



## CARTA AL DIRECTOR

### **Nuclear Medicine, as part of the will for the strategic development of public health in the province of Pinar del Río**

La Medicina Nuclear, como parte de la voluntad para el desarrollo estratégico de la salud pública en la provincia de Pinar del Río

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#### **Dear Director:**

The political will of the Cuban government and state to sustain and develop the health system in the face of the growing difficulties marked by a criminal blockade of more than 60 years on the island can be seen in each expression of daily resistance. Nuclear Medicine is a specialized area that uses very small quantities of radioactive substances or radiopharmaceuticals to examine the function and structure of the different systems of the body, to diagnose and treat very early anomalies in the progression of a disease.<sup>(1,2)</sup>

Contemporary public health, adjusted to international quality standards, requires Nuclear Medicine to be framed within the criteria of excellence. In the eighties of the last century, our province had a Nuclear Medicine department, located in the old Oncology Unit. It had: Linear Gamma-topographer,<sup>(1)</sup> for imaging studies, Iodine binders,<sup>(2)</sup> for functional studies, room for radioimmunoassay techniques, room for metabolic radiotherapy.<sup>(1)</sup>

It should be noted that only in the gammagraphic studies modality approximately 3,300 cases were carried out per year.<sup>(3)</sup>

Considering the impact on the quality of care and the economic impact resulting from the transfer of patients with these requirements, especially to the country's capital, it was decided to rescue this service, adapting both its structural architectural design and its healthcare arrangement to the most modern standards and provisions of the regulatory structures on nuclear safety established in our country.

The design process consisted of three stages: identifying specialized centers for advice on: technological conceptualization, care dynamics and definition of human resources; defining the architectural structure of the building; designing a proposal for approval and execution. A high-level team of experts was assembled, consisting of: Lic. Mayka Guerrero Cancio, external advisor to the project, head of the Specialized Center for Diagnosis and Therapy (CEDT) of the CIMEQ Hospital; MSc Andrés de la Fuente Puch and Cruz Doménigo Gonzales, regulators of the National Center for Nuclear Safety (CNSN); Consuelo Varela Corona, Nuclear Energy Engineer and MSc in Medical Physics, head of the Department of Radiophysics at CECMED; PhD. Joaquín Jorge Gonzales and MSc. Carlos Fabián Calderón Marín, medical physicists at the National Institute of Oncology and Radiobiology (INOR) and Dr. Aldo Martínez Ramírez, head of the PET and Nuclear Medicine Center at the aforementioned institution.

In order to oversee the project from an academic point of view, PhD. Adlin López Díaz, an expert from the International Atomic Energy Agency (IAEA), who directed the Nuclear Medicine Service at the "Hermanos Ameijeiras" Hospital for more than 10 years and is an Assistant Professor at the Instituto Superior de Tecnologías y Ciencias Aplicadas (INTEC) was asked to provide her analysis and opinion. From the implementation phase, it is a strength in the scientific order that the project has five experts from the International Atomic Energy Agency, three of whom have the academic degree of doctors in science.

It was finally produced by: 38 executive plans and 1 general project.

The composition of human resources and the technological relevance appropriate to our healthcare objectives, conditioned among other factors, by our geographical location, was adjusted to what was established by virtue of the Resolution No. 40 of 2011 of CITMA: "Guide for the Implementation of Safety Regulations in the Practice of Nuclear Medicine".<sup>(4)</sup>

In the current year 2024, contained and approved in the MINSAP investment plan of our territory, the first steps are taken for its execution in an area of the "Abel Santamaría Cuadrado" Provincial Clinical-Surgical Hospital, conceived in stages, with the technological resources available in our country, and reinforced with the vast experience that we have in terms of international collaboration projects, it will be completed as the Provincial Center for Nuclear Medicine and Molecular Imaging, which will also integrate the Provincial Medical Physics Service into its structure.

Without ignoring the fact that the purpose of revitalizing Nuclear Medicine in Pinar del Río has a high material cost due to the technological, construction and highly qualified personnel needs, and that it is being developed in an unfavorable economic context, it will provide the territory with tools that will allow to increase the quality, effectiveness and efficiency of comprehensive health services, with a high social impact that converges with the guiding principle that governs the wills and destinies of the government and party policy, the well-being of the population.

### **Conflicts of interest**

The author declares that there is no conflict of interest.

### **Authors' contribution**

The authors participated in the development, conceptualization, writing, review and editing of the letter.

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