

RADIATION PROTECTION IN DIAGNOSTIC RADIOLOGY (CUB/9/013) I1 New

MODEL PROJECT

CORE FINANCING

YEAR	Experts		Group Activity	Equipment		Fellowships		Scientific Visits		Group Training	Sub-Contracts	Misc. Comp.	TOTAL
	m/d	US \$	US \$	US \$	m/d	US \$	m/d	US \$	US \$	US \$	US \$	US \$	
1999	0/15	7,350	0	47,000	4/0	13,800	0/15	5,400	0	0	0	0	73,550
2000	0/15	7,725	0	92,000	6/0	21,600	0/0	0	0	0	0	0	121,325

First Year Approved: 1999

OBJECTIVES: To establish a national system of radiological protection and QC in radiodiagnostics applying the International Basic Safety Standards (BSS)

BACKGROUND: Cuba has around 2000 X-ray machines for radiodiagnostics. However, its radiation safety monitoring system does not optimize cost and patient exposure. In 1992, therefore, the Ministry of Public Health (MINSAP) created the Centre for State Control of Medical Equipment (CCEEM) to co-ordinate a national programme and to establish the required infrastructure. The Pan American Health Organization (PAHO) has sponsored some activities for this work, including an inventory of X-ray facilities and QC in ten hospitals as a pilot project. Cuba has requested Agency assistance to extend and establish this system at the national level, in compliance with the International BSS for diagnostic radiology under the guidelines and procedures being developed in ARCAL XX.

PROJECT PLAN: The project will be implemented by CCEEM as main counterpart, and six Territorial X-ray Diagnostic Radiophysics Centres (PTTR) that will be established within the Provincial Centres for Hygiene and Epidemiology (CPHE), which are in charge of radiation protection inspections throughout Cuba. The PTTRs will carry out their functions through the National Environmental Health Unit (UNSA). Other participating institutions will be the Institute of Occupational Medicine (IMT), the National Electromedicine Centre (CNE), and the National Nuclear Safety Centre (CNSN). The Secondary Standards Dosimetry Laboratory (SSDL) of the Centre for Radiation Protection and Hygiene (CPHR) will be responsible for the traceability of measurements and calibration of the equipment used in the project, and its laboratories will be used for standardization of the relevant measurement methods. The project activities will include QC of the beam and of the image quality, and patient dose measurements. In 1999, Cuba will begin establishing the six PTTRs, and prepare the national protocols for dose surveys and QA and the Agency will start providing expert support, fellowship and equipment for the provincial centres. In the year 2000, the laboratories will be completed, and expert advice will be given to enable the PTTRs to start monitoring and inspecting the 2000 X-ray units nationwide.

NATIONAL COMMITMENT: Sufficient qualified staff in all the participating institutions; establishment of the six PTTRs; equipment; operating costs.

AGENCY INPUT: Expert advice on X-ray QC radiation protection, dosimetry and image quality; equipment mainly for measurement, monitoring, dosimetry and standards; training under fellowships and one scientific visit.

PROJECT IMPACT: There will be an impact on the health sector nationwide, a significant dose reduction and general improvement in radiation safety conditions for patients and occupational workers. Ultimately, there will also be savings due to cost reductions in the procedure.