

Una manera de hacer Europa



BUENAS PRÁCTICAS

Actuaciones Cofinanciadas

ICU Covid room of the Marqués de Valdecilla University
Hospital, Cantabria

Programa Operativo de Cantabria

Año 2022

Fondo Europeo de Desarrollo Regional

ICU COVID ROOM OF THE MARQUÉS DE VALDECILLA UNIVERSITY HOSPITAL

The Marqués de Valdecilla University Hospital (HUMV) is a public hospital center in the Autonomous Community of Cantabria, located in Santander.

The Cantabrian Health Service attached to the Ministry of Health of the Government of Cantabria, in response to the health crisis produced by Covid-19, has executed with European funds a Multivalent Intensive Care Unit room, hereinafter ICU, in Hall 17 of the HUMV.



Valdecilla is the reference center of the whole Autonomous Community of Cantabria for some medical specialties and healthcare processes or high complexity diagnostic-therapeutic procedures and national reference hospital for transplants, interventional cardiology, cardiac surgery, interventional radiology and hyperbaric chamber of the Autonomous Communities of Northern Spain.

The **performance** presented here is linked to the outbreak of the Covid-19 pandemic in the first quarter of 2020; the increase in positive cases detected at the different times has affected an increase in the number of patients who have needed to be visited in emergencies and admitted to hospitalisation plants and the Intensive Care Service.

The demand of critical patients with this pathology who have needed intensive care, showed the inadequacy of existing resources, forcing the health administration to build and urgently provide an ICU, which once the pandemic could be used as a general Intermediate Care Unit.

Due to the global health situation experienced since the beginning of 2020 and the **receipt of European funds**, it has been possible to co-finance the ICU room in its 100 % through the ERDF-REACT-EU Operational Programme of Cantabria 2014-2020.

The construction of the new room is immersed in the main objective of promoting crisis repair in the context of the Covid-19 pandemic and preparing for a green, digital and resilient recovery of the economy. The action seeks to increase investment in all types of equipment necessary to improve the responsiveness of health services, and to increase staff dedicated to the health care of Covid-19 patients, vaccination and the improvement of safety, both of the staff of health institutions and of patients treated.

The overall cost of the entire action of the Cantabrian Health Service is approximately 45 million euros, with the cost of the ICU room being EUR 1 333 358, financed entirely through REACT UE funds.

The **impact of growth in terms of employment** has resulted in the provision of the following professionals in relation to the Multipurpose UCI Room in Hall 17 of the HUMV: 4 physicians, 40 nurses, 33 technicians in nursing auxiliary care and 5 warders.



The construction of the UCI room can be highlighted as Good Practice according to the following criteria:

High dissemination among beneficiaries and the general public:

The action is highly disseminated of the contribution of European funds both to potential beneficiaries and to the general public.

Placement of information **plate** in Valdecilla, specifically in the entrance hall of the Towers of Phase III, located on the ground floor of the hospital, by the access located next to the Building 2 of November, next to other plates of the same characteristics.



On the **website** of the Cantabrian Health Service, a specific section has been created that includes the different actions co-financed with FEDER.

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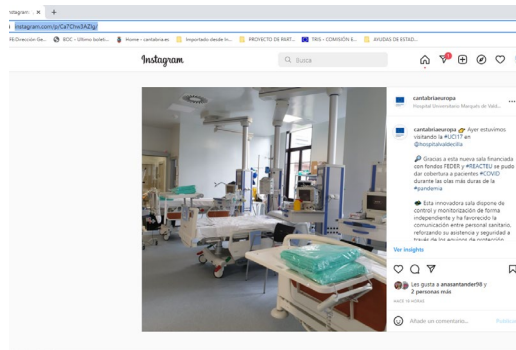
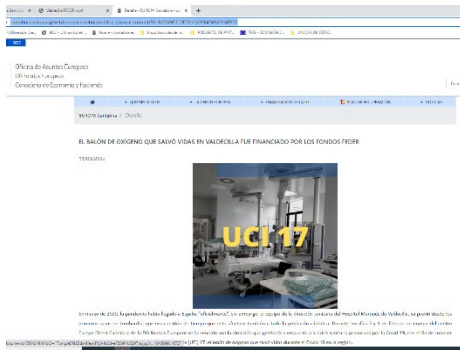
[Proyectos iniciados](#) ³
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TECNOLOGÍAS DE LA INFORMACIÓN Y COMUNICACIÓN

<https://www.scsalud.es/web/scs/fondos-feder>

Communication and information **actions and measures** have also been carried out to give visibility:

News and **press** releases have been published in regional media (Cantabria Europa, Cantabria Económica) on the construction of the UCI room in various media online and on paper.



Cantabria Europe: https://cantabriaeuropa.org/web/europacantabria/detalle/-/journal_content/56_INSTANCE_DETALLE/5564249/21149730

<https://www.instagram.com/p/Ca7Chw3AZIg/>

<https://www.instagram.com/stories/highlights/17943379363260887/>

In addition, two **videos have been edited**, one of the context of the action within the framework of the operation managed by the Cantabrian Health Service:



<https://www.youtube.com/watch?v=DB9KyP9KzHw>

And another short video showing the launch of the UCI of Hall 17 and its added value, aimed at the general public.

<https://www.youtube.com/watch?v=rF2YxWyfnRA&t=127s>



Incorporation of innovative elements:

The room has a space of about 250 meters, in it has had a lot of impact the electrical installation, the air conditioning, the supply of gases, given the technical characteristics of this type of hospital units. In the room there are 15 posts with their corresponding electromedical equipment, plus 3 isolated boxes glazed with sliding doors and own air conditioning, which prevents the spread outside of them of the pathogens. Likewise, there are two access doors, one for health personnel who once crossed gives access to a medical control center with visual access to the patients and in turn, isolated from the instance where they are located, and another equipped with an exclusive one where the bedded patients transported by the cellars access.

It is an innovative room with independent and glazed control and monitoring; formed within an open structure to promote communication between health personnel due to the difficulty of the same due to the use of Integral Protection Equipment.

Alignment of the results with the objectives:

The construction of the ICU room must be framed within the global pandemic of Covid-19, a pandemic derived from the disease caused by the SARS-CoV-2 virus. His first case was identified in December 2019 in Wuhan City, capital of Hubei Province, in the People's Republic of China, when cases of a group of sick people with an unknown type of pneumonia were reported.

The World Health Organisation (WHO) recognised it as a pandemic on 11 March 2020 (as of that date it reported 118 000 cases in 114 countries, and 4291 people had lost their lives).

One of HUMV's biggest challenges has been to respond to the health care needs arising from the pandemic. Such is how the Intensive Care Units of the Community of Cantabria have been saturated mainly in the first two waves of the pandemic, mainly due to lack of necessary structures for this new demand.

The **main objective** has been to create a versatile unit with the necessary structures and resources to attend to different health processes of the population of Cantabria ranging from the attention

to critical patients as to middle care patients, as well as patients with infected-contagious pathologies.



Initially the HUMV had 30 general ICU beds, which have been increased by 18 more with the construction of the new room. This has allowed 100 % of patients to be covered, highlighting that critical patients are treated within the Autonomous Community of Cantabria, exclusively in the Hospital.

In addition, we can highlight that the care of critical patients *not* Covid has been carried out in parallel and sufficient to the care of Covid patients.

The creation and opening of the new Critical Care Unit in Hall 17, on February 5, 2021, far exceeded the objective for which it was built. A unit that offered the possibility to care for the population of Cantabria with serious Covid disease and thus preserve the normal functioning of the rest of the Intensive Care Units of the University Hospital.

From its opening to the present, 386 patients have been treated, 301 in 2021 and 85 in 2022, of which 3 have been paediatric.

COVID-19 has generated different peaks, directly affecting the demand for the ICU service, at the highest peak of the pandemic at least 12 plants of the HUMV have been used, representing at least 50 % of the hospital's supply. The peaks to be highlighted occurred in March 2020, with 42 revenues; November 2020, with 41 revenue; January 2021, 35 revenues and throughout the sixth wave, end 2021, there was a maximum of 29 revenues. Among these data we can highlight that the revenues were more frequent but their duration much shorter compared to March 2020.

Contribution to solving a regional problem or weakness:

As for the effect in physical, quantitative and qualitative terms, the pandemic has highlighted the weakness of current health systems, but also an opportunity to create versatile Care Units, such as that created in Pavilion 17, with the capacity to respond to any threat such as the current health crisis.

The new ICU room allows to meet the regional demand for an intermediate patient room at the Marqués de Valdecilla Hospital after the end of the pandemic season, given that there is currently no such room in the HUMV. Note that the versatility of the construction of Pavilion 17 will allow, in the case of future health crises or specific needs, the conversion into a critical patient room easily.

High degree of coverage on the population to which it is targeted.

Valdecilla is the reference hospital for all the specialties of Area I in Cantabria, which comprises 20 basic health areas and serves a population of more than 580,000 inhabitants (584.707 hab. data from I.N.E. for 2021).

The Care Unit created in Pavilion 17, and currently intended for the care of patients with pathology derived from Covid-19, has given and gives assistance to the entire population of Cantabria guaranteed, at all times, the care of these people.



Consideration of horizontal criteria of equal opportunities and environmental sustainability.

Regarding the consideration of equal opportunities criteria we can point out that women represent 66 % of the health personnel in Spain, reaching 84 % in the case of nurses. Before the pandemic the number of nurses in the ICU of Valdecilla was 100, with Covid-19 surpassing 200, assuming this increase of new employment and mostly female gender. Women's health workers have been on the front line of response to this disease and therefore consider it an essential collective in our society.

Continuing with the existing environmental policy in the HUMV, for the realisation of the Multipurpose UCI Room in it, the same criteria of sustainability and minimum impact have been followed.

The environmental aspects considered in the realisation of the UCI Room have mainly been the removal to own warehouses for the reuse of materials and pre-existing elements in the action space.

To control the dust generated by the work, its expansion has been minimised through screens that have encapsulated and sectorised the work to avoid the generation and expansion of it.

Measures have been taken regarding the containment of dust and the projection of materials, to prevent third parties from inhaling it or being hit.

Debris or fallen material from forklifts and various means have been removed during transport to containers or storage areas.

The emission of noise pollution from noise generated within the work's own activity has been minimised, taking into account the proximity of other critical care services (General UCI and the ICU of Cardiology) through planning to reduce jobs subjected to noise and vibration by limiting the duration and intensity of exposure and adequate working time management and with appropriate maintenance programs for work equipment. These maintenance programs include the replacement of worn parts, grease of moving parts and dynamic balancing of machines.

Regarding the control of hoops, it has been carried out through the planning of the arrival, download, and subsequent arrangement of the collections in the work, to avoid that they can affect the users.

For the reduction of energy consumption, 8 cassettes and 1 self-contained air conditioning chiller have been replaced by a state-of-the-art air treatment unit, as well as the replacement of previously existing fluorescent and low consumption lighting with LED lighting and the installation of thermal vinyls in various south-facing areas of the area. Measures that minimise greenhouse gas emissions.

Synergies with other public intervention policies or instruments.

As a consequence of Covid-19, there has been a crisis that has affected in general all strata of society, both from an economic and social point of view, as well as health, the latter being the one that has had the greatest impact during these years, since the health crisis lived both in health centers and in the hospital centers that make up the Cantabrian Health Service has caused great collapses in them, thus increasing the need to increase not only the human and material resources, but also the taking of measures that could contain the effects of the pandemic.

To respond to this situation, the Government of Cantabria has carried out a “Plan of health measures for the prevention, containment and control of the pandemic caused by Covid-19 in the Autonomous Community of Cantabria”, establishing a set of basic prevention and safety measures that can be applied in a comprehensive way, both for health personnel and for citizens, including measures such as: use of mask, hand sanitising, interpersonal distance maintenance, ventilation of spaces, etc. Increasing this protection in cases or in sectors with greater risk of contagion.

The investment made by the Cantabrian Health Service complements this whole set of global measures carried out by the Government of Cantabria to contain the pandemic in the first place, save people, but also joins others in defense of employment (increased contracts of health personnel through COVID support from the European Social Fund) and therefore also alleviate the economic crisis produced.



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