correspondence



Choosing Wisely for oncology in Brazil: 10 recommendations to deliver evidence-based cancer care

To the Editor — Brazil is the largest country in South America and has a high incidence of cancer. There were an estimated 625,000 new cancer cases in 2020, representing a 17% increase compared to 2012, when there were approximately 518,000 cases¹. The rise in cancer cases is increasing the pressure on the public health system, on which around 80% of Brazilians rely. There is therefore a strong need to support evidence- and value-based cancer management, capacity building for services and an investment in the development of a robust cancer workforce.

The Choosing Wisely (CW) Brazil oncology task force is a planned initiative based on the success of previous CW oncology exercises in other regions, which each aimed to identify low-value, unnecessary or harmful cancer services that are frequently used²⁻⁵. CW is a medical-specialty-driven initiative to stimulate dialogue between physicians, patients, advocates and policymakers about ways to promote high-quality and affordable cancer care while avoiding the use of unnecessary tests, procedures and treatments. However, initiatives such as CW oncology are frequently lacking in the Latin America context. The current initiative is a regional CW movement toward promoting evidence- and value-based practices in oncology that will translate into more sustainable and efficient health care^{6,7}.

During the past decade, cancer treatment has become increasingly complex, with considerable health and economic impacts on all countries^{1,8}. It is well recognized that many common medical practices do not offer benefits to patients, have a negative effect on the healthcare budget and can overload physicians. Brazil has additional challenges, with highly diverse regional contexts across a total population of 213 million people, fragmented health systems between academic and non-academic health services centers, and diverse public and private reimbursement programs9. In general, barriers preventing access to oncology services and a lack of infrastructure for treatment delivery are likely contributing factors to a

Item #	Top 10 recommendations from the Choosing Wisely Br Recommendation	Source	Phase of
item#	Recommendation	Source	cancer journey
1	Don't neglect to address lifestyle factors such as smoking cessation and exercise throughout the patient's cancer journey.	New suggestion	Prevention
2	Don't perform screening diagnostic tests such as ultrasound, positron emission tomography/computerized tomography, or serum tumor marker testing in asymptomatic patients or those with a low to moderate risk.	New suggestion	Screening
3	Don't order screening or routine chronic disease testing such as thyroid-stimulating hormone, T3 and T4 for thyroid, hemoglobin A1C for diabetes or hemoglobin levels for anemia simply because a blood draw is taken.	Long term care-Canada	Screening
4	Don't use a targeted therapy intended for use against a specific genetic aberration unless a patient's tumor cells have a specific biomarker that predicts an effective response to the targeted therapy.	American Society of Clinical Oncology	Diagnosis
5	Don't use surgery as the initial treatment without considering presurgical (neoadjuvant) systemic and/or radiation for cancer types and stage where it is effective at improving local cancer control, quality of life or survival.	Commission on Cancer	Treatment
6	Don't routinely use extended fractionation schemes (>5 fractions) for palliation of uncomplicated bone metastases.	Modification from existing lists	Treatment
7	Don't treat patients with inoperable early-stage non-small- cell lung cancer (or with multiple comorbidities) without discussing stereotactic body radiotherapy as a part of the shared decision-making process.	New suggestion	Treatment
8	Don't use cancer-directed therapy for patients with solid tumors with the following characteristics: low performance status (3 or 4), no benefit from prior evidence-based interventions, not eligible for a clinical trial and no strong evidence supporting the clinical value of further anti-cancer treatment; place a focus on symptom relief and palliative care.	American Society of Clinical Oncology	Treatment
9	Don't treat low-risk clinically localized prostate cancer where the Gleason score is <7, PSA <10.0 ng ml $^{-1}$ or tumor stage \leq T2 without discussing active surveillance as part of the shared decision-making process.	Modified from existing lists	Treatment
10	Don't routinely use extensive locoregional therapy in most cancer situations where there is metastatic disease and minimal symptoms attributable to the primary tumor.	The Royal Australian and New Zealand college of radiologists	Treatment

disproportionately high burden of cancer in low- and low-middle-income countries (LMICs), where the mortality-to-incidence ratio is double that in high-income countries⁹.

We hypothesize that many common medical practices in oncology in Brazil do not offer benefits to patients and hurt the healthcare budget. We therefore aimed to identify a list of cancer practices that are

Box 1 | Choosing Wisely guiding principles

- 1. Evidence of low value or risk of harm
- 2. High frequency of use
- 3. Cost (including opportunity cost)
- 4. Clarity on the wording of the practice item
- 5. Relevance to the Brazilian cancer context
- 6. Feasibility of measuring implementation and success

frequently used in the Brazilian healthcare system that are considered of low value, unnecessary or harmful to patients. We also aimed to provide a list of recommendations as a regional benchmark to combat these sets of practices and to create momentum for value- and evidence-based oncology across Latin America.

The CW Brazil oncology task force was assembled in 2021 and included representatives from national patient and patient advocacy organizations and members from each of the primary oncology specialties of medical, surgical and radiation oncology and palliative care. The task force also included executive office holders from the three oncology specialty associations of Brazil. The task force was supported with methodological expertise from non-voting advisers^{3-5,7}. A full description of the CW methodology is available from previous published initiatives^{4,5}. The final list development included a modified Delphi process and three teleconferences following the six CW guiding principles (Box 1).

Table 1 shows the top 10 recommendations from the CW Brazil oncology project, which includes recommendations that pertain to treatment or palliative care (six practices), screening or prevention (three practices) and diagnosis (one practice). Although seven of the 10 recommendations were adapted from other international CW lists, the Brazilian project added three new low-value practices: neglecting the importance of lifestyle factors;

overuse of routine chronic disease screening; and not treating patients with inoperable early-stage non-small-cell lung cancer, or multiple comorbidities, without first holding a multidisciplinary discussion.

The creation of the Brazilian cancer CW list is the first step of a multi-phase process to combat low-value and potentially harmful practices in Brazil and elsewhere in Latin America. The next steps will be to undertake a national survey study to describe the available infrastructure and gaps; barriers for high-value patient care; concordance with CW recommendations in routine practice; and barriers to implementation. We also plan to expand CW implementation and value-based care and to promote CW principles in Brazil and Latin America.

The CW Brazil oncology task force was able to connect and build strong bonds between the different major stakeholders in cancer care. A number of important recommendations from other CW lists were not included on this top 10 list, which does not mean that they have no relevance in Brazil; rather, the list reflects the most common recommendations for the Brazilian health system.

The development of this final list is the first step toward further development of evidence-value-based oncology in Brazil where patient-centered approach and shared decision-making are promoted. We hope that this effort inspires further national and regional initiatives in oncology and beyond.

Fabio Ynoe de Moraes^{1,2 ⊠},
Gustavo Nader Marta^{2,3}, Gunita Mitera⁴,
Daniel Neves Forte^{5,6}, Rodrigo Nascimento
Pinheiro ¹D^{7,8}, Nivaldo F. Vieira⁹, Rafael Gadia³,
Maira Caleffi¹⁰, Patricia Chiappin Kauer¹¹,
Luciana Holtz de Camargo Barros¹²,
Clarissa Mathias¹³, Karina Gondim
Moutinho da Conceicao Vasconcelos¹⁴,
Christopher Booth^{1,15} and
Gustavo dos Santos Fernandes¹⁶

¹Department of Oncology, Queen's University, Kingston, ON, Canada. ²Latin American Cooperative Oncology Group (LACOG), Porto Alegre, Brazil. ³Department of Radiation Oncology, Hospital Sírio-Libanês, São Paulo/Brasília, Brazil, 4University of Toronto, Toronto, ON, Canada, 5Palliative Care Program, Hospital Sírio-Libanês, Sao Paulo, Brazil. ⁶Medical Emergencies ICU, Hospital das Clínicas, Sao Paulo University, São Paulo, Brazil. 7Vice President (2021-2023), Brazilian Society of Surgical Oncology, Rio de Janeiro, Brazil. Surgical Oncology Residency at Hospital de Base, Distrito Federal, Brazil. 9Clínica AMO, Salvador, Brazil. 10Hospital Moinhos de Vento Porto Alegre, Porto Alegre, Brazil. 11Instituto da Mama do Rio Grande do Sul (IMAMA), Porto Alegre, Brazil. 12 Instituto Oncoguia, São Paulo, Brazil. 13Oncoclinicas Bahia, Salvador, Brazil. 14Rede D'OR São Luiz Group/Radiotherapy ICESP, Sao Paulo University, São Paulo, Brazil. ¹⁵Division of Cancer Care and Epidemiology, Cancer Research Institute at Queen's University, Kingston, ON, Canada. 16 Diagnostic America (DASA), São Paulo, Brazil.

[™]e-mail: fabio.moraes@kingstonhsc.ca

Published online: 8 August 2022 https://doi.org/10.1038/s41591-022-01924-x

References

- 1. Viani, G. A. et al. Lancet Oncol. 23, 531-539 (2022).
- Schnipper, L. E. et al. J. Clin. Oncol. Off. J. Am. Soc. Clin. Oncol. 31, 4362–4370 (2013).
- 3. Mitera, G. et al. J. Oncol. Pract. 11, e296-303 (2015)
- 4. Pramesh, C. S. et al. Lancet Oncol. 20, e218-e223 (2019).
- 5. Rubagumya, F. et al. JCO Glob. Oncol. 6, GO. 20, 00255 (2020).
- 6. Katz, M. et al. J. Am. Coll. Cardiol. 70, 904–906 (2017).
- 7. Pramesh, C. S. et al. Nat. Med. 27, 1324-1327 (2021).
- 8. Sullivan, R. et al. Nature 549, 325-328 (2017).
- Moraes, F. Yde et al. Int. J. Radiat. Oncol. Biol. Phys. 92, 707–712 (2015).

Acknowledgements

This work was support by Clinical Teachers' Association of Queen's University (CTAQ Queen's University) research grant.

Author contributions

All authors contributed to the conception, design, data acquisition, data analysis and interpretation, drafting, or critical revision of the article in regard to important intellectual content. All authors had final approval of the version to be published.

Competing interests

F.Y.M. has received honoraria from AstraZeneca and International Association for the Study of Lung Cancer and consulting fees from Cancer em Foco, outside the submitted work. All other authors declare no competing interests. F.Y.M. has grants or contracts from the Clinical Teachers' Association of Queen's University.