

Enhancing radiotherapy treatment for cancer patients in Albania

The challenge

In Albania, cancer continues to be a major public health problem. The Ministry of Health of Albania states that cancer is the second leading cause of death (16.6%) after cardiovascular diseases. About 7000 new cancer cases are reported every year, and more than half of the patients will need radiotherapy as part of their treatment. The University Hospital Centre 'Mother Theresa' in Tirana, Albania is the only public centre providing radiotherapy.

With a population of 3.3 million, Albania currently has six high energy radiotherapy machines (one cobalt-60 teletherapy machine and five LINACs). However, there is still a long waiting list for patients. In recent years, the Ministry of Health, with the support of different international organizations, has prepared a national cancer control programme together with an action plan covering each area

of activity (prevention, early detection, treatment and palliative care). The action plan called for an increased number of radiotherapy treatment machines.

The project

The IAEA supported the Government of Albania to improve the prevention, detection, diagnosis and treatment of cancer to achieve better overall survival and quality of life through a technical cooperation project, which had two main components. A new LINAC radiotherapy system was installed at the University Hospital Centre 'Mother Theresa', co-funded by the IAEA and the Government of Albania. In parallel, due to the increased complexity of radiotherapy technology, intensive training was provided for the clinical staff carrying out the treatment (radiation oncologists, medical physicists and radiation therapists), delivered through fellowships in countries that already have similar



The newly commissioned LINAC at the University Hospital Centre 'Mother Theresa'. (Photo: A.Silva Garduno/IAEA)

equipment in operation. The IAEA also supported the hospital by engaging experts to visit the centre and independently verify the commissioning process, to assure safe and effective treatment.

The impact

The University Hospital Centre 'Mother Teresa' has made considerable steps forward in diagnosis and treatment of cancer patients over the past years. With the upgrade in technology, the Centre is now able to provide radiotherapy treatment for more complex cases and to introduce new techniques such as hypofractionation in breast cancer, particularly benefiting women. The project has contributed to an improvement in access to quality radiotherapy services for cancer patients in Albania.



Dazhu Yang, IAEA Deputy Director General and Head of the Department of Technical Cooperation visits the University Hospital Centre 'Mother Teresa'. (Photo: Christoph Henrich/IAEA)

Facts and figures

This project builds on past health related IAEA projects over the past 12 years, during which the IAEA and the Government of Albania supported the University Hospital Centre 'Mother Teresa' with around €5.5 million and:

- Medical staff were trained for an accumulated 60 months abroad;
- Medical physicists were trained for an accumulated 65 months abroad;
- Radiotherapy technicians were trained for an accumulated 11 months abroad;
- In total, 34 staff of the University Hospital Centre 'Mother Teresa' were trained through long term fellowships;
- 13 scientific visits were implemented;
- 17 expert missions were organized.

With the first LINAC, the Department of Oncology of the University Hospital Centre 'Mother Teresa', treated 429 patients in 2016 (from May) and 720 in 2017, while 275 patients were treated with the second LINAC at the Neurosurgery Service. The hospital expects to treat 1100-1300 patients per year with both machines.

The science

LINACS and cobalt-60 (Co-60) teletherapy machines are two of the most commonly used pieces of equipment for external beam radiation therapy, a procedure in which high-energy beams are used to kill tumour cells. Both Co-60 machines and LINACS have been used for cancer treatment since the 1960s.

PROJECT INFORMATION

Project No: ALB6016

Project title: Supporting the Effective Implementation of the New National Cancer Control Programme – Phase II

Duration: 2016-2017 (2 years)

Budget: €1 835 592 (€812 000 from extrabudgetary resources)

Contributing to:



Partnerships and counterparts

Improving capacity to diagnose and treat cancer in Albania has been outlined as a key priority for the country in the National Cancer Control Programme 2011–2020. Cancer treatment is also a priority in the current Country Programme Framework 2012–2017, as well as in the 'Programme of Cooperation for Sustainable Development, UN Sustainable Development Framework 2017-2021'. This technical cooperation project contributes to the achievement of Outcome 2 of this Framework, which focuses on social cohesion and health. As part of the UN Country team in Albania, IAEA coordinated, streamlined and concentrated common efforts with other United Nations agencies that are also active in supporting Albania to improve health including the World Health Organization, United Nations Development Programme and United Nations Children's Fund. The IAEA also worked closely with ministries and relevant institutions, such as the Ministry of Health and the Ministry of Social Welfare and Youth, and the University Hospital Centre 'Mother Teresa'.