



Radiation Therapy in the Philippines: A Challenge in Resourcefulness

Johanna Patricia A. Cañal, MD, MHA,*
and Elaine Johanna C. Limkin, MD[†]

**University of the Philippines College of Medicine, Manila, Philippines;* [†]*Philippine General Hospital, Manila, Philippines*

Received Aug 27, 2015, and in revised form Sep 3, 2015. Accepted for publication Sep 8, 2015.

The Philippines is an archipelago of 7107 islands located in the heart of Southeast Asia. It is completely surrounded by water and is accessible only by sea and air. Filipinos have a mixed ethnicity of Malay, Chinese, Spanish, and American, brought about by centuries of foreign trade and colonization. As of 2015, the population of the Philippines has been estimated to be 105 million.

In 2012, Globocan data showed that the cancer with the highest incidence and prevalence among both sexes was breast cancer. This was followed by lung and then colorectal cancer. Among men, lung cancer had the highest incidence, whereas prostate cancer had the highest prevalence. Among women, breast cancer had both the highest incidence and prevalence. The Philippines has the highest breast cancer prevalence in Asia. Other cancers common in the country are nasopharyngeal cancers, laryngeal cancers, and gynecologic cancers (1).

The first radiation therapy treatment in the Philippines was in 1910 at the Philippine General Hospital, a mere 14 years after Roentgen discovered X rays. By the 1960s, an additional 6 cobalt machines were installed. In 1976, the Radiotherapy Interest Group was formed under the Philippine College of Radiology. The first linear accelerator was set up at the Lung Center of the Philippines in 1983. In 1988, the Philippine Radiation Oncology Society (PROS) was officially recognized as a subspecialty society of the Philippine College of Radiology.

Reprint requests to: Johanna Patricia A. Cañal, MD, MHA, FPCR, Department of Radiology, UP-Philippine General Hospital, Taft Ave, Ermita,

The Practice of Radiation Oncology in the Philippines

Manpower and training

PROS started administering its own certifying board examination in 1992. Up to 2004, there were 2 ways to obtain formal training in radiation oncology. One option was to take a 3-year residency in radiology or internal medicine, then a 1-year fellowship in radiation oncology. Otherwise, one could opt for a 3-year residency in radiation oncology. At the time, there were only 4 training programs.

In 2005, all training programs were synchronized and made into 4-year residency programs. By 2014, there were 8 training programs, usually hiring only 1 or 2 residents per year level of training. There is usually a pool of 4 to 6 applicants for each of these coveted positions, indicating much interest in the specialty. The training programs are conservative about the number of trainees admitted, though, because there are not enough hospitals to practice in. All of the training hospitals are located within the National Capital Region (NCR) of metro Manila. Because there are so few programs, the residents are made to rotate in other institutions so that each is exposed to the cases in other hospitals. Scientific meetings are held every other month, where the training institutions share their interesting cases or discuss the latest developments in the practice.

Manila, Philippines. Tel: +63(917)8387569; E-mail: jdadevosocanal@up.edu.ph

Conflict of interest: none.

The certifying examination comes in 3 parts. The first part is a radiobiology, radiation physics, and anatomy examination. The second part is a written clinical examination, and the third is an oral, case-based clinical examination. The Board of Examiners is composed of 3 radiation oncologists and 1 medical physicist. Passing all 3 makes one a diplomate of the society. Subsequent presentation of a research paper makes one eligible to be a fellow of the society. There is no recertifying examination for Filipino doctors, but there are continuing professional development requirements.

There are only 65 board-certified radiation oncologists in the Philippines as of January 2015. At any one time, there are at least 15 residents-in-training across all year levels. Of the 65 radiation oncologists, only 7 are practicing purely outside of the NCR. A potential limitation that is arising with the setup of the residency training programs being purely in metro Manila is that there are very few graduates who eventually choose to practice outside the NCR, and the few radiation therapy centers in the provinces are undermanned, with only 1 to 3 radiation oncologists per center, compared with approximately 10 per center in the NCR.

The Philippine Organization of Medical Physicists governs the practice of medical physics. There are only 57 practicing radiation therapy physicists in the country, all holding masters' degrees in medical physics from the single university that offers the course. Only 16 of them are board certified. The rest are expected to go through a mentoring program with the senior physicists and then take their certifying examinations. In some institutions, radiation therapists have been trained to do dosimetry and help the physicists with their regular calibration.

Equipment and services

As of mid-2015, there are only 22 hospitals throughout the country that offer radiation therapy (Fig. 1). Of the 22, 13

are located in the NCR. All 8 of the training institutions are located there. Four hospitals are in Luzon. Three hospitals are in metro Cebu in the middle of the archipelago, and 2 are in metro Davao in the southernmost part of the country. There are 2 new facilities being constructed, also within metro Manila. This obviously means that most patients will have to travel to the better equipped urban centers.

Of the 22 facilities, 3 hospitals have only a single cobalt machine and they are all in public hospitals. The rest have linear accelerators of varying capabilities. In 5 hospitals, there is the capacity for image guided radiation therapy and stereotactic radiosurgery. Brachytherapy is unavailable in 4 institutions. In 1 hospital, only low-dose-rate brachytherapy is available. Intraoperative brachytherapy is not done anywhere because of infrastructure concerns.

Of the 22 facilities, 6 are government institutions. These 6 government institutions bear the brunt of Filipino patients, treating 80 to 100 patients per day. These facilities will run for either 2 shifts (6 AM to 2 PM and 2 PM to 10 PM) or an extended single shift (7 AM to 5 PM) just to accommodate all patients. The centers with cobalt machines have high-activity cobalt sources (9000 Ci or more) that are expected to reach their half-life in approximately 7 years. This not only saves money but also saves on the effort of buying a new source every 5 years. There is only 1 supplier of cobalt sources in the country, who in turn imports these sources from Canada.

Health insurance

The Philippines has a national health insurance system (Philhealth) that covers radiation treatments. All employed Filipinos and all senior citizens are automatically covered. Some indigent patients are likewise sponsored by their local government units. Reports from various sources will claim anywhere from 65% to 85% coverage of the general population. Philhealth does cover conventional and 3-

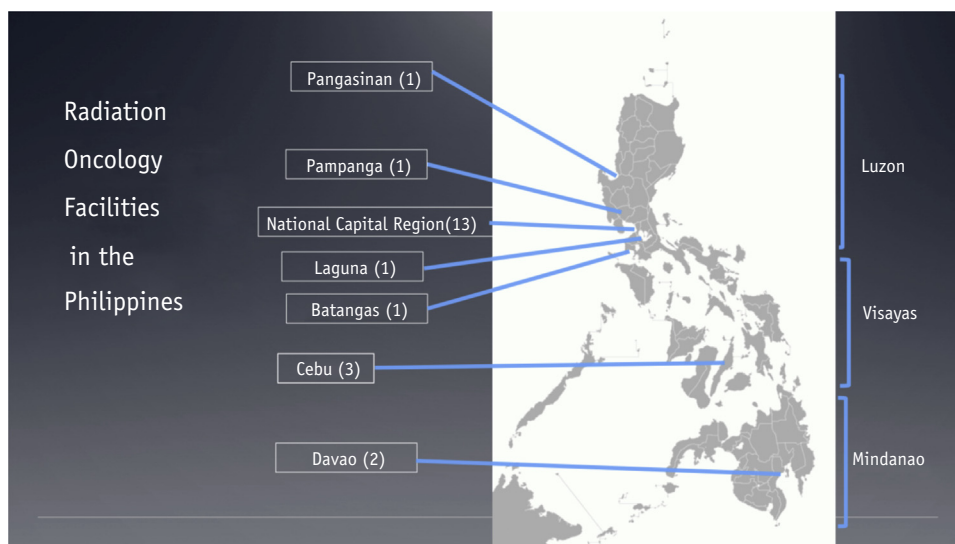


Fig. 1. Radiation oncology centers in the Philippines.

Download English Version:

<https://daneshyari.com/en/article/8215590>

Download Persian Version:

<https://daneshyari.com/article/8215590>

[Daneshyari.com](https://daneshyari.com)