

Recommendations for Physiotherapy in Breast and Gynecological Cancer during COVID-19 Pandemic: Literature Review

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Recomendações para Fisioterapia em Oncologia Mamária e Ginecológica durante a Pandemia de COVID-19: Revisão da Literatura

Recomendaciones de Fisioterapia en Oncología Mamaria y Ginecológica durante la Pandemia Covid-19: Revisión de Literatura

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ABSTRACT

Introduction: Considering COVID-19 pandemic, physiotherapeutic care for breast and gynecological cancer has the challenge of continuing or beginning the treatment, preventing or treating complications. **Objective:** To offer guidance about physiotherapy for breast and gynecological cancer during and after the COVID-19 pandemic. **Method:** Descriptive study produced after a public consultation about the theme and based on literature review and opinions of a group of experts. To classify the strength of the recommendations of the outcomes included, the GRADE system was used. **Results:** 82 Brazilian physiotherapists responded the online survey. Most of the professionals (36.6%) reported they needed information about the use of personal protective equipment and its hygiene, 18.3%, control and prevention of lymphedema, bandaging and skin care and 17.1%, pelvic floor dysfunction. The analysis of the public consultation, literature review and expert's consensus resulted in recommendations related to the impact of the COVID-19 pandemic over the care to women undergoing breast or gynecological cancer treatment and on physiotherapy follow-up; on telephysiotherapy follow-up of the most prevalent complications; on women in palliative care and safety after resuming in-person consultation. Aspects of the decision making in relation to the format of the sessions were discussed and the criteria to return to in-person routine. **Conclusion:** This manuscript recommends the continuation of the physiotherapy services during and after the COVID-19 pandemic highlighting the educative and self-applied components of the sessions, prioritizing a physical activity plan and specific exercises to contribute for better quality of life of the women.

Key words: Coronavirus Infections; Physical Therapy Modalities; eHealth Strategies; Breast Neoplasms; Genital Neoplasms, Female.

RESUMO

Introdução: Considerando a pandemia de Covid-19 e a assistência fisioterapêutica nos cânceres de mama e ginecológico, o desafio tem sido continuar ou iniciar a fisioterapia para prevenir ou tratar complicações. **Objetivo:** Oferecer recomendações voltadas à fisioterapia para os cânceres de mama e ginecológico durante o período de Covid-19. **Método:** Estudo descritivo produzido após consulta pública sobre o tema, baseado na revisão da literatura e nas considerações de grupo de especialistas. Para graduar a força das recomendações para os desfechos incluídos, utilizou-se o sistema GRADE. **Resultados:** Oitenta e dois fisioterapeutas de diferentes regiões brasileiras responderam à pesquisa, remotamente. A maioria (36,6%) relatou necessidade de informação sobre equipamento de proteção individual e sua higiene; 18,3% sobre controle e prevenção de linfedema, enfaixamento compressivo e cuidados com a pele; e 17,1% sobre disfunção do assoalho pélvico. A análise da consulta pública, revisão da literatura e considerações dos especialistas resultaram nas recomendações sobre: impacto da pandemia de Covid-19 no acompanhamento fisioterapêutico das mulheres submetidas ao tratamento oncológico mamário ou ginecológico; acompanhamento das complicações mais prevalentes por meio da telefisioterapia; atenção às mulheres em cuidados paliativos; e segurança na assistência após retorno presencial. Aspectos da tomada de decisão em relação ao formato das sessões e critérios de retorno à rotina presencial foram discutidos. **Conclusão:** Este manuscrito recomenda a continuidade da fisioterapia durante e após a pandemia de Covid-19, destacando componentes educativos e de autoaplicação, priorizando um plano de atividade física e exercícios específicos para contribuir para melhor qualidade de vida das mulheres. **Palavras-chave:** Infecções por Coronavirus; Modalidades de Fisioterapia; Estratégias de eSaúde; Neoplasias da Mama; Neoplasias dos Genitais Femininos.

RESUMEN

Introducción: Considerando la pandemia de Covid-19 y la asistencia de fisioterapia en cáncer de mama y ginecológico, el desafío ha sido continuar o iniciar la fisioterapia para prevenir o tratar complicaciones. **Objetivo:** Ofrecer recomendaciones de fisioterapia para el cáncer de mama y ginecológico durante la pandemia. **Método:** Estudio descriptivo elaborado tras una consulta pública sobre el tema, basado en una revisión de la literatura y consideraciones de expertos. Para calificar la fuerza de las recomendaciones se utilizó el sistema GRADE. **Resultados:** Ochenta y dos fisioterapeutas brasileños respondieron a la encuesta; 36,6% refirió la necesidad de información sobre equipos de protección personal e higiene; 18,3% en el control y prevención del linfedema, vendajes compresivos y cuidado de la piel; 17,1% en disfunción del suelo pélvico. El análisis de la consulta pública, la revisión de la literatura y las consideraciones de los expertos dieron como resultado las recomendaciones sobre: impacto de la pandemia Covid-19 en el seguimiento fisioterapéutico de mujeres sometidas a tratamiento por cáncer de mama y ginecológico; seguimiento de las complicaciones más prevalentes mediante teleterapia; atención a mujeres en cuidados paliativos; y seguridad en la asistencia después del regreso en persona. Se discutieron aspectos de la toma de decisión y se relación al formato de las sesiones y criterios para volver a la rutina presencial. **Conclusión:** Este manuscrito presenta algunas recomendaciones para la continuidad de la fisioterapia durante la pandemia, destacando los componentes educativos y de autorrealización de las guías, y priorizando un plan de actividad física y ejercicios específicos para contribuir con mejor calidad de vida. **Palabras clave:** Infecciones por Coronavirus; Modalidades de Fisioterapia; Estrategias de eSalud; Neoplasias de la Mama; Neoplasias de los Genitales Femeninos.

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INTRODUCTION

On March 11, 2020, the World Health Organization (WHO) declared the COVID-19 pandemic, which triggered the global health crisis. In this pandemic period, additional concerns and changes in cancer treatment plans have been reported in the literature, including increased interval between diagnosis and the beginning of the treatment^{1,2}.

Worldwide estimates of 2018 indicated 18 million new cases of cancer and 9.6 million deaths. Breast cancer is the second most incident, with 2.1 million new cases³. In Brazil, 66,280 new cases of breast cancer are estimated for 2020. Regarding gynecological cancers for 2020, the most prevalent will be cervix, uterine body and ovary cancer, with an incidence of 16,590, 6,540 and 6,650, respectively³.

Considering this global health crisis, physiotherapy for breast and gynecological oncology has the challenge of continuing or beginning the treatment for these women, preventing or treating early and late postoperative complications^{4,5}. The physiotherapist's skills and competences enable the performance of the kinetic-functional diagnosis and use of resources to promote pain relief, prevention or treatment of complications secondary to cancer therapy that compromise functionality and quality of life. Care must be ensured with safety for professionals and patients and strategies should be considered to provide health care while preserving social distancing.

WHO has suggested the use of technologies to provide health care and a thorough analysis of the scientific evidence and consideration of benefits and harms⁶. To date, no manuscript summarizing the evidence of physiotherapeutic care to breast and gynecological oncology patients was found using mobile health or telehealth. This manuscript aims to offer some guidance regarding physiotherapy for breast and gynecological oncology during the COVID-19 pandemic.

METHOD

Descriptive study with recommendations to guide physiotherapists care targeted to breast and gynecological oncology patients during the COVID-19 pandemic. It was drafted based on literature review, and conclusions of an expert's group.

DEVELOPMENT OF THE RECOMMENDATION

This manuscript is an adaptation of a document with recommendations that a group of experts of the Brazilian Association of Physiotherapy in Women's Health

(ABRAFISM) coordinated and produced with consultants of the National Cancer Institute José Alencar Gomes da Silva (INCA), Oncology Research Center (Florianópolis – Santa Catarina State, Brazil) and physiotherapists specialized in oncology treatment and in women's health physiotherapy.

ABRAFISM conducted a remote public consultation via online survey from August 14 to August 20, 2020. Physiotherapists were asked to respond to the following question: What topics and guidance do you consider important to support physiotherapists practices for breast and gynecological oncology patients during the COVID-19 pandemic? The question was asked openly allowing the participants to list various topics they found important to be addressed.

A literature review was conducted from August to September 2020 in PubMed and Web of Science restricted to English and Portuguese articles. Existing systematic reviews and primary studies were searched. Two search strategies were used in PubMed and Web of Science: Strategy 1: ("gynecological cancer" OR lymphedema OR "breast cancer" OR "vaginal stenosis") AND (physiotherapy* OR physical therapy* OR rehabilitation) AND (tele* OR e-health OR "mobile health" OR "internet-based treatment" OR "home-based treatment"). Strategy 2: (chemotherapy-induced peripheral neuropathy) AND (tele* OR e-health OR "mobile health" OR "internet-based treatment" OR "home-based treatment").

Two independent reviewers (ACNL) and (MMOS) performed separate searches and selection processes through titles, abstracts, and full text reading. Disagreements during the selection process were decided through discussion until a consensus was reached.

In order to classify the level of scientific evidence and strength of the recommendations the authors used the Grading of Recommendations Assessment, Development and Evaluation (GRADE)⁷. Two authors (MTPA) and (MMOS) utilized the software GRADEpro to extract the data from the articles according to the following criteria: risk of bias, data inconsistency, indirect evidence rate, inaccuracy, publication bias, large magnitude effect, potential confounding factors, and dose-response gradient⁸.

For the outcomes included in this recommendation whose design of the studies selected in the review did not allow evaluation with the GRADE system, the systematic reviews and meta-analyzes recommendations regarding physical therapy interventions to women undergoing treatment or treated for breast and gynecological cancer in-person were considered. However, experts consensus when there was no evidence or it was limited, prevailed. This

consensus was reached only when the authors, members of ABRAFISM approved the recommendation. In case of dissimilar opinions, the differences were discussed until a consensus was reached.

DATA ANALYSIS

The researchers were divided into three working groups. Group A was responsible for analyzing the results of the public consultation; group B conducted the literature review while group C discussed issues related to the telephysiotherapy in breast and gynecological oncology patients.

Online meetings were held in order to discuss the findings of the literature review and to propose the general and specific recommendations. First, the experts discussed each recommendation proposed until a consensus was reached and then the recommendations were subsequently submitted to an additional group of experts (specialized in oncology and women’s health) who assessed the proposed content and suggested revisions. Finally, the initial group of experts analyzed the suggestions and again reached a consensus about the last version of the document containing the recommendations.

RESULTS

A total of 82 physiotherapists from different Brazilian regions responded the online public consultation that ABRAFISM conducted. Most of the professionals (36.6%) reported they needed information about the use of personal protective equipment and its hygiene, 18.3%, on control and prevention of lymphedema, bandaging and skin care and 17.1%, pelvic floor dysfunction (e.g. urinary incontinence, anorectal symptoms, vaginal stenosis and sexual dysfunction). Table 1 summarizes the online survey results.

485 references were found in the databases and a total of 32 studies were included in these recommendations. Figure 1 shows the flowchart of the study selection process.

Based on the literature review and consensus the experts addressed the following main topics: 1 – The impact of the COVID-19 pandemic on the care of women undergoing breast or gynecological cancer treatment and on physiotherapy follow-up; 2 – Considerations on physiotherapy for breast and gynecological cancer patients; 3 – Telephysiotherapy follow-up of the most prevalent complications (the GRADE system was used in this topic); 4 – Recommendations on telephysiotherapy directed to women in palliative care (the GRADE system was used in this topic); 5 – Recommendations and safety issues to return to in-person consultation. These topics were summarized and presented below:

Table 1. Category, number and percentage of physiotherapists’ response (n=82), Brazil 2020

Category of response	N	%
Control and prevention of lymphedema, bandaging and skin care	15	18.3%
Health care in oncology during the COVID-19 pandemic	11	13.4%
Palliative care during the COVID-19 pandemic	3	3.7%
Functional disability	3	3.7%
Emotional aspects of patients	3	3.7%
Personal Protective Equipment and hygiene	30	36.6%
Prevention and identification of COVID-19 symptoms	4	4.9%
Sensory changes and pain	3	3.7%
Telehealth or in-person care	12	14.6%
Pelvic floor dysfunctions	14	17.1%
Promotion of physical exercise	4	4.9%
Periodic guidelines for patients and caregivers	9	11%
Cancer-related prevention and complications	12	14.6%

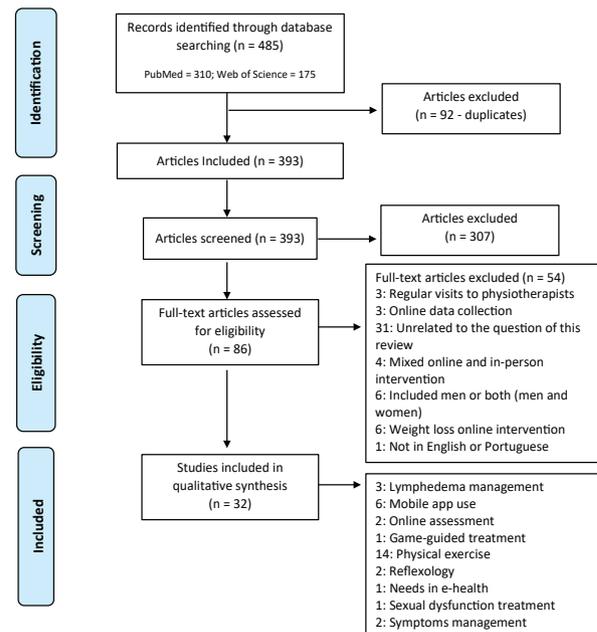


Fig 1. Flowchart of study selection process

1. The impact of the COVID-19 pandemic on the care of women undergoing breast or gynecological cancer treatment and on physiotherapy follow-up

The pandemic impacted the follow-up of cancer patients, since changes were needed in the allocation of health professionals and hospital beds, as well as the woman's consent process for continuity of care⁹. There are no guidelines regarding the management of these patients in the pandemic period and the risk and benefit of the intervention in the cancer population must be individualized. However, the biggest challenge is to plan the management of human resources¹⁰.

2. Considerations on physiotherapeutic consultation in the pre and immediate postoperative period of breast and gynecological cancer surgery

Physiotherapy practice must be carried out in a complementary manner and planned individually with a focus on the prevention of comorbidities and in the treatment of complications. Health promotion and rehabilitation are part of the essential strategies for cancer care while coping with COVID-19.

For women undergoing oncological surgery, preoperative and early postoperative physiotherapy aims to assess physical, functional and clinical conditions and to provide self-care instructions. The instructions are provided verbally with the aid of figures, or booklets and/or educational videos designed specifically for these patients. These early measures also aim to prevent thromboembolic, bowel, respiratory, lymphatic, musculoskeletal and urogynecological complications¹¹, favoring the return to activities of daily living and contributing for hospital discharge¹². For this purpose, active exercises for lower limbs and/or upper and pelvic floor muscles, encouragement to early ambulation and ventilatory patterns for pulmonary expansion are recommended.

Decision-making on physiotherapy follow-up after hospital discharge and oncological follow-up during the pandemic should be based on the best scientific evidence associated with the physiotherapist's experience, the service setting, and the patient's health conditions, preferences and values¹³. These considerations favor the reduction of physical, functional and emotional damages resulting from the suspension of in-person consultations. It is advisable, whenever possible, to suspend in-person physiotherapy sessions with stable patients without imminent risk of clinical worsening^{14,15}. For cases where there is a risk of decompensation or clinical worsening due to suspension of care, in-person monitoring must be maintained with the use of all biosafety rules recommended for the protection of the professional and the patient¹⁴.

3. Recommendations for telephysiotherapy follow-up in the most prevalent complications

I – Lymphedema

In a pre-COVID-19 pandemic context, the physiotherapeutic treatment prioritized interventions to improve and/or stabilize the condition of women with lymphedema. For the treatment of lymphedema with the highest level of evidence (Level 1), The International Society of Lymphology recommended the complex decongestive therapy (CDT)¹⁶. It includes skin care, manual lymphatic drainage, self-draining, multilayered bandage wrapping, self-bandaging, resistance exercises, and use of a low-stretch elastic stocking or sleeve or self-dressing¹⁷⁻²⁰. Based in randomized clinical trials (RCTs), systematic reviews and meta-analysis, it is essential to monitor the patient during the implementation of CDT resources.

None of the three studies found on this review assessed the effect of teleconsultation or telemonitoring on lymphedema, therefore, the recommendations below are based on experts' consensus and current literature about lymphedema management that Brazil's National Cancer Institute José Alencar Gomes da Silva (INCA)²¹ and the Spanish Group of Lymphology²² published. However, studies on CDT include home-based guidelines that demand a continuous and safe telemonitoring during the pandemic whenever possible.

- a. In the evaluation: check skin conditions; presence of phlogistic signs and fibrosis; heavy feeling; if possible, check the degree of lymphedema; how daily activities are carried out; if there are postural changes and information on whether or not to exercise and/or to perform physical activity with or without the use of compressive therapy²³.
- b. In the presence of lymphedema assessed in-person previously to reinforce skin care: guide lymphatic self-draining and self-bandaging; plan the use of compressive garments (low-stretch elastic stocking or sleeve), and encourage exercise while using the bandage, sleeve or sock²³.
- c. In the presence of lymphedema without in-person follow-up prior to the pandemic: assess and inform about the importance of guidelines for the control/treatment of lymphedema; plan strategies for adhering to the guidelines; guide skin care; and encourage exercise. The physiotherapist should evaluate thoroughly the option of guiding lymphatic self-draining and self-bandaging remotely, based in the severity of the lymphedema and the patient's ability or desire. Therefore, even if videos showing these techniques are used, the physiotherapist must be careful with this practice. One possibility is the indication of compressive garment (sleeve or sock) or

self-dressing for cases of absence of cutaneous lesion on the limb or when the patient or caregiver is insecure or unable to perform bandaging. The prescription of compression garments should be done with strict control of limb measurements²³⁻²⁵.

- d. Provide guidance regarding signs of worsening of lymphedema (pain, increased limb volume, altered sensitivity and changes in the skin) and the presence of inflammatory signs. In these cases, physiotherapy must be suspended, and the patient should seek medical advice²³.

II – Functional disability

Table 2 shows the recommendation degree according to the GRADE system. All the articles used the Disability Arm, Shoulder and Hand (DASH) Questionnaire to evaluate functionality.

- a. Assess the presence of postural changes, such as asymmetry of shoulders (elevation, depression and protrusion) and hip (inclination, rotation, ante or retroversion); and the range of motion of the upper or lower limbs²⁴.
- b. Check ability to perform activities of daily living and selfcare, and the presence and intensity of pain by the numerical or visual scale. Develop a scapular waist mobility exercise program, resistance exercises of upper limbs, pelvic mobility exercises (ante and pelvic retroversion) and stretching for lower limbs^{23,26}.
- c. Develop or encourage adherence to an online-supervised global physical exercise program (in group or individualized) aiming to improve or maintain global physical functioning, muscle strength and stretching, psychological well-being as well as reduce treatment-related side effects^{25,27,28}.

III – Chemotherapy induced peripheral neuropathy

Table 2 shows the recommendation degree pursuant to the GRADE system. The article included in the

GRADEpro used Neuropathic Pain Scale to verify peripheral neuropathy.

- a. In the telephysiotherapy evaluation it is essential to ask the patient about symptoms of muscle weakness in the upper and/or lower limbs; alteration of balance and history of falls; sensory changes; presence of pain and difficulty in performing the daily life activities as work and selfcare²⁹.
- b. Instruct patients to perform balance and gait training, and, if possible, resistance exercises for the members involved, in addition to interactive sensory exercises and skincare.
- c. Every guideline on exercises, balance and gait should be done in the presence of a caregiver.
- d. Guide the patient to seek medical advice, in view of the clear worsening of symptoms during chemotherapy.

IV – Vaginal stenosis

The recommendations described below were based on three systematic reviews³⁰⁻³², on the Brazilian consensus on vaginal stenosis in women undergoing pelvic radiotherapy³³ and on the group’s expert opinion. Although the use of vaginal dilators and perineal massage are interventions with a plausible physiological mechanism to cause an effect on vaginal stenosis, there is very low level of evidence about the effectiveness due to scarce and poor quality of RCTs. This issue should be openly discussed with patients for shared clinical decision making and interruption of the recommended measures in case of intolerance or discomfort. Based on two systematic reviews there is moderate evidence to recommend pelvic floor muscle training to improve the quality of life and sexual function of cancer survivors.

- 1. The presence of narrowing of the vaginal canal can be investigated through a structured interview, such as: How long ago did you finish brachytherapy? Do you feel pain/difficulty at the time of penetration? This pain/difficulty happens at what point of penetration,

Number of studies	Certainty assessment						Number of patients		Effect		Certainty
	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	In-person physiotherapy	Telephysiotherapy	Relative (95% CI)	Absolute (95% CI)	
Functionality (follow up: mean 6 months; assessed with: Disability Arm Shoulder and Hand; Scale from: 0 to 100)											
3	Randomised trials	Not serious	Not serious	Not serious	Serious ^a	None	138	137	-	0 (0 to 0)	⊕⊕⊕○ MODERATE
Fatigue (follow up: mean 8 months; assessed with: Functional Assessment of Chronic Illness Therapy– Fatigue Subscale; Scale from: 0 to 52)											
1	Randomised trials	Not serious	Not serious	Not serious	Not serious	None	67	67	-	0 (0 to 0)	⊕⊕⊕⊕ HIGH
Peripheral Neuropathy (follow up: mean 8 months; assessed with: Neuropathic Pain Scale; Scale from: 0 to 100)											
1	Randomised trials	Not serious	Not serious	Not serious	Not serious	None	67	67	-	0 (0 to 0)	⊕⊕⊕⊕ HIGH

Caption: CI: Confidence interval.

Note: ^a The confidence interval was not mentioned, and the magnitude of the effect was observed in a small number of events.

at the beginning or at the end? Do you feel that your vaginal canal is smaller? How is the gynecological medical exam for you?

2. Provide adequate information focused on sexual health, cancer-treatment related side effects as well as treatment options (responding possible questions) are essential for a better experience during vaginal stenosis treatment³⁴⁻³⁶.
3. Perineal self-massage before sexual intercourse should be guided, as it facilitates penetration and relieves pain if it brings comfort. Perform breathing exercises for relaxation, body awareness exercises, use of strategies for pelvic floor relaxation, use of gel or lubricating oil, adopting different positions during sexual intercourse allow women to control their movements for greater confidence and minimize pain^{36,37}.
4. Perineal self-massage can be guided with the aid of images of the region's anatomy and performed in a quiet and private environment. The duration should be for 3 to 5 minutes, with close observation of discomfort and bleeding. The patient should be seated, in front of the mirror, with her knees bent, and in this position, she should insert her thumb into the vaginal introitus, in a comfortable way, maintaining the pressure for at least 40 seconds in the posterior and lateral walls and without making a "back and forth" or half-moon movement in the lateral "U" side direction, mobilizing the tissue. It is necessary to maintain pressure on both sides while respecting the level of comfort³⁷. If there is any sign of infection, vaginal discharge, itching or bleeding, the procedure should be suspended and reported to the physiotherapist at the next telemonitoring.
5. The use of vaginal dilators must be recommended for the prevention and treatment of vaginal stenosis³³ and should be guided as follows: the choice of dilator to start treatment should be based on the resistance that the vaginal canal presents during the introduction of the device. The patient must remain with the dilator chosen in the vaginal canal for 5 to 10 minutes, 2 to 3 times a week. As the introduction of the dilator becomes easier and less resistant, the same process must be done with a larger dilator, and so on. Important: this technique should be performed regardless of whether the patient is having sexual intercourse.
6. The dilator must be sanitized immediately after use, with antibacterial soap and then stored in a dry and appropriate place.
7. For women who do not have access to the dilator, self-massage and pelvic floor exercises are recommended.
8. Pelvic floor muscles training is indicated for sexual dysfunctions since it increases muscle strength,

improves pelvic blood flow and provides increased recruitment of type I and II fibers³³.

9. The physiotherapist must develop individualized strategies favoring the patient's adherence to the care undertaken during virtual sessions, providing educational material such as written instructions in booklets, videos and applications.

V – Urogynecological dysfunctions

Refer to specific guidelines for physiotherapy care during the COVID-19 pandemic³⁸.

4. Recommendations on telephysiotherapy for women in oncologic palliative care

Among the outcomes of this topic, the recommendation to produce a fatigue-related effect followed GRADE classification (Table 2). For the others, the opinion of experts and a systematic review of the literature were considered, including the recommendations of the National Cancer Institute José Alencar Gomes da Silva (INCA)²¹ and from Vira et al.³⁹.

I – Change in functionality

- a. Identify the functional physical condition (if the patient is totally dependent, dependent or independent) so that care is planned based on the patient's functional potential and motivation.
- b. Establish an exercise program consisting of stretching, active, active-free, active-assisted and passive exercises. This program will also contribute for the reduction and/or improvement of other conditions characteristic of advanced cancer disease, such as dyspnea, fatigue, pain and lymphedema⁴⁰.
- c. Suspend the exercises in face of possible acute venous thrombosis in its severe form and guide the patient to seek medical evaluation.

II – Dyspnea

- a. The patient needs to have a correct body position; compresses to refresh the face; and wear comfortable clothes.
- b. The environment should be calm, ventilated and, when possible, the headboard of the bed should be raised.
- c. Respiratory and general kinesiotherapy must be performed actively or with the help of a family member or caregiver.
- d. The physiotherapist or family member or caregiver can guide and apply relaxation and energy conservation techniques.

III – Fatigue

- a. Energy conservation techniques should be applied, adapting the environment to facilitate tasks⁴¹.

- b. Important to replace tasks from the orthostatic position to the sitting position and schedule the activities from the lowest to the highest degree of energy expenditure, according to the patient's tolerance⁴¹.
- c. Perform exercises gradually with the objective of promoting functionality and encourage a lower degree of dependence contributes for the improvement of fatigue^{25,27}.

IV – Malignant lymphedema

- a. The use of an armband/compression stocking or indication to maintain the bandage should be assessed based on the characteristics of the patient, the evolution of palliative treatment or the disease²¹.
- b. The physiotherapist must be aware of the presence of thrombi (a common condition in cancer patients, especially those undergoing chemotherapy) and the characteristics of the skin so that the appropriate adjustments are made for the use of the CDT.
- c. Cases of suspected deep vein thrombosis and/or infection characterize medical emergencies and, therefore, it is recommended that the physiotherapist refer the patient to receive immediate medical care⁴².

V – Pain

- a. Currently, the evidences suggest the use of physiotherapy interventions as an adjunct to the primary line of pain treatment³⁹. It is recommended to use resources such as thermotherapy, kinesiotherapy, manual therapy and positioning guidance. The use of local heat in patients with lymphedema is contraindicated as it may aggravate the complication already installed.
- b. Manual therapy should be guided using superficial and deep maneuvers and weighing the characteristics of the skin (presence of lesions, signs of inflammation, and alteration of sensitivity). The frequency and duration of manual therapy should be adjusted according to the patient's benefits and desire⁴³.
- c. Breathing exercises and relaxation techniques should be guided. Guidance on the use and care in the application of each resource should also be given to the family member or caregiver.
- d. A very common characteristic for patients in palliative care is the overlap of these symptoms and in these situations, it is essential to remember that the option for certain techniques must be made from the patient's main complaint at that moment.
- e. It is worth emphasizing that some of the symptoms addressed here are common in COVID-19. Fatigue, and especially breathing difficulties, can be signs of infection of the new coronavirus and, therefore, the physiotherapist must be aware of the origin of these signs to perform the necessary referrals.

5. Recommendations and safety considerations to resume in-person consultations

- a. Wear Personal Protective Equipment (surgical mask and gloves, it is possible to add the use of face shield or goggles) during any consultation or in-person procedures, respecting all current hygiene and social distance recommendations.
- b. Guide the patient to attend the session only at the scheduled time and to strictly follow the social distance guidelines at the reception.
- c. Perform pre-service screening in order to identify possible symptoms of respiratory infection or check if there was contact between the patient and individuals with COVID-19.
- d. In cases of suspected COVID-19, confirm the negative test result before scheduling the physiotherapy appointment.
- e. Perform cleaning and disinfection of most touched surfaces such as door handles, light switches, handrails, elevator buttons, service area and equipment used between patient care reserving specific time for this.
- f. Keep the consultation environment ventilated.
- g. Measure the patient's temperature before starting the session.
- h. Do not share pens, clipboards or telephones with patients.
- i. Provide hygiene materials and guidelines to be performed in the service environment.
- j. Separate and dispose materials used in the service, as each country's regulatory authorities recommend.
- k. When treating patients cured of COVID-19, exercise prescription should consider the effect of the disease on the musculoskeletal and respiratory system. Symptoms such as myalgia, decreased breathing capacity, cough and fatigue will influence the patient's performance during kinesiotherapy.

DISCUSSION

The purpose of this manuscript was to provide guidance on physiotherapy on breast and gynecological cancer during and after the COVID-19 pandemic. The World Physiotherapy recommends that each country has its own guidelines for coping with COVID-19⁴⁴. However, as any specific recommendations related to this particular area were not identified, this manuscript adapted the recommendations of the ABRAFISM to offer guidance internationally.

The American Physical Therapy Association⁴⁵ supports the inclusion of physical therapy digital services in the policies and regulations at national and state levels to help society during the public health

emergency of COVID-19⁴⁵. Other associations such as the Australian and Canadian Physiotherapy Association support telephysiotherapy services especially for the most vulnerable populations⁴⁶. However, several countries like Brazil have only regulatory and targeted changes, recently allowing physiotherapists to practice telephysiotherapy.

As COVID-19 has spread widely and rapidly, there is a concern about overload in health centers worldwide. Thus, it is expected that the expansion of telephysiotherapy services including physical therapy, will provide timely and adequate assistance to symptomatic patients, minimizing exposure in health units to protect the professionals and other patients involved. Currently, there is no telehealth capacity to meet the growing demand and needs of patients during this pandemic, which results in the interruption of usual care in many health services worldwide units, exposing cancer patients to significant risks especially involving the impact of physiotherapy interruptions in their functionality.

There are several limitations and challenges for telephysiotherapy care, among them the accessibility and ability of the patient to navigate digital platforms, digital literacy (critical capacity), and the appropriate training of the physiotherapists to perform the best remote care practice possible, regarding evaluation, intervention and follow-up.

Among the various complications arising from breast or gynecological cancer treatment, lymphedema is noteworthy for its chronicity, high morbidity and difficulty for women to adhere to preventive practices and treatment strategies. According to Galiano-Castillo et al.²⁵ the use of an online system for a caregiver to assess lymphedema can contribute for the patient's determination of the influence this condition has in performing daily activities and make the necessary adjustments²⁵. Also, as part of the lymphedema assessment, Norman et al.⁴⁷ developed and validated a questionnaire that can be applied by telephone to characterize the severity of the lymphedema⁴⁷.

Although with a follow-up of only 6 months, a study remotely monitored the effect of patients' instructed self-care with an upper limb program and observed a positive impact on the prevention of lymphedema and on the quality of life of women operated for breast cancer²³.

Regarding the management of lymphedema, the International Society of Lymphology recommended CDT as the treatment of choice¹⁶. A fundamental part of this therapy is compressive bandaging and two studies indicated that the self-application of this resource can contribute to maintain or improve the condition^{18,48}.

However, the participants of these surveys were trained in-person over a period of 3 to 12 weeks. A technical note from the ABRAFISM⁴⁹ in addition to Thuler and Melo's⁵⁰

offer instructions to women on self-drainage and self-bandaging through video in this period of social isolation. However, the authors highlight that the physiotherapists should have autonomy to indicate the best and most appropriate format (synchronous, asynchronous or in-person) to instruct women to perform these self-applied techniques⁵⁰. The risk-benefit, the patient's condition, preferences, other personal factors and the availability of different treatment options should be taken into account as well. If in-person interaction and follow-up for lymphedema treatment before social isolation occurred, self-drainage and self-bandaging may be easier with remote guidance. Otherwise, the patient or caregiver application of the techniques may not have the desired effect. This is also true for the management of lymphedema in a context of advanced disease when the patient is in palliative care.

Another challenge the physiotherapist faces while performing telephysiotherapy is the risk of patients falling in cases of chemotherapy⁵ induced peripheral neuropathy¹. Although remote sessions could circumvent this complication, the professional must be aware of the severity of the neuropathy to provide instructions to prevent falls in the patients' daily life and during the telephysiotherapy sessions. According to Kolb et al.⁵¹, it is possible to track, by telephone, the symptoms of neuropathy and associate them with the risk of falling⁵¹. This careful monitoring in addition to patient training can facilitate the planning of more effective strategies to prevent falls⁵¹.

In this context, remote instructions for the prevention and treatment of vaginal stenosis must be carefully planned. Although the literature is not consistent in relation to the effectiveness of preventive measures or interventions to minimize vaginal adherence, the use of dilators is suggested³³.

The use of these devices can potentially bring physical and psychological benefits^{34,35}. On the other hand, there are barriers such as: the dilator's being associated with sexuality (some women perceive the device as an embarrassing sex toy, and its use being contrary to their cultural beliefs); unfavorable interactions with health professionals (absence or excess of information or even conflicting information); prejudicial physical signs and symptoms (pain, discomfort, bleeding)^{34,35}. These barriers can contribute to low adherence to therapy⁵² considering both prevention and rehabilitation; the physiotherapist must be aware of these issues while planning care strategies.

Economic and social issues must also be assessed before opting for remote care. Women who have poor housing conditions (small space shared by several people, underserved basic sanitation) and financial difficulty in acquiring the necessary devices for the success of

telephysiotherapy, have an increased chance of not achieving the expected result. Although the educational part of physiotherapy can be safely kept in relation to the transmission of the COVID-19 using a remote format, the effectiveness of the interventions used is not necessarily the same. Disadvantages such as the inability to assess patients in person, specially to conduct a physical exam, to monitor safety during exercises, the lack of appropriate support material to perform exercise sessions, and the limitations to apply all physiotherapy resources must be considered.

On the other hand, additional benefits of telephysiotherapy can result from the fact that many women live in places far from the health services, which in any case would already limit the physiotherapy monitoring and adherence to it. In addition, agility, availability of care and patient and professional safety contribute to the health benefits telephysiotherapy⁵³ provides.

For the therapeutic planning, treatment priorities should be established considering the social realities of each country and the epidemiological situation of COVID-19 in each region. The individual characteristics, agreement/preferences of each woman and the national laws in force, especially the physiotherapist's code of ethics, must be taken into account.

Physiotherapeutic interventions for the patient submitted to breast and gynecological cancer treatment have variable levels of evidence to contribute to the prevention or attenuation of the physical-functional symptoms the treatments cause. Although more than one systematic review available in the literature offer moderate to high evidence to recommend these interventions, there is a recognition of the need to conduct more randomized controlled clinical trials of high methodological quality⁵⁴⁻⁵⁶. However, it is important to emphasize that when making clinical decisions, these interventions in general are considered to have a risk-benefit ratio that favors their use, being well accepted and well evaluated by patients overall.

Physiotherapists^{57,58} should strongly encourage online activity programs to improve the quality of life, health and physical well-being of women with cancer. A systematic review concluded there is evidence to support patients adoption of self-care measures including home-based exercises in the management of secondary lymphedema⁵⁹. On a case-by-case basis, physiotherapists should make a clinical decision of each situation addressed in this manuscript considering the patient's assessment, needs, preference and conditions in order to provide women treated for breast and gynecological cancer the best practice safely during and after the COVID-19 pandemic.

A group of women physiotherapists, members of Brazilian Association of Women's Health Physiotherapy began to implement these recommendations that a team of oncology experts reviewed. In addition, the authors used the GRADE system as a tool to classify the levels of evidence and recommendations to what the systematic reviews and guidelines in this field have already established.

The limitations of this manuscript reflect the lack or scarcity of high quality RCTs investigating a variety of outcomes related to instructions and interventions delivered to patients using telephysiotherapy. However, the home instructions offered to women encompass an important part of the protocols for in-person consultations already well studied in the literature and most of them showing good levels of evidence. Despite the limitations, this study may be useful to offer guidance to continue the work of physiotherapists in this area during the COVID-19 pandemic.

CONCLUSION

Breast and gynecological cancer treatment can lead to physical, emotional and social adverse effects impacting negatively a woman's quality of life. Telephysiotherapy is a possible format to be planned to provide prevention and/or treatment of many complications affecting women's functionality. This manuscript provided some guidance to continue physiotherapy services during and after the COVID-19 pandemic, highlighting the educative and self-applied components of the sessions, prioritizing a physical activity plan and specific exercises to contribute to greater and better quality of life for this population group. Aspects of the decision making in relation to the format of the sessions were discussed as well as the criteria to resume in-person routine consultations providing safety for patients and physiotherapists. There is an untapped universe of possibilities for practice and research involving telephysiotherapy in breast and gynecological oncology in the future.

CONTRIBUTIONS

All authors have contributed to the study conception and/or design, collecting, analyzing and interpreting the data, wording, critical review and approved the final version to be published.

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CONFLICT OF INTEREST

The authors declare they have no conflict of interest.

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REFERENCES

1. Gasparri ML, Gentilini OD, Lueftner D, et al. Changes in breast cancer management during the Corona Virus Disease 19 pandemic: an international survey of the European Breast Cancer Research Association of Surgical Trialists (EUBREAST). *Breast*. 2020;52:110-5. doi: <https://doi.org/10.1016/j.breast.2020.05.006>
2. Williams VM, Kahn JM, Harkenrider MM, et al. COVID-19 impact on timing of brachytherapy treatment and strategies for risk mitigation. *Brachytherapy*. 2020;19(4):401-11. doi: <https://doi.org/10.1016/j.brachy.2020.04.005>
3. Instituto Nacional de Câncer José Alencar Gomes da Silva [Internet]. Rio de Janeiro: INCA; [data desconhecida]. Tipos de câncer: câncer de mama; 2020 [acesso 2020 ago 1]. Disponível em: <https://www.inca.gov.br/tipos-de-cancer/cancer-de-mama>
4. Loh SY, Musa AN. Methods to improve rehabilitation of patients following breast cancer surgery: a review of systematic reviews. *Breast Cancer (Dove Med Press)*. 2015;7:81-98. doi: <https://doi.org/10.2147/BCTT.S47012>
5. De Groef A, Van Kampen M, Dieltjens E, et al. Effectiveness of postoperative physical therapy for upper-limb impairments after breast cancer treatment: a systematic review. *Arch Phys Med Rehabil*. 2015;96(6):1140-53. doi: <https://doi.org/10.1016/j.apmr.2015.01.006>
6. World Health Organization. WHO guideline: recommendations on digital interventions for health system strengthening [Internet]. Geneva: WHO; 2019 [cited 2020 Aug 1]. Available from: <https://apps.who.int/iris/bitstream/handle/10665/311941/9789241550505-eng.pdf?ua=1>
7. Schünemann H, Brozek J, Guyatt G, et al, editors. GRADE handbook: handbook for grading the quality of evidence and the strength of recommendations using the GRADE approach [Internet]. [place unknown]: The GRADE Working Group; [2000?] [updated 2013 Oct; cited 2021 Apr 15]. Available from: guidelinedevelopment.org/handbook
8. GRADE Working Group. GRADEpro GDT [software]. McMaster University, Evidence Prime. c2020 [cited 2021 Apr 15]. Available from: <https://gradepro.org/>
9. Specht M, Sobti N, Rosado N, et al. High-efficiency same-day approach to breast reconstruction during the COVID-19 crisis. *Breast Cancer Res Treat*. 2020;182(3):679-88. doi: <https://doi.org/10.1007/s10549-020-05739-7>
10. Al-Shamsi HO, Alhazzani W, Alhurairi A, et al. A practical approach to the management of cancer patients during the novel coronavirus disease 2019 (COVID-19) pandemic: an International Collaborative Group. *Oncologist*. 2020;25(6):e936-e945. doi: <https://doi.org/10.1634/theoncologist.2020-0213>
11. Amaral MTP, Gannuny CS, Pinto e Silva MP, et al. Fisioterapia no tratamento do câncer ginecológico. In: Pinto e Silva MP, Marques AA, Amaral MTP, organizadores. *Tratado de fisioterapia em saúde da mulher*. 2. ed. Rio de Janeiro: Roca; 2019. p. 127-139.
12. Wu X, Liu Y, Zhu D, et al. Early prevention of complex decongestive therapy and rehabilitation exercise for prevention of lower extremity lymphedema after operation of gynecologic cancer. *Asian J Surg*. 2021;44(1):111-5. doi: <https://doi.org/10.1016/j.asjsur.2020.03.022>
13. Moreira MADM, Lustosa AM, Dutra F, et al. Políticas públicas de humanização: revisão integrativa da literatura. *Ciênc Saúde Coletiva*. 2015;20(10):3231-42. doi: <https://doi.org/10.1590/1413-812320152010.10462014>
14. Rizzi SKLA, Cerqueira MTAS, Gomes NA, et al. Nota técnica da Associação Brasileira de Fisioterapia em Oncologia sobre os atendimentos de fisioterapia em oncologia frente à pandemia de COVID-19. *Rev Bras Cancerol*. 2020;66(TemaAtual):e-1973. doi: <https://doi.org/10.32635/2176-9745.RBC.2020v66nTemaAtual.973>
15. Bland KA, Bigaran A, Campbell KL, et al. Exercising in isolation? The role of telehealth in exercise oncology during the COVID-19 pandemic and beyond. *Phys Ther*. 2020;100(10):1713-6. doi: <https://doi.org/10.1093/ptj/pzaa141>
16. Executive Committee of the International Society of Lymphology. The diagnosis and treatment of peripheral lymphedema: 2020 Consensus Document of the International Society of Lymphology. *Lymphology*. 2020;53(1):3-19.
17. Hasenoehrl T, Palma S, Ramazanov D, et al. Resistance exercise and breast cancer-related lymphedema—a systematic review update and meta-analysis. *Support Care Cancer*. 2020;28(8):3593-3603. doi: <https://doi.org/10.1007/s00520-020-05521-x>
18. Ligabue MB, Campanini I, Veroni P, et al. Efficacy of self-administered complex decongestive therapy on breast cancer-related lymphedema: a single-blind randomized controlled trial. *Breast Cancer Res Treat*. 2019;175(1):191-201. doi: <https://doi.org/10.1007/s10549-019-05136-9>
19. Rogan S, Taeymans J, Luginbuehl H, et al. Therapy modalities to reduce lymphoedema in female breast

- cancer patients: a systematic review and meta-analysis. *Breast Cancer Res Treat.* 2016;159(1):1-14. doi: <https://doi.org/10.1007/s10549-016-3919-4>
20. Ezzo J, Manheimer E, McNeely ML, et al. Manual lymphatic drainage for lymphedema following breast cancer treatment. *Cochrane Database Syst Rev.* 2015;(5):CD003475. doi: <https://doi.org/10.1002/14651858.CD003475.pub2>
 21. Macedo FO, Costa RM, Ferreira FO, et al. Linfedema secundário ao tratamento do câncer de mama: abordagem fisioterapêutica em tempos de pandemia. *Rev Bras Cancerol.* 2020;66(TemaAtual):e-1043. doi: <https://doi.org/10.32635/2176-9745.RBC.2020v66nTemaAtual.1043>
 22. Cordero IF, Martin ML, Gutiérrez LR, et al. [Management of patients with lymphatic diseases and lipoedema during the COVID-19 pandemic. Recommendations of the Spanish Group of Lymphology]. *Rehabilitacion (Madr).* 2020;54(4):276-83. Spanish. doi: <https://doi.org/10.1016/j.rh.2020.07.003>
 23. Temur K, Kapucu S. The effectiveness of lymphedema self-management in the prevention of breast cancer-related lymphedema and quality of life: a randomized controlled trial. *Eur J Oncol Nurs.* 2019;40:22-35. doi: <https://doi.org/10.1016/j.ejon.2019.02.006>
 24. Omidi Z, Kheirkhah M, Abolghasemi J, et al. Effect of lymphedema self-management group-based education compared with social network-based education on quality of life and fear of cancer recurrence in women with breast cancer: a randomized controlled clinical trial. *Qual Life Res.* 2020;29(7):1789-1800. doi: <https://doi.org/10.1007/s11136-020-02455-z>
 25. Galiano-Castillo N, Ariza-García A, Catarro-Villanueva I, et al. Agreement between telerehabilitation involving caregivers and face-to-face clinical assessment of lymphedema in breast cancer survivors. *Support Care Cancer.* 2014;22(1):253-8. doi: <https://doi.org/10.1007/s00520-013-1971-8>
 26. Chiang AT, Chen Q, Wang Y, et al. Motion sequence alignment for a Kinect-based in-home exercise system for lymphatic health and lymphedema intervention. *Annu Int Conf IEEE Eng Med Biol Soc.* 2018;2018:2072-5. doi: <https://doi.org/10.1109/EMBC.2018.8512635>
 27. Pinto BM, Rabin C, Papandonatos GD, et al. Maintenance of effects of a home-based physical activity program among breast cancer survivors. *Support Care Cancer.* 2008;16(11):1279-89. doi: <https://doi.org/10.1007/s00520-008-0434-0>
 28. Hayes SC, Rye S, Disipio T, et al. Exercise for health: a randomized, controlled trial evaluating the impact of a pragmatic, translational exercise intervention on the quality of life, function and treatment-related side effects following breast cancer. *Breast Cancer Res Treat.* 2013;137(1):175-86. doi: <https://doi.org/10.1007/s10549-012-2331-y>
 29. Kolb NA, Smith AG, Singleton JR, et al. Chemotherapy-related neuropathic symptom management: a randomized trial of an automated symptom-monitoring system paired with nurse practitioner follow-up. *Support Care Cancer.* 2018;26(5):1607-15. doi: <https://doi.org/10.1007/s00520-017-3970-7>
 30. Brennen R, Lin KY, Denehy L, et al. The effect of pelvic floor muscle interventions on pelvic floor dysfunction after gynecological cancer treatment: a systematic review. *Phys Ther.* 2020;100(8):1357-71. doi: <https://doi.org/10.1093/ptj/pzaa081>
 31. Ferreira CHJ, Dwyer PL, Davidson M, et al. Does pelvic floor muscle training improve female sexual function? A systematic review. *Int Urogynecol J.* 2015;26(12):1735-50. doi: <https://doi.org/10.1007/s00192-015-2749-y>
 32. Miles T, Johnson N. Vaginal dilator therapy for women receiving pelvic radiotherapy. *Cochrane Database Syst Rev.* 2014;2014(9):CD007291. doi: <https://doi.org/10.1002/14651858.CD007291.pub3>
 33. Matos SRL, Cunha MLR, Podgaec S, et al. Consensus for vaginal stenosis prevention in patients submitted to pelvic radiotherapy. *PLoS One.* 2019;14(8):e0221054. doi: <https://doi.org/10.1371/journal.pone.0221054>
 34. Bonner C, Nattress K, Anderson C, et al. Chore or priority? Barriers and facilitators affecting dilator use after pelvic radiotherapy for gynaecological cancer. *Support Care Cancer.* 2012;20(10):2305-13. doi: <https://doi.org/10.1007/s00520-011-1337-z>
 35. Bakker RM, Vermeer WM, Creutzberg CL, et al. Qualitative accounts of patients' determinants of vaginal dilator use after pelvic radiotherapy. *J Sex Med.* 2015;12(3):764-73. doi: <https://doi.org/10.1111/jsm.12776>
 36. Bober SL, Recklitis CJ, Michaud AL, et al. Improvement in sexual function after ovarian cancer: effects of sexual therapy and rehabilitation after treatment for ovarian cancer. *Cancer.* 2018;124(1):176-82. doi: <https://doi.org/10.1002/cncr.30976>
 37. Oliveira NFF, Oliveira MMF, Miquelutti MA, et al. Rehabilitation strategies for vaginal stenosis following pelvic radiotherapy. *Fisiot Brasil.* 2015;16(2):123-7. doi: <http://doi.org/10.33233/fb.v16i2.283>
 38. Ferreira CHJ, Driusso P, Haddad JM, et al. A guide to physiotherapy in urogynecology for patient care during the COVID-19 pandemic. *Int Urogynecol J.* 2021;32(1):203-10. doi: <http://doi.org/10.1007/s00192-020-04542-8>
 39. Vira P, Samuel SR, Amaravadi SK, et al. Role of physiotherapy in hospice care of patients with advanced cancer: a systematic review. *Am J Hosp Palliat Care.* 2021;38(5):503-11. doi: <https://doi.org/10.1177/1049909120951163>
 40. Pinto e Silva MP, Oliveira MMF, Lima e Souza J, et al. Fisioterapia em cuidados paliativos. In: Pinto e Silva MP, Marques AA, Amaral MTP, organizadores. *Tratado de*

- Fisioterapia em saúde da mulher. 2. ed. Rio de Janeiro: Roca; 2019. p 145-59.
41. Mendes EC, Silva LP, Chelles PA, et al. Atendimento fisioterapêutico ao paciente em cuidados paliativos oncológicos em tempos de pandemia por COVID-19: recomendações de uma unidade de referência. *Rev Bras Cancerol.* 2020;66(TemaAtual):e-1113. doi: <https://doi.org/10.32635/2176-9745.RBC.2020v66nTemaAtual.1113>
 42. Parsi K, van Rij AM, Meissner MH, et al. Triage of patients with venous and lymphatic diseases during the Covid-19 pandemic: the venous and lymphatic triage and acuity scale (veltas). *J Vasc Surg Venous Lymphat Disord.* 2020;8(5):706-10. doi: <https://doi.org/10.1016/j.jvsv.2020.05.002>
 43. Sikorskii A, Niyogi PG, Victorson D, et al. Symptom response analysis of a randomized controlled trial of reflexology for symptom management among women with advanced breast cancer. *Support Care Cancer.* 2020;28(3):1395-1404. doi: <https://doi.org/10.1007/s00520-019-04959-y>
 44. World Physiotherapy [Internet]. London: World Physiotherapy; c2021. COVID-19 information hub: World Physiotherapy is a global hub for information and resources about COVID-19 relevant to the physiotherapy profession; [cited 2020 Oct 6]. Available from: <https://world.physio/resources/covid-19-information-hub>
 45. American Physical Therapy Association [Internet]. Alexandria, VA: APTA; [date unknown]. APTA statement on patient care and practice management during COVID-19 outbreak; 2020 Mar17 [cited 2020 Oct 4]. Available from: <http://www.apta.org/Coronavirus/Statement/>
 46. Canadian Physiotherapy Association [Internet]. Ottawa, ON: Canadian Physiotherapy Association; c2020. The role of physiotherapy in safely supporting Canadians during the COVID-19 pandemic; 2020 Sept 25 [cited 2020 Oct 6]. Available from: <https://physiotherapy.ca/role-physiotherapy-safely-supporting-canadians-during-covid-19-pandemic>
 47. Norman SA, Miller LT, Erikson HB, et al. Development and validation of a telephone questionnaire to characterize lymphedema in women treated for breast cancer. *Phys Ther.* 2001;81(6):1192-205. doi: <https://doi.org/10.1093/ptj/81.6.1192>
 48. Shallwani SM, Hodgson P, Towers A. Examining obesity in lymphedema: a retrospective study of 178 new patients with suspected lymphedema at a Canadian hospital-based clinic. *Physiother Can.* 2020;72(1):18-25. doi: <https://doi.org/10.3138/ptc-2018-0076>
 49. Associação Brasileira de Fisioterapia em Saúde da Mulher. Recomendações da ABRAFISM sobre Fisioterapia em Mastologia e Ginecologia Oncológica em tempos de COVID-19 [Internet]. Ribeirão Preto: ABRAFISM; 2020 [acesso 2020 out 19]. Disponível em: <https://img1.wsimg.com/blobby/go/5fd0b5a6-04fa-4f9f-bd18-972cd09451f1/downloads/RECOMENDAC%CC%A7O%CC%83ES%20DA%20ABRAFISM%20-%20FISIOTERAPIA%20EM%20.pdf?ver=1618951354041>
 50. Thuler LCS, Melo AC. Sars-CoV-2/Covid-19 em pacientes com câncer. *Rev Bras Cancerol.* 2020;66(2):e-00970. doi: <https://doi.org/10.32635/2176-9745.RBC.2020v66n2.970>
 51. Kolb NA, Smith AG, Singleton JR, et al. The association of chemotherapy-induced peripheral neuropathy symptoms and the risk of falling. *JAMA Neurol.* 2016;73(7):860-6. doi: <https://doi.org/10.1001/jamaneuro.2016.0383>
 52. Lee Y. Patients' perception and adherence to vaginal dilator therapy: a systematic review and synthesis employing symbolic interactionism. *Patient Prefer Adherence.* 2018;12:551-60. doi: <https://doi.org/10.2147/PPA.S163273>
 53. Faett BL, Geyer MJ, Hoffman LA, et al. Design and development of a telerehabilitation self-management program for persons with chronic lower limb swelling and mobility limitations: preliminary evidence. *Nurs Res Pract.* 2012;2012:608059. doi: <https://doi.org/10.1155/2012/608059>
 54. Nelson NL. Breast cancer-related lymphedema and resistance exercise: a systematic review. *J Strength Cond Res.* 2016;30(9):2656-65. doi: <https://doi.org/10.1519/JSC.0000000000001355>
 55. Leung EYL, Tirlapur SA, Meads C. The management of secondary lower limb lymphoedema in cancer patients: a systematic review. *Palliat Med.* 2015;29(2):112-9. doi: <https://doi.org/10.1177/0269216314545803>
 56. Lasinski BB, McKillip Thrift K, Squire D, et al. A systematic review of the evidence for complete decongestive therapy in the treatment of lymphedema from 2004 to 2011. *PM R.* 2012;4(8):580-601. doi: <https://doi.org/10.1016/j.pmrj.2012.05.003>
 57. Jansen F, van Uden-Kraan CF, van Zwieten V, et al. Cancer survivors' perceived need for supportive care and their attitude towards self-management and eHealth. *Support Care Cancer.* 2015;23(6):1679-88. doi: <https://doi.org/10.1007/s00520-014-2514-7>
 58. Ream E, Hughes AE, Cox A, et al. Telephone interventions for symptom management in adults with cancer. *Cochrane Database Syst Rev.* 2020;6(6):CD007568. doi: <https://doi.org/10.1002/14651858.CD007568.pub2>
 59. Douglass J, Graves P, Gordon S. Self-Care for Management of Secondary Lymphedema: a systematic review. *PLoS Negl Trop Dis.* 2016;10(6):e0004740. doi: <https://doi.org/10.1371/journal.pntd.0004740>

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