

Minimum training of the professional of radiological techniques to work in radiotherapy teams in the state of Rio de Janeiro

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ABSTRACT

This study looks at radiotherapy as a method of destroying tumour cells using ionizing radiation, highlighting the multidisciplinary nature of the specialty in Brazil, which involves various professionals such as nurses, pharmacists and psychologists, among others. The term “radiotherapy techniques” refers to the operational activities carried out by radiology technicians and radiotechnologists, with specific training required by the National Council of Radiology Technicians (CONTER). The aim is to understand CONTER's requirements for working in radiotherapy and to analyze how professional training is being met in the state of Rio de Janeiro. The methodology includes documentary research on the CONTER website to understand its regulations and the use of the Ministry of Education's digital platforms to identify training institutions in the Rio de Janeiro region.

Keywords: Radiotherapy, Health professionals, Professional training, CONTER, State of Rio de Janeiro.

INTRODUCTION

Radiotherapy is a method capable of destroying tumor cells, using beams of ionizing radiation. In Brazil, it is a specialty composed of multidisciplinary teams, which involves, among others, nurses, pharmacists, nutritionists, psychologists, radiation oncologists, medical physicists, biomedical doctors, radio technologists and radiology technicians. In this work, the term "radiotherapy techniques" will represent the operational, technology and dosimetry activities performed by mid-level radiology technicians and by radiotechnologists graduated in higher education, respectively. Regarding such activities, the National Council of Radiology Technicians (CONTER) - a federal agency that regulates the two professions in Brazil - makes requirements to qualify the professional in the area, which makes it opportune to recognize such conditions and identify how they are being attended to in Rio de Janeiro.

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OBJECTIVE

To understand the requirements of CONTER to work in the area of radiotherapy and to identify how professional training is provided to meet such requirements, within the scope of the State of Rio de Janeiro.

METHODOLOGY

A documentary research was carried out through the CONTER website, using its native tool for searching for resolutions, in order to understand its requirements to accredit professionals able to work in radiotherapy. Subsequently, the digital platforms of the Ministry of Education (MEC) entitled SISTEC (high school level) and e-MEC (higher level) were operationalized to search for training institutions in Rio de Janeiro for the area. Finally, search engines were used to identify institutions that complement this field.

RESULTS

Law 7394/85 regulated the profession of radiology technician. In it, its five areas of activity are listed: radiodiagnosis, nuclear medicine, radioisotopes, industrial radiology and radiotherapy. Through its resolution No. 13/2009, CONTER registers that the technical course in Radiology trains the professional qualified to work in the area of radiodiagnosis. Thus, also according to the resolution, to be qualified in other areas – such as radiotherapy – the technician needs to take a technical specialization course authorized by the competent body of the Education System.

The National Council of Education (CNE), through its Chamber of Basic Education (CEB), issued its resolution 06/2012, which defined the national curriculum guidelines for technical professional education at the secondary level. In its Article 10, it makes it clear that the offer of a Technical Professional Education course at the Secondary Level in public and private institutions, in any form (including the form of specialization), must be preceded by the due authorization by the competent body of the respective education system. The sole paragraph of Article 24 also states that the institution interested in teaching a technical specialization course at the secondary level must have in its regular offer a technical qualification course at the corresponding secondary level, or in the respective technological axis closely related to the professional profile of completion of the specialization. Thus, it is observed that technical specialization courses at the secondary level are not free courses, requiring a favorable opinion of authorization for their operation.

Until the date of publication of this work, SISTEC did not list technical specialization courses at the secondary level, but only technical courses. Remaining searches via search engine, with the key term "medium-level technical specialization in radiotherapy", there is one course from a federal public



institution and four from private institutions that claim to be of technical specialization. In addition to this, there are two courses in a private technical school, but presented as extension, that is, free courses. The Brazilian educational system recognizes this type of course, however, it is outside the requirements of CONTER, which determined the level of specialization of secondary level for the technician who wants to work in this area.

It should be noted that, through resolutions 13/2009 and 17/2014, CONTER allowed radiology technicians without specialization in Radiotherapy but with experience in the area to work until November 2019, under the condition that they seek this training within the deadline.

After its resolution 07/1998, CONTER began to register the first graduates in Radiological Technology in Brazil. Higher education began in 1991 and this resolution aimed to regulate how the enrollment of these technologists in radiology, or, simply, radiotechnologists, would take place. In 2001, Opinion 09 of the CEB/CNE granted higher education courses in Radiology Technology the permission to enable in all five areas of activity, given their duration and scope. Soon, another way to legally qualify to work in Radiotherapy emerged: graduate in Radiology Technology.

Through the e-MEC System, it was possible to identify five higher education institutions (HEIs) with the undergraduate course on offer in Rio de Janeiro. The disciplines related to Radiotherapy and their respective workloads are represented in Table 1. The following disciplines related to Radiotherapy were considered:

Table 1 - Data on radiotherapy teaching in undergraduate courses in Radiology Technology recognized in Rio de Janeiro.

Informações sobre os cursos de graduação em Tecnologia em Radiologia	
Instituição de Ensino Superior	Carga Horária de Disciplinas Operacionais e Correlatas em Radioterapia
IES 1	1.140 h
IES 2	880 h
IES 3	769 h
IES 4	690 h
IES 5	680 h

FINAL CONSIDERATIONS

The options for the professional of radiological techniques in the State of Rio de Janeiro to work in radiotherapy teams are not abundant, but there is a plurality of choice. It is possible to take a high school technical specialization course in radiotherapy not only in different private technical schools, but also in a public educational institution, of a federal nature. However, only one public entity offers the course. Being



an option with a higher level of instruction, the higher education course in Technology in Radiology allows the professional to legally qualify to work in the area, and there are different options for this degree in Rio de Janeiro. However, all courses at this level in Rio are offered in colleges, university centers or private universities. In other words, until the date of publication of this work, there is no opportunity to study in the higher education course of Technology in Radiology in a public institution in the State of Rio de Janeiro. For those interested in attending exclusively in the public system all the training necessary to be legally qualified in the area, the only option is to take the technical course in radiology and, later, the mid-level technical specialization in radiotherapy – existing in only one institution of this profile.



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