

# Ethical aspects of the doctor-patient relationship in telemedicine: integrative review

Emerson Alves Miguel Batista Barreto<sup>1</sup>, Geovana Christina Isidoro Bezerra<sup>2</sup>, Arnon Coelho Bezerra Filho<sup>3</sup>, Yago Ferreira Ferro<sup>4</sup>, Waldemar Naves do Amaral<sup>5</sup>

## ABSTRACT

**Objective:** To analyze the ethical aspects of the doctor-patient relationship in telemedicine consultations.

**Method:** Integrative review, in which 63 articles were identified, based on the following descriptors: ethics, telemedicine, and doctor-patient relationship, of which 16 were selected.

**Results:** We identified a need to update the regulations to ensure the ethical aspects of the doctor-patient relationship since the existing ones no longer meet the needs of this health tool that is being used with increasing frequency.

**Conclusions:** Much of the safety of the doctor-patient relationship depends on the doctor's choices, requiring greater articulation on the part of the responsible bodies to guarantee the safety of both doctor and patient.

**Keywords:** Telemedicine; Ethics; Doctor-patient relationship

## RESUMO

### Aspectos éticos da relação médico e paciente na telemedicina: revisão integrativa

**Objetivo:** Analisar os aspectos éticos da relação médico-paciente nas consultas de telemedicina.

**Método:** Revisão integrativa, na qual foram identificados 63 artigos, a partir dos seguintes descritores: ética, telemedicina e relação médico-paciente, dos quais 16 foram selecionados.

**Resultados:** Identificou-se uma necessidade da atualização das normas para assegurar os aspectos éticos da relação médico-paciente, sendo que as existentes não suprem mais as necessidades dessa ferramenta da saúde que está sendo cada vez mais usada.

**Conclusões:** Muito da segurança da relação médico-paciente depende das escolhas do médico, precisando de maiores articulações por parte dos órgãos responsáveis, a fim de garantir a segurança de ambos os lados.

**Palavras-chave:** Telemedicina; Ética; Relação médico-paciente

1. **Medical intern**, Universidade de Gurupi (UnirG) – emersonambb@gmail.com

2. **Medical intern**, Universidade de Gurupi (UnirG) – geovanachristinaisidorobezerra@gmail.com

3. **Medical student**, Instituto Tocantinense Antônio Carlos Palmas (ITPAC) – arnoncbzerrafilho@gmail.com

4. **Doctor**, União das Faculdades dos Grandes Lagos (Unilago). E-mail: yagoferromed@gmail.com

5. **Professor and Director**, Faculdade de Medicina da Universidade Federal de Goiás – dr@waldemar.med.br

### Mailing address:

Emerson Alves Miguel Batista Barreto – Rua Alonso Valentim Cardoso Tavares – Limeira (SP), Brazil – CEP: 13480460

All authors declare that they have no conflicts of interest.

## Introduction

The possibilities of providing medical services have increased significantly with the advancement of medicine. One of these possibilities originates from technological resources, telemedicine, which can be applied in the most diverse areas of medicine. According to the World Health Organization<sup>1</sup>, telemedicine is the term intended for services related to health care in cases where distance is the critical factor. For the Federal Council of Medicine, “telemedicine is the exercise of Medicine through the use of interactive methodologies of audiovisual and data communication, with the objective of assistance, education and research in health”<sup>2</sup>.

In Brazil, telemedicine came to the fore in the 1990s, in the public and private sector, which is related to autonomous projects and, in most cases, linked to universities<sup>3</sup>. In recent years, Brazilian telemedicine has advanced due to government incentives, which has enabled the formation of new teams and research centers in universities. As a result of this incentive, several public and private institutions began to use telemedicine as a model. This allowed patients far from major centers to receive the same attention as people whose hospitals are close to their homes<sup>4</sup>.

In this aspect, telemedicine works as an instrument to accelerate access to health, especially in the population that does not reach medical care easily, either due to the most diverse factors, such as distance or overcrowding in the health system<sup>5</sup>.

Telemedicine has a wide range of applications in the medical fields, as it provides several services, which include teletriage, teleconsultation, telediagnosis, telesurgery, telescreening and telemonitoring. For this reason, it carries postures that confront the traditional principles of medical ethics, especially regarding the aspect of the doctor-patient relationship, since the personal relationship between the doctor and his patient is eliminated. Therefore, ethical standards and principles must be applied and respected by professionals who use telemedicine<sup>6</sup>.

There is a partial regulation in Brazil, presented by the Ministry of Health, of the ordinances that provide for the use of telehealth in the public network. The Federal Council of Medicine (CFM) created resolutions in order to establish ethical and technical limits for telemedicine, such as CFM nº 1.821/2007 and nº 1.643/20022, <sup>7</sup>.

In this sense, the objective of this study is to analyze which ethical aspects surround the doctor-patient relationship in telemedicine consultations, in light of the importance and increasing use of this tool in modern medicine. It should be noted that, due to the role of telemedicine in the COVID-19 pandemic and its relatively emerging character, there is a shortage of works that systematize the ethical aspects and norms that must prevail in this doctor-patient relationship.

## Method

This is an integrative review (IR) study of the literature, which synthesizes the available studies on the topic and leads to a practice based on scientific knowledge. This study model has the following steps: formulation of a guiding question, literature search for studies related to the topic, categorization, evaluation, inclusion, interpretation, results and synthesis of the knowledge brought by the articles. Thus, this study has as a guiding question: “what are the main ethical aspects and standardization necessary for an effective and safe doctor-patient relationship?”

### Search source and study period

For this study, materials already published on the topic were used as a guiding tool, whether scientific articles, doctoral theses, books, guides and points of view. The search sources used were Google Scholar and PubMed. The sample included publications from 2017 to 2022 in Portuguese and English. As a result of the search, 63 references were found, based on the descriptors: telemedicine, ethics and doctor-patient relationship. With this survey, it was necessary to use exclusion criteria to direct the study, thus excluding articles that were not in English or Portuguese, whose methodology was not scientific, that escaped the guiding question and texts that were not available in full. At the end of the process, 16 (sixteen) papers were considered eligible for the study.

## Results

Of the 16 selected articles, 14 were found on Google Scholar and two on PubMed, being three points of view, a guide, a book, a doctoral thesis and ten scientific articles, of which one was an integrative review, two update articles, one observational analysis, a qualitative and integrative review, and five review articles. Such information is described in table 1, below.

**TABELA 1 – CHARACTERISTICS OF THE ANALYZED PAPERS**

ORDER	AUTHOR	TITLE	METHODOLOGY
A1	Oliveira AB, Tokarski CCR, Japiassu FKAG, Silva JCQ <sup>7</sup>	Challenges of advancing telemedicine and its ethical aspects: integrative review	Integrative review
A2	França GV <sup>6</sup>	Telemedicine: brief ethical-legal considerations	Point of view
A3	Garcia EF, Tagawa GSG, Amaral WN <sup>8</sup>	Bioethics and telemedicine	Update article
A4	França GV <sup>9</sup>	Telemedicine: Ethical-Legal Approach	Point of view
A5	Almeida JP, Vieira LTQ, Diniz LTG, Martinelle MFS <sup>10</sup>	Telemedicine and bioethics: the future is now	Update article
A6	Cavet CA <sup>11</sup>	Ethical-legal aspects of telemedicine: a Luso-Brazilian Panorama	Review article
A7	Cruz AO e Oliveira JGS <sup>12</sup>	Ethics and bioethics in telemedicine in primary health care	Review article
A8	Azevedo R Jr. <sup>13</sup>	Teleservice, revolution with ethics and security	Review article
A9	Calado VN e Lamy M <sup>14</sup>	Medical teleconsultation: ethical limits and the risk of informational negligence	Qualitative and integrative review
A10	Valente SE <sup>15</sup>	Regulatory aspects of telemedicine in Brazil: repercussions on the responsibility of health teams	Doctoral thesis
A11	Sartori GLZ, Ronchetti R, Nogaro A <sup>16</sup>	The challenges of medical ethics and bioethics in medicine	Book
A12	Harzheim E, Kats N, Ferri C, Fernandes JG, Barbosa, I <sup>17</sup>	Guide for the evaluation, implementation and monitoring of programs and services in telemedicine and telehealth	Guide
A13	Lopes MACQ, Oliveira GMM, Júnior AA, Pereira ESB <sup>18</sup>	Window to the future or door to chaos?	Point of view
A14	Koga RCR e Koga JRS <sup>19</sup>	Telemedicine and its relationship with communication, technology and convergence	Observational analysis
A15	Cordeiro JV <sup>20</sup>	Digital technologies and data science as health enablers: an outline of appealing promises and compelling ethical, legal, and social challenges	Review article
A16	Langarizadeh M, Moghbeli F, Aliabadi A. <sup>21</sup>	Application of ethics for providing telemedicine services and information technology	Review article

**Caption A:** article following the numerical sequence adopted for data presentation.

## Discussion

The progress of mobile health technologies, such as video calls and smartphone applications, promotes new diagnostic and therapeutic applications. In the sense of the doctor-patient relationship, in this form of care, the primary ethical aspect should be highlighted, which would be respect for secrecy, confidentiality and privacy of information<sup>6,7</sup>.

Two aspects stand out, the first would be that this relationship requires the transmission of electronic information, such as blood pressure and electrocardiogram information, known as telesurveillance, which depends on a certain capacity of the patient and their families. When there are health professionals in the place, the reliability of this data is greater<sup>6,9</sup>. The second would be the security in the transmission of information in this system, since the data about the generated patients are used and shared by the institutions, members of the health team, patient and family members, allowing a unique identification and, thus, must be submitted to a secure authentication and data access control mechanism, in order to obtain greater control over access to this confidential information<sup>10</sup>.

Then, it was noted that telemedicine must be subject to ethical and legal principles of the country, as a way to protect the rights of both the patient and the doctor. Understanding these aspects is important to understand the implications of telemedicine and its applications. The Federal Council of Medicine, based on the Code of Medical Ethics, prohibits the physician from prescribing treatment or procedures without direct examination of the patient. In addition, articles 73 and 75 prohibit the sharing of facts and clinical cases, articles 85 and 87 the transmission and custody of medical records and article 114 the use of mass communication<sup>11,20</sup>. However, despite this already existing regulation, there have been changes and advances in the use of technologies in medicine. This has led to undefined ethical and bioethical questions regarding the applicability and limits of telemedicine<sup>14</sup>. A situation that exemplifies this need to update ethical and legal rules was the COVID-19 pandemic situation, which in 2020 forced an adaptation of the use of telemedicine as a way to download the system.

It was found in the present study that something fundamental for the establishment of a good doctor-patient relationship is trust between the parties, which is built by verbal expression and body language, something difficult to establish at a distance through video calls. In addition, there is also the impossibility of physical examination, an essential step for the doctor's semiological reasoning<sup>13,20</sup>. In view of this, in addition to the ethical issue, which is fundamental to be resolved, there is the issue of impasses in establishing the stages of a consultation, which, according to the code of ethics, require the direct examination of the patient and, therefore, should not be performed remotely<sup>14</sup>.

The big question of regulation is that everything we have about telemedicine in Brazil only touches on the topic. It does not indicate or prohibit, leaving the physician the right and independence to decide when to use and recommend the use of telemedicine to patients. Thus, it is up to the physician to inform the patient of the importance and relevance of the physical examination<sup>14</sup>. Thinking in this sense, it appears that the solutions for the establishment of a safe telemedicine for both parties are moving slowly in Brazil, as well as the little scientific production in this area. For telemedicine to reach a level of operation with sustained regulation, it needs a routine<sup>17</sup>.

In the current scenario, with legislation being updated as needed and when thinking about the doctor-patient relationship as the humanization of patient care, there is a new patient profile, people with access to information, internet, social networks, channels news. The important point is that doctors and patients interact in such a way that there is free consent<sup>19</sup>.

It is noticed that doctors have a free action and a power in decision-making regarding telemedicine. With this, it is convenient for the physician to remember the two pillars of medical ethics, care and zeal in diagnostic and therapeutic decision-making. In addition to the three pillars of bioethics, beneficence, nonmaleficence and autonomy<sup>18</sup>.

Another point to highlight is the need to change how doctors treat their patients in telemedicine, and there should be no standardization, given that each medical area requires care, for example, teleradiology care will be very different from teledermatology. But a common point is that the use of digital technologies requires good quality, with regard to guidelines and standards that strengthen ethical aspects. With this in mind, greater attention should be paid to the information provided by the patient, in order to avoid diagnostic errors to which this method is more susceptible<sup>21</sup>.

Evidence shows that telemedicine is a tool that can bring benefits to health systems, such as reducing service time, travel costs and improvements in the quality of care, by making specialists available to the population in more remote places. In terms of public service, it promotes improvements in the service network, especially in Primary Health Care (PHC), by strengthening the Health Care Networks (HCN)<sup>16</sup>. But for effective quality assurance in the provision of services through telemedicine, there was a need for awareness and education of health professionals, residents, students, as well as patients<sup>7</sup>.

## Conclusion

Telemedicine is a tool that, when well used, can provide better care to people who are unable to access medical centers, or even to relieve the health system in conditions of chaos, as occurred during the COVID-19 pandemic. This study showed that it is a tool of considerable scope and of great relevance in the current and future scenario of medicine in a complementary way, and not as a substitute for traditional medicine. In terms of confidentiality and information management, the Federal Council of Medicine and the Ministry of Health still need articulations to defend ethical and bioethical principles.

Among the main issues related to medical ethics regarding the doctor-patient relationship, there are: the lack of a standardization that holds both the patient and the doctor, the guarantee of the preservation of the reliability of the data generated in the consultations, the establishment of a relationship of trust and respect between doctor and patient, adequacy of conflicts between commercial paradigms and the centrality of patient care, as well as the adequacy of the method of performing physical examinations and the use of images for diagnostic evaluation on online platforms.

Although there is a need to adjust the regulation and some operational factors for the good establishment of the doctor-patient relationship, telemedicine came with the potential to improve the provision of health services and advances as a disruptive innovation in relation to traditional medicine. Thus, a new update of the existing norms and the creation of new ones that better adapt to this new scenario is necessary, as well as a greater scientific production that disseminates the ethical and legal norms for doctors and patients.

## References

1. Organização Mundial da Saúde [homepage na internet]. Digital Atlas Health. [acesso 2 de março de 2022]. Disponível: <https://digitalhealthatlas.org/pt/-/>
2. Conselho Federal de Medicina (BR). Resolução CFM nº 1.821, de 11 julho de 2007. Diário Oficial da União [Internet]. 23 nov 2007 [acesso 10 de abril de 2022].1:252. Disponível: <https://www.gov.br/conarq/pt-br/legislacao-arquivistica/resolucoes/resolucao-cfm-no-1-821-de-11-de-julho-de-2007>
3. Viana FM. Telemedicina: uma ferramenta para ampliar o acesso à assistência em Saúde no Brasil. São Paulo. Dissertação [mestrado em administração de empresas] - Fundação Getúlio Vargas; 2015.
4. Consórcio de Inovação na Gestão Pública – CIGA [homepage na internet]. [acesso 2 de março de 2022]. Disponível: <https://ciga.sc.gov.br/quem-somos/>
5. Correia A. Telemedicina: O estado da arte. Revista da Ordem dos Médicos Cabo- Verdianos [Internet]. 2016 [acesso 2 de março de 2022];18:5-14. Disponível: [https://www.researchgate.net/publication/296703211\\_Telemedicina\\_O\\_estado\\_da\\_arte](https://www.researchgate.net/publication/296703211_Telemedicina_O_estado_da_arte)
6. França GV. Telemedicina: breves considerações ético-legais. Rev Bioét. 2019;8(1):107-26.
7. Conselho Federal de Medicina (BR). Resolução CFM nº 1.643, de 07 agosto de 2002. Diário Oficial da União [Internet]. 26 ago 2002 [acesso 10 de abril de 2022].1:205. Disponível: <https://abmes.org.br/legislacoes/detalhe/2695/resolucao-cfm-n-1.643>
8. Oliveira AB, Tokarski CCR, Japiassu FKAG, Silva JCQ. Desafios do avanço da telemedicina e seus aspectos éticos: revisão integrativa. Com. Ciências Saúde. 2020;31(1):55-63.
9. Garcia EF, Tagawa GSG, Amaral WN. Bioética e telemedicina. Revista Bioética Cremego. 2020;2(1):61-6.
10. França GV. Telemedicina: Abordagem Ético-Legal. Brasília, DF: Conselho Federal de Medicina [homepage na internet]. 1999. [acesso 2 de março de 2022]. Disponível: <https://portal.cfm.org.br/artigos/telemedicina-uma-abordagem-etico-legal/>

11. Almeida JP, Vieira LTQ, Diniz LTG, Martinelle MFS. Telemedicina e bioética: o futuro é agora. *Revista Bioética Cremego*. 2019;1(1):41-5
12. Cavet CA. Aspectos ético-jurídicos da telemedicina: um Panorama Luso-Brasileiro. RCABDC [Internet]. 2020 [acesso 5 de abril de 2022];4(2). Disponível em: <https://abdc.emnuvens.com.br/abdc/article/view/41>
13. Cruz AO e Oliveira JGS. Ética e bioética em telemedicina na atenção primária à saúde. *Rev Bioét*. 2021;29(4):844-54.
14. Azevedo R Jr. Teleatendimento, revolução com ética e segurança. *Rev Soc Cardiol. Estado de São Paulo*. 2019;29(4):362-4.
15. Calado VN e Lamy M. Teleconsulta médica: os limites éticos e o risco de negligência informacional. *Cad. Ibero Am. Direito Sanit*. 2021;9(3):89-122
16. Valente SE. Aspectos regulatórios da telemedicina no Brasil: repercussões na responsabilidade das equipes de saúde [tese de doutorado]. São Paulo: Universidade de São Paulo; 2018
17. Sartori GLZ; Ronchetti R. e Nogaro A. (Org.) Os desafios da ética médica e da bioética na medicina. Erechim: EdIFAPES; 2021
18. Harzheim E, Kats N, Ferri C, Fernandes JG, Barbosa, I. Guia de Avaliação, implantação e monitoramento de programas e serviços em telemedicina e telessaúde. Rio Grande do Sul: Rede Brasileira de Avaliação de Tecnologias em Saúde; 2018.
19. Lopes MACQ, Oliveira GMM, Júnior AA, Pereira ESB. Janela para o futuro ou porta para o caos? *Arq Bra. Cardiol*. 2019;112(4):461-5.
20. Koga RCR e Koga JRS. Telemedicina e sua relação com comunicação, tecnologia e convergência. *Revista Arquivos Científicos (IMMES)*. 2020;3(1):111-6. doi: 10.5935/2595-4407/rac.immes.v3n1p111-116
21. Cordeiro JV. Digital technologies and data science as health enablers: an outline of appealing promises and compelling ethical, legal, and social challenges. *Frontiers in Medicine*. 2021;8. doi:10.3389/fmed.2021.647897
22. Langarizadeh M, Moghbeli F, Aliabadi A. Application of ethics for providing telemedicine services and information technology. *MED ARCH*. 2017;71(5):351-5. doi: 10.5455/medarh.2017.71.351-355

---

**Received on: 21/03/2022**

**Revisions required: 07/04/2022**

**Approved on: 12/04/2022**

---