

Establishing a medical physics training centre in Bosnia and Herzegovina

The challenge...

There is a significant gap between the supply and demand for experienced medical physicists in Bosnia and Herzegovina, and continuous education and clinical training is needed. Over the past three years, the number of radiotherapy centres in the country has increased greatly: in 2009 there was only one centre, today there are five. The number of medical physicists employed in the hospitals has doubled in the same period.

Since 1997, the clinical training of medical physicists in Bosnia and Herzegovina has been carried out almost exclusively through the IAEA's technical cooperation programme. In order to ensure sustainability and safe medical practices, it was necessary to develop a national infrastructure for training, including a formal curriculum covering radiation imaging, radiotherapy and nuclear medicine.

The project...

The project aimed to establish a medical radiation physics centre in the Departments of Medical Physics at the Clinical Centre of the University of Sarajevo (KCUS) and the Clinical Centre Banja Luka. The centres would train medical physicists and provide sustainable training as well as continuing professional development in line with internationally accepted standards.

Training for local medical physicists from Sarajevo and Banja Luka was organized in order to prepare for the utilization of quality control (QC) and dosimetry equipment also provided through the project, and to establish avenues for future collaboration.



A medical physicist from Sarajevo discusses the QC tests for linac with colleagues from Malmo.

An expert mission was organized to initiate collaboration with medical physics departments in the region and to advise on the development of medical physics in Bosnia and Herzegovina. The experts reviewed current activities in medical physics and radiation protection, and related academic and clinical training programmes at both sites, and collected information from other hospitals. These activities provided an evaluation of academic and clinical training programmes in medical physics, identified specific areas for improvement, as well as guidance on the establishment of a framework for future direct cooperation with the institutions in Sarajevo and Banja Luka.

The impact...

A medical radiation physics centre has been established at KCUS and educational training of medical physicists is underway. The project has helped to create a larger professional body of medical physicists and, in cooperation with the Faculty of Sciences at the University of Sarajevo, has established the foundations for education and clinical training in medical physics and radiation protection. Staff and equipment meeting internationally accepted standards are now available for training in all major areas of medical radiation physics: radiotherapy, diagnostic radiology and nuclear medicine. The experience gained in Sarajevo will be used for other centres in the country.