Adaptation of telemedicine amidst COVID-19 towards Indonesian physicians: benefits, limitations, and burdens

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ABSTRACT

Telemedicine has grown in prominence as a result of the growing deployment and development of digital technology. The existence of the Covid-19 Pandemic encourages the occurrence of Social Distancing drives people to seek safer health services, especially physicians with Covid-19 comorbidities in Indonesia, as a safer way to continue to provide services to the community. The points in this article are the type of telemedicine services, legal standing, and the rights and obligations of healthcare providers. The pandemic further emphasizes the importance of remote monitoring. However, physicians should have easy access to digital equipment and software to improve individual screening and monitor disease development.

Keywords: telemedicine, services, covid-19, physician.

INTRODUCTION

The practice of telemedicine between physicians and patients directly increases in Indonesia. The existence of the Covid-19 pandemic encourages social distancing that leads people to seek safer health services, and telemedicine is one of the ways. From the side of physicians as health service providers, this is also affected. Physicians are also open to provide health services through telemedicine.1 This kind of practice is considered by many physicians, especially those with Covid-19 comorbidities, as a safer way to continue providing services to the community.2

Moreover, many physicians previously have practiced telemedicine before the advent of digital platforms.3 The digital platform provides telemedicine services to the public by serving patient consultations via Whatsapp, SMS, telephone, etc. The practice of Telemedicine consists of the following services such as teleradiology, tele-electrocardiography, tele-ultrasonography, clinical teleconsultation and other telemedicine consulting services following the development of science and technology. This review would discuss how telemedicine has been counted on during this pandemic, as well as challenges and limitations that doctors have to face in benefiting from the telemedicine.

Forms of Consulting Services in Telemedicine

1. Telemedicine services for consultation and supervision between medical staff. In this type of telemedicine service, one side of the medical staff interacts directly with the patient, yet it involves other medical staff contacted through telemedicine. The two medical staffs are generally either physicians or a team of physicians, but it can also be between home care nurses and doctors. The simplest example is the consultation of the emergency room (E.R.) doctors to a specialist physician or between resident doctors to their consultants. This enthusiasm for consulting with expert doctors is listed in the Medical Ethics Code Indonesia.4 By involving other doctors who are more competent with telemedicine, it is expected that these doctors can provide higher quality medical services to their patients.

2. Telemedicine services for expertise. Doctors and specialists have similarities. Their telemedicine process services can be used to gain expertise on specific supporting examinations from related experts.5 One of the most frequently used is teleradiology, which refers to using technology that sends radiological data to another center for interpretation by a radiologist.6 This technique is beneficial for medical services considering the limited number of radiologists.

3. Telemedicine services are made for consultation between doctors and patients. In this type of service, long-distance interaction occurs between the doctor and the patient.7,8 One classic example is emergency services such as the 911 service in the United States. Anyone with telephone access can call the number of 911 when there is an emergency, including in the medical field. This telemedicine service can provide fast, convenient, and affordable medical triage services.9 It directs emergency patients to the nearest hospital, calls an ambulance, or refers patients to the right specialist based on their symptoms.

As for what is meant by online health consultations, which are currently popular, it can be categorized as clinical teleconsultation, namely remote clinical
consultation services to help establish the diagnosis and/or provide treatment considerations/advice.\textsuperscript{9,10}

**Practice Licences for Physician of Telemedicine**

There are many aspects of telemedicine practices that have not been regulated by the government or the competent authorities.\textsuperscript{11} Even if some aspects have been organized, these are still left unnoticed by many doctors.\textsuperscript{12} One of them is the use of Practice Licenses for the physician in the implementation of Telemedicine practice. Indonesia was implemented in Law No.29 of 2004 concerning Medical Practice in Articles 36 and 37 states that: "Every Physician or Dentist who has medical practices in Indonesia must have a Practice License (LICENSE)." This license is then further explained in the implementing regulations through the Regulation of the Minister of Health No. 2052 of 2011 concerning Practice License and Implementation of Medical Practice which states in Article 2 that: "Every Physician and Dentist who has medical practices MUST have a Practice License issued by the Head of the District/City Health Office, in which the Medical Practice is taken place."

It is conveyed by the Circular of the Minister of Health No. 303/2020 concerning the Implementation of Health Services through the Utilization of Information Technology. The Indonesian Medical Council (K.K.I) has the authority to grant the ‘additional’ Clinical Authority. The Indonesian Medical Council Regulation supports this statement No. 74 of 2020 concerning Clinical Authority and Telemedicine Administration.

If telemedicine is a form of medical practice, thus in the practice of telemedicine, doctors are also required to use the license. The regulation even states that: “Telemedicine services can only be performed between doctors and patients through health facilities.” As we have commonly known, the license is attached to the Health Facility in which physician practices.\textsuperscript{13} Then, what if a doctor practices telemedicine through a digital platform while the digital platform is not a health facility? Referring to the Indonesian Medical Council Regulation No. 74 of 2020 above, the license used in providing Telemedicine practice is the license that has been legally attached to a health facility. The telemedicine services which are provided must be with the permission of the health facility.

According to the explanation from the medical council,\textsuperscript{14} the answer is simple; because the state has regulated health facilities for the safety of patients, doctors, and health facilities themselves. For example, the hospital as a health facility has a Medical Committee. According to the Regulation of the Indonesian Minister of Health (PERMENKES) No. 755 of 2011, the Medical Committee has the responsibility to maintain the quality of medical services provided to patients and maintain the discipline and ethics of doctors. If Telemedicine services are provided by a physician directly to patients without going through Health Facilities, who is responsible for maintaining the quality of medical services provided to patients? Law No. 44 of 2009 concerning Hospitals states that Hospitals are responsible for all losses suffered by patients due to negligence committed by Health Workers who work at the hospital. Thus, physicians can practice with the safety support provided by the hospital (under applicable regulations).

Therefore, some suggestions given to fellow physicians who practice telemedicine (related to the license) are as follows: ensure that the telemedicine provided by the physician towards patients is the service that passes health facilities.\textsuperscript{15} If a physician provides Telemedicine service through a digital platform, make sure that it has collaborated with the health facility in which the doctor works.\textsuperscript{16} In addition, the doctor’s license (license) must be registered on the platform. For each registered license on the digital platform, ensure that the Health Facility (the place where the license is attached) knows and gives permission to the physician to provide the Telemedicine service.\textsuperscript{16,17}

**Rights and Obligations of Telemedicine Service Providers**

There are rights and obligations obtained by each healthcare facility in Indonesia as stated in Articles 17 and 18 of the Regulation of Minister of Health No. 20 of 2019. According to Article 17 Act (1), The Health Facility Consultants in implementing Telemedicine Services have rights to:

1. Receive medical information in the form of pictures, images, text, biosignals, video, and/or sound using electronic transmission to answer consultations and/or provide the expertise; and
2. Receive fees for Telemedicine Services.

Furthermore, in Act (2), The Health Facility Consultants in implementing Telemedicine Services have the following obligations:

1. Deliver consultation answers and/or provide expertise according to standards.
2. Maintain the confidentiality of patient data.
3. Provide valid, transparent, accountable, and honest information regarding the results of consultations and/or expertise.
4. Provide 24 (twenty-four) hours a day, 7 (seven) days a week of the consultation time.

In Article 18 Act (1), The Health Facility Consultation Applicants in implementing Telemedicine Services have right to:

1. Obtain consultation answers and/or receive expertise according to standards
2. Receive correct, clear, accountable, and honest information regarding the results of consultations and/or expertise.

Based on Act (2), The Health Facility Consultation Applicants in implementing Telemedicine Services have the following obligations:

1. Send medical information in the form of pictures, images, text, biosignals, videos, and/or sounds using electronic transmission according to quality standards to obtain answers for consultations and/or expertise.
2. Maintain the confidentiality of patient data.
3. Provide valid, transparent, accountable, and honest information regarding the results of consultations and/or expertise to patients.

The main advantage of telemedicine services is the use of technology to eliminate distance, geographical restrictions, and associated costs, especially for medical
services in remote areas which a shortage of medical personnel. It is relevant and inevitable in Indonesia, which has a large area and consists of thousands of islands. However, the transportation infrastructure is poor, and Indonesia has fewer physicians. Meanwhile, the internet network can be supported via satellite to all areas in Indonesia, crossing geographical constraints such as seas, hills, mountains, forests, etc. Hence, the Indonesian government needs to prioritize investment in the procurement of state-owned satellites that can support telemedical services.

**Challenges of Telemedicine Services towards Physicians**

Doctors need to realize that telemedicine means have limitations in presenting the integrity of information on the clinical condition of patients. Observational physical examinations (inspections) can indeed be facilitated through telemedical services using the video method. On the other hand, other non-observational physical examinations (palpation, percussion, and auscultation) or require special maneuvers are not possible through telemedicine.

This narrow information can cause limitations in medical services or even wrong decisions. In general, physicians contacted via telemedicine in this context need to direct patients and/or their families to ask these questions to the doctor or the team of doctors who treat them. Physicians working in telemedicine must be careful in giving their medical advice similar to real-time practices.

Nowadays, there are also digital platforms for consulting services with the concept of online consultation with physicians. Based on literature studies, the digital platform is not a health service provider, yet only a platform that is a means to facilitate the search for health services. Regulation of the Minister of Health Number 46 of 2017 concerning the National E-Health Strategy in Indonesia explains that e-Health uses information and communication technology for health services and information. It primarily improves the quality of health services, effectiveness, and efficiency of work processes.

Meanwhile, the term “electronic system operator” is defined in Article 1 point 6a of Law Number 11 of 2008 concerning Information and Electronic Transactions as amended by Law Number 19 of 2016 concerning Amendments to Law Number 11 of 2008 about Information and Electronic Transactions, which states that: “Electronic System Operator is any Person, state administrator, Business Entity, and community that provides, manages, and/or operates Electronic System, either individually or collectively to Electronic System users for their own needs and/or other parties.” Therefore, a distinction must be made between the liaison platform or service provider and the telemedicine service or provider.

Telemedicine services and online practice have limitations compared to face-to-face medical practice. For example, the inability to conduct a physical examination maneuver is essential in making a diagnosis. However, telemedicine and online practice provide more benefits during the Covid-19 pandemic situation, while all efforts to decrease the risk of disease transmission have high value from the point of view of medical ethics. This makes us inclined to use telemedicine and online medical services during the Covid-19 pandemic while not forgetting to pay attention to legal aspects, professional medical ethics, and communication ethics in the era of information technology.

**The form of Telemedicine services during the Covid-19 Pandemic**

The Indonesian Medical Council (K.K.I.) has issued regulation Number 74 of 2020, which regulates medical practice services through telemedicine during the Covid-19 pandemic. In addition, the Minister of Health of the Republic of Indonesia, following President Joko Widodo, issued Circular Letter Number HK.02.01/MENKES/303/2020 concerning the Implementation of Health Services through Utilization of Information and Communication Technology in the Context of Preventing the Corona Virus. Medical Council, this institute regulates to prevent the spread of Corona Virus Disease Covid-19, doctors including physicians, dentists, specialist doctors, specialist dentists, and sub-specialist doctors can utilize information and communication technology in the form of telemedicine when conducting health services by considering the following matters:

1. The provision of health services through telemedicine can be conducted during Public Health Emergency and/or Corona Virus Disease 2019 (COVID-19) National Disasters to prevent the spread of Corona Virus Disease (COVID-19).
2. Telemedicine services are health services performed by physicians using information and communication technology to diagnose, treat, prevent, and/or evaluate health conditions of patients under their competence and authority, as evidenced by a registration certificate (STR) while still paying attention to the quality of service and patient safety.
3. Telemedicine services are conducted between physicians and patients and/or between physicians and other doctors. Physicians who provide telemedicine services to patients are responsible for the health services they provide, including ensuring the security of patient data who access the services. The provision of telemedicine services between doctors and other doctors is performed based on the provisions of the legislation.
4. The results of the telemedicine services are recorded in digital or manual records used by physicians as medical record documents and their responsibilities. The results must be kept confidential and used according to the provisions of laws and regulations.
5. The authority of physicians in providing telemedicine services, including following Medical Council: a. Anamnesis consists of the main complaint, congenital complaints, history of current illness, other diseases or risk factors, family information, and other related information to the patient/family online. Specific physical examinations are performed through audiovisual.
   b. Provision of necessary advice based on supporting examinations and/
or the results of specific physical examinations. The results can be done by the patients using the modalities/resources they have or based on the recommendation of a previous investigation of medical instructions. Suggestions/advice can be in the form of a follow-up health examination to a health service facility.

c. Enforcement of the diagnosis based on the examination results, most of which are obtained from the anamnesis, specific physical examinations, or supporting examinations.

d. Management and treatment of patients are done based on establishing the diagnosis, which includes non-pharmacological and pharmacological management and medical actions against patients/families according to the medical needs of patients. Regarding medical treatment or further management required, the patient is advised to do a follow-up examination at a health care facility.

e. Prescriptions for drugs and/or medical devices are given to patients according to the diagnosis.

f. Issuance of a referral letter for examination or further treatment to a laboratory and/or health care facility according to the results of patient management.

Physicians who write electronic prescriptions for drugs and/or medical devices must be responsible for the content and effects that may be caused by medicines written in electronic prescriptions. Electronic prescription writing is excluded from narcotics and psychotropic drugs. Copies of electronic prescriptions must be kept in printed and/or electronic form as part of the medical record documents. Writing electronic prescriptions for drugs and/or medical devices can be done privately or openly by the following conditions:

1. An application form could conduct private electronic prescriptions from a physician to a pharmaceutical service facility.

2. The implementation of opened electronic prescriptions is done by giving electronic prescriptions directly to patients.

3. The administration of opened prescriptions requires an electronic prescription identification code that can be checked for authenticity and validity by pharmaceutical service facilities.

4. Electronic prescriptions are only used for 1 (one) time for prescription services/collection of pharmaceutical preparations, medical devices, BMHP, and/or health supplements and cannot be repeated.

5. Electronic prescription services could be done at pharmaceutical service facilities.

6. Pharmaceutical services conducted by pharmacists are based on pharmaceutical service standards in each type of pharmaceutical service facility.

7. Any changes to the electronic prescriptions that may be necessary for any reason must be with the knowledge and approval of the physician who issued the e-prescribing.

8. Pharmaceutical preparations, medical devices, BMHP, and/or health supplements based on electronic prescriptions can be received by patients/patient families at pharmaceutical service facilities or through the delivery of pharmaceutical preparations, medical devices, BMHP, and/or health supplements.

The delivery process of pharmaceutical preparations, medical devices, BMHP, and/or health supplements in electronic prescriptions in a private way has the following conditions:

1. The process is carried out through a delivery service or a pharmaceutical electronic system operator.

2. The delivery service, or the operator of the electronic, pharmaceutical system in carrying out the delivery, must:

   a. Ensure the safety and quality of pharmaceutical preparations, medical devices, BMHP, and/or health supplements delivered.

   b. Maintain patient confidentiality.

   c. Deliver pharmaceutical preparations, medical devices, BMHP, and/or health supplements in closed and opaque containers.

d. Guarantee that pharmaceutical preparations, medical devices, BMHP, and/or health supplements are safe to their destination.

e. Support the handover of pharmaceutical preparations, medical devices, BMHP, and/or health supplements.

f. Complete with delivery documents and a telephone number that can be contacted.

Pharmacists at pharmaceutical service facilities receiving electronic prescriptions must submit information about pharmaceutical preparations, medical devices, BMHP, and/or health supplements to patients in written form and/or through the Electronic System. Patients who have received pharmaceutical preparations, medical devices, BMHP, and/or health supplements must use the medication according to the prescription and information from the pharmacist.

CONCLUSION

Health services are one of the most affected by the COVID-19 pandemic, physicians as the main actors in health services are open to providing services through digital platforms. Telemedicine services are constructive in the current pandemic conditions as a communication bridge between physicians and patients. Non-observational physical examination is a drawback in telemedicine practice thus leading to some limited information which consequently cause potential errors in making diagnostic decisions.

CONFLICT OF INTEREST

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REFERENCE