

Supporting the professional development of medical physicists in Latin America

The challenge...

New medical technologies based on ionizing radiation, including modern treatment procedures for cancer and diagnostic imaging, are being constantly developed and deployed in health care. These continuous advancements require that human health professionals are properly trained and their knowledge constantly brought up to date, so that patients are treated effectively and incidents or accidents avoided at all costs.

The Latin America region has a significant deficit in human resources, both quantitative and qualitative, in the field of clinical medical physics. Medical physicists employed by hospitals and clinics generally devote almost all their time to planning treatments and to treating patients. They have little time available for researching, studying and discussing new developments and methodologies, or updating their professional knowledge.

The project...

Through a regional technical cooperation project, the IAEA supported the professional development of medical physicists, enhancing and updating their knowledge and skills to ensure the best possible up to date care for their patients. The project facilitated the exchange of medical information in the region on the use of ionizing radiation in medicine and strengthened the proficiency of medical physicists in advanced treatment techniques.

Expert missions were carried out to identify and address the 'know-how' needs of the medical physicist community in Latin America and to develop a long term plan to facilitate professional training and human resource updating in the region. Several medical professionals were trained in new technologies, methodologies and procedures through scientific visits, and fellowships were provided to medical PhD students in the region.

The impact...

The project resulted in a significant increase in human resource capacity, and successfully upgraded the know-how and qualifications of medical physicists in the region. A total of 127 professionals were trained and are now fully up to date with the latest technologies and treatment mechanisms. Of these, 24 professionals were trained through fellowships and 103 through training courses.

In Latin America, in the critical field of human health, human resources are both highly valuable and scarce. The capacity built by the project has made an important contribution to overall national and regional efforts to improve cancer treatment and to protect patients.



A teletherapy machine in the process of being calibrated.