PD38 Telehealth Use To Fight The COVID-19 Pandemic In A Brazilian Private Healthcare System

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Introduction. The outbreak of the COVID-19 pandemic generated the need to adapt patients' access to health services, given the rapid and exponential increase in demand at all levels of care, making social distancing one of the few weapons available in this fight. In this scenario, telehealth proved to be a fundamental tool in tracking and guiding patients with suspected or confirmed disease. This work presents the demographic profile of the people attended, the most prevalent clinical situations in care and the clinical outcomes of the remote care.
Methods. This was an observational, descriptive, cross-sectional, retrospective study carried out at Unimed Belo Horizonte, a medical work cooperative, from March 2020 to May 2021. We analyzed anonymized data on remote care from electronic medical records provided by the operator, with the remote contacts of these patients being spontaneous.
Results. In the period evaluated, 380,663 remote calls were made, with a monthly average of 36,888 calls. Of these visits, 59.5% were carried out by women and 40.5% by men. There were, 13,211 (3.5%) consultations with patients aged 0 to 9 years, 19,933 (5.2%) 10 to 19 years, 319,882 (84%) in people aged 20 to 59 years, and 27,633 (7.3%) aged 60 years or older. There were 64,348 (17%) consultations in patients with confirmed COVID-19 and 40,997 (11%) with suspected COVID-19. There were 194,746 (51.2%) consultations due to respiratory complaints and 14% of consultations due to other causes, but whose initial care was due to signs and symptoms suggestive of COVID-19. Of people assisted remotely, 29,734 (7.8%) attended the emergency room within 3 days, while 38,685 (10.2%) sought the emergency room within 14 days. There were 2,846 (0.7%) consultations in the emergency room that resulted in the hospitalization of patients.
Conclusions. Telehealth proved to be resolute and an important tool for accessing health services during the pandemic.

PD39 Strategies To Assist People With Disabilities During Health Emergencies, Concerning The COVID-19 – Systematic Review

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Introduction. The COVID-19 pandemic has affected thousands of people worldwide. The collapse of health systems led to increased difficulties in accessing health care for people with disabilities. The objective was to define strategies to support the implementation of health care for people with disabilities.
Methods. The protocol for the systematic review was registered on PROSPERO (CRD42021266341). Searches were done in seven databases, using MeSH terms related to COVID-19 and disability, in 2021. We included interventions that addressed health, education and social assistance.
Results. Twenty-nine studies were included. A meta-synthesis identified strategies to assist individuals with disabilities: creation of emergency accommodation and protection programs; flexible work arrangements; cash transfer programs; community participation in planning; establishment of support networks; social assistance even in periods of health emergency; teleconsultation services, telerehabilitation and systems that facilitate the use of digital technologies for telemedicine; inclusive guidelines for computer literacy and learning. The main implementation action was comprehensive health care centered on the needs of people with disabilities, with a focus on training community informants, continuing education of health professionals and caregivers for emergency situations, decentralization of care, identification and elimination of barriers to access.
Conclusions. Even though the focus was on telehealth and social assistance, achieving comprehensive healthcare requires a range of interventions that together will support the reduction of inequity faced by people with disabilities.

PD40 Antigen Diagnostic Tests With Self-Collection Of Biological Material For The Diagnosis Of COVID-19

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Introduction. The self-test for COVID-19 has been a widely used strategy in some countries, especially in the context of back to face-to-face work and educational activities. However, it is necessary to discuss the accuracy of antigen tests for the diagnosis of COVID-19.

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Methods. A systematic review was carried out. The strategy was defined by the researchers using the terms "Covid-19" and "Self-testing" and their respective synonyms, including studies with data collection from 01/01/2021. Searches were carried out on October 20, 2021, in several databases.
Results. A total of 504 studies were identified, four of which were included in this review: two self-tests of nasopharyngeal collection antigen compared to reverse transcriptase polymerase chain reaction (RT-PCR); a supervised and self-collected anterior nasal smear self-test; and a study that evaluated the performance of six self-collected rapid antigen tests against quantitative RT-PCR (gargle, sputum, and spit). Saliva self-tests were found to have low sensitivity (<45%), while anterior nasal or nasopharyngeal swab self-tests had greater than 80 percent sensitivity. In all self-tests, the specificity was less than 85 percent. The diagnostic accuracy of self-tests for the different SARS-CoV-2 variants was not identified.
Conclusions. The use of self-tests as a screening strategy is recommended, being a strategy with a significant impact on the surveillance and control of SARS-CoV-2 transmission. Further studies are needed to assess: (i) accuracy considering the concern variants, (ii) safety of tests with self-collection of biological material, and (iii) disposal of biological waste.

PD41 Role Of Artificial Intelligence In Improving Access To COVID-19 Diagnosis During Pandemic

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Introduction. The evolution of advances in informatics, technology in medicine, and artificial intelligence (AI) offers opportunities to enhance health care during the coronavirus disease 2019 (COVID-19) pandemic. The challenge for biomedical engineers is to implement these developments in clinical practice to improve global health. Populations living in low-income countries do not have access to specialist care and quality diagnostic services for COVID-19. Therefore, an AI system based on a telemedicine platform for diagnosing COVID-19 could help mitigate the lack of highly trained radiologists at regional hospitals and serve as a triage system for rationalizing the use of reverse transcription polymerase chain reaction (RT-PCR) testing and other health resources in low-income countries. Thus, the utility of an AI system for diagnosing COVID-19 in Paraguay was investigated.
Methods. This is a descriptive multicenter observational feasibility study of an AI tool for the rapid detection of COVID-19 in chest computed tomography (CT) images of patients with respiratory difficulties who attended public hospitals across the country.
Results. Between March 2020 and August 2021, 3,514 rapid diagnostic tests were carried out on patients with respiratory disorders to rule out COVID-19 in 14 hospitals nationwide. The average age of the patients was 48.6 years (52.8% were men); the most common age ranges were 27 to 59 years, followed by older than 60 years and 19 to 26 years. The most frequent findings on the CT images were severe pneumonia, bilateral pneumonia with pleural effusion, bilateral pulmonary emphysema, diffuse ground glass opacity, hemidiaphragmatic paresis, calcified granuloma in the lower right lobe, bilateral pleural effusion, sequelae of tuberculosis, bilateral emphysema, and fibrotic changes. Overall, there was 93 percent agreement and 7 percent discordance between the AI system and the RT-PCR test results. Compared with RT-PCR testing, the AI system had a sensitivity of 93 percent and a specificity of 80 percent.
Conclusions. Paraguay has an AI-based telemedicine screening system for the rapid detection of COVID-19 that uses chest CT images of patients with respiratory conditions.

PD42 Diagnosis Of Chronic Diseases During The COVID-19 Pandemic Through Telemedicine

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Introduction. The diagnosis and management of chronic diseases during the coronavirus disease 2019 (COVID-19) pandemic was one of the biggest challenges facing healthcare systems globally, especially in low-income countries. Since basic health care for chronic diseases can overwhelm the capacity of conventional face-to-face healthcare services, there is growing interest in using information and communication technology and telemedicine to improve access to medical services that are often not consistently available in rural communities. In this context, telemedicine tools should be directed toward maintaining basic health services for patients with chronic conditions in rural and underserved hospitals. This study evaluated a telemedicine system in remote public hospitals in Paraguay to demonstrate how telemedicine improved access to tertiary level diagnostic services for patients with chronic conditions.
Methods. This descriptive study evaluated the use of telemedicine for diagnosing patients in remote public hospitals to improve provision of basic health services to patients with chronic disease during the COVID-19 pandemic. The type and frequency of diagnostic studies performed were determined.
Results. During the study 677,023 telediagnoses were performed in 67 hospitals. The 435,568 electrocardiograms performed in 61 hospitals indicated normal physiology (60.1%), unspecified arrhythmias (10.5%), and sinus bradycardia (8.4%). The 227,360 teletomography tests performed in 12 hospitals were undertaken on the head (52.4%) because of trauma (motorcycle accidents) and cerebrovascular diseases, chest (15.8 %), and other anatomical regions. The 14,076 electroencephalograms performed in 19 hospitals were undertaken for antecedents of seizure (53.3%), disease progression controls (14.0%), and headache (12.5%). Nineteen prenatal ultrasound scans were conducted.

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