

ARTIFICIAL INTELLIGENCE IN THE NIGERIAN HEALTHCARE SECTOR: A CRITICAL APPRAISAL OF OPERATIONAL LIMITATIONS AND PATIENT SAFETY

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Abstract

Artificial Intelligence (AI) integration in Nigeria's healthcare system has a great potential to improve diagnostic accuracy, increase patients' access, and streamline the operations. However, this tech trend shakes up the whole medico, legal set, up that is currently designed for human clinical decision, making only. This paper, therefore, takes a critical look at the inadequacy of the existing Nigerian legal and ethical frameworks to protect patients' constitutional and statutory rights to safety in AI, based healthcare. The paper, by way of doctrinal analysis of case law, statutory and literature review, shows that the regulatory environment in Nigeria is essentially deficient in handling distributed liability, algorithmic opacity, among others. Building on studies that report 79.5% of Nigerian pediatric surgeons are at a loss of the confidence in the existing legal frameworks and 96.6% are raising serious concerns about accountability for AI, induced adverse outcomes, the article, therefore, posits that a lack of proactive regulation is a systemic failure of the institutional responsibility. The paper recommends amendments to the Evidence Act 2011, the extension of NAFDAC oversight to Software as a Medical Device, among others.

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1.0 INTRODUCTION

Artificial intelligence is changing the way healthcare is delivered worldwide at an incredible pace. In the case of Nigeria, a country that can boast of fewer than four doctors per 10,000 people and has been struggling with a health sector chronically neglected through under funding, AI presents an especially attractive opportunity. The market is anticipated to grow from a paltry USD 10 million in 2022 to a substantial USD 130 million by 2030.¹ Some of the early interventions such as the LUTH AI based breast cancer detection and telemedicine platforms like Wellvis manifest real progress on the ground. Most of the Nigerian healthcare workers (66.7%) are of the opinion that AI can intensify human intelligence, while 77% believe that machine learning can increase operational efficiency.² However, Nigeria's integration of AI is in a legal vacuum, as the country has no pertinent legislative framework addressing AI in clinical settings. The existing medico-legal framework comprising tort law principles acquired through judicial precedents, professional regulation under the Medical and Dental Practitioners Act, health sector laws, and data protection laws- was designed for a clinical judgment paradigm of human clinical judgment only.³ Hence, it is incapable

¹Ugochukwu Godspower Ehirim, 'Artificial Intelligence and Healthcare Delivery in Nigeria: Legal and Ethical Dimensions of Patients' Rights to Safety' *Indonesian Journal of Sharia and Socio-Legal Studies* (2025)(1)(1) 47–71 <<https://doi.org/10.24260/ijssls.1.1.10>> accessed 5 March 2026

²Pradeep Kumar, Yogesh K. Dwivedi, & Ambuj Anand, 'Responsible Artificial Intelligence (AI) for value formation and market performance in health care: The mediating role of patient's cognitive engagement' *Information Systems Frontier* (2021) 1-24.

³David Babatunde Olawade, Aanuoluwapo Clement David-Olawade, Manisha Nitin Gore & Ojima Zacheaus Wada, 'Perceptions and Challenges of Artificial Intelligence Adoption in Nigerian Public Healthcare: Insights from Consultant Doctors across Five

conceptually and doctrinally to address the distributed, opaque, and dynamically adaptive nature of AI decision-making. This scarcity has a direct impact on the constitutional and statutory rights of patients to be safe. Although the 1999 Constitution does not explicitly provide for the right to health, Sections 33 (right to life) and 34 (right to dignity) impose both negative and positive state duties to protect citizens from harm that could be prevented.⁴

The National Health Act 2014, the Patients' Bill of Rights, and Nigeria's international human rights commitments all together place patient safety as a right that can be enforced in court. This article is raising the central concern of how this right can be guaranteed when the harm comes from an algorithmic system whose logic is a mystery to humans and whose agency cannot be traditionally attributed.⁵ The paper goes through five stages. The second part outlines the existing regulatory environment in Nigeria and identifies the assumption, and foundational gaps there. The third part considers through doctrinal analysis, liability frameworks and how traditional negligence principles would be overridden when the responsibility is shared among doctors, hospitals, and algorithm developers. The fourth part combines the findings on empirical evidence of stakeholder perceptions to regulatory uncertainty, which leads to loss of professional confidence and thus retards ethical integration of AI, it also looks at the Standard of Reasoned Justification both as a Nigerian legal

Tertiary Hospitals' *Clinical Epidemiology and Global Health* (2025)(36) 102200
<<https://doi.org/10.1016/j.cegh.2025.102200>> accessed 5 March 2026

⁴David Babatunde Olawade, Ojima Zacheaus Wada, Aanuoluwapo Clement David-Olawade *et al.*, 'Using Artificial Intelligence to Improve Public Health: A Narrative Review' *Frontiers in Public Health* (2023) (11) 1196397
<https://doi.org/10.3389/fpubh.2023.1196397> accessed 5 March 2026

⁵David Babatunde Olawade, Aanuoluwapo Clement David-Olawade, Ojima Zacheaus *et al.*, 'Artificial Intelligence in Healthcare Delivery: Prospects and Pitfalls' *Journal of Medicine, Surgery and Public Health* (2024)(3) 100108
<https://doi.org/10.1016/j.glmedi.2024.100108> accessed 5 March 2026

and African bioethics basis. The fifth part puts forward a set of refined proposals for legislative, institutional, and evidential reform. The paper closes by arguing that the decision Nigeria has to make is not whether to regulate AI use in healthcare but whether to become deliberate in that regulation or wait for the algorithmic harm as a trigger.

2.0 ARTIFICIAL INTELLIGENCE IN THE CLINICAL CONTEXT

Artificial Intelligence as referred to in this paper, means to computational systems that are capable of doing tasks which previously required human intellect pattern recognition, probabilistic reasoning, language processing, and predictive modeling when they are integrated into clinical decision, making workflows. It covers machine learning algorithms which enhance themselves through data exposure, natural language processing systems that interpret clinical documentation, computer vision applications that analyze medical imaging, and rule, based expert systems that produce diagnostic or therapeutic recommendations.⁶

A key differentiation, which is frequently overlooked in policy discussions, is between AI systems that aid human judgement and those that replace or restructure it. Currently, AI is still primarily used to assist in Nigerian medical practice; the pediatric surgeons interviewed by Olawade *et al* reported that AI applications were mostly limited to research and literature review (30.7%), only 5.7% of them using AI for preoperative imaging and 5.7% for surgical simulation.⁷ Nevertheless, the move towards increased autonomy is very clear, and it is influenced by clinical need, commercial interests, and the unavoidable nature of

⁶Dorcas Adeola Akinpelu & Simisola Oluwakemi Akintola, 'Navigating the Legal and Ethical Terrain of Artificial Intelligence in Enhancing Patient Safety in Nigeria' *Journal of Intellectual Property and Information Technology Law* (2023)(3)(1) 169–200

⁷David Babatunde Olawade, Ojima Wada, Adebayo Odetayo *et al.*, 'Enhancing Mental Health with Artificial Intelligence: Current Trends and Future Prospects' *Journal of Medicine, Surgery and Public Health* (2024)(3) 100099 <<https://doi.org/10.1016/j.glmedi.2024.100099>> accessed 5 March 2026

technology spreading. As these systems change from just providing recommendations to being fully autonomous diagnostic and therapeutic platforms, the legal consequences of their use become more serious.

3.0 THE NORMATIVE FOUNDATIONS OF PATIENT SAFETY RIGHTS

The right to safety in healthcare is a complex right that can be traced back through various legal sources. In terms of the Constitution, Section 33(1) of the 1999 Constitution grants the right to life, which the Nigerian judiciary has, over time, interpreted as not only a right but also a duty for the state to protect citizens' lives from any such threats, including medical situations. Section 34(1)(a) further protects the human dignity, and medical neglect or not up to the standard that results in unnecessary suffering has been considered a violation of this right.⁸ On the statutory level, the National Health Act 2014, although not explicitly mentioning, assumes a standard of safe care in its various provisions such as emergency treatment (s. 20), disclosure of information (s. 23), and consensual decision-making (s. 24). The Patients' Charter also unequivocally states the right to be provided with safe, timely and adequate medical care and the right to protection against medical negligence and substandard care.⁹

On the international level, even though the International Covenant on Economic, Social and Cultural Rights (ICESCR) has not been domestically adopted, the use of interpretative measures under General Comment No. 14 is a binding one, whereby safety is recognized as a non-negotiable part of quality health care. The combination of these legal instruments provides the grounds for the right to patient safety to be understood narrowly as the right to be free from medical harm caused by

⁸Constitution of the Federal Republic of Nigeria 1999 (as amended)

⁹Onur Asan, Alparslan Emrah Bayrak & Avishek Choudhury, 'Artificial Intelligence and Human Trust in Healthcare: Focus on Clinicians' *Journal of Medical Internet Research* (2020)(22)(6) 15154 <<https://doi.org/10.2196/15154>> accessed 5 March 2026

the state or with its tacit consent, and broadly as the right to have healthcare systems that are designed to minimize the risks that can be foreseen.¹⁰ This understanding of patient safety necessarily brings with it a commitment not only from the individual healthcare providers but also from the health facilities and the government to create and maintain environments that are conducive to patient safety.¹¹

4.0 EXISTING LEGAL INSTRUMENTS AND THEIR FOUNDATIONAL ASSUMPTIONS

Nigeria's healthcare regulatory environment is characterized by multiple instruments handled by overlapping institutions whose jurisdictional boundaries are not clearly defined. The Medical and Dental Practitioners Act (Cap M8, LFN 2004) is the law that puts the Medical and Dental Council of Nigeria (MDCN) in charge of regulating professional conduct, setting training standards, and adjudicating disciplinary matters. The Act's understanding of professional misconduct, which has been elaborated through decades of judicial decisions, assumes a human practitioner who makes clinical judgments and has control over their decisions. There is no suggestion in the Act that diagnostic or therapeutic suggestions could come from algorithmic systems that are a mystery even to the clinician who uses them.¹²

The National Health Act 2014 provides a health service delivery framework, sets up the Basic Health Care Provision Fund, and spells out patients' rights. It does not mention digital health technologies in general or AI in particular. The parts of the Act that deal with facility

¹⁰ See Committee on Economic, Social and Cultural Rights, General Comment No. 14, UN Doc E/C.12/2000/4 (2000), paras 8–12.

¹¹ The scope of the state's duty to establish such frameworks is examined in discussion section below

¹² Junaid Bajwa, Usman Munir, Aditya Nori & Bryan Williams, 'Artificial Intelligence in Healthcare: Transforming the Practice of Medicine' *Future Healthcare Journal* (2021)(8)(2) 188–194 <<https://doi.org/10.7861/fhj.2021-0095>> accessed 5 March 2026

accreditation, quality assurance, and professional accountability were written without any consideration of algorithmic medicine and they cannot, by any stretch of the imagination, be interpreted as adequate to its challenges.¹³ The Nigeria Data Protection Act 2023 is the most technologically advanced of Nigeria's relevant statutes. Section 39 of the Act gives data subjects the right "not to be subject to a decision based solely on automated processing of personal data which produces legal effects concerning the data subject or significantly affects the data subject," except the meeting of conditions such as human oversight provision and the right to challenge the decision. This provision, which is taken from Article 22 of the EU General Data Protection Regulation, is potentially significant. It provides that automated decision-making raises distinct normative concerns deserving of special safeguards.¹⁴

Meanwhile, the limitations of the Act are very significant too. Firstly, it restricts its scope to decisions that are made "solely" through automated processing; decisions where a human clinician is still nominally given supervisory authority however, minimal are not covered by the Act. Secondly, the Act neither specifies what constitutes adequate human oversight nor does it establish liability regimes for harm resulting from automated decisions. Thirdly, its remedies are limited to data protection principles; it has no provision for compensation for a physical injury resulting from, for example, algorithmic misdiagnosis. Therefore, the Act

¹³ David William Bates, David Levine, Ania Syrowatka, Masha Kuznetsova, Kelly Jean Thomas Craig, Angela Rui, Gretchen Purcell Jackson & Kyu Rhee, 'The Potential of Artificial Intelligence to Improve Patient Safety: A Scoping Review' *npj Digital Medicine* (2021)(4)(1) 1–8 <https://doi.org/10.1038/s41746-021-00423-6> accessed 5 March 2026

¹⁴ Arinze David Godwin Nwosu, Edmund Nnamdi Ossai, Uwakwe Chukwuma Mba, Ifeanyi Anikwe, Richard Ewah, Bernard Obande & Justin Uche Achor, 'Physician Burnout in Nigeria: A Multicentre, Cross-Sectional Study' *BMC Health Services Research* (2020)(20)(1) 863 <<https://doi.org/10.1186/s12913-020-05710-8>> accessed 5 March 2026

serves as a partial, sectoral intervention rather than a full-fledged governance framework.¹⁵

5.0 INSTITUTIONAL AND GOVERNANCE DEFICITS

In addition to apparent legal gaps, Nigeria is also facing a problem of lacking institutions that are capable of handling such deliberate systems. No institution has been given the responsibility by law to designate the approval of medical AI systems for clinical use, perform post-market surveillance, identify algorithmic adverse events, or issue and monitor the compliance of safety standards. NAFDAC's regulatory control over Software as a Medical Device is at the same time doubtful and uncertain. NITDA is responsible for data protection but it does not have specific healthcare competence. MDCN's power to discipline depends on the fact that clinicians, not the instruments used by them, are the subjects of its jurisdiction. The consumer protection powers of the FCCPC have not been exercised in the instance of faulty medical algorithms.¹⁶

The resulting fragmentation of responsibilities creates loopholes in the regulation of the entire process. AI systems can, therefore, be implemented in Nigerian hospitals without obtaining pre-market certification, or carrying out post-market safety monitoring, or with no obligations for reporting incidents. In case of harm, no specialized forum is available for investigation; the patients have to seek their remedies in general courts which use principles laid down for human negligence cases.

6.0 THE PROBLEM OF ANTICIPATORY GOVERNANCE

¹⁵Abubakar Bello Umar, Sani Shehu Sani, Lawal Jibril Aliyu *et al.*, 'Enhancing Primary Healthcare Delivery in Nigeria through the Adoption of Advanced Technologies' *Narrax* e (2024)(2)(3) 180 <<https://doi.org/10.52225/narrax.v2i3.180>> accessed 5 March 2026

¹⁶Kofi Arhin, Anthony Osei Frimpong & Kofi Acheampong, 'Effect of Primary Health Care Expenditure on Universal Health Coverage: Evidence from Sub-Saharan Africa' *Clinico Economics and Outcomes Research* (2022) 643–652

A number of scholars have consistently pointed out the necessity for regulations to be proactive rather than reactive. Abdulkarim *et al.* call for deliberate establishment of adequate legal, regulatory, and national digital policy frameworks. They cautions that legislative inertia, though understandable due to the multitude of priorities, is continually becoming an unacceptable situation as AI systems gradually enter clinical practices.¹⁷ Anticipatory governance is thus justified on the following grounds:

- (i) reactive regulatory models lean towards punishments rather than offering solutions;
- (ii) given that AI is technically complex, it requires experts with very specific knowledge which, unfortunately, cannot be quickly found after the occurrence of damages; and
- (iii) legal uncertainty itself leads to damages healthcare providers who are doubtful about their liability may therefore refuse the use of AI tools that are beneficial, developers who are unclear about compliance may release systems that have not been properly validated, while patients who have been harmed will face a practically impossible task in gathering sufficient proof.¹⁸

Nigeria regulating AI in healthcare is not the question here, but rather what the nature of such regulation should be and how quickly it can be implemented.

7.0 THE ARCHITECTURE OF MEDICAL NEGLIGENCE IN NIGERIAN LAW

¹⁷Jibril Hassan Abdulkarim, Aisha Abdullahi Musa, Yusuf Musa Abdullahi & Usman Hassan Yamman, 'Artificial Intelligence May Help in the Containment of Cholera in Nigeria' *OIRT Journal of Information Technology* (2022)(2)(2) 23–27 <<https://doi.org/10.53944/ojit-2209>> accessed 5 March 2026

¹⁸ Rami Abdullah & Baha Fakieh, 'Health Care Employees' Perceptions of the Use of Artificial Intelligence Applications: Survey Study' *Journal of Medical Internet Research* (2020)(22)(5) 17620 <<https://doi.org/10.2196/17620>> accessed 5 March 2026

Under Nigerian medical negligence law, as derived from judicial decisions, claimants must prove duty, breach, and resulting damage. The breach is judged based on the standard of a reasonably competent practitioner in the relevant specialty the Bolam test, confirmed in *Okonkwo v Medical and Dental Practitioners Disciplinary Tribunal* [2006] 7 NWLR (Pt 980) 484. Significantly, the Supreme Court in *Okonkwo* introduced a limitation: professional judgment, to be legally protected, must be exercised "competently, conscientiously, and guided by reason". This wording, according to Aerts and Bogdan Martin, offers doctrinal support for the adjustment of negligence principles to AI mediated care.¹⁹ It lays down that just professional practice compliance is not enough if that practice is unreasonable; it requires clinical decisions to be justified; and it allows for the standard of care to change with the progress of knowledge and technology.

The Court of Appeals ruling in *Ogunyinka v Lagos University Teaching Hospital* (2018) dissected the concept of institutional responsibility even more, stating that LUTH was directly liable for the failures of the system surgical intervention delays, lack of adequate post operative care, medication errors. This is the court's acknowledgment that the safety of patients relies on the organizational systems, not just the individual abilities.²⁰

¹⁹Anriette Aerts & Doreen Bogdan-Martin, 'Leveraging Data and Artificial Intelligence to Deliver on the Promise of Digital Health' *International Journal of Medical Informatics* (2021)(150) 104456 <<https://doi.org/10.1016/j.ijmedinf.2021.104456>> accessed 5 March 2026

²⁰ Nitin Mohan Aggarwal, Shantanu Ahmed, Jay Jay Basu, Benjamin J Curtin, Matthew E Evans, Sachin Matheny, Michael P Nundy, Charles Sendak, Ranit U Shachar & Shantanu Thadane-Israni, 'Advancing Artificial Intelligence in Health Settings Outside the Hospital and Clinic' *NAM Perspectives* (2020) <<https://doi.org/10.31478/202011f>> accessed 5 March 2026

8.0 WHY TRADITIONAL DOCTRINE FRACTURES UNDER AI INTEGRATION

Nevertheless, with the help of these doctrinal resources, traditional negligence principles still face a fundamental challenge when applied to AI-mediated harm. Firstly, there is the issue of distributed responsibility. In conventional negligence, the causal pathways tend to be relatively straightforward. AI mediated care breaks down the linearity of such causation. The doctor, whose decision is based on a recommendation of the algorithm, may not be equipped with the relevant technical knowledge for an evaluation of the advice. It is possible that the hospital which acquired and installed the system might have not done a thorough enough job for its due diligence. The developer of the algorithm may have chosen non-representative data for training the algorithm or may have failed to sufficiently communicate the limitations of the algorithm. Nigerian law does not have any specific provision on how to share the responsibility between these different actors. As Elgужja points out, the danger is that "every one may shift the blame to the other and the patient may end up in a legal limbo."

Secondly, algorithmic opacity. A lot of existing AI systems, especially deep learning models, operate as "black boxes": their inner decision-making processes are not straightforwardly understandable. If a doctor is not able to explain the reasons why an AI system has produced a particular recommendation, how then will they be able to fulfill Okonkwo's requirement that a "clinical judgment must be guided by reason"? If for the claimant it is not clear why an algorithmic decision was erroneous, then how can they prove the elements of breach and causation?

Third, static product vs dynamic process. Traditional product liability, which in principle may render defective AI systems liable, presupposes that products are static objects the properties of which are established at manufacturing. Medical AI systems are dynamic; they learn and adjust to new data. A system may be quite safe when deployed but later develop

unsafe behaviors. The question is whether such a system can be considered "defective" at the time of supply? Nigerian law doesn't provide an answer to the question.

Fourth, evidentiary barriers. Section 84 of the Evidence Act 2011 sets out the rules for the admissibility of electronically generated evidence. The legislation, which is mainly aimed at static electronic records, is not very well suited for the highly dynamic, probabilistic, and often non-preservable audit trails that characterize AI systems. A claimant who wishes to prove what an AI system has recommended, on what basis, and with what level of confidence may come to realize that the piece of evidence is either not stored, not accessible, or not admissible.²¹

9.0 THE CAUSATION DILEMMA

The issue of causation is probably the biggest obstacle that the doctrine faces. If harm results from human and machine decisions being combined, the "but for" test becomes less and less coherent. For example, a doctor who gets an algorithmic recommendation that a chest radiograph shows no malignancy, trusts the recommendation, and as a result the diagnosis of lung cancer comes six months late. In order to prove causation, the plaintiff needs to demonstrate two things: the first is that if the algorithm had not made a mistake the earlier diagnosis would have been made; the second is that if the diagnosis would have been earlier then the patient would have had better health outcomes.²² This means that one needs to look at the alternate clinical pathways whether it is possible that a

²¹Insoon Ahn, Hyunsoo Gwon, Hyunjin Kang, Yoon Kim, Hyeon Seo, Hyeon Choi, Hye Na Cho, Min Kim, Tae Jung Jun & Yoon-Ho Kim, 'Machine Learning-Based Hospital Discharge Prediction for Patients with Cardiovascular Diseases: Development and Usability Study' *JMIR Medical Informatics* (2021)(9)(11) 1–15 <<https://doi.org/10.2196/32662>> accessed 5 March 2026

²²Samuel Akpanudo, 'Application of Artificial Intelligence Systems to Improve Health Care Delivery in Africa' *Journal of Primary Health Care* (2022)(12)(1) 1–2 <<https://doi.org/10.4172/2167-1079.22.12.1.1000422>> accessed 5 March 2026

reasonably competent clinician without the algorithmic recommendation would have detected the pathology, whether the patient would have agreed to the investigation, whether the prognosis would have been altered by the earlier intervention. Every investigation is essentially uncertain; the opacity of the algorithm only serves to deepen the uncertainty. Nigerian courts have not yet delineated principles for the allocation of causal responsibility in multi-agent, non-linear situations.²³

10 EVIDENCE FROM ETHICS COMMITTEE MEMBERS

Qualitative research by Olawade *et al* that is based on semi structured interviews with ten ethics committee members from five public teaching hospitals in southwest Nigeria, offers a priceless understanding of regulatory deficits from the viewpoint of institutional gatekeepers. The authors highlight several of the results:

Firstly, the participants recognized AI's potential to enhance diagnostic accuracy, operational efficiency, and healthcare accessibility. This was not a story of Luddite resistance but a quiet acknowledgment of both the promise and the risk. Secondly, the participants were very worried about their lack of knowledge and training. Ethics committees, which are supposed to consider the ethical aspects of clinical innovations, admitted that they were not able to evaluate the safety and suitability of AI systems. Thirdly, the participants identified financial constraints as limiting both the adoption of AI and the development of mechanisms for its oversight.²⁴ Most importantly, the participants stressed that the trust in AI systems depends on their demonstrated accuracy, reliability and, most importantly,

²³ Hind Alami, Laurence Rivard, Pascale Lehoux, Steven J Hoffman, Serena B M Cadeddu, Michel Savoldelli, Mohammed A Samri, Mohamed A Ag Ahmed, Richard Fleet & Jean-Pierre Fortin, 'Artificial Intelligence in Health Care: Laying the Foundation for Responsible, Sustainable, and Inclusive Innovation in Low and Middle Income Countries' *Globalization and Health* (2020)(16)(1) 1–6 <<https://doi.org/10.1186/s12992-020-00584-1>> accessed 5 March 2026

²⁴ Olawale DB *et al.* (2024a) (n 5)

on the regulatory oversight. Thus, trust is not conceived as a simple yes or no but as a relationship that is supported by institutional frameworks. Medical staff and ethics committees might be ready to trust AI systems only if these have been rigorously, transparently and independently evaluated; they are simply not ready to trust unregulated systems whose claims of safety are self, certified by commercial vendors. This result is diametrically opposed to the narrative that sees regulation as hindering innovation. For healthcare professionals in Nigeria, regulation is not a barrier to trust but its prerequisite.²⁵

11 EVIDENCE FROM PEDIATRIC SURGEONS

The national survey of Nigerian pediatric surgeons by Olawade *et al* provides the most detailed quantitative evidence that focuses on AI ethics perceptions among Nigerian specialists. With 88 respondents (62.9% response rate) recruited from all six geopolitical zones, the study offers solid, generalizable findings. Only one-third (33%) of the participants admitted to using AI personally in their clinical practice. Among those who did, the usages were mainly academic research and literature review (30.7%), while clinical applications (diagnostic support 17.0%, preoperative imaging 5.7%, surgical simulation 5.7%) were far less common. This indicates that AI is still a tool on the sidelines of the Nigerian surgical practice. Nevertheless, the speed at which the integration is being driven is quite evident.²⁶

The ethical concerns of the respondents are quite dramatic both in their magnitude and in their nature. The issue of accountability for harm to patients raised the most significant concern among 96.6% of the respondents. Almost equally high was the concern about the complexity

²⁵ Mohammad Kamrul Alam, 'A Systematic Qualitative Case Study: Questions, Data Collection, NVivo Analysis, and Saturation' *Qualitative Research in Organizations and Management* (2020)(16)(1) 1–31

²⁶ Olawale DB *et al.* (2023) (n 3)

of the informed consent process at 95.5%. The concern for the equitable distribution of AI technologies was at 89.8% while privacy concerns were slightly less at 84.1%. These results indicate that Nigerian medical practitioners are not only morally aligned with technology but are, in fact, actively identifying the problem areas where algorithmic medicine disagrees with moral ones and doing so with quite a degree of clarity.²⁷

Most relevant to the thesis of the paper, 79.5% of the participants admitted that they did not trust the existing Nigerian laws to be sufficient to regulate the use of AI in healthcare. This is not a show of legal skepticism but rather a precise, empirically based judgment of regulatory insufficiency. Over 50% (51.1%) mentioned the Medical and Dental Council of Nigeria as the right lead regulator, a choice that implies that they want professional self, regulation within a statutory framework rather than a situation of total deregulation or reliance solely on generalist consumer protection agencies.²⁸ Concerning the assignment of liability, 48.9% of the participants indicated a preference for a shared responsibility model among the stakeholders for any harm caused by AI; 30.7% thought that the surgeon should be the person primarily responsible for the situation. This distribution shows that Nigerian medical practitioners reject both extremes neither complete immunity nor exclusive personal liability in favor of models of accountability that are shared and wherein responsibility is given in proportion to control and capacity.

12 THE CONFIDENCE DEFICIT AS REGULATORY FAILURE

Taken together, these recent empirical examples serve as evidence for the diagnosis of a regulatory failure. The lack of proper rules for liability,

²⁷Olawale DB *et al.* (2024b) (n 4)

²⁸ Fatima Khalifa Al Badi, Khalid Ahmed Alhosani, Farah Jabeen, Anna Stachowicz-Stanusch, Noman Shehzad & Wolfgang Amann, 'Challenges of AI Adoption in the UAE Health Care' *Vision* (2021)1–15 <<https://doi.org/10.1177/0972262920988398>> accessed 5 March 2026

certification requirements, transparency obligations, and procedures for investigating incidents do not only cause legal uncertainties in the abstract but they also actively hinder the conditions necessary for the ethical use of AI. Doctors who are unsure about the legal implications of their actions may be disinclined to use AI tools that would be beneficial. Ethics committees that lack the capacity to evaluate new technologies may delay or reject the introduction of AI in healthcare. Patients who are harmed by algorithmic mistakes have to deal with almost inaccessible and insufficient legal remedies.²⁹

First and foremost, this should not be viewed as a neutral technical hurdle that requires a politically, neutral answer. It is a failure of institutions to take on their responsibilities, thereby affecting the constitutional right to health and the state's duty to protect its people from harm. If the state allows the use of technologies whose risks are not well understood, whose workings are not clear, and whose accountability rules are undefined, then it has failed in its obligation to provide and maintain a healthcare system that ensures safe and effective care. The lack of confidence revealed in these studies can be interpreted as the deeper constitutional failure's symptom.³⁰

13 DOCTRINAL FOUNDATIONS

The most well-developed proposal for adapting Nigerian medical negligence law to the situation of AI, mediated care is Elgujja's Standard of Reasoned Justification (SRJ). This comprehensive framework, presented in several publications, deserves to be analyzed deeply.³¹ It should not be seen as a foreign novelty brought in but rather as an "unavoidable doctrinal articulation of the existing legal and ethical mandates of Nigeria."

²⁹Ehirim UG (2025) (n 1)

³⁰Kumar P *et al* (2021) (n 2)

³¹Olawale DB *et al* (2025) (n 7)

Elgujja bases the SRJ on the Nigerian Supreme Court's ruling in Okonkwo that healthcare providers must "competently, conscientiously, and reasonably" carry out their duties. He then forms four normative pillars out of this constitutional and legal basis. One of them is Empirical competence which means that the doctor using an AI system should be knowledgeable enough about the system's features, its limitations, and the situations in which it can be used correctly so that the AI system can be used properly. This does not mean that the doctor has to understand the deep learning algorithms of the system but rather that he or she should be able to make a professional judgment about the times when the recommendations of the AI system can be trusted and the times when they should be challenged.³² Another one is Logical defensibility which means that a clinical decision human or AI, assisted should be understandable and rationally defensible. If a doctor simply obeys the AI system's suggestions without assessing them independently, he or she will not be able to fulfill this criterion. Respect for autonomy is an aspect here too, which means that patients have to be communicated about the AI plays in their care and that they give their consent to the use of the AI. The final one is Institutional responsibility that means healthcare facilities are responsible for setting policies for the integration of AI, providing the required training, doing due diligence on systems being procured, and keeping mechanisms for holding everyone accountable.³³

14 NORMATIVE EVALUATION

The SRJ has a number of qualities that make it a good starting point for Nigerian AI governance. Firstly, it is justifiably conservative doctrinally, it neither requires a radical change in the principle of negligence nor that they be extended to accommodate novel situations without reasoning. This doctrinal consistency facilitates the predictability of law while at the same time demonstrating the gradual character of common law

³²Constitution of the Federal Republic of Nigeria 1999 (as amended)

³³Aerts A & Bogdan-Martin D (2021) (n 19)

development.³⁴ Secondly, it is based on the Constitution, the source of its moral power being the judicial interpretation of fundamental rights and professional duties rather than extraneous sources. Thirdly, it is aware of and recognizes that the standard of reasoned justification will be different depending on clinical conditions, resource limitations, and the level of development of technology.

The SRJ, however, still faces significant difficulties. In practical terms, it will require clarifying what is considered sufficient empirical competence for different types of AI systems and clinical roles. Its proof requirements seem to be based on having access to information on development validation and performance characteristics of AI systems, which information can be refused by commercial vendors on the grounds of confidentiality. The aspect of institutional responsibility in the SRJ is built on the premise that health care institutions have the necessary capacity (space, personnel, and funds), which is presently not the case of many Nigerian health facilities. These are not fatal points, but rather obstacles to be overcome through appropriate supplementary regulatory measures.³⁵

15 AFRICAN BIOETHICS AND THE UBUNTU DIMENSION

One of the unique aspects of Elgujja's framework is that it explicitly connects itself to African bioethics and specifically to the concept of ubuntu which can be summarized as "a person is a person through persons" or "I am because we are." This philosophical orientation is centered on unity, mutual support, and well-being as an aspect of a harmonious community. The influence of AI governance is one such implication of the paper.³⁶

³⁴Nwosu A.D.G. *et al* (2020) (n 14)

³⁵Arhin K *et al* (2022) (n 16) (n 25)

³⁶Al Badi FK *et al* (2021)

On the one hand, western bioethics have largely focused on individual autonomy, informed consent, and rights, based frameworks; on the other hand, ubuntu puts the spotlight on relationality, solidarity, and collective responsibility. An AI healthcare system based on ubuntu would not only respect the individual's process of consenting to the treatment but also ensure that communities equally share the benefits and the burdens of the use of AI. In fact, actions of technology developers towards the communities whose data help to train their algorithms and whose health depends on the safety of their systems would be emphasised as a matter of duty.³⁷ Furthermore, accountability would be seen not as blame assignment but as everyone sharing the responsibility of creating environment which enables all to flourish. This philosophical viewpoint is not only culturally authentic, but it also has practical implications. It means that Nigeria should not blindly copy regulatory frameworks from Western individualistic societies but instead develop governance models that reflect African values. Besides that, it also provides a set of normative guidelines to deal with issues such as algorithmic fairness and access equality which are sometimes less considered in rights, based frameworks.

15 RECOMMENDATIONS

The previous analysis shows that Nigeria's current approach of ignoring AI governance is constitutionally, ethically, and pragmatically unsustainable. These recommendations, drawn from the academic literature and tailored to Nigerian circumstances, outline a concise reform framework.

15.1 LEGISLATIVE AND REGULATORY REFORM

- A. **Amend the Evidence Act 2011.** Section 84 should be modified to explicitly allow machine-generated audit trails, algorithmic metadata, and AI system logs as evidence.

³⁷Bajwa J *et al* (2021) (n 12)

Authenticity and integrity presumptions should be granted to documents produced by certified systems unless rebuttal is submitted.

B. Extend NAFDACs jurisdiction to Software as a Medical Device (SaMD). The NAFDAC Act needs a revision which among other things, will authorize NAFDAC to set pre-market certification requirements in line with the risk, carry out post-market surveillance, enforce compliance, collect reporting of adverse incidents, and recognize conformity assessments by accredited domestic or international testing laboratories.

C. Leverage the National Health Insurance Authority Act 2022. Accreditation and reimbursement by NHIS should be determined by the degree of conformity with SRJ aligned standards for AI implementation. Those healthcare facilities using AI without a proper governance framework will have to face penalties either by non, payment or withdrawal of accreditation.

D. Enact a Digital Health and AI Liability Act. It should: (a) specify the types of AI systems that have to be certified; (b) lay down the rules for the attribution of liability in cases of shared responsibility, including developer liability assumptions for defective algorithms and clinician liability for unreasonable reliance; (c) establish a patient-compensation fund for certified AI-system-related injuries, financed by risk-based levies on developers and healthcare providers; (d) prescribe transparency and explainability criteria for certified medical AI systems; (e) provide for explicit patient disclosure when AI systems significantly contribute to diagnostic or therapeutic decision-making.

15.2 INSTITUTIONAL REFORM

A. **Set up a National Health AI Governance Council (NHAIGC).** It should be situated in the Federal Ministry of Health and comprised of multi-stakeholders including members from NAFDAC, MDCN, NITDA, FCCPC, professional associations, patient advocacy groups, academic institutions, and the technology sector. They will, among other things, perform the following duties: drafting and updating the National Health AI Governance Framework; giving recommendations to government agencies; sponsoring research on the safety and efficiency of AI; conducting education and training sessions for adults; and being used as a platform for deliberative governance.

B. **Require AI skills for medical education and continuing professional development.** MDCN should incorporate the requirements that undergraduate medical courses and postgraduate specialty training programs include a foundation in AI literacy, ethical judgement of algorithmic systems, and medico-legal concepts that arise in AI-mediated healthcare. This is a direct response to the lack of confidence discussed in Section 4.

15.3 PROFESSIONAL AND ETHICAL REFORM

A. **Formulate institutional AI governance guidelines.** Every health institution should draw up an outline along the lines of: obtaining formal approval for AI procurement; upgrading the competencies of clinicians; recording decisions/supports of AI assistance; informing patients; reporting and investigating adverse events; and conducting regular audits of AI performance.

B. **Provide specialty specific ethical AI guidance.** Professional bodies such as the Nigerian Medical Association, the Association of Pediatric Surgeons of Nigeria, the Association of Radiologists of Nigeria, etc., should prepare guiding documents that localize general ethical principles to specific clinical settings.

16. CONCLUSION

This paper has assessed that the legal and ethical structures presently in place in Nigeria are basically inadequate and do not sufficiently protect the patients right to safety in AI-mediated healthcare. Traditional negligence principles cannot cope with distributed responsibility and algorithmic opacity. It has been evidenced through research that Nigerian clinicians, the very ones who will be using the technologies, have little faith in the existing legal frameworks and are calling for regulatory clarity. The Standard of Reasoned Justification (SRJ), which is supported by the Nigerian legal system and African bioethics, represents a doctrinally coherent and culturally authentic basis for reform. The Nigerian constitution's right to life and dignity and the newly recognised justiciable right to healthcare together impose a duty on the Nigerian government to provide and maintain regulatory frameworks which are capable of protecting patients from harm which is both foreseeable and preventable. Relying passively on professional self-regulation or, on hand, the judiciary's retrospective adaptation of outdated doctrines is not a way of achieving this. To be effective, governance must be proactive, deliberate, and sensitive to the context. The dilemma facing Nigeria is not whether to regulate AI in medicine. Clinical practice is already experiencing infiltration of the technology with the attendant immense promise and risk. The dilemma is whether to regulate intentionally by means of carefully thought out legislation and institutional designs based on consultations with relevant parties and constitutional principles, or to regulate in a reactive manner, by judicial decisions rendered after a case of algorithmic harm has occurred. The first option method complies with Nigeria's constitutional obligations and is in line with its people's welfare. The second option is a failure on the part of the legislature and a setback for patients and courts as they are left with inadequate doctrinal resources. This article has advocated for the first option. AI governance is no longer a question for Nigeria but the real question is whether its institutions have the foresight and the political will to put it in place.

