

Technical Note from the Brazilian Society of Oncology Nutrition on Nutritional Oncology Care because of COVID-19 Pandemic

doi: <https://doi.org/10.32635/2176-9745.RBC.2020v66nTemaAtual.1011>

Nota Técnica da Sociedade Brasileira de Nutrição Oncológica sobre os Cuidados Nutricionais em Oncologia frente à Pandemia de Covid-19

Nota Técnica de la Sociedad Brasileña de Nutrición Oncológica sobre Cuidados Nutricionales en Oncología ante la Pandemia de Covid-19

Renata Brum Martucci¹; Ana Maria Calabria Cardoso²; Carin Weirich Gallon³; Erika Simone Coelho Carvalho⁴; Izabella Fontenelle de Menezes Freitas⁵; Lilianne Carvalho Santos Roriz⁶; Luciana Zuolo Coppini⁷; Luciane Beitler da Cruz⁸; Maria Amélia Dantas⁹; Maria Lúcia Varjão da Costa¹⁰; Nádia Dias Gruezo¹¹; Viviane Dias Rodrigues¹²; Nivaldo Barroso de Pinho¹³

INTRODUCTION

Coronavirus is a family of virus that cause respiratory infections. The novel coronavirus (2019-nCoV) was discovered in the end of 2019 in China and the World Health Organization (WHO) considered a pandemic called COVID-19 (coronavirus disease 2019). Sars-CoV-2 is the acronym of the virus of the severe acute respiratory syndrome of coronavirus 2, main characteristic of the infection that spreads mainly through the respiratory tract by droplets, respiratory secretions and direct contact¹.

The patient with cancer, in treatment or survivor, has characteristics that can favor the severest forms of the disease and greater mortality, among these, old age, presence of comorbidities, hypoalbuminemia, immunosuppressants treatments and tobacco addiction²⁻⁶. Some symptoms as nausea, vomits, diarrhea, anosmia, dysgeusia were already reported by patients with

COVID-19^{7,8}. It is known that the presence of these symptoms is strongly associated with malnutrition in the Brazilian oncologic population⁹.

A recent document about the flow of nutritional assistance of patients with COVID-19 in a hospital considers that older adults ≥ 65 years, adults with Body Mass Index (BMI) $< 20,0 \text{ kg/m}^2$, patients with high risk or pressure injuries, immunosuppressant patients, with inappetence, persistent diarrhea, history of weight loss, chronic obstructive pulmonary disease (COPD), asthma, structural pneumopathies, cardiopathies, structural cardiopathies including important arterial hypertension, insulin-dependent diabetes and chronic kidney disease are considered patients in nutritional risk⁸.

According to the National Cancer Institute José Alencar Gomes da Silva (INCA), individuals with cancer in treatment with chemotherapy, radiotherapy who had undergone surgery for less than one month or using immunosuppressant drugs belong to the risk group¹⁰.

¹ Doctor. Nutritionist. Scientific Coordinator and Founding Member of the Brazilian Society of Oncologic Nutrition (SBNO). Department of Nutrition and Diet of Hospital of Cancer I (HCI) of the National Institute of Cancer José Alencar Gomes da Silva (INCA). Associate Professor of the Nutrition Institute of the State of Rio de Janeiro (Uerj). Rio de Janeiro (RJ), Brazil. Orcid iD: <https://orcid.org/0000-0002-3354-4229>

² Master. Nutritionist. Founding Member of SBNO. Membro Fundador da SBNO. Institutional Review Board. Oncology Research Nucleus. Federal University of Pará (PA), Brazil. Orcid iD: <https://orcid.org/0000-0002-0673-7711>

³ Doctor. Nutritionist. Founding member of SBNO. University of Caxias do Sul. Rio Grande do Sul (RS), Brazil. Orcid iD: <https://orcid.org/0000-0001-7874-1595>

⁴ Master. Nutritionist. Education Coordinator and Founding Member of SBNO. Onco-Hematology of "Hospital Governador Israel Pinheiro". Social Security Institute of the Employees of the State of Minas Gerais. Minas Gerais (MG), Brazil. Orcid iD: <https://orcid.org/0000-0001-7465-7417>

⁵ Expert. Nutritionist. Founding Member of SBNO. Nutrition Manager of "Associação Piauiense de Combate ao Câncer Alencor Almeida, Hospital São Marcos. Teresina (PI), Brazil. Orcid iD: <https://orcid.org/0000-0001-6826-9581>

⁶ Expert. Nutritionist. Founding Member of SBNO. Hospital Araújo Jorge. "Associação de Combate ao Câncer em Goiás". Goiânia (GO), Brazil. Orcid iD: <https://orcid.org/0000-0003-0910-6373>

⁷ Master. Nutritionist. Founding Member of SBNO. Integrate Center of Nutrition. São Paulo (SP), Brazil. Orcid iD: <https://orcid.org/0000-0002-5499-9521>

⁸ Doctor. Nutritionist. Founding Member of SBNO. Hospital of Clinics of Porto Alegre (RS), Brazil. Orcid iD: <https://orcid.org/0000-0002-2977-0696>

⁹ Expert. Nutritionist. Founding Member of SBNO. "Liga Norte Riograndense Contra o Câncer". Natal (RN), Brazil. Orcid iD: <https://orcid.org/0000-0002-5630-4287>

¹⁰ Master. Nutritionist. Founding Member of SBNO. Hospital Aristides Maltez. Salvador (BA), Brazil. Orcid iD: <https://orcid.org/0000-0002-5648-6738>

¹¹ Doctor. Nutritionist. Founding Member of SBNO. Manager of the Complementary and Essential Assistance of the Children Hospital of Brasília José Alencar. Brasília (DF), Brazil. Orcid iD: <https://orcid.org/0000-0001-6355-7314>

¹² Master. Nutritionist. Vice-President of SBNO. Head of the Section of Nutrition and Dietetic of HCI/INCA. Rio de Janeiro (RJ), Brazil. Orcid iD: <https://orcid.org/0000-0003-2243-438X>

¹³ Doctor. Nutritionist. President of SBNO. Coordinator of the Division of Technical Support of HCI/INCA. Rio de Janeiro (RJ), Brazil. Orcid iD: <https://orcid.org/0000-0002-1438-168X>

Address for Correspondence: Renata Brum Martucci. Seção de Nutrição e Dietética do INCA. Praça Cruz Vermelha, 23 – 5º andar. Rio de Janeiro (RJ), Brazil. CEP 20230-130. E-mail: renata.martucci@inca.gov.br



RECOMMENDATIONS

Although the actual evidences concentrate in the general management of COVID-19, little is known about the nutritional support during hospitalization. The lack of nutritional procedures can, in its turn, prolong the recovery of the patients and increase even more the infectious complications¹¹.

The Federal Council of Nutritionists (CFN) in a recent document recommends: “Nutritionists should analyze carefully the scenario and local directives to understand the severity of the problem and consider the important limitations imposed by the absence of physical contact and evaluation with the client/patient/user for assessment of the best modality of assistance and proper nutritional support”¹². In that perspective, the nutritionist must evaluate the necessity of continuing the in-person consultations at the outward, office or at home.

Just as the CFN¹² presented its recommendation, the Brazilian Society of Oncologic Nutrition (SBNO) ratifies that there are no scientific evidences supporting the existence of food and/or formulas with protective action against COVID-19. Healthy and balanced food intake contributes for more effective immune system.

Oncologic treatment will be maintained and, consequently, all the protocols of nutritional assistance^{13,14}. The objective of the present Technical Note is to ensure the best health conditions of the patients and minimize the risks of infection of the caregivers, patients and relatives.

OUTPATIENT ATTENDANCE

- Outpatient attendance of patients pre or post oncologic treatment or in group must be suspended during the pandemic or conducted on-line, the patients can be reached by telephone. According to CFN, exclusively nutritional attendance not in-person can be done, including evaluation and nutritional diagnosis consultations.
- Follow up of patients in oncological treatment or who spontaneously seek for attendance must continue, respecting the biosafety norms recommended for protection of the professional and the patient.
- Patients with symptoms of COVID-19 must be guided to follow the cautionary recommendations of the sanitary authorities and should not be attended.
- Rearrange the waiting room, leaving 1 meter free from each chair and offer educational material (posters) about hygiene and Personal Protective Equipment – PPE and alcohol gel.
- Attendance must occur at appropriate intervals to keep the place clean according to institutional guidance.

- The place of attendance must be appropriate, ventilated or with open doors, without any non-essential material or equipment, tables, chairs with minimum distance of 1.5 meter between the caregiver and the patient.
- The patient and the caregiver must wear masks.
- If possible, offer disposable shoe protector to enter the room.
- Nutritional guidances can be sent by email or as text messages.
- The necessity of using materials for nutritional evaluation (scale, tape, adipometer and other) must be evaluated cautiously and, if necessary, must be cleaned correctly.

HOSPITAL UNIT

- The professional must follow the conducts of personal hygiene and proper PPE while they remain in the hospital unit following the guidances of the Hospital Infection Control Committee (HICC).
- Maintain the nutritional screening of adult, older adults and pediatric patients according to the protocol of the unit whenever possible. Prefer tools that can be filled out by the patient itself or as telephone interviews.
- In case it is not possible to conduct the nutritional screening, consider all the oncological patients with confirmed COVID-19 as in nutritional risk. The recommendations of the National Consensus of Nutrition Oncology for the establishment of early nutritional therapy in oncologic patients in nutritional risk must be complied with^{15,16}.
- Do not make nutritional evaluation of suspected or confirmed patients in order to avoid physical contact.
- In the daily reevaluation of food intake and symptomatology, use secondary data from the charts, telephone contact with the patient and the mediation of the multiprofessional team members that have already been in direct contact with these patients.
- Avoid entering the intensive care units with patients confirmed. The recommendations of the National Consensus of Nutrition Oncology for the establishment of nutritional therapy in critical oncologic patients must be complied with^{15,16}.
- Consistent with the production of food to the hospitalized patients, it is essential the dully compliance with the Good Clinical Practices of Manufacturing and Manipulation of Food in this moment in order to continue to ensure the delivery of safe food¹⁷.

CLINICAL TRIAL

- Suspend data collection of ongoing studies or approved by the Institutional Review Board of patients who are

not in oncologic treatment or that increase the flow of the patients in the health facility.

- Support the development of technological tools to contact the patients in isolation.
- Encourage the development of research projects about aspects involving nutrition, cancer and COVID-19, with retrospective data collection after the control of the pandemic.

CONCLUSION

In-person attendance and nutritional evaluation must be reviewed because of the pandemic scenario. Nutritional care is essential during the oncologic treatment. The nutritionist must preserve the oncologic patient integrity in the context of prevention of COVID-19 and risk factors of malnourishment according to the National Council of Oncological Nutrition.

CONTRIBUTIONS

All the authors contributed equally for the conception, bibliographic research, wording, critical review and approved the final version to be published.

DECLARATION OF CONFLICT OF INTERESTS

There is no conflict of interests to declare.

FUNDING SOURCES

None.

REFERENCES

1. Guo YR, Cao QD, Hong ZS, et al. The origin, transmission and clinical therapies on coronavirus disease 2019 (COVID-19) outbreak - an update on the status. *Mil Med Res.* 2020;7(1):11. doi: <https://doi.org/10.1186/s40779-020-00240-0>
2. Liang W, Guan W, Chen R, et al. Cancer patients in SARS-CoV-2 infection: a nationwide analysis in China. *Lancet Oncol.* 2020;21(3):335-37. doi: [https://doi.org/10.1016/S1470-2045\(20\)30096-6](https://doi.org/10.1016/S1470-2045(20)30096-6)
3. Wang H, Zhang L. Risk of COVID-19 for patients with cancer. *Lancet Oncol.* 2020;21(4):E181. doi: [https://doi.org/10.1016/S1470-2045\(20\)30149-2](https://doi.org/10.1016/S1470-2045(20)30149-2)
4. Zhang L, Zhu F, Xie L, et al. Clinical characteristics of COVID-19-infected cancer patients: a retrospective case study in three hospitals within Wuhan, China. *Ann Oncol.* 2020; pii:S0923-7534(20)36383-3. doi: <https://doi.org/10.1016/j.annonc.2020.03.296> Epub ahead of print.
5. Desai A, Sachdeva S, Parekh T, et al. COVID-19 and cancer: lessons from a pooled meta-analysis. *JCO Glob Oncol.* 2020; 6:557-559. doi: <https://doi.org/10.1200/GO.20.00097>
6. Zhou F, Yu T, Du R, et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. *Lancet.* 2020;395(10229):1054-62. doi: [https://doi.org/10.1016/S0140-6736\(20\)30566-3](https://doi.org/10.1016/S0140-6736(20)30566-3)
7. Guan WJ, Ni ZY, Hu Y, et al. Clinical characteristics of coronavirus disease 2019 in China. *N Engl J Med.* 2020; 382:1708-20. doi: <https://doi.org/10.1056/NEJMoa2002032>
8. Piovacari SMF, Santos GFCG, Santana GA, et al. Fluxo de assistência nutricional para pacientes admitidos com COVID-19 e SCOVID-19 em unidade hospitalar. *BRASPEN J [Internet].* 2020 [acesso 2020 abr 26];35(1):6-8. Available from: https://66b28c71-9a36-4ddb-9739-12f146d519be.usrfiles.com/ugd/66b28c_2f5d298499184d22b2655dff908f58c9.pdf
9. de Pinho NB, Martucci RB, Rodrigues VD, et al. Malnutrition associated with nutrition impact symptoms and localization of the disease: results of a multicentric research on oncological nutrition. *Clin Nutr.* 2019 Jun 1;38(3):1274-9. doi: <https://doi.org/10.1016/j.clnu.2018.05.010>
10. Instituto Nacional de Câncer José Alencar Gomes da Silva [Internet]. Rio de Janeiro: INCA; c2020. Perguntas frequentes: câncer e coronavírus (COVID-19); [2020]. [acesso 2020 abr 26]. Available from: <https://www.inca.gov.br/perguntas-frequentes/cancer-e-coronavirus-covid-19>
11. Cintoni M, Rinninella E, Annetta MG, et al. Nutritional management in hospital setting during SARS-CoV-2 pandemic: a real-life experience. *Eur J Clin Nutr.* 2020 Apr 06. <https://doi.org/10.1038/s41430-020-0625-4>
12. Conselho Federal de Nutricionistas. Recomendações do CFN: boas práticas para a atuação do nutricionista e do técnico em nutrição e dietética durante a pandemia do novo coronavírus (COVID-19) [Internet]. 3 ed. rev. ampl. Brasília, DF: CFN; 2020. [acesso 2020 abr 26]. Available from: https://www.cfn.org.br/wp-content/uploads/2020/03/nota_coronavirus_3-1.pdf
13. Secretaria Estadual de Saúde do Rio de Janeiro. Resolução SES nº 2004, de 18 de março de 2020 [Internet]. Regulamenta as atividades ambulatoriais nas unidades de saúde públicas, privadas e universitárias com atendimento ambulatorial e no Estado do Rio de Janeiro. *Diário Oficial do Estado do Rio de Janeiro, Rio de Janeiro; 2020 mar 19. Ano 46, n. 51, Part I, p. 14.* [acesso 2020 abr 26]. Available from: <https://www.legisweb.com.br/legislacao/?id=390927>
14. Ministério da Saúde (BR). Diretrizes para diagnóstico e tratamento da COVID-19 [Internet]. Brasília, DF:

Ministério da Saúde; 2020 abr 06. [acesso 2020 abr 04]. Available from: <https://portalarquivos.saude.gov.br/images/pdf/2020/April/07/ddt-COVID-19.pdf>

15. Instituto Nacional de Câncer José Alencar Gomes da Silva, Coordenação Geral de Gestão Assistencial, Hospital do Câncer I, Serviço de Nutrição e Dietética. Consenso nacional de nutrição oncológica. 2 ed. rev. ampl. atual. Rio de Janeiro: INCA; 2015.
16. Instituto Nacional de Câncer José Alencar Gomes da Silva, Coordenação Geral de Gestão Assistencial, Hospital do Câncer I, Serviço de Nutrição e Dietética. Consenso nacional de nutrição oncológica. 2 ed. rev. ampl. atual. Vol. 2, Rio de Janeiro: INCA; 2016
17. Agência Nacional de Vigilância Sanitária. Nota Técnica N° 18: COVID-19 e as boas práticas de fabricação e manipulação de alimentos [Internet]. Brasília, DF: ANVISA; 2020 abr 06. [acesso 2020 abr 04]. Available from: <http://portal.anvisa.gov.br/documents/219201/4340788/NT+18.2020+-+Boas+Pr%C3%A1ticas+e+Covid+19/78300ec1-ab80-47fc-ae0a-4d929306e38b>

Recebido em 28/4/2020
Aprovado em 30/4/2020