

Region and Language Centric Virtual Education and Training in Latin America: Stereotactic Body Radiotherapy and Radiosurgery Curriculum in Spanish for Medical Physicists and Radiation Oncologists

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Categories: Medical Physics, Radiation Oncology

Keywords: stereotactic body radiotherapy

How to cite this abstract

Castaneda S A, Kruse E, Della Bianca C, et al. (March 06, 2024) Region and Language Centric Virtual Education and Training in Latin America: Stereotactic Body Radiotherapy and Radiosurgery Curriculum in Spanish for Medical Physicists and Radiation Oncologists. *Cureus* 16(3): e1159

Abstract

Objectives:

There is lack of access to training for radiation therapy professionals in low- and middle-income countries (LMICs), hindering the development of sustainable cancer treatment capacity and implementation of new technologies. LMICs have started to introduce stereotactic body radiotherapy and radiosurgery (SBRT/SRS), which is widely used in high-income countries, because of improved outcomes. This work reports the characteristics of the ongoing virtual SBRT/SRS curriculum in Spanish offered for free to radiation oncology professionals from LMICs in Latin America by the non-profit organization Rayos Contra Cancer. The program aims to aid clinicians in their transition to implement new technologies and techniques by deepening understanding of the fundamentals needed to deliver safe and high-quality SBRT/SRS.

Methods:

Training is being provided with 15-weekly live, interactive video lectures for the participants in the synchronous cohort. These videos are being recorded simultaneously for the asynchronous cohort. The 4-month curriculum focuses on simulation and registration of intracranial and extracranial sites, planning evaluation and optimization, site specific learning cases, quality assurance, image-guided radiotherapy, among other topics.

Results:

The current cohort included 1,457 participants from 24 countries in 540 unique clinics. The participants consisted of 641 (44%) radiation oncologists, 606 (41.6%) medical physicists, 79 (5.4%) radiation therapists, 110 (7.5%) dosimetrists, and 21 (1.4%) other professionals. To our knowledge, this is the largest cohort of radiation oncology professionals in LMICs undergoing virtual education in their specific language and region.

Conclusion(s):

Virtual training provides an excellent and feasible e-learning platform to train radiation therapy professionals in LMICs. The Rayos Contra Cancer curriculum delivers a comprehensive and practical training in SBRT/SRS. The curriculum was successfully scaled to a large cohort of radiation professionals in Latin America.