

## Analysis of Teledentistry in Management Dentist's Practice against the Health RUU "Omnibus Law" With the Legal Digitalization Aspects

Tamaulina Br.Sembiring<sup>1\*</sup>, Viona shafa Auliya<sup>2</sup>

<sup>1</sup>Lecturer of departement health law magister program, faculty of law, panca budi university

<sup>2</sup>Departement health law magister program, faculty of law, panca budi university

<sup>2</sup>Departemen Dentistry Professional Study Program, faculty of Dentistry, university of north Sumatra

**Corresponding Author:** Tamaulina Br.Sembiring [tamaulina@dosen.pancabudi.ac.id](mailto:tamaulina@dosen.pancabudi.ac.id)

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### ABSTRACT

Despite its potential, teledentistry faces legal complexities related to patient privacy, data security, and compliance with existing health laws. Discussions highlight the rights and responsibilities of dental practitioners and patients in the digital health landscape, emphasizing the need for stringent data protection measures and professional accountability. While existing laws provide a foundation, gaps remain concerning specific guidelines for teledentistry practices. Recommendations include the establishment of precise legal frameworks that ensure patient confidentiality, promote technological innovation, and mitigate legal risks associated with online healthcare services. This research contributes to the ongoing discourse on integrating digital technologies in healthcare delivery, advocating for regulatory clarity to foster trust and efficiency in teledentistry services in Indonesia.

## **INTRODUCTION**

In accordance with the goals of the 2030 world development agenda agreed at the United Nations General Assembly in September 2015, Sustainable Development Goals (SDGs) are a global framework for sustainable development related to the industrial revolution 4.0 (Nova J, 2019). The big problem in implementing the Sustainable Development Goals (SDGs) agenda in Indonesia is the reformulation of the concept of integrated development and the placement of health as a series of development management processes, as well as increasing understanding of the substance of health development which must be implemented together in the current era of decentralization and democratization (Syifa, Bintang, & Vera, 2022). The era of society 5.0 focuses on humans implementing innovations created in the industrial revolution 4.0. The main focus of this era is making humans as users and driving components to implement various innovations in collaboration with artificial intelligence, robots and IoT (Internet of Things) to minimize gaps in various aspects in the future (Putra I et al., 2022)

Based on the Law of the Republic of Indonesia concerning the National Education System, society 5.0 will have an impact on all aspects of life starting from health, urban planning, transportation, agriculture, industry and education. This relates to all health issues in the SDGs which are integrated into one goal, namely ensuring healthy lives and promoting prosperity for all people at all ages. According to the scenario of the society 5.0 era, especially in medical care/nursing, contribution in terms of medical care is a big challenge. Utilizing innovation in computing power to the maximum extent possible as a link between "humans and objects" and between "the real world and the virtual world" effectively and efficiently. This is a solution to problems in society to create a better life for the community and maintain healthy economic growth (Putra I et al., 2022)

According to the World Health Organization (WHO) in 2016, the incidence of dental caries in children is still large, namely 60-90% (Katli, 2018). The Indonesian Dentists Association (PDGI) states that as many as 89% of people with cavities (caries) are children (Norfai and Rahman, 2017). To achieve the goal of a caries-free Indonesia by 2045, Indonesia has challenges in solving health problems, especially children's dental and oral health. What can be done is to equalize the workforce of dentists throughout Indonesia by implementing teledentistry in dentist services in hospitals, health centers and independent clinics. Then, the spread of infectious diseases has become a global health problem that has an impact on all fields, including dental practice. Dentists are vulnerable to exposure to viruses and bacteria from aerosols produced by splashes of saliva when carrying out dental procedures. This high potential for spread has also encouraged the creation of changes in methods in conventional dental practice services. The Ministry of Health of the Republic of Indonesia introduced dental and oral health services using information and communication technology known as teledentistry (Bhanusali et al., 2020).

Teledentistry is a relatively new combination of telecommunications technology and dental care which is the revolution of 4.0 which makes dental

practice services. Teledentistry services utilize digital information systems and high-speed communication networks to carry out consultations, examinations and data analysis remotely (George et al., 2021). Even though teledentistry is one solution to optimize dental and oral health services for Indonesian society, there are several problems in its implementation, especially regarding the applicable laws. These matters are related to the granting of copyright, patient privacy, confidentiality of patient electronic medical records, clinical guidelines, which are vulnerable to data leaks, falsification and leakage of patient data. Therefore, it needs to be reviewed through an analysis regarding the legal aspects of the implementation of teledentistry in dental practices in Indonesia.

## **THEORETICAL REVIEW**

### ***Teledentistry***

Health is an individual human right, where this has been regulated in the UUD 1945 Pasal 28 H Ayat 1 which states that every person has the right to live in physical and spiritual prosperity, to have a place to live, to have a good and healthy living environment and the right to receive health services. This is in line with the implementation of teledentistry in dental practices in Indonesia. Teledentistry is a relatively new combination of telecommunications technology and dental care. Teledentistry is a revolution from 4.0, where in Indonesia the implementation of teledentistry has been implemented for a long time, but its use only became better known to the public during the COVID-19 pandemic (Brahmana & Karo, 2022). Teledentistry provides long-distance health services by utilizing communication and information technology, including dental and oral health services in an effort to increase early diagnosis, making it easier to communicate between health workers, providing timely treatment of dental and oral diseases, providing treatment information, diagnosis, prevention of disease and injury, continuous evaluation of health service providers in the need to improve public health.

Generally, Teledentistry is implemented through several methods which include teleconsultation, telemonitoring, telemedicine, telesurgery, and tele education. This can be done in 2 main ways, namely real-time or store and forward teledentistry. Where real-time is meant to be done via video conferencing, dentists and patients can communicate directly even though they are in different locations. This video conferencing is carried out via smartphone and computer applications that can be installed for free. The application can provide video and audio transmission from dentist to patient or vice versa. Then there is store and forward, this method involves exchanging information in the form of patient clinical data or patient photos which are collected and stored on a telecommunications device by the dentist and analyzed. This method helps collaboration between general practitioners and specialist dentists to develop treatment plans by discussing and consulting via the media sent (Achmad H et al, 2020).

To overcome the challenges in implementing teledentistry and telemedicine in Indonesia, several steps can be taken to ensure that these services can run well, namely by Network Connectivity Improvements, It is

necessary to improve network infrastructure throughout Indonesia so that telemedicine services can be provided evenly. This will increase the accessibility and quality of services that can be accessed by the entire community. Then, Provision of Information and Supporting Tools It is important to provide clear information about telemedicine to the public, including device specifications such as handphone so that they can be used for telemedicine consultations. Intensive education is needed so that people understand the technology used in this service. So, Adequate Infrastructure Development which requires investment in developing infrastructure that supports telemedicine, including health facilities equipped with telemedicine technology. This includes technology, medical personnel training, and other supporting infrastructure. Next is done Collaboration Between Government and Service Developers The importance of cooperation between the government, telemedicine service developers and the private sector to strengthen the development and implementation of telemedicine systems. This includes incentives for developers, supportive regulations, and financial support for telemedicine projects. Regulation and Legal Protection Clear regulations are also needed regarding the rights and responsibilities of patients and dentists in the context of teledentistry. This includes the protection of patient data, information security, and professional standards that dental healthcare providers must follow. By taking these steps, it is hoped that the implementation of teledentistry and telemedicine in Indonesia can improve access and quality of health services, as well as provide an effective modern alternative for the public in obtaining dental and general health care (Afiyah & Irianto, 2024)

### ***Health RUU "Omnibus Law"***

According to Wasis S (2011), law is a set of regulations in written or unwritten form, which are made by authorities with authority, are regulatory and/or coercive, contain sanctions for those who violate them, are aimed at human behavior which aims to ensure a good life. individuals and society receive guarantees of order and security. The aim of the law itself is to protect the rights and interests of society from someone's actions that can harm the rights and interests, by carrying out the obligations of other parties. According to Satjipto Raharjo, legal protection is the provision of protection and protection for human rights that are harmed by other people, and protection is intended for the entire community. from this, in line with the law regulated in the omnibus law health bill, in Law Number 7 of 2023, article 274 letter c concerning health which states that medical personnel and health workers in carrying out practices are obliged to keep patients' health confidential. If this happens, it can certainly give rise to medical disputes that have the potential to become legal because they conflict with the provisions of statutory regulations. The right to protect patient health confidentiality is regulated in this law, and it is an obligation for health service facilities to fulfill it. This has also been regulated in Law Number 17 of 2023 article 193 concerning health, which means that the Hospital is legally responsible for all losses incurred due to negligence alleged by the Hospital's Health Human Resources. This is also related to

administrative sanctions that can be obtained from medical personnel if after reviewing the facts, evidence is found that medical personnel have committed teledentistry violations in accordance with the provisions of Law Number 17 of 2023 concerning applicable health.

### *Legal Digitalization Aspects*

Teledentistry is a field of telemedicine that includes the dentist profession and treats dental and oral diseases. Teledentistry involves several service methods, namely real-time teledentistry using video-conferencing and store-and-forward teledentistry, which involves exchanging information through photos/clinical images of patients who require electronic devices, which is related to the digitalization law in Indonesia. Teledentistry and telemedicine have been regulated by Minister of Health Decree 4829/2021. Health services that can be carried out using telemedicine include communication consultations, information and education. Then it is regulated in PMK No. 20 of 2019 concerning Regarding the Implementation of Telemedicine Services Between Health Service Facilities, Article 17 paragraph (1) explains the rights and obligations of Consulting Health Facilities to provide Telemedicine services, which states that health services have the right, namely to obtain medical information in the form of images, pictures, biosignals, text, sound. and/or video properly through the use of electronic transmission to provide consultation answers and/or provide expertise, as well as obtain compensation for Telemedicine services (Erlina, 2016).

Dentists must be able to take responsibility for all actions both online via teledentistry and in person. If a dentist's practice as an electronic system operator, namely teledentistry, causes harm to a patient, then the basis that can be filed is based on Article 38 Paragraph (1) of the ITE Law which regulates that every person can file a lawsuit against the party that organizes the electronic system and/or uses information technology. who is harmed. As a consequence of the formulation of Article 15 of the ITE Law, the pattern of responsibility will be based on the principle of fault, presumption of always being responsible, presumption of always being irresponsible, absolute responsibility, or limitation of responsibility. Based on Article 38 paragraph (1) of the ITE Law, the basis for claims for compensation for losses arising from negligence, liability is related to professional obligations or is only related to the health sector in online medical services/teledentistry. Article 28 of the ITE Law also regulates that electronic system operators are responsible for protecting electronic system facilities and infrastructure (Carlo, 2013)

### **METHODOLOGY**

The method used in compiling this scientific article is by using a method of analyzing knowledge and basic theory of research by carrying out identification and evaluation, as well as synthesis of various research works or what is known as the literature review method. Apart from that, the aim of making a literature review is to find things that have never been done before or empty space for research to be carried out and answer various questions based

on the results of the research carried out. In this method, researchers will collect various information related to the selected topic using data that is not directly obtained from the researcher (secondary data). The required secondary data will come from various scientific articles related to the specified topic, namely regarding teledentistry, which is currently a form of health service in Indonesia, reviewed with the applicable legal aspects. The approach method used in this research is normative juridical. The normative juridical approach is an approach based on the main legal material by examining theories, concepts, legal principles and statutory regulations related to this research. This approach is also known as the bibliographic approach, namely by studying books, laws and regulations and other documents related to this research. The method for collecting legal materials in normative law is carried out by means of library research on legal materials. Data sources were obtained from primary and secondary data. The author analysis existing laws and conceptual analysis or those related to the title of the writing to compare with other regulations. The information needed is obtained through several media, such as Google, Google Scholar, Scopus, and Researchgate with the keywords, namely "Teledentistry", "Health", "Omnibus Law", "digitalization".

## **RESULTS**

Objectively, a dentist is responsible for the implementation of online medical services that involve violations of electronic systems. This also emphasizes patient protection rights and the responsibilities of a dentist. Based on the theoretical review that has been carried out, there are several regulations and laws that regulate patient protection and responsibility for digitalization of dental practices that have been implemented online.

The law that regulates patient protection is in the Health Bill "Omnibus Law", namely there is Law Number 7 of 2023, article 274 letter c concerning health and Law Number 17 of 2023 article 193 concerning health. Then, the law that regulates the digitalization aspect is: on PMK No. 20 Year 2019 article 17 paragraph 1, UU ITE article 38 paragraph 1, UU ITE Article 15, UU ITE Article 38 paragraph (1), and UU ITE Article 28.

## **DISCUSSION**

Currently, dental practice services have entered the 4.0 revolution era, which utilizes online-based information technology that can be accessed remotely, known as teledentistry. Health Law is a set of legal rules that regulate the operation of health services from health workers to patients. Health Law can take the form of statutory regulations concerning health services (Erlina, 2016). This teledentistry method helps collaboration between general dentists and specialist doctors in preparing and handling treatment plans for patients appropriately. However, teledentistry still has several obstacles, where it is still found that the majority of patients do not have good internet access, there is no patient trust regarding examinations that are only online without face-to-face contact between medical personnel and patients directly, then there are issues of information leakage and communication is rampant and has an impact on the loss of patient privacy. Even though it has been regulated in Law number 17 of

2023 Article 274 letter c concerning health and in Law of the Republic of Indonesia Number 19 of 2016 article 30 paragraph 2 concerning information and electronic transactions, that every person intentionally and without rights or against the law accesses computers and electronic systems. in any way with the aim of obtaining electronic information or electronic documentation (Nur Oktavia et al, 2021).

Society 5.0 encourages digital commercialization with advances in information technology that enable humans to be unlimited by time and space. Teledentistry is a form of technological progress in the field of dentistry which includes aspects of health services over long distances. This has pros and cons. However, regarding this matter, regulations have been prepared by the government that regulate policies regarding the use of teledentistry, such as health service regulations, regulations regarding the responsibility of dentists as health service personnel, and regulations on digital aspects. Legal responsibility relating to the implementation of one's profession can still be differentiated between: responsibility for professional provisions as regulated in the Indonesian medical code of ethics (KODEKI) and legal responsibility for legal provisions covering the fields of administrative law, criminal law, and civil law. In accordance with Article 1365 of the Civil Code which states that every act that violates the law and causes loss to another person, requires the person who caused the loss through his fault to compensate for the loss. This is also related to Law Number 17 of 2023 Article 193 concerning health where hospitals are legally responsible for all losses incurred due to negligence that is feared by hospital health workers. Therefore, as a dentist who is a health service worker in teledentistry, you must have qualifications or experience in providing teledentistry services. This is very important because there are limitations to teledentistry services, which if ignored will have an impact on increasing the risk of negligence. Standard operational procedures for teledentistry services must also be considered because they have a significant impact on the emergence of medical negligence. In this regard, there is a need for good qualifications of health workers, cooperative patient participation, appropriate technology, and clear practice guidelines and standard operating procedures (Anggayanti et al, 2023).

## **CONCLUSIONS AND RECOMMENDATIONS**

Teledentistry has become an important role in health services, where it utilizes information technology for long distance dental and oral health services. Obstacles are definitely faced by dentists as practitioners who implement teledentistry in their health services, the obstacles are related to non-direct communication and examinations which affect the accuracy of diagnosis and limitations in consultation time. Dentists must also double-check the authenticity of information obtained by patients, maintain good procedural standards, and obtain rights from applicable laws regarding protection for patients and dental practitioners themselves. The development of teledentistry services needs to continue to be improved both system-wise and regulatory-wise in order to provide security and legal certainty for the Indonesian people. From this

theoretical analysis, we have not yet found specific regulations governing teledentistry services in Indonesia, even though they are regulated in the Health Bill "Omnibus Law" regarding the protection of patients and health workers, as well as the ITE Law regarding accountability for digital use in the health sector. In this article, it is suggested that there is a need for more specific legislation regarding teledentistry, which is an online health service for the welfare of patients and dentists themselves

### **FURTHER STUDY**

In the context of further studies regarding teledentistry in Indonesia, there are several avenues for exploration and research that could contribute to the advancement and refinement of this emerging field:

1. **Efficacy and Patient Outcomes:** Conduct longitudinal studies to evaluate the effectiveness of teledentistry in improving oral health outcomes among different patient demographics. Focus on assessing treatment success rates, patient satisfaction levels, and follow-up care adherence compared to traditional in-person dental services.
2. **Cost-Effectiveness Analysis:** Investigate the economic implications of teledentistry implementation in Indonesia's healthcare system. Analyze cost savings associated with reduced travel expenses, improved resource allocation, and potential long-term financial benefits for patients and healthcare providers.
3. **Technological Advancements:** Explore innovations in telecommunication technologies and digital platforms that can enhance the capabilities of teledentistry. Assess the integration of artificial intelligence (AI), machine learning algorithms for diagnostics, and augmented reality (AR) for virtual consultations and treatment planning.
4. **Regulatory and Legal Framework:** Examine the adequacy and effectiveness of current regulatory frameworks governing teledentistry in Indonesia. Identify gaps, ambiguities, or inconsistencies in existing laws and propose amendments or new regulations to ensure patient safety, data security, and professional accountability.
5. **Patient Trust and Acceptance:** Investigate factors influencing patient trust and acceptance of teledentistry services. Conduct surveys, qualitative interviews, or focus groups to understand patient perceptions, preferences, and barriers to accessing remote dental care.
6. **Training and Education:** Develop and implement structured training programs for dental professionals on the use of teledentistry. Evaluate the impact of training on practitioners' skills, confidence levels, and adherence to ethical standards in remote healthcare delivery.
7. **Telemedicine Integration:** Explore opportunities for integrating teledentistry with broader telemedicine services in multidisciplinary healthcare settings. Assess collaborative care models, interdisciplinary communication protocols, and patient referral pathways to optimize holistic patient care.



8. **Ethical Considerations:** Investigate ethical dilemmas and challenges specific to teledentistry practice, such as informed consent procedures, patient privacy concerns, and equitable access to digital healthcare services across diverse populations.
9. **Public Health Initiatives:** Explore the potential role of teledentistry in advancing public health initiatives, such as oral health promotion, disease prevention programs, and emergency response planning in underserved or remote communities.
10. **International Comparative Studies:** Conduct comparative studies with other countries or regions that have implemented teledentistry to identify best practices, lessons learned, and opportunities for cross-border collaboration in digital healthcare innovation.

By pursuing these further studies, researchers and policymakers can contribute to the evidence base, inform policy development, and promote the sustainable integration of teledentistry as a viable healthcare solution in Indonesia's evolving healthcare landscape.

## REFERENCES

- Achmad H, Tanumihardja M, Ramadhany YF. Teledentistry As A Solution In Dentistry During The Covid-19 Pandemic Period: A Systematic Review. *Int J Pharm Res.* 2020;
- Adhalia CK. Limitations of Clinical Authority and Medical Practice Through Application-Based Telemedicine. *Indones Priv Law Rev.* 2023;4(1):57- 66. DOI: <https://doi.org/10.25041/iplr.v4i1.2962>
- Afiyah LL, Irianto S. Legal Protection for Teledentistry Dentists in Dealing with the Risk of Drug Allergies. *Constitution: Journal of Law, Public Administration, and Communication Sciences.* 2024;1(3):55-72.
- Anggayanti NA, Manuaba IBF, Hartawan IGAGU. 2023. Teledentistry in A Juridical Perspective: Criminal, Civil and Administrative Aspects. *Interdental Journal of Dentistry (IJKG);* Volume 19, issue 2.
- Bhanusali P, Katge F, Deshpande S, Chimata VK, Shetty S, Pradhan D. Covid-19: Changing trends and its impact on future of dentistry. *Int J Dent.* 2020;2020:1-6. Doi:10.1155/2020/8817424
- Brahmana RP, Karo RK. Penerapan Telemidisin Di Indonesia Berbasis Nilai Teori Keadilan Bermartabat: Pengaturan dan Peran Dokter. *J Lemhannas RI.* 2022;10(4):1-13. DOI: <https://doi.org/10.55960/jlri.v10i4.365>
- Carlo A. Gerungan. 2013. Responsibilities of Information System Operators in the Event of System Failure. Sam Ratulangi University. Vol.XXI/No.4/April-June /2013 Special Edition

- Erlina. (2016). Legal Protection for Patients in Therapeutic Contracts. Vol.3 Number 2 (December 2016). Accessed July 2020
- George PP, Edathotty TT, Gopikrishnan S, Prasanth PS, Mathew S, Ameen AAM. Knowledge, awareness, and attitude among practicing orthodontist on teledentistry during Covid pandemic in Kerala: a crosssectional survey. *J Pharm Bioallied Sci.* 2021;13(Suppl1):S846-S850. Doi: 10.4103/jpbs.JPBS\_826\_20
- J. S. Praja, *Legal Theory and Its Applications*, 1st Printing. Bandung: Pustaka Setia, 2011.
- Katli, K., 2018. Factors in the incidence of dental caries in toddlers in the working area of the Betungan Community Health Center, Bengkulu City. *Journal of Nursing and Public Health (JNPH)*, Volume 6(1), pp.46-52. doi: 10.37676/jnph.v6i1.495.
- Norfai, N., & Rahman, E., 2017. The relationship between knowledge and habits of brushing teeth with the incidence of dental caries in Sdi Darul Mu'minin, Banjarmasin City in 2017. *HEALTH DYNAMICS: JOURNAL OF MIDWIFERY AND NURSING*, Volume 8(1), pp. 212-21
- Nova, J.H., 2019. Students and the Industrial Revolution 4.0. *Ecobisma Journal*, 70-71.
- Putra, I.K.A.A., Wibawa, I.P.R.P., Subawa, I.M.O., & Sutrisni, N.K., 2022. The Role of Generation Z in Realizing SDGs in the Era of Society 5.0: The Role of Generation Z as Agents of Change in Achieving the Era of Society 5.0. *Unmas Journal*, pp. 427
- Syifa, A.M, Bintang, I.C, Vera, O. A. P., 2022. Sustainable Development Goals (Sdgs): Healthy and Prosperous Lives in Overcoming Covid-19 in the Semarang Area. *Journal of Sustainable Development*, Volume 5, pp 2