

AbstractID: 11972 Title: Brazilian Certification System in Medical Physics

In Brazil beyond the conventional course of graduation in physics we have the graduation in medical physics in which, during the regular course, the student receives lessons of specific applications of physics in medical physics. After finish the graduation course the physicist may do a post graduation to obtain a M.Sc. or PHD title or may enter in a residency program at one hospital.

There are two types of certifications for the physicists that want to work with ionizing radiation in a health service: the "Radiation Protection Supervisor" provided by Comissão Nacional de Energia Nuclear (CNEN) and "Specialist Title" provided by Brazilian Association of Medical Physics (ABFM).

The CNEN, a regulatory agency, certificate many categories of professionals with the title of "Radiation Protection Supervisor" they don't need be physicists it's sufficient they have done some university and that they be approved in a written examination.

The ABFM is a professional association and now has 940 associates distributed in several categories. The ABFM title qualifies Medical Physicist in the following areas: radiotherapy; radiology and nuclear medicine. The system of certification consists in an evaluation of the knowledge of the physicists through a mandatory examination. For each area there is a specific program that must be well known by the candidate. The examination consists of three parts:

- a written evaluation of general knowledge in medical physics
- a written evaluation of specific knowledge area
- an oral evaluation of skills in the specific area.

To obtain the certification the physicist need to satisfy the following requirements:

- be graduated, or have M.Sc. or PHD degree, in physics
- have done a training in the specific area during at least 3800 hours
- be working in the area for at least two years
- be approved in the certification examination administered by ABFM.

This system of certification of ABFM begun in 1995 and until now the number of specialists in Brazil is: 193 (77%) in radiotherapy, 45 (17%) in radiology and 25 (10%) in nuclear medicine.

In Brazil there are several regulatory agencies responsible for protecting the public and occupationally exposed personal. These agencies may request, depending of the size and type of the medical service, the presence of physicist with the "Radiation Protection Supervisor" certificate or "Specialist Title" in a specific area.

The number of equipment that employ ionizing radiation in Brazil are approximately:

- 58.000 dental radiographic equipments
- 18.000 medical radiographic equipments
- 210 nuclear medicine services and
- 175 radiotherapy services.

Educational objectives:

1. to present the Brazilian certification system for medical physics
2. present the Brazilian Association of Medical Physics