30 Years of Oncological Care in the Brazilian National Health System

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A Atenção Oncológica e os 30 Anos do Sistema Único de Saúde

30 Años de Atención Oncológica en el Sistema Único de Salud en Brasil

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INTRODUCTION

Brazil's Unified National Health System (SUS) is celebrating 30 years, and one of its missions is to provide universal and comprehensive healthcare for the more than 209 million Brazilians, serving as the exclusive coverage for 76% of this population.

In the early years after the country's 1988 Constitution, the SUS emerged as a counter-hegemonic public policy, concurrently with the arrival of neoliberalism in Brazil, which aimed to reduce the state's role and public spending, including in health, generating a permanent tension in the system's financing. In parallel, public financing was maintained for "supplementary health" (private health plans and services) mainly through fiscal waivers and non-reimbursement of the SUS for services provided by public services to patients with private health plans. This continued the process of public financing of the private sector, which had been intense in the previous decades through the purchase of services by the National Institute of Social Security (INPS) and the National Institute of Medical Care and Social Security (INAMPS) and by public investments in the expansion and modernization of private outpatient and inpatient services, especially in the Southeast of Brazil, through the Fund for the Support of Social Development[1].

The article aims to provide an overview of the evolution in the organization of cancer care in the history of the SUS.

Implementation of the SUS

Among the guidelines of the SUS, the one that made the most progress was decentralization (as opposed to the previous intense centralization under the INAMPS). This process required regulatory mechanisms to orient the system's administration. The Ministry of Health thus issued the so-called Basic Operational Norms (NOBs in Portuguese), normative instruments that aimed to regulate the transfer of funds from the federal government to the states and municipalities, planning of activities, and mechanisms for social control of the system[2]. The NOBs featured the one issued in 1993, NOB 01/93, which created the Bipartite Administrators' Commissions (CIB) in the states (with equal representation of states and municipalities) and the Tripartite Administrators' Commission (CIT), consisting of representatives of the federal, state, and municipal governments at the national level. NOB 01/93 also created differential administrative criteria and categories for accreditation of the municipalities, in keeping with their technical and operational conditions[2,3]. Even with the gains achieved by NOB 01/93, further progress was needed in decentralization and financing, since healthcare funds were still transferred on a payment-for-production basis. This situation led to the proposal of a new operational norm, NOB 01/96, which altered the way funds were transferred from the federal government to the municipalities, no longer based on production, but rather according to fixed *per capita* amounts[4].

During this same period, in 1994 the Ministry of Health launched the Family Health Program, under the administrative responsibility of the municipalities, with the objectives of organizing users' access to the health system and developing comprehensive and continuous activities in health promotion, prevention, and rehabilitation. In

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the 2000s, the Ministry of Health launched the so-called Operational Healthcare Norms, or NOAS (01/2001 and 01/2002), replacing the NOBs. The NOAS emphasize the importance of regionalization to achieve the principles of the SUS. The most widely used was the Regionalization Master Plan (PDR), which includes the Master Plan for Investment (PDI), and Negotiated and Integrated Programming (PPI)[5].

In 2006, the need to upgrade and strengthen the SUS led the Ministry of Health, the National Council of State Health Secretaries (CONASS), and the National Council of Municipal Health Secretaries (CONASEMS) to negotiate and agree on responsibilities among the system's three levels of administration. The meeting of the Tripartite Administrators' Commission (CIT) resulted in the document *Pacts for Life, in Defense of the SUS, and Management.*

Cancer care

In the first decade of the SUS, the existing provisions and rulings still failed to meet the principle of comprehensive care in the SUS, since the services were fragmented across different national programs for prevention and early detection, and access to cancer treatment was still concentrated in specialized hospitals[6,7].

In 1998, cancer care in Brazil was regulated via Rulings GM/MS no. 3.535 and no. 3.536. The former specified the criteria for registering cancer care centers, contributing to the organization of access to comprehensive cancer treatment and to the definition of parameters for planning cancer care. These parameters were based on regional estimates of cancer cases[8]. Ruling GM/MS no. 3.536 addressed authorization and billing for outpatient procedures in cancer treatment. Both rulings were limited in terms of the organization of flow of care in the SUS. In addition, in the following year, isolated or stand-alone chemotherapy and radiotherapy units (not affiliated with more comprehensive oncology centers) were accredited, which contributed to the persistence of fragmented care[9]: in 2002 there were 105 stand-alone chemotherapy and radiotherapy services[8].

Ruling GM/MS no. 2.439 in 2005 finally established the National Policy for Cancer Care (PNAO) and consolidated the perception of comprehensive care and upgrading the network of care for cancer patients more explicitly in the rulings for the SUS, including health promotion and prevention in its set of actions, in addition to diagnosis, treatment, rehabilitation, and palliative care, thus seeking to overcome the fragmentation of activities and to guarantee more comprehensive care[8,9]. The PNAO provided details on the need to guarantee comprehensive care for users through referral and counter-referral mechanisms to allow access to all levels of complexity and meet the demands for care, both in diagnostic confirmation and treatment.

That same year, Ruling SAS/MS no. 741 provided a revised definition and criteria for organizing hospital accreditation in oncology, suspending the accreditation of stand-alone chemotherapy and radiotherapy services (while the existing ones had to adjust to the new requirements within a given time frame) [10].

Based on the observed need to organize the health system and solve the fragmentation of care, in 2010 the Ministry of Health launched the *Guidelines for Organization of the Healthcare Network*, defined as:

> organizational arrangements of health activities and services with different levels of technology, integrated through technical and logistic support and administrative systems to guarantee comprehensive care[11].

In this evolution, given the changes in the SUS such as the Ruling on Healthcare Networks in 2010, Decree 7.508[12], and the policy on incorporation of technologies, both in 2011, it was necessary to update the PNAO. Revision of the latter policy replaced the concept of "cancer care" with "cancer control", a position also adopted by the World Health Organization. In 2013, the Ministry of Health launched the National Policy for Cancer Prevention and Control (PNPCC), which defines cancer as a preventable chronic disease. The PNPCC features principles and guidelines for promotion, prevention, comprehensive care, surveillance, education, communication, and technology incorporation. The policy also specifies the responsibilities of the three levels of government in cancer control, as well as points of care and support systems comprising the healthcare network, describing how the activities should be planned and performed at different levels of care in order to guarantee comprehensive provision in the SUS.

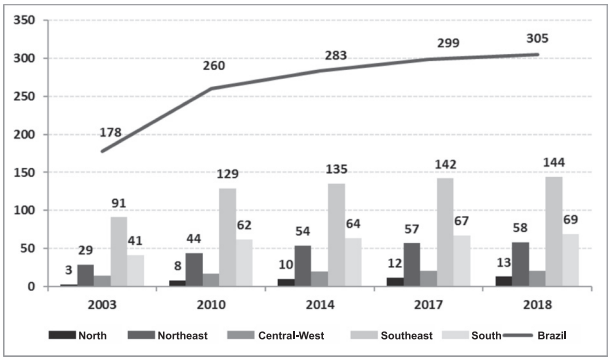
In relation specifically to the expansion of radiotherapy in Brazil, an important milestone was the *Expande* project, launched in 2000 and coordinated by the National Cancer Institute (now the National Cancer Institute José Alencar Gomes da Silva - INCA). Based on epidemiological and social criteria and data on cancer care coverage, the project provides for the creation of high-complexity oncology centers with radiotherapy in public or charitable general hospitals, in addition to other measures focused on the comprehensiveness of cancer care.

Expande implemented 24 projects in High-Complexity Cancer Care Units or Centers with Radiotherapy and the expansion of installed capacity in hospitals already accredited in the SUS in 11 states of Brazil, reaching

some 18 million inhabitants, with investments of some 50 million *reais* (approximately 14 million US dollars).

In 2012, the Ministry of Health announced new investments in the expansion of the supply of radiotherapy services, with funding for equipment and infrastructure, through the Plan for the Expansion of Radiotherapy in the SUS (PerSUS), providing for the implementation of 80 radiotherapy solutions, starting with 42 new radiotherapy services and the expansion of another 38 services.

All these efforts in the expansion of cancer care in Brazil resulted in a major increase in healthcare establishments in the SUS and in oncology procedures in the country. The last 15 years witnessed a 71.3% increase in the number of healthcare establishments accredited for cancer treatment. This increase differed between regions of Brazil, from 333% in the North to 50% in the Central-West (Graph 1).



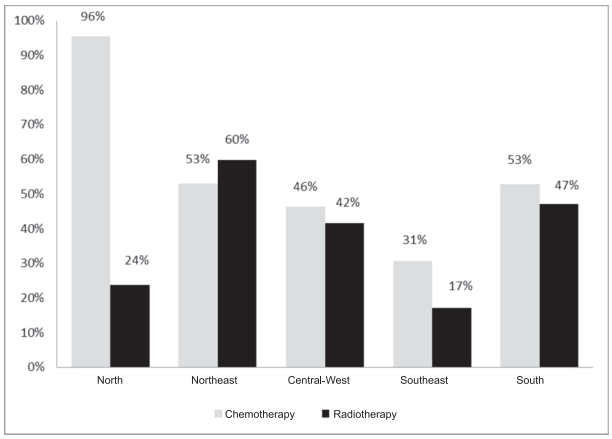
Graph 1. Number of establishments accredited for cancer treatment by year, geographic region, and Brazil, 2003-2018
Source: Registries from INCA; Ruling SAS/MS 62 – Mar 2009; Ruling SAS/MS 140 – Feb 2014; Ruling SAS/MS 458 – Feb 2017; Ruling SAS/MS 1.154 – Jul 2018.
Note: Does not include stand-alone radiotherapy services in 2018.

Graph 2 shows the production in chemotherapy and radiotherapy (number of cobalt therapy and linear accelerator fields). From 2010 to 2017, the largest increase in chemotherapy procedures was in the North of Brazil (96%), while for radiotherapy it was in the Northeast (60%).

Despite this expansion of cancer care, a persistent challenge is to expand medium complexity in the network of care in order to guarantee timely, high-quality diagnosis of neoplasms[13].

CONCLUSION

The expansion of cancer care in Brazil's Unified National Health System (SUS), alongside the expansion of coverage in primary care, especially through the Family Health Strategy, meant important strides towards



Graph 2. Proportional increase in chemotherapy procedures and radiotherapy fields from 2010 to 2017 by geographic region. Brazil, 2010-2017
Source: SIASUS. SUS Outpatient Information System [Internet]. Brasília: DATASUS; ©2013 [cited 12 Nov 2018]. Available at: http://sia.datasus.gov.br/principal/index.php.

achieving universal access to health services, despite persistent tension involving the system's financing.

One of the main strides in the SUS in the guarantee of comprehensive cancer care was the suspension of accreditation of new stand-alone chemotherapy or radiotherapy services, simultaneously with the implementation of the *Expande* project and provisions for the integration of various treatment and cancer care modalities in the accredited establishments.

The adoption of epidemiological criteria (based on cancer incidence) for the implementation of oncology centers was an important step in improving equitable access and inducing regionalization of the health services network. Decentralization to the municipal level is a challenge in the process of regionalization and negotiation of agreements between the levels of government. This aspect is especially relevant in oncology, where the guarantee of comprehensive care depends on the linkage between all levels of care and an explicit referral network, regulated for its users. Services with greater technology density, based on their characteristics, are more concentrated, posing a major challenge for regulation and contracting to guarantee comprehensiveness in cancer care.

CONTRIBUTIONS

Arn Migowski conceived the article, participated in the writing, and conducted the revision. Jeane Glaucia Tomazelli contributed to writing the article and performed the data analysis. Adriana Tavares de Moraes Atty, Maria Beatriz Kneipp Dias, and Beatriz Cordeiro Jardim contributed to writing the article. All the authors read and approved the final version for publication.

CONFLICT OF INTEREST:

None.

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