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Maintenance of oncological treatment during the COVID-19 pandemic: literature review

Mantenimiento del tratamiento oncológico durante la pandemia COVID-19: revisión de la literatura**Manutenção do tratamento oncológico frente à pandemia de COVID-19: revisão de literatura****ABSTRACT**

Objective: To identify in the Brazilian literature the strategies adopted in health services to maintain cancer treatment during the COVID-19 pandemic. **Methods:** This is a literature review carried out in the Latin American and Caribbean Health Sciences, Medical Literature Analysis and Retrieval System online databases, PubMed and the Scientific Electronic Library Online electronic library, which included productions of the year 2020, in English and Portuguese, as long as they addressed the national context on the proposed theme. **Results:** Four articles were selected that helped in the construction of two categories, namely: coping with the maintenance of cancer treatment by patients and organization of Brazilian cancer health services to maintain the treatment. **Conclusion:** It can be considered that there are still a limited number of articles in the national scenario on the theme addressed and that the gaps in the construction of knowledge directly interfere in the care of cancer patients in the course of their treatment.

DESCRIPTORS: Medical Oncology; COVID-19; Treatment; Review.

RESUMEN

Objetivo: Identificar en la literatura brasileña las estrategias adoptadas en los servicios de salud para mantener el tratamiento del cáncer durante la pandemia de COVID-19. **Métodos:** Se trata de una revisión bibliográfica realizada en las bases de datos en línea de Ciencias de la Salud de América Latina y el Caribe, Sistema de Recuperación y Análisis de Literatura Médica, PubMed y la Biblioteca Electrónica en Línea Científica, que incluyó producciones del año 2020, en inglés y portugués, siempre que aborden el contexto nacional sobre el tema propuesto. **Resultados:** Se seleccionaron cuatro artículos que ayudaron en la construcción de dos categorías, a saber: afrontamiento del mantenimiento del tratamiento oncológico por parte de los pacientes y organización de los servicios brasileños de salud oncológica para mantener el tratamiento. **Conclusión:** Se puede considerar que aún existe un número limitado de artículos en el escenario nacional sobre el tema abordado y que las brechas en la construcción del conocimiento interfieren directamente en la atención de los pacientes oncológicos en el transcurso de su tratamiento.

DESCRIPTORES: Oncología Médica; COVID-19; Tratamiento; Revisión.

RESUMO

Objetivo: Identificar na literatura brasileira as estratégias adotadas nos serviços de saúde para manutenção do tratamento oncológico durante a pandemia de COVID-19. **Métodos:** Trata-se de uma revisão da literatura realizada nas bases de dados Literatura Latino-Americana e do Caribe em Ciências da Saúde, Medical Literature Analysis and Retrieval System on-line, PubMed e na biblioteca eletrônica Scientific Electronic Library Online, que incluiu produções do ano de 2020, nos idiomas inglês e português, desde que abordassem o contexto nacional sobre a temática proposta. **Resultados:** Foram selecionados quatro artigos que auxiliaram na construção de duas categorias, a saber: enfrentamento da manutenção do tratamento oncológico pelos pacientes e organização dos serviços de saúde oncológicos brasileiros para manutenção do tratamento. **Conclusão:** Pode-se considerar que há um número ainda restrito de artigos no cenário nacional sobre a temática abordada e que tal lacuna interfira diretamente no curso de tratamento do paciente com câncer.

DESCRIPTORES: Oncologia; COVID-19; Tratamento; Revisão.

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INTRODUCTION

The end of 2019 was characterized by the emergence of a viral disease in Wuhan, China, which impacted the world. Named as COVID-19 (Corona Virus Disease), caused by the new coronavirus (SARS-CoV-2), on March 11, 2020 it was classified as a pandemic by the World Health Organization (WHO). Since the outbreak of the disease as a public health emergency, new approach protocols to control its rapid spread have emerged. These new protocols have a severe impact on the overall health care of the population, as well as alter the health care of other clinical conditions in progress.⁽¹⁾

Science points to the need to adopt prevention and control strategies in order to avoid the strangulation of health services due to the accelerated transmissibility and the increase in the

number of disease cases.⁽²⁾ There was also a need for attention to risk groups: the elderly, people with chronic diseases such as hypertension, heart disease, diabetes, lung diseases and cancer, in addition to other diseases and treatments that lead to immunosuppression or people who fit this profile even though temporarily.⁽³⁾

Individuals with cancer are among those most at risk for severe forms of Covid-19. This group has been configured for decades as an important public health problem and is part of the list of the four main causes of premature death (before the age of 70) in most nations. The incidence and mortality from cancer has its growth related to aging and population growth, as well as in the prevalence of cancer risk factors, especially those associated with socioeconomic development. The National Cancer Institute (INCA - Instituto Nacional

de Câncer) estimates that, for each year of the 2020-2022 triennium, 625 thousand new cases of cancer will occur in Brazil (450 thousand, excluding cases of non-melanoma skin cancer).⁽⁴⁾

The Brazilian Society of Clinical Oncology (SBOC - Sociedade Brasileira de Oncologia Clínica), states that cancer patients often have a decrease in immunity due to the disease itself or the immunosuppressive effect of the therapeutic treatment adopted. It also points out that when an immunosuppressed individual acquires SARS-CoV-2 infection, both the risk of evolving to severe forms and death are significantly greater. They also indicate that among "cancer patients, those most at risk are those: with hematological neoplasms (such as leukemias, lymphomas and multiple myeloma); who underwent bone marrow transplantation; undergoing chemotherapy".⁽⁵⁾

Thus, health services as a whole, especially cancer care, demanded a reorganization of the physical space, flows and protocols with the establishment of the pandemic. This scenario delayed or postponed in many cases the continuity of cancer treatment due to social isolation, however the most urgent ones were maintained, from the medical evaluation, following the adjustments proposed by the contingency plans of each unit.⁽⁶⁾

It is necessary, therefore, to know how the actions of oncological health services in favor of maintaining treatment in a pandemic time have been structured, and from this knowledge to promote the dissemination of successful measures and/or difficulties found under the Brazilian health system's perspective. Thus, the objective of this research was to identify in the bibliographic production the strategies adopted in the Brazilian health services to maintain the oncological treatment during the COVID-19 pandemic.

METHODS

This is an integrative literature review based on an electronic bibliographic survey focusing on Brazilian production. The search was carried out in the databases: Latin American and Caribbean Literature in Health Sciences (LILACS), Medical Literature Analysis and Retrieval System online (MEDLINE) via Virtual Health Library (VHL), PubMed and in the electronic library Scientific Electronic Library Online (SciELO) in the period of October 2020.

The methodological path used the PICO strategy, represented by the acronym of the English terms "Patient/Problem", "Intervention", "Comparison" and "Outcomes". Such a strategy is applied in the initial phase in order to identify the descriptors for the location of relevant studies in the selected databases.⁽⁷⁾ In this research, P refers to the problem of maintaining cancer treatment during the course of the pan-

dem; o I as an Intervention or indicator, the actions taken to minimize the effects of the pandemic on cancer treatment. The C, as Comparison or control, is not applicable in this study, and the C as Out-come (outcome), to verify what the literature has pointed out actions for the maintenance of the oncological treatment in face of the Covid-19 pandemic. The conduct of this study went through the following steps: elaboration of the research question, search for studies, data extraction, evaluation of studies, analysis and synthesis of results and presentation.

Thus, the objective of this research was to identify in the bibliographic production the strategies adopted in the Brazilian health services to maintain the oncological treatment during the COVID-19 pandemic.

The guiding questions were: "What strategies were adopted in health services for the maintenance of cancer treatment during the pandemic COVID-19 in Brazil?", "What difficulties were found in oncological health services to guarantee the

maintenance of treatment?", "What is the preliminary impact of the pandemic in the context of cancer treatment?".

To carry out the search, the keywords "oncology", "COVID-19" and "treatment" were selected, associating the Boolean operator "and". The time frame comprised only the year 2020 due to the establishment of the epidemic of the new coronavirus in Brazil.

Inclusion criteria were: online articles that included the theme and were in full text format, in English or Portuguese. The exclusion occurred with those articles that did not meet the aforementioned criteria or whose content did not have a thematic link with the research, even if they were found from the descriptors selection.

In the study search stage, 2 studies were found at LILACS; in Scielo 2 articles; in MEDLINE 232 articles and PubMed 87 studies found. In PubMed, when applying the inclusion and exclusion criteria, reading the titles and abstracts, no article was selected, as most of them dealt with drug therapy, clinical trials and other thematic proposals. At MEDLINE, 108 studies remained after the filters. With the application of the inclusion and exclusion criteria, in addition to reading the titles and abstracts, only 2 articles were chosen since the studies with a thematic link were about the strategies and outcomes adopted to maintain cancer treatment in other countries and not about the Brazilian health service. These two articles were in duplicate considering the selection of the other bases mentioned above.

Thus, there were 4 studies that met the proposal of this review. The following flowchart (Figure 1) describes the process of capturing and analyzing potentially relevant studies.

The pre-selection of articles was done by the preliminary reading of titles and abstracts. The pre-selected studies were read in full for the final selection of articles for analysis. The data of the selected articles were recorded individually, with

emphasis on authors, article name, publication journal and objectives.

The review of the process was based on the recommendations of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) conference list.

RESULTS

The literature survey on the theme proposed in this study resulted in the selection of 4 publications, according to Chart 1:

Two thematic categories were formed regarding the maintenance of cancer treatment, namely: coping with the maintenance of cancer treatment by patients and the organization of oncological health services to maintain the treatment.

DISCUSSION

Coping with the maintenance of cancer treatment by patients

The current pandemic of the new COVID-19 has brought to the world popu-

lation several challenges and reflections due to the need for confinement and restriction to coexistence in society. Such factors can directly impact the mental health of some individuals.⁽¹²⁾

In the study developed by Duarte and collaborators⁽¹²⁾ it was shown that risk groups, such as pregnant women, people over 60 years old or with pre-existing diseases would have 1,6 times more chances of risk for mental disorders. In addition, economic factors and a decrease in family income and the high volume of negative information are also directly linked to the possible psychological disorders that some individuals may develop.

It is known that receiving news of a cancer diagnosis has a great impact on every family segment, not only the one affected by the disease. It can cause fear, anxiety and insecurity as changes occur in daily life and in interpersonal relationships, in addition to possible changes in body image. Despite the adversities found throughout the process between diagnosis and treatment, some patients are optimistic about the future.⁽¹³⁾

Cancer patients belong to the COVID-19 risk group since the underlying disease can directly affect the individual's immunity, making them susceptible to infections, thus, the risk of developing complications caused by the virus

Figure 1 – Flowchart of the search in the databases. Rio de Janeiro, RJ, Brazil, 2020.

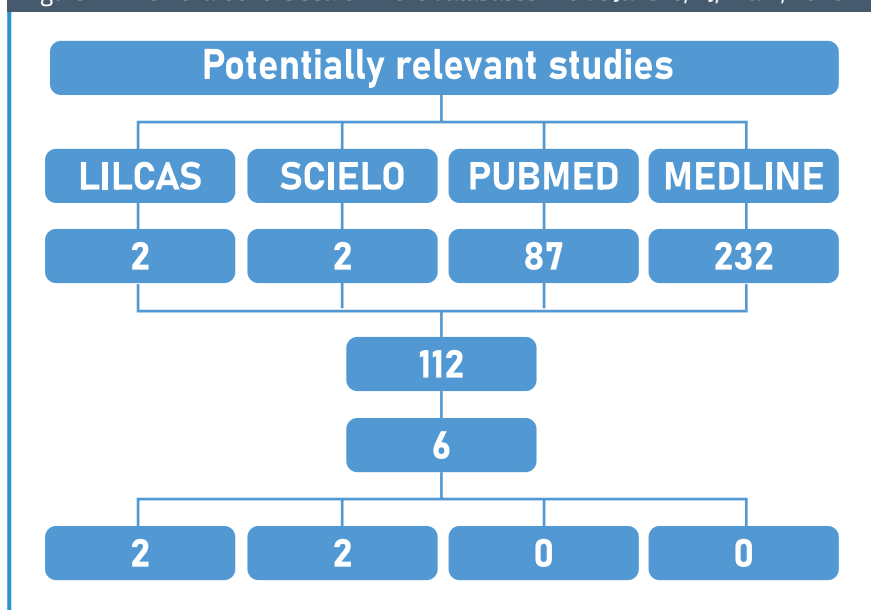


Chart 1 – Summary of articles selected for review. Rio de Janeiro, RJ, Brazil, 2020.

AUTHOR(S)	ARTICLE	JOURNAL	OBJECTIVES
Sousa et al. (2020) ⁽⁸⁾	Cancer in times of COVID-19: repercussions on the lives of women undergoing cancer treatment	Rev enferm UERJ	Understand the experience of coping and repercussions of COVID-19, in the perception of women undergoing cancer treatment.
Pinheiro et al. (2020) ⁽⁹⁾	Surgical cancer care in the COVID-19 era: front line views and consensus.	Rev. Col. Bras. Cir.	Suggest a script for surgical oncology assistance in the COVID-19 pandemic in Brazil.
Sampaio, Dias, Freitas (2020) ⁽¹⁰⁾	Evaluation of the Action Plan Implemented by the Medical Service of a Referral Unit in Palliative Oncology Care in the face of the Covid-19 Pandemic	Revista brasileira de cancerologia	Describe points about the elaboration and implementation of the action plan against the pandemic COVID-19 in an oncology unit.
Sternberg et al. (2020) ⁽¹¹⁾	Oncology practice during COVID-19 pandemic: a fast response is the best response.	Rev. Assoc. Med. Bras.	Present a contingency plan to mitigate the impacts of the pandemic for cancer employees and patients.

Source: The authors (2021)

becomes greater. The fear caused by the combination of adversities can directly affect the patient's quality of life, as well as causing damage to the continuity of his treatment.⁽⁶⁾

Difficulties imposed by the pandemic, such as social distance, reduced means of public transport, extra financial expenses imposed by the change in routine in home isolation and even generalized unemployment, for example, can directly impact the maintenance of cancer treatment for patients. It is up to the health services to find strategies to minimize this impact and reduce possible losses caused by its interruption.

For the group of people affected with cancer, the preventive measures against the infection caused by COVID-19, had to be reinforced since this group is more vulnerable. Therefore, there is an even greater limitation in relation to social interaction. At this point, it is up to the health professional to pay greater attention to the signs that the patient shows in relation to the safety and continuity of treatment.⁽⁸⁾

The study by Souza and collaborators⁽⁸⁾ brings, exemplifies the use of a virtual tool to face breast cancer during the pandemic, where women were invited to participate in an online meeting and were able to share their perceptions regarding the difficulties experienced during this period while undergoing their treatment. Some challenges encountered during this period were punctuated, among them are: sadness, anxiety and fear of contamination by the virus and leaving the house to carry out the treatment and even the desire to discontinue it.

Thus, the direct impact of the pandemic on the continuity of treatment is evidenced since the cancer itself generates doubts regarding the life planning of these people, which becomes even more doubtful from this new demand. In order for the consequences to be minimized, a careful look by the health team is necessary, they must prepare themselves by seeking strategies that facilitate the continuity of treatment.⁽⁸⁾

Organization of Brazilian oncology health services to maintain treatment

In view of the pandemic scenario, it was necessary for health services to devise strategies to change the flow within the units with a view to continuing treatments. The adaptations made need to prioritize the safety of users and professionals, since there was a fear that health units would collapse due to increased demand or lack of professionals.

For the group of people affected with cancer, the preventive measures against the infection caused by COVID-19, had to be reinforced since this group is more vulnerable.

One of the articles in this review reports the organization of a referral emergency care service for palliative oncology care in Rio de Janeiro. Such research concluded that the identifica-

tion of suspicious and asymptomatic cases would be decisive for there to be no dissemination by the unit. Pre-screening was implemented outside the sector, and suspected patients were sent to an isolation room to receive the first care, with the possibility of later discharge or referral to hospital.⁽¹⁰⁾

Health institutions needed to design a contingency plan to assess the risk-benefit of maintaining a treatment and exposing the patient or postponing it and possible progression of cancer, from the hospital to the outpatient level. Sternberg and collaborators⁽¹¹⁾, generally recommend: maintaining adjuvant chemotherapy with curative intent for those who have already started treatment, not performing adjuvant chemotherapy when there are few benefits, switching intravenous drugs to the oral route when possible for patients with metastatic disease, maintaining curative radiotherapy or for oncological emergencies and postponement of consultations when the user is not undergoing treatment and within the individual limits imposed by the oncological disease.

To reduce damage to treatment, health centers may adopt some measures, such as: scheduling appointments online, increasing the interval between chemotherapy sessions when possible, reducing the fractionation of radiotherapy (hypofractionation) or replacing venous chemotherapy with oral chemotherapy.⁽⁶⁾ Within a treatment unit, it is possible to align a new flow, separating suspects from non-suspects, before entering an emergency department.⁽¹⁰⁾

For patients who could not have their appointments rescheduled, the literature suggests staying in a waiting room with a distance of 2 meters, however if COVID-19 is suspected, there is a need to reschedule the appointment and monitor the suspected patient. For the service to work effectively, it is also necessary that the health team is trained and ensures safe practices. The authors state that to ensure continuity of care, the telemedicine service is an option to

provide guidance and referrals, inspect health parameters or just to exchange information. ⁽¹¹⁾

In a study ⁽⁹⁾, the implementation of double screening before the procedures contributed to the continuity of care and, if there was any possibility of contamination, the patient would be dismissed and would return in 7 days. If he remained without signs of infection, he would only undergo surgery if he tested negative twice.

Despite all the care carried out in several hospital units, cases of COVID-19 diagnosis in the postoperative period were described and, based on these, consensus was established (use of masks even for those patients who did not present symptoms, the optimization of the teams to reduce exposure and consumption of

personal protective equipment, as well as establishing priority in care). ⁽⁸⁾

As a limitation of this review, the production of articles addressing the maintenance of cancer treatment in the Brazilian scenario, whether in relation to the organization of health services or barriers encountered by users, is still scarce.

What is noted is that there is an urgent need to increase the discussion of measures for rapid approach in the treatment of oncological disease, safely in the midst of the pandemic, as well as in the investment in sources of information based on the creation of new mechanisms of security of the patients who guarantee health care free of damages and with a gain in the quality of life of users of oncology services.

CONCLUSION

The state of the art of knowledge production regarding the maintenance of cancer treatment in the face of the Covid-19 pandemic shows that studies and publications on the subject are incipient because it is a recent event, still ongoing, in addition to the delimitation of a scenario as specific as cancer treatment.

The limited number of articles leaves gaps in the construction of knowledge on the topic. It is necessary that new investigations are carried out to build a body of scientific evidence that can assist in the better exploration of the theme, support treatment protocols and flows in the service units, enabling the successful handling of problems presented both from the perspective of the service and the user. ■

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