biomedicine under the Algerian Health Law of 2018*, *Annals of the University of Algiers 1*, Issue 1, 2022, p. 240.
 - 14) Khaled Bin Al-Nawi: *Controls on the Legality of Medical Experiments on the Human Body and Their Impact on Civil Liability*, a thesis submitted for a Master's degree in Legal Sciences, Setif University 2, 2013, p. 28.
 - 15) Majid Majd Lafi: *Criminal Liability Arising from Medical Error*, 2nd ed., Dar Al-Thaqafa for Publishing and Distribution, Amman, Jordan, 2012, p. 240. 162.
 - 16) Youssef Al-Boushi: *The Human Body and the Impact of Medical Developments on the Scope of Its Criminal Protection*, a dissertation for a PhD in Private Law, Ibn Khaldoun University, Tiaret, 2012/2013, p. 117.
 - 17) Ashwaq Zahdour: The previous reference, p. 242.
 - 18) Safwan Muhammad Al-Shadifat: *Criminal Liability for Medical Workers*, Dar Al-Thaqafa for Publishing and Distribution, Amman, Jordan, 2011, p. 277.
 - 19) The first paragraph of Article 377 of Law No. 18/11 of July 2, 2018, containing the Algerian Health Code, Official Gazette No. 46, issued on July 28, 2018. Amended by Order No. 20/02 of August 30, 2020, Official Gazette No. 50, issued on August 30, 2020.
 - 20) The second paragraph of Article 377 of Law No. 18/11, containing the Algerian Health Code.
 - 21) Article 378 of Law No. 18/11, containing the Algerian Health Code.
 - 22) Imad Eddine Barakat and Mohamed Reda Hammadi: *New legal controls for conducting medical experiments on the human body in light of the new Algerian Health Law No. 18/11*, *Journal of International Law and Development*, Issue 2, 2020, pp. 97-98.
 - 23) Imad Eddine Barakat and Mohamed Reda Hammadi: *Ibid.*, p. 98.
 - 24) The first paragraph of Article 166 of Law No. 18/11 containing the Algerian Health Code.
 - 25) The first paragraph of Article 381 of Law No. 18/11 containing the Algerian Health Code.
 - 26) The second paragraph of Article 381 of Law No. 18/11 containing the Algerian Health Code states: "Any amendment to the clinical study file, after obtaining a license, is subject to the approval of the Minister of Health".
 - 27) Imad Eddine Barakat and Mohamed Reda Hammadi: *Ibid.*, p. 102.
 - 28) Article 379 of Law No. 18/11 containing the Algerian Health Code.
 - 29) Souad Nassif: *Guarantees for conducting medical and scientific experiments on humans in accordance with Health Law No. 18/11*, *Journal of Research in Contracts and Business Law*, Issue 4, 2021, p. 31.

- 
- 30) The first paragraph of Article 386 of Law No. 18/11 containing the Algerian Health Code.
 - 31) Souad Nassif: *Ibid.*, p. 31.
 - 32) The second paragraph of Article 386 of Law No. 18/11 containing the Algerian Health Code.
 - 33) See: Paragraph 3 of Article 380 of Law No. 18/11 containing the Algerian Health Code / Souad Nassif: The previous reference, p. 32.
 - 34) Samir Haroun and Maysoum Bousarr: *Medical Experiments on the Human Body: Between Medical Necessity and the Right to Bodily Integrity under the Algerian Health Code 18/11*, *Journal of Legal Studies*, Issue 2, 2022, p. 1278.
 - 35) Souad Nassif: The previous reference, p. 39.
 - 36) Article 439 of Law No. 18/11 containing the Algerian Health Code.
 - 37) Article 438 of Law No. 18/11 containing the Algerian Health Code.
 - 38) See Articles: 339, 347, 378, and 382 of Law No. 18/11 containing the Algerian Health Code. / Souad Nassif: The previous reference, p. 42.

REFERENCES:

First: Legal Documents.

- [1] *Law No. 18/11 of July 2, 2018, containing the Algerian Health Code, Official Gazette No. 46, issued on July 28, 2018. Amended by Order No. 20/02 of August 30, 2020, Official Gazette No. 50, issued on August 30, 2020.*
- [2] *Executive Decree No. 92/276 of July 6, containing the Code of Medical Ethics, Official Gazette No. 52, issued in 1992.*

Second: Books.

- [3] *Jamal al-Din Muhammad ibn Makram (Ibn Manzur), Lisan al-Arab, 3rd ed., Dar al-Mufakir, Lebanon, 1994, vol. 5.*
- [4] *Al-Shadiqat Safwan Muhammad: Criminal Liability for Medical Workers, Dar Al-Thaqafa for Publishing and Distribution, Amman, Jordan, 2011.*
- [5] *Lafi Majid Majd: Criminal Liability Arising from Medical Error, 2nd ed., Dar Al-Thaqafa for Publishing and Distribution, Amman, Jordan, 2012.*
- [6] *Al-Fadl Munther: Medical Liability, 1st ed., Dar Al-Thaqafa for Publishing and Distribution, Amman, Jordan, 2011.*

Third: University Theses.

- [7] *Al-Boushi Youssef: The Human Body and the Impact of Medical Advances on the Scope of Its Criminal Protection, a dissertation for a PhD in Private Law, Ibn Khaldoun University, Tiaret, 2012/2013.*
- [8] *Khaled Bin Al-Nawi: Controls on the Legality of Medical Experiments on the Human Body and Their Impact on Civil Liability, a thesis submitted for a Master's degree in Legal Sciences, Setif 2 University, 2013.*

Fourth: Articles.

- [9] *Barakat Imad al-Din and Muhammad Reda Hammadi: New Legal Controls for Conducting Medical Experiments on Humans in Light of the New Algerian Health Law No. 18/11, Journal of International Law and Development, Issue 2, 2020.*
- [10] *Jarmon Muhammad al-Tahir: The Declaration of Helsinki: Between the Establishment of Medical Experiments and Respect for Human Rights, Journal of Legal and Political Sciences, Volume 9, Issue 3, 2018.*
- [11] *Hamid Hussein Muhammad: The Legal System for Medical Experiments on Humans, Journal of Legal and Political Sciences, Issue 1, 2022.*
- [12] *Nasif Saad: Guarantees for Conducting Medical and Scientific Experiments on Humans Under Health Law No. 18/11, Journal of Contract Research and Business Law, Issue 4, 2021.*



- [13] *Zahdour Ashwaq: Research in the Field of Biomedicine in Light of the Algerian Health Law of 2018, Annals of the University of Algiers 1, Issue 1, 2022.*
- [14] *Al-Fadl Mundhir: Medical Experiments on Humans and the Extent of Protection Guaranteed by civil law, penal and medical laws. Al-Kufa Magazine, Issue 7, Arab Open University, Jordan.*
- [15] *Haroun Samir and Boussar Mesoum: Medical Experiments on the Human Body: Between Medical Necessity and the Right to Bodily Integrity under Algerian Health Law 18/11, Journal of Legal Studies, Issue 2, 2022.*
- [16] *Adi Sara: Legal Regulation of Medical and Scientific Experiments on Human Embryos and Vaccines, Journal of Legal and Political Sciences, Issue 2.*

Fifth: Conferences.

- [17] *Muammar Muhammad Al-Hajj and Al-Dawla Suhad Tahseen: Conducting Medical Experiments on Humans and Animals, International Conference: Ethics of the Medical Professions from an Islamic and Legal Perspective, An-Najah National University, Nablus, Palestine, 2021.*