

Una manera de hacer Europa



High-tech renovation Plan applied to public health.
Linear Electron Accelerator
Extremeño Health Service

**Programa Operativo
de Extremadura**

Año 2018

Fondo Europeo de Desarrollo Regional

High-tech renovation Plan applied to public health.

Linear Electron Accelerator

In the last 20 years, the number of diagnosed tumors has experienced a steady growth in Spain, due not only to the increase in life expectancy, but also the early detection and screening techniques (consisting of subjected to diagnostic tests to) all persons who are at risk of developing cancer, the majority of which do not have any symptoms), which increasingly are detected more tumors in early stages unless they have given rise to symptoms and therefore with much better results of face treatment.

The catalogue of hospitals in Extremadura, reveals the presence of multiple health care resources in public hospitals in one way or another related to cancer, both in the field of services and specialized care units, as for the high-tech equipment. While it is true that many of these high-tech equipment must be renewed since they have exceeded their useful life and its obsolescence more than a reliable diagnosis can be an obstacle when it comes to detection and treatment of cancers.



To this end, and in application of the provisions of the "Integral Plan against Cancer in Extremadura 2017-2021", posed as a general objective to reduce the incidence and mortality and morbidity attributable to cancer in the autonomous community, the Servicio Extremeño de Salud goes to the foundations which allow to develop a comprehensive and quality approach in aspects of prevention, assistance and rehabilitation in the area of cancer in Extremadura.

The action consists of the acquisition of a Linear Accelerator of Electrons (radiotherapy equipment in oncological treatments) next-generation Electron Accelerator and that allows to approach the tumor more precisely without damaging tissues attached and with fewer side effects for patients. This will result in a faster recovery for the patient and a better quality of life. This equipment has been installed at the University Hospital of Badajoz, according to regulations and guidelines set by the Council for Nuclear safety, among other bodies involved in this process.

This action has involved an investment, in terms of eligible public expenditure, of 3.968.800 euros, with a help of the European Regional Development Fund of 3.175.040 euros.

This action achieved a coverage of 1.054.217 people susceptible to receive this kind of treatment.

This action is considered Good Practice because:

The action has been conveniently disseminated among the beneficiaries, potential beneficiaries and the general public:

The action has been disseminated in compliance with the communication obligations set out in the regulations.



Además de ello, la actuación fue presentada por el Consejero de Sanidad y Políticas Sociales, **a los medios de comunicación**. Mostramos a los profesionales dando una explicación de la funcionalidad y alcance de sus aplicaciones.

In addition, the action was presented by the Consejero de Sanidad y Políticas Sociales, to the press. We show the professionals giving an explanation of the functionality and reach of their applications.



We show the professionals giving an explanation of the functionality and reach of their applications.

The news has been broadcast both on television and in the written press published:

**el Periódico**Extremadura

BADAJOS

RADIOTERAPIA

El nuevo acelerador lineal del Hospital Universitario supera las mil sesiones

Ha supuesto una inversión cercana a los 4 millones de euros



El nuevo acelerador lineal de electrones del Hospital Universitario de Badajoz, el más complejo y avanzado de la comunidad autónoma, ha superado ya las mil sesiones de radioterapia a pacientes desde su puesta en funcionamiento el pasado 29 de noviembre. La Junta de Extremadura facilitó ayer este dato en un comunicado en el que señaló también que el aparato, **financiado en un 80% con Fondos Europeos FEDER** y un 20% de la comunidad autónoma, ha supuesto una inversión de 3.968.800 millones de euros, combina imágenes y radiación y tiene una exactitud de 1 milímetro. Además, permite menos sesiones de radioterapia a los pacientes.

Badajoz | Sucesos | Provincia de Badajoz | Agenda | Carnaval de Badajoz 2019 | Vídeos

El acelerador lineal del hospital Universitario de Badajoz llega a las mil sesiones de radioterapia

Se puso en funcionamiento el pasado 29 de noviembre de 2018. Desde entonces, el acelerador lineal de electrones del Hospital Universitario de Badajoz ha superado las mil sesiones de radioterapia a pacientes.

La inversión total en el aparato fue de 3.968.800 millones de euros y se financió en un 80 por ciento con fondos europeos Feder, mientras que el 20 por ciento restante se asumió con presupuestos de la comunidad autónoma.

The performance incorporates innovative elements:

The most innovative aspect of this action is that it is a high-tech equipment with high performance that facilitates the planning of tumor surgery. Before its start-up, calibration and relevant tests are carried out in compliance with the regulations on nuclear safety.



With this new technique the quality of care is increased, because they reduce the dose, improve the precision in the conformation of the volume, reduce the treatment times and reduce the calculation times with respect to the current treatments, allowing among other things to perform intensity radiotherapy modulated and with guided image, in a table with 6 degrees of freedom in a coordinated way with the Linear Electron Accelerator.

This set of elements means that innovation resides both in the Accelerator itself and in the quality of care provided to patients from Extremadura.

Adaptation of the results obtained to the established objectives:

We must recognize that technology applied to health care has experienced an exponential evolution, and would not be logical to waste the application of the same to the healing that is offered to the people of Extremadura; Since, it is certified that the performance and efficiency of the new Electron Linear Accelerator is a surgery less invasive, better treatment, better and higher recovery from illness and a higher quality of life; and of course, a reduction of health inequality.

Contribution to the resolution of a problem or weakness detected in the territorial scope of execution:

Given the need to meet the growing health demand caused by an aging population, coupled with the geographical dispersion of our region that affects healthcare practice and prevention in health, we must act by providing health care adjusted to the benefits offered by new technologies in health.

With this, we can provide health care of a higher quality to patients in our Comunidad Autónoma, progress in regional and local development, and at the same time reducing health inequalities.



High degree of coverage of the population to which it is directed.

With this action, quality health care can be provided to the total population of the region. The complexity of the application of this radiotherapy technique and the small number of people who need this type of treatment are not an obstacle to trying to reduce health inequalities.

Coverage is given to the susceptible population that requires the application of stereotactic techniques (a type of surgical minimally invasive procedure for locating small structures inside the body) for the treatment of benign and malignant tumors small volume; and all those patients who require to minimize irradiation on organs and healthy structures, where the retrieved local control is very high and the observed toxicity is low.

Currently, the development of techniques in this type of accelerators is aimed at people who require treatment of primary tumors or with metastases, located in the thorax, abdomen or pelvis, in order to reduce acute or chronic toxicity, significantly shortening the overall treatment time.

Consideration of the horizontal criteria of equal opportunities and non-discrimination, as well as social responsibility and environmental sustainability:

In relation to the criteria of equality of opportunities and non-discrimination, the implementation of this action contemplates horizontally that any person, both health professionals and patients, is discriminated at any time by the actions carried out from the field sanitary.

Are also taken into account these principles in the language used to communicate, inform and publicize the performances from the Servicio Extremeño de Salud.

On the other hand, the Servicio Extremeño de Salud has strictly complied with all legal requirements environmental regulations applicable to the activity and is committed to the European guidelines on environmental liability, the Prevention and remedying of environmental damage which may arise in the implementation of these actions.

It also has the favorable report of the Consejo de Seguridad Nuclear, which is paramount to ensure nuclear safety and radiological protection of people and the environment.

Synergies with other policies or instruments of public intervention:

In order to improve the prevention and clinical outcomes, as well as the quality of life of the population affected by this type of ailments, this action also multiplies its effect to comply with provisions of the integral Plan against cancer in Extremadura 2017-2021.

This Plan falls within the objectives and strategies referred to in the Plan de Salud de Extremadura 2013-2020 seeking synergy with other plans contained in it, as the Plan Integral sobre Enfermedades Cardiovasculares, Plan Integral de Diabetes, Plan Integral de Drogodependencias y Otras Conductas Adictivas.. As well as the Plan Marco de Educación para la Salud de Extremadura, the Estrategia de Atención a la Cronicidad, etc.



JUNTA DE EXTREMADURA



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BUENAS PRÁCTICAS

Actuaciones Cofinanciadas

Fondo Europeo de Desarrollo Regional