RCMOS – Multidisciplinary Scientific Journal O Saber.
ISSN: 2675-9128. São Paulo-SP, year II, v.2, n. 2, Jul./Dec. 2022.

Teleradiology: optimizing imaging diagnosis

Thelerradiology: the optimization of diagnostic imaging

Daiana Lopez Conceição[1]
Thaline Mairace Hernandez das Neves[1]
João Paulo Maldonado[1]
Alan Timoteo Rodrigues Reis[1]
Rafael Teodoro Lopes Lalier[1]

[1] *doctor specialized in Radiology and Imaging Diagnosis, Isomed Diagnósticos.*

Submitted on: 11/28/2022
Approved on: 11/29/2022
Published on: 12/08/2022 DOI:
10.51473/rcmos.v2i2.440

Summary
Telemedicine and telehealth allow greater access to excellent healthcare. One of its derivations is teleradiology, which involves the ability to send radiological images electronically, enabling remote evaluation at different viewing stations by specialists, which makes it possible to provide high-quality healthcare.
Key words:radiology, imaging, health.

Abstract
Telemedicine and telehealth allow greater access to excellent health care. One of its derivations is teleradiology, which involves the ability to send radiological images electronically, enabling a remote evaluation at different stations by specialists, which makes it possible to provide high quality health care.
Keywords:radiology, image, health.

1. INTRODUCTION

The objective of the telemedicine service is to act in the various aspects that encompass a patient's health care, establishing bidirectional communication and qualified listening in real time between the patient and the qualified professional who is located in another geographic region. Telehealth refers to the use of telecommunications and information technology to provide access to care and health promotion, diagnosis, supervision and information remotely (KICHLOO, 2020).

Radiology is the science that is responsible for acquiring and interpreting images of the human body with the purpose of providing a diagnosis and guiding the treatment of many illnesses (BASHSHUR, 2016).

Teleradiology is a technological resource in which telecommunications systems send images from one location to another so that image exams can be interpreted, such as digitalized x-rays, computed tomography, magnetic resonance imaging and mammography (BURUTE, 2009).

2 MATERIAL AND METHODS

In this work, a bibliographical survey was carried out in the databases PubMed, Scielo and national official documents in the years 2006 to 2022. The descriptors used were: telemedicine, teleradiology, diagnosis, radiology, report and telereport.

3 DISCUSSION

The performance of remote medicine comprises the combination of information technology with the advancement of computer systems that organize, monitor and provide data about the patient's health with the prompt provision of clinical history and complementary exams regardless of the patient's location, with the objective to generate an optimization of conduct and evaluation by experts (FARIA, 2014).

One of the specialties that has notable gains from telemedicine is radiology, in the telemedicine scenario.

diagnosis, since it is possible to act anywhere by receiving radiological images and sending reports, transmitting the radiologist's opinion to places that require the specialist's considerations. This specialized telecare, when well implemented, with reinforced management and carried out in synchrony with the work of a medical assistant close to the patient, enhances the patient's health care process from primary care to more complex services (NOBRE, 2006).

Teleradiology relies on already widely adopted communication tools such as the Internet, in addition to the use of its own image archiving systems (Picture Archiving and Communications System – PACS) and specific radiology information management sets (Radiology Information System – RIS). . The computerization of radiographic data enables qualification and speed in patient care (LIMA, 2013).

Imaging exams made available through teleradiology require the inclusion of the patient's clinical and laboratory data so that it is possible to compose a complete and detailed report and subsequently send the opinion to the reference location (BASHSHUR, 2016).

The importance of standardizing protocols and electronic records of patients' clinical data and management of health indicators within teleradiology is also highlighted. The implementation of an adequate technological infrastructure is essential, as well as compliance with what the Federal Council of Medicine (CFM) regulates regarding the transmission of confidential information and confidentiality of health data (MONTEIRO, 2013).

CONCLUSION

Teleradiology involves the interpretation of complementary image exams remotely with the help of technological advances, and thus, cooperates with taking action to optimize the health of patients. It is important to develop techniques to safely practice the different applications of teleradiology in Brazil, so that more people have access to this resource and benefit from it.

REFERENCES

BASHSHUR, R.L.; et al. The Empirical Foundations of Teleradiology and Related Applications: A Review of the Evidence.**Telemed JE Health**. 2016 Nov;22(11):868-898.

BURUTE, N.; et al. Teleradiology: The Indian perspective.**Indian J Radiol Imaging**. 2009 Feb;19(1):16-8.

FARIA, M.; et al. Teleradiology: a new era for dental radiology.**Pedro Ernesto University Hospital Magazine**, [Ps], v. 12, no. 1, set. 2014. ISSN 1983-2567.

KICHLOO, A.; et al. Telemedicine, the current COVID-19 pandemic perspectives and the future: a narrative review and moving forward in the USA.**Fam Med Community Health**. 2020 Aug;8(3):e000530.

LIMA, CMAO; et al. Teleradiology in Brazil: A Brief Historical Review.**J Bras Tele**. 2013;2(1):60-63

MONTEIRO, A. Teleradiology and teleworking in Brazil.**Radiol Bras**. 2013 Mar/Apr;46(2):XI

NOBRE, LF; WANGENHEIM AV Teleradiology: challenges to be faced in order to break a paradigm in the specialty.**Radiol Bras**2006;39(6):VII–VIII.