

Legal Liability for Medical Errors in Artificial Insemination: A Legal Study in Light of Algerian Legislation

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Abstract:

In vitro fertilization (IVF) represents one of the most significant advancements in modern medicine, providing essential support to couples facing fertility challenges. However, despite its benefits, this technique entails substantial legal and medical risks, particularly in cases of medical errors during its execution. Such errors may result in severe physical or psychological harm to the mother or fetus. In this context, a crucial question arises regarding the extent of medical liability for these errors and whether the compensation mechanisms under Algerian legislation are adequate to safeguard patients' rights and ensure justice.

The significance of this topic lies in its examination of a complex legal issue related to medical liability in one of the most sensitive fields of medicine—IVF. Furthermore, it highlights the adequacy of Algerian legislation in providing legal protection for affected individuals and ensuring fair compensation, especially in light of medical advancements and comparative legislative developments that increasingly advocate for stricter liability measures to protect patients.

keywords: Medical liability, in vitro fertilization (IVF), medical error, compensation, burden of proof, affected individuals.

Introduction:

Artificial insemination is one of the most significant modern medical advancements, offering a transformative solution for couples struggling with infertility. This technique has provided many with the opportunity to fulfill their dream of parenthood through advanced medical interventions. However, despite the hope it offers, artificial insemination remains fraught with medical risks that may lead to severe physical or psychological harm for both the mother and the

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fetus, particularly when medical errors occur at various stages of the process. These errors, which may result from negligence, lack of precision in medical procedures, or the misuse of modern technologies, raise critical legal issues concerning medical liability and compensation for resulting damages. This necessitates an examination of the legal basis for such liability and its scope under Algerian legislation.

Medical errors in artificial insemination procedures constitute one of the most serious forms of medical malpractice due to the highly sensitive nature of the medical interventions involved. These errors not only affect the mother's health but also extend to the rights and physical and psychological well-being of the fetus. Errors in diagnosis or therapeutic procedures may result in permanent infertility, congenital deformities, pregnancy failure, or severe psychological and emotional harm to the couple. Consequently, providing compensation for such damages is both a legal and ethical imperative to ensure justice and uphold the rights of those affected.

In this context, the issue of compensation for damages resulting from medical errors in Algerian hospitals raises a fundamental question: To what extent does Algerian legislation provide adequate legal protection for affected individuals and ensure they receive fair compensation commensurate with the harm suffered? While medical liability in Algeria is generally based on fault, the specific nature of artificial insemination necessitates a deeper analysis of whether stricter legal approaches should be adopted to safeguard patient rights, particularly in light of comparative legislative trends that lean towards establishing strict liability based on medical risks.

To what extent does Algerian legislation provide effective legal mechanisms for compensating victims of medical errors in the field of artificial insemination, and how sufficient are the existing legal frameworks in ensuring patient protection and medical justice?

To address this issue, the study will be divided into two main topics:

- **First Topic:** The conceptual framework of medical liability in the field of artificial insemination, covering the definition of artificial insemination, the concept of medical error, the legal basis of medical liability, and the conditions for establishing such liability.
- **Second Topic:** Compensation for damages resulting from medical errors in this field, examining the scope of compensable damages and the mechanisms for assessing compensation according to established legal and judicial standards.

This study aims to provide a legal and analytical perspective on medical liability in artificial insemination procedures under Algerian law.

THE FIRST TOPIC: The Conceptual Framework of Medical Liability in Artificial Insemination

The issue of medical liability in artificial insemination is a critical subject that intersects both medical ethics and legal principles. As artificial insemination has become a widely accepted method for addressing infertility, concerns regarding the legal responsibility of healthcare professionals have grown significantly. Errors occurring during the procedure can lead to serious physical and psychological harm to the mother and the fetus, raising important legal questions about fault, liability, and compensation. This section aims to establish a conceptual framework for understanding medical liability in artificial insemination by examining its legal foundations, and the mechanisms in place to ensure patient protection.

FIRST REQUIREMENT: The Concept of Artificial Insemination and Medical Error

This section explores the definition of artificial insemination, alongside the concept of medical error, to establish a foundation for analyzing liability and legal accountability in this field.

Firstly: The Concept of Artificial Insemination

Artificial insemination refers to various medical procedures in which an egg is fertilized by a sperm outside natural sexual intercourse.¹ It is defined as a complex medical process whereby the wife's egg is fertilized with her husband's sperm within an existing marital relationship—whether this fertilization occurs inside the wife's uterus or externally, with the fertilized egg later implanted into the uterus—to facilitate conception when natural methods have failed².

From these definitions, it is evident that artificial insemination serves as the final medical recourse for achieving pregnancy when all conventional methods have proven unsuccessful, provided that specific medical conditions are met.

Secondly: The Concept of Medical Error

1- Definition of Medical Error:

Medical error is defined as “the violation by a healthcare provider of the duties of caution and prudence imposed by law”. This definition derives from the broader concept of civil fault, which forms the foundation of medical liability. A physician can only be held liable if their action is deemed erroneous. Medical error, therefore, involves a failure to fulfill the obligations imposed by the medical profession. A

¹ Al-Senbati, Ata Abdel-Aati, **Sperm and Embryo Banks**, Dar Al-Nahda Al-Arabiya, Cairo, 2001, p. 59.

² Husni Ibrahim Ahmed, **The Legal Framework of Artificial Reproduction Between Positive Law and Islamic Sharia**, PhD Dissertation, Civil Law Department, Faculty of Law, Ain Shams University, Cairo, 2006, p. 119.

medical error refers to an act of commission or omission that has the potential to result in adverse consequences for the patient and would have been deemed incorrect by competent and knowledgeable peers at the time of its occurrence, regardless of whether any actual harm ensued.¹ While rooted in general civil fault, medical error manifests in multiple forms, including:

- Material error, which falls outside the scope of the profession or medical duty.
- Professional error, which is assessed based on the standard conduct of a reasonably competent practitioner within the same specialty, considering external circumstances.²

2- Types of Medical Errors:

- a- **Errors in Diagnosis:** Diagnosis is a critical phase in medical treatment aimed at accurately determining the nature of a disease to establish an appropriate treatment plan. A physician must exercise utmost diligence, carefully listening to the patient's complaints, gathering all necessary medical data, and conducting thorough examinations using available medical technologies. Failure in any of these aspects may lead to legal liability.

Diagnostic errors constitute a primary cause of patient harm. In 2005, Dr. Mark Graber, a pioneering figure in the field, along with his colleagues, defined diagnostic error based on the Australian Patient Safety Foundation's classification as "a diagnosis that is unintentionally delayed, incorrect, or missed, as judged by the eventual recognition of more definitive information." While this definition has endured, other scholars have proposed conceptually similar yet competing definitions of diagnostic error.³

Common diagnostic errors include:

- Gross ignorance of fundamental medical principles.
- Negligence in assessing symptoms, medical history, and genetic factors.
- Disregard for modern diagnostic techniques relevant to the physician's specialty.

¹ Oludamilola Adebola Adejumo, Oluseyi Ademola Adejumo, "Legal perspectives on liability for medical negligence and malpractices in Nigeria", *Pan medical Journal*, Volume 35, No 44, 17 Feb 2020, The National Center for Biotechnology Information, P 02.

² Lalo Rabah, "The Physician's Liability for Medical Error", *Journal of Legal and Social Sciences*, Vol. 7, No. 4, December 2022, Ziane Achour University of Djelfa, Algeria, p. 909.

³ D. Giardina, Haslyn Hunte, and others, "Defining Diagnostic Error: A Scoping Review to Assess the Impact of the National Academies' Report Improving Diagnosis in Health Care", *Patient Safety*, volume 8, No 18, Dec 2022, P 01.

- Reliance on outdated or scientifically unrecognized methods.
- Failure to seek consultation from more specialized colleagues when necessary.
- b- Errors in Treatment:** These errors relate to the physician's choice of therapeutic approach. Although physicians have the discretion to select a treatment method, this freedom is not absolute and must adhere to certain principles, including:
 - Following scientifically sound medical practices while allowing room for professional judgment.
 - Avoiding unnecessary risks that outweigh potential benefits.
 - Exercising caution and balancing the risks of treatment against the severity of the condition.

Adhering to these principles ensures a balance between medical practice and patient rights, thereby minimizing medical errors and reinforcing professional accountability.

SECOND REQUIREMENT: The Legal Basis of Medical Liability in the Field of Artificial Insemination

Artificial insemination is one of the modern medical advancements aimed at assisting couples in achieving conception through medically supported techniques. This field raises numerous legal issues, particularly concerning medical liability arising from potential errors in artificial insemination procedures. Such liability is founded on a set of legal principles, which can be categorized as follows:

Firstly: The Legislative Basis of Medical Liability in Artificial Insemination

Medical liability in the context of artificial insemination is based on the legislative framework governing medical practice in general and reproductive medicine in particular. National legislation includes provisions concerning patients' rights, medical practice regulations, and penalties for negligence or medical malpractice. In the Algerian legal system, the determination of medical liability relies on:

- **Civil Law:** Establishing the principles of contractual and tortious liability for physicians and hospitals.
- **Health-Specific Legislation:** Regulating medical practice mechanisms and the conditions for artificial insemination, such as Health Law No. 18-11.¹
- **Professional Medical Regulations:** Imposing strict obligations on physicians to ensure the safety of medical procedures, such as the Code of Medical Ethics, established by Executive Decree No. 92-276 of July 6, 1992.²

¹ Law No. 18-11 of July 2, 2018, **concerning health**, Official Gazette No. 46, dated July 29, 2018.

² Executive Decree No. 92-276 of July 6, 1992, **establishing the Code of Medical Ethics**, Official Gazette No. 52, dated July 8, 1992.

Secondly: The Nature of Medical Liability in Artificial Insemination Procedures

The legal liability of physicians and medical centers performing artificial insemination is generally classified into two main types:

- 1. Contractual Liability of Physicians and Hospitals for Failure or Error in the Procedure:** This arises from an agreement between the patient (the couple) and the physician or medical institution, whereby the physician is obligated to exercise due diligence to ensure the success of the procedure without gross errors. Breach of these obligations results in compensation for the harm suffered due to medical malpractice or negligence.
- 2. Tort Liability for Unforeseen Damages or Medical Errors:** This applies when a physician causes harm due to gross negligence or a violation of widely accepted scientific standards in the medical field. It covers errors not arising from a contractual relationship, such as performing artificial insemination without obtaining proper informed consent or using unapproved techniques.

THIRD REQUIREMENT: Conditions for Establishing Medical Liability in Artificial Insemination

For medical liability to be established in this field, three fundamental elements must be met:

Firstly: Medical Error

This consists of negligence or a breach of scientific standards during the artificial insemination procedure, such as failing to assess the mother's health condition, using sperm samples that do not meet medical criteria, or mishandling samples leading to mix-ups.

Secondly: Medical Damage

This refers to a harmful outcome resulting from a medical act that adversely affects the patient's condition or emotions. The damage may be:

- 1. Material:** Such as permanent infertility or congenital abnormalities in the fetus.
- 2. Moral:** Such as psychological distress resulting from an unjustified failure of the procedure.
- 3.** The damage must be actual, personal, and must affect a vested right or a legitimate interest of the injured party.¹

Thirdly: Causal Link Between the Medical Error and the Damage

¹ Labina Ouein, Ahmed Hussein, "The Judge's Authority in Assessing Compensation for Medical Damage", *Tabna Journal of Scientific and Academic Studies*, Vol. 07, No. 01, 2024, University Center of Barika, p. 357.

It must be demonstrated that the medical error was the direct cause of the harm suffered by the patient.¹

THE SECOND TOPIC: Compensation for Damages Resulting from Medical Errors in Artificial Insemination Procedures

Compensation for damages resulting from medical errors in artificial insemination is of paramount legal importance due to the field's sensitive nature and its physical and psychological implications for patients. Determining the scope of compensable damages and the mechanisms for assessing compensation necessitates a thorough examination of the relevant legal and medical considerations. In general, compensation serves as a remedy for breaches of contractual or tortious liability, aiming to redress the harm suffered and restore balance to the affected parties.

FIRST REQUIREMENT: Scope of Compensable Damages in the Field of Artificial Insemination

Firstly: Physical Damages Resulting from Medical Error

Physical damages constitute one of the most significant forms of harm warranting compensation in cases of medical error during artificial insemination procedures. These include:

1. **Health complications** arising from negligence or the improper use of medical technologies, such as severe infections or internal bleeding.
2. **Damages resulting from the transmission of genetic diseases** due to the failure to conduct proper preliminary screenings of sperm or egg donors.
3. **Fetal deformities** caused by errors in embryo selection or mistakes during fertilization and embryo transfer stages.
4. **Loss of reproductive capacity** due to negligence in medical procedures or the improper administration of hormonal treatments.²

Secondly: Moral Damages Arising from Procedure Failure or Gross Errors

Medical liability in the field of artificial insemination extends to the psychological and moral harm suffered by patients, including:

1. **Psychological distress** resulting from the failure of the procedure due to medical negligence or malpractice.
2. **Emotional and social harm** inflicted on couples as a result of their unfulfilled aspiration to conceive.
3. **Psychological trauma** caused by severe errors, such as embryo mix-ups or the use of non-matching samples for the intended couple.
4. **Moral harm** stemming from the loss of trust in medical institutions, which may impact patients' future decisions regarding alternative treatment options.

¹ Nenad Stefanovic, "Medical error: Civil liability for the damage", *Pravo - teorija i praksa*, No 4, January 2021, P 19.

² Nenad Stefanovic, *Ibid*, P 18, 19.

SECOND REQUIREMENT: Mechanisms for Assessing Compensation for Damages Resulting from Medical Errors

Firstly: Criteria for Assessing Compensation in Medical Errors

The determination of compensation in cases of medical errors is based on a set of judicial criteria that take into account the following considerations:

1. The gravity of the medical error and the extent of negligence on the part of the physician or healthcare institution in adhering to professional standards.
2. The impact of the damage on the patient's life, whether physically, psychologically, or socially.
3. The financial consequences of the damage, including medical expenses and losses resulting from disability or inability to work.
4. Judicial precedents that establish compensation standards in similar cases.

By referring to Articles 132, 182, and 183 of the Civil Code¹, the following criteria can be derived:

1. **The Criterion of Circumstantial Factors:** This refers to all circumstances surrounding the injured party before, during, and after the occurrence of the medical error. It includes the individual's social status, health condition, and family circumstances.

These are subjective rather than objective considerations, as the judge, when assessing the amount of compensation, adopts a personalized perspective of the victim of the medical error. Consequently, the severity of the damage incurred must be considered, with particular attention given to the direct harm caused.²

2. **The Criterion of Damage Variability:** Damage is directly influenced by the passage of time, both in terms of when it occurred and the date of the judicial ruling. This variability may lead to improvements in the injured patient's health condition or, conversely, an aggravation of the harm suffered. Algerian legislators stipulate that compensation should be assessed as of the date of the judgment. However, if the damage changes over time and the judge is unable to determine a fixed amount, the injured party has the right to claim compensation within a specified period, allowing the judge to reassess the compensation accordingly.
3. **The Criterion of Direct Damage:** The damage must be direct, meaning that it must result immediately from the act without any intermediary between the medical error and the harm suffered. Whether the error arises from intentional

¹ Ordinance No. 75-58 of September 26, 1975, **concerning the Civil Code**, Official Gazette No. 78 of September 30, 1975, as amended and supplemented.

² Mansour Nasreddine, "Assessment of Compensation for Damages Resulting from Medical Errors in Light of Algerian Legislation", *Algerian Journal of Law and Political Science*, Vol. 09, No. 02, 2024, University Center Ahmed Ibn Yahya Al-Wancherisi Tissemsilt, Algeria p. 364-365.

conduct, negligence, or causation, the presence of a direct causal link is essential to entitle the injured party to compensation.¹

Secondly: The Role of Medical Expertise in Assessing the Severity of Damage and Determining Appropriate Compensation

Medical expertise is a fundamental element in cases of medical malpractice, as courts rely on it to assess the severity of harm sustained by the patient and to determine the adequacy of the compensation awarded. Given the highly technical and specialized nature of the medical field, resorting to medical expertise constitutes the most objective means of ensuring a fair and just evaluation of damages resulting from medical errors in artificial insemination procedures².

1. The Importance of Medical Expertise in Assessing the Severity of Damage

Courts depend on medical expertise to determine the extent of harm suffered by the patient through:

- a. Evaluating the impact of medical errors on the patient's reproductive health, such as cases of permanent infertility or damage to the reproductive system due to errors in insemination or embryo transfer.
- b. Differentiating between natural medical complications and those resulting from negligence or malpractice, where the expert determines whether the damage is an inherent risk of artificial insemination or a consequence of a grave procedural error.
- c. Estimating the psychological and emotional harm inflicted on the couple, especially in cases where medical errors lead to irreversible psychological trauma or permanent deprivation of the ability to conceive.
- d. Examining the impact of the error on the fetus in cases where the procedure is successful, such as congenital deformities caused by the use of imprecise techniques or negligence in genetic screenings.³

2. The Role of Expertise in Establishing Causal Link Between Error and Damage

Proving the occurrence of damage alone is insufficient to claim compensation; there must be a direct causal link between the medical error and the resulting harm.⁴ Medical expertise plays a crucial role in establishing this link through:

¹ Ali Assem Ghossn, **Medical Error**, 1st edition, Zein Legal Publications, Beirut, 2006, p. 185.

² Moufida Chakchouk, "**The Role of Medical Expertise in Establishing Medical Error**", Journal of Legal and Political Sciences, Faculty of Law and Political Sciences, Mohamed Khider University of Biskra, Vol. 10, No. 02, September 2019, p. 766.

³ Fatiha Obeid, "**The Role of Expertise in Medical Civil Liability Lawsuits**", Journal of Research in Law and Political Science, Vol. 04, No. 01, December 2018, Faculty of Law and Political Sciences of Ibn Khaldoun University -Tiaret, Algeria, P 188.

⁴ Thaer Juma Shihab Al-Ani, **Criminal Liability of Physicians**, Al-Halabi Legal Publications, Beirut, Lebanon, First Edition, 2013, p. 182.

- a. Analyzing the medical procedures followed and comparing them to recognized scientific standards in proper medical practice.
- b. Determining whether the damage resulted from the physician's error or external factors, such as the patient's physiological response to treatment or pre-existing medical conditions.
- c. Assessing whether the damage could have been avoided had the correct medical procedures been followed—an essential factor in determining the liability of the physician or medical institution.

3. The Role of Expertise in Determining Appropriate Financial Compensation

Once medical malpractice and its severity are established, the court must determine the appropriate amount of compensation. Medical expertise assists in this assessment based on the following criteria:

- a. Calculating the costs of medical treatment and future interventions necessary to rectify the damage or mitigate its effects, such as infertility treatments or corrective surgeries.¹
- b. Estimating the psychological and emotional damages suffered by the patient, relying on psychiatric and psychological expert reports to determine the extent of emotional and social impact.
- c. Assessing economic losses, such as the loss of earning capacity or financial burdens resulting from long-term medical care requirements.
- d. Evaluating potential future damages, including the need for alternative reproductive techniques or long-term health implications for the mother or child resulting from the medical error.²

4. The Binding Authority of Medical Expertise in Judicial Rulings

Although medical expertise is not legally binding on judges in all cases, it constitutes a compelling piece of evidence and a primary technical reference upon which courts heavily rely, particularly in cases requiring precise medical analysis. Judges may seek multiple medical experts or request supplementary reports in cases where conflicting medical opinions are presented by the parties involved.

Thirdly: Compensation for Future Damages in Cases of Infertility or Fetal Deformities

Compensation for future damages arising from medical malpractice in the field of artificial insemination is a complex legal issue, given that the impact of such

damages may extend over long periods or even be irreversible. This type of compensation encompasses not only the present harm but also potential future repercussions that may permanently affect the life of the patient or the fetus.

1. Compensation for Permanent Infertility as a Future Damage

In cases where medical errors result in permanent infertility, this harm is considered future-oriented since it affects the individual's ability to conceive for life. Accordingly, compensation should reflect:

- a. The psychological and social impact on the patient or couple due to the permanent loss of reproductive capability.
- b. The costs of alternative reproductive treatments, such as egg donation, surrogacy, or adoption.
- c. The loss of natural family life opportunities, which the affected individual is deprived of as a result of irreversible infertility.

In such cases, courts rely on medical expert reports to determine whether infertility resulted from medical negligence or gross malpractice, the extent to which it could have been prevented, and then establish a fair compensation that accurately reflects the psychological and financial impact of the future damage.

2. Compensation for Fetal Deformities as a Future Damage

In cases where congenital deformities result from medical errors during artificial insemination procedures, the harm extends to the fetus, necessitating compensation that includes:

- a. Future medical expenses for the care of a child born with congenital deformities, including surgical procedures, physical therapy sessions, and assistive medical equipment.
- b. Compensation for the psychological pain and suffering experienced by the parents due to the birth of a child with a compromised health condition.
- c. Compensation for the impact on the child's quality of life, particularly if the deformity affects their ability to live normally or necessitates continuous medical care.

3. Legal Foundations for Assessing Compensation for Future Damages

Compensation in these cases is determined based on a set of legal and medical criteria, including:

- a. The severity of the medical error and whether it could have been prevented had the correct procedures been followed.
- b. The extent of damage resulting from the error and its impact on the future life of the patient or fetus.
- c. Judicial precedents and standard compensatory assessments applied in similar cases.

- d. The estimation of future damages based on expert medical reports, which establish the duration of suffering and the need for prolonged medical interventions.

Conclusion:

The issue of medical liability for errors committed in artificial insemination procedures represents one of the most complex legal and medical challenges due to its intersection with ethical, legal, and medical considerations. While artificial insemination offers a glimmer of hope to couples facing infertility issues, potential medical errors may result in severe harm, necessitating a clear legal framework that defines responsibilities and ensures fair compensation for affected individuals. This study has demonstrated that, although Algerian legislation contains some relevant provisions, it requires further development to achieve a balance between protecting patients and ensuring the safe and responsible practice of reproductive medicine.

Results:

Through our analysis of the legal framework governing medical liability for artificial insemination errors in Algeria, several critical findings have emerged, including:

1. The Algerian legislative framework lacks precise regulation of artificial insemination procedures, relying predominantly on general rules of medical liability without specific provisions tailored to this evolving field.
2. The absence of a dedicated compensation system for damages resulting from medical errors in artificial insemination may hinder the full realization of justice for affected individuals.
3. Inadequate medical and professional oversight mechanisms for artificial insemination centers increase the likelihood of medical errors due to insufficient training or the improper use of modern technologies.
4. The role of medical expertise is crucial in assessing the severity of harm and determining appropriate compensation, as it serves as a key factor in distinguishing between compensable medical errors and routine medical failures.
5. Comparative legal systems increasingly reinforce medical liability in artificial insemination procedures by imposing stricter obligations on physicians and introducing more effective compensation mechanisms.

Recommendations:

Based on the findings of this study, we propose a set of recommendations aimed at improving the legal framework governing medical liability for artificial insemination errors in Algeria:

- ❖ Enacting a specialized law on artificial insemination that clearly defines the conditions and regulatory requirements for practice, the scope of medical liability, and explicit provisions on compensation.

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- ❖ Strengthening the role of regulatory bodies in overseeing artificial insemination centers to ensure compliance with internationally recognized medical and technical standards.
- ❖ Mandating continuous professional training for specialists in artificial insemination, ensuring they remain up to date with the latest advancements to minimize errors arising from insufficient expertise or negligence.
- ❖ Establishing a dedicated compensation fund for individuals affected by medical errors in artificial insemination, ensuring fair and expedited compensation without the need for lengthy and complex legal proceedings.
- ❖ Aligning Algerian legislation with international standards in medical liability and compensation for damages resulting from modern medical technologies.

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