

Projects Description for ARASIA TC Programme

TC Cycle 2014-2015



Project Number: RAS/6/078

Project Title: Strengthening Nuclear Medicine Applications through Education and Training to Help Fighting Non-Communicable Diseases

Overall objective: To improve the management of non-communicable diseases by enhancing the quality of practice and application of nuclear medicine techniques in ARASIA States Parties

Project duration: 4 years

PROJECT DESCRIPTION

Regional gap / Problem / Need analysis: There is a growing awareness among IAEA Member States about the enormous magnitude of Non-Communicable Diseases (NCDs) throughout the world and, particularly, in developing countries. Currently, chronic diseases claim more than 35 million lives each year and account for more than 60% of all deaths worldwide. This figure includes 16 million premature deaths involving people under the age of 70. The World Health Organization (WHO) projects that the burden of NCDs will continue to increase by a further 17 per cent over the next 10 years, most markedly in Low and Middle Income (LMI) countries. To ensure cost-effective and successful therapeutic treatments, patients affected by NCDs, not only cancer patients but also cardiac, renal thyroid patients; need to be early diagnosed. Nuclear Medicine is an area of medical imaging using radionuclides, which plays an important role in many diseases, and in the case of cancer and cardiovascular diseases, new techniques, such as positron emission tomography (PET) and Single-Photon Emission Computed Tomography (SPECT), have become extremely important, because they allow for the visualization of organ activity and detection of early stage diseases. All ARASIA States Parties have conventional and basic nuclear medicine facilities in place and most of the ARASIA States Parties have recently embarked on the introduction of hybrid nuclear modalities (SPECT-CT and PET/CT). However, most of these States have inadequate nuclear medicine capabilities as the base of practitioners with solid training is rather limited. Consequently; the nuclear medicine services in the ARASIA States Parties will definitely need vital support in human capacity development in order to meet and cope with the demand for such services. Therefore, this project is expected to stimulate regional cooperation among the nuclear medicine facilities in the ARASIA States Parties and will contribute to strengthening the nuclear medicine capacity in the region.

This project is proposed as a regional activity for the following reason(s): The project will address common needs to all ARASIA States Parties in the area of human capacity building in nuclear medicine. The project will stimulate the networking and the regional cooperation among the ARASIA States Parties.

Stakeholder analysis and partnership: In addition to the efforts made during the project concept phase, a meeting was arranged at the IAEA headquarters for the potential national coordinators from the ARASIA States Parties in order to report and share the existing infrastructure, the needs and identify future needs and cooperation. The meeting identified the areas in which supported is needed.

Role of nuclear technology: Nuclear technology is an essential part in nuclear medicine.