

TELEMEDICINE IN THE COVID 19 PANDEMIC: SCOPE OF CARE IN ONCOLOGY PATIENTS. A REVIEW OF THE SCIENTIFIC LITERATURE

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ABSTRACT

Objective: This review aims to see to what extent the practice of telemedicine in the COVID-19 pandemic assists in the care of patients in the specialty of oncology. **Methods:** The review was carried out through an electronic search of articles related to telemedicine and oncology in databases such as: Web of Science, Scielo and Pubmed. The search terms were: Telemedicine, COVID-19 and oncology. For this review, our inclusion criteria are based on selecting articles published with research results from 2019 to the present, no language, type, or study design restrictions were applied, and our exclusion criteria were on those articles that did not state an author. o Digital Object Identifier System (DOI), with the exception of World Health Organization (WHO) publications. **Results:** Of the 10 articles reviewed, 2 articles without DOI were discarded, leaving only 8 articles for this bibliographic review. **Conclusion:** Telemedicine today has advantages such as preventing the spread of COVID-19, reducing the burden of medical care, and maintaining adequate patient care. We also encountered several limitations and obstacles, including organizational, technological, and patient-related barriers. Since oncology requires a multidisciplinary approach, telemedicine will play a key role in improving patient-centered cancer care in the future. leaving only 8 articles for this bibliographic review. **Conclusion:** Telemedicine today has advantages such as preventing the spread of COVID-19, reducing the burden of medical care, and maintaining adequate patient care. We also encountered several limitations and obstacles, including organizational, technological, and patient-related barriers. Since oncology requires a multidisciplinary approach, telemedicine will play a key role in improving patient-centered cancer care in the future. leaving only 8 articles for this bibliographic review. **Conclusion:** Telemedicine today has advantages such as preventing the spread of COVID-19, reducing the burden of medical care, and maintaining adequate patient care. We also encountered several limitations and obstacles, including organizational, technological, and patient-related barriers. Since oncology requires a multidisciplinary approach, telemedicine will play a key role in improving patient-centered cancer care in the future. We also encountered several limitations and obstacles, including organizational, technological, and patient-related barriers. Since oncology requires a multidisciplinary approach, telemedicine will play a key role in improving patient-centered cancer care in the future. We also encountered several limitations and obstacles, including organizational, technological, and patient-related barriers. Since oncology requires a multidisciplinary approach, telemedicine will play a key role in improving patient-centered cancer care in the future.

Keywords: telemedicine, COVID-19, oncology, patient

INTRODUCTION

Telemedicine is the remote medical practice or care (diagnosis, treatment, etc.), through technology, this optimizes care, saves time, is cheaper and increases accessibility (1,2). Also, it reduces unnecessary visits to the consultation (3). The World Health Organization (WHO) defines it as the use or employment of new communication technologies by health personnel in order to establish an exchange of information, report on the diagnosis, treatment, prevention, follow-up and continuing education. All this in order to improve the health of patients and the community (4).

Whatever definition we use, we are clear that the use of new technologies that have been developed exponentially in recent years can and is used in the field of health.

The great blow received by the COVID-19 pandemic has made telemedicine stand out more. In a way, it was a sudden change to go from face-to-face, face-to-face medical care to remote care. The pandemic affected us all and the practice of oncology is no exception, making telemedicine a necessary act.

The pandemic of the new coronavirus of 2019 (COVID-19) has led us to need to use telemedicine, being essential in medical practice to reduce face-to-face consultations without compromising the quality and access to health services (2,4). Regarding the field of oncology, quality care has also been sought without putting the patient at risk. The duration of this current pandemic is uncertain and, like other medical branches, oncologists had the need to monitor and treat their patients remotely. Telemedicine was the preferred weapon, since it meant a continuous path for cancer care and the minimization of the risk of infection (5).

Today the situation regarding COVID-19 has improved markedly and the use of telemedicine is not discontinued. The future is uncertain but the demands for medical care continue to grow as technologies advance. For all these reasons, this review aims to see to what extent the practice of telemedicine in the COVID-19 pandemic assists in the care of patients in the specialty of oncology.

MATERIAL AND METHODS

The review was carried out through an electronic search of articles related to telemedicine and oncology in databases such as: Web of Science, Scielo and Pubmed. The search terms were: Telemedicine, COVID-19 and oncology. For this review our inclusion criteria are based on selecting articles published with research results from 2010 to the present, no language, type or study design restrictions were applied and our exclusion criteria were on those articles that did not state the author. o Digital Object Identifier System (DOI), with the exception of World Health Organization (WHO) publications.

RESULTS

Of the 10 articles reviewed, 2 articles without DOI were discarded, leaving only 8 articles for this bibliographic review.

1. ORIGIN AND HISTORICAL FRAMEWORK TELEMEDICINE

Historically, telemedicine dates back to the mid to late 19th century. The first published accounts at the beginning of the 20th century, where the data from the electrocardiograph were transmitted through telephone cables (4).

The first trial of treatment was carried out by psychiatrist Cecil Whitson in 1958, conducting a teleeducation and telepsychiatry program through closed circuit television at the Nebraska Psychiatric Institute (6).

Telemedicine, in its modern form, arises from the development of technology in the 1970s. It emerges as a form or method of combating the adversity of geographical barriers, improving accessibility to a health service.

Recent technological advances and increased availability by the general population have been the main drivers of telemedicine. Rapidly creating new possibilities for healthcare service and delivery. The substitution of analog forms of communication for digital methods, combined with the easy accessibility of technological communication equipment by the population, has aroused great interest in the application of telemedicine among health care providers and has allowed health care organizations conceive and implement new and more efficient ways of delivering care.

The introduction and popularization of the Internet has further accelerated the pace of advances, thus broadening the scope of telemedicine to encompass technological applications (for example, email and application-based video conferencing) and multimedia approaches (for example, digital images and videos). . These advances have led to the creation of a rich tapestry of telemedicine applications that the world can use (4).

Currently, the need to reduce face-to-face consultations has revitalized telemedicine and has brought it to the forefront in the era of coronavirus disease 2019 (COVID-19). Health systems have introduced regulatory flexibilities and incentives to encourage adoption and implementation, with the coordination of providers and technology companies (7).

2. DEFINITION

Telemedicine means distance medicine through technological resources (1).

The WHO has adopted the following general description: "The provision of health care services, where distance is a critical factor, by all health professionals using information and communication technologies for the exchange of valid information for the diagnosis, treatment, and prevention of disease and injury,

research and evaluation, and for the continuing education of health care providers, all in the interest of improving the health of individuals and their communities” (4).

There may be multiple definitions, but they all show us telemedicine as an open and constantly evolving science, since over time it will implement new technological advances and adapt to the needs and situations in the field of health and society.

3. ADVANTAGES AND DISADVANTAGES TELEMEDICINE

Telemedicine has been providing several advantages with respect to outpatient care and management. Quotas are released in face-to-face care, being able to assign them to patients who require it. In addition, time and costs are reduced (2,6). The following table of a Spanish study will better appreciate the contributions, as well as the drawbacks (table 1).

Regarding the current situation, telemedicine gives us many benefits in times of the COVID-19 pandemic: It reduces the spread of SARS-CoV-2 and infections, it reduces the infection of health personnel, it makes hospital visits really necessary, it gives a patient follow-up.

Table No. 1. Advantages and disadvantages of telemedicine

Ventajas	Inconvenientes
Ahorro de tiempo y dinero del paciente	Relación médico-paciente menos personal.
Disminución del absentismo laboral	No recomendable si hay un alto componente emocional
Tranquilidad de los pacientes de disponer una vía directa de comunicación con el médico (mail)	No posible exploración neurológica
Liberación de despachos de consulta presencial	No adecuada para dar males noticias o explicar procedimientos diagnósticos o terapéuticos, sobre todo si son complejos
Ahorro de tiempo del médico	Necesidad de dispositivos electrónicos y aprender a utilizarlos
Mayor facilidad para educación a pacientes y a médicos de atención primaria	Adecuada conexión telefónica/Internet
Alta satisfacción de pacientes y familia	Conseguir una red segura (Protección Datos)
Mayor intimidad (nadie ve al paciente entrando en una consulta monográfica)	Coste adicional por tecnología

Source: Application of telemedicine in the care of patients with headaches: current situation and recommendations of the Headache Study Group of the Spanish Society of Neurology.

There are also disadvantages or drawbacks (Table 1). The doctor-patient relationship can be affected. Not being adequate to give certain strong news or findings. There may be issues of confidentiality and impersonation of the patient's identity. In addition, for good telemedicine, both patient and doctor must have adequate electronic devices and the knowledge to use them correctly and optimally. Hand in hand with the latter, the ability to have a good telephone and/or Internet connection (6).

4. TELEMEDICINE IN ONCOLOGY CARE

The COVID-19 pandemic has transformed cancer services on the principle of patient safety by protecting patients from contracting the virus and spreading it to others. This ongoing service transformation can be achieved by moving services to a virtual format or home treatment. These transformations are not without limitations. Telemedicine, while providing convenience and value for money in some areas, has limited ability to combine certain aspects of person-to-person clinics in the hospital, including physical examination, establishing a doctor-patient relationship based on of body language. Furthermore, oncology is multidisciplinary by practice; Thus,

On the other hand, the implementation of telemedicine, in addition to providing benefits for the care of cancer patients during and after COVID-19, requires telemedicine education in specialized training in oncology (9).

5. CONCLUSION

Telemedicine today has advantages such as preventing the spread of COVID-19, reducing the burden of healthcare, and maintaining adequate patient care. Long-term effects remain to be seen, such as home treatment and communication effectiveness. Since oncology requires a multidisciplinary approach, telemedicine will play a key role in improving patient-centered cancer care in the future.

Oncologists must preserve continuity of care for patients, as the benefit of ensuring a well-implemented cancer treatment plan outweighs the risk of COVID-19 infection.

In addition to these benefits, several limitations and obstacles can be encountered, including organizational, technological, and patient-related barriers. Therefore, it is best to consider the necessary arrangements before implementing telemedicine.

There is no doubt that telemedicine will play an increasing role in outpatient patient management, with in-person appointments limited to pathology that requires a detailed physical exam and in people who do not have access to telemedicine.

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