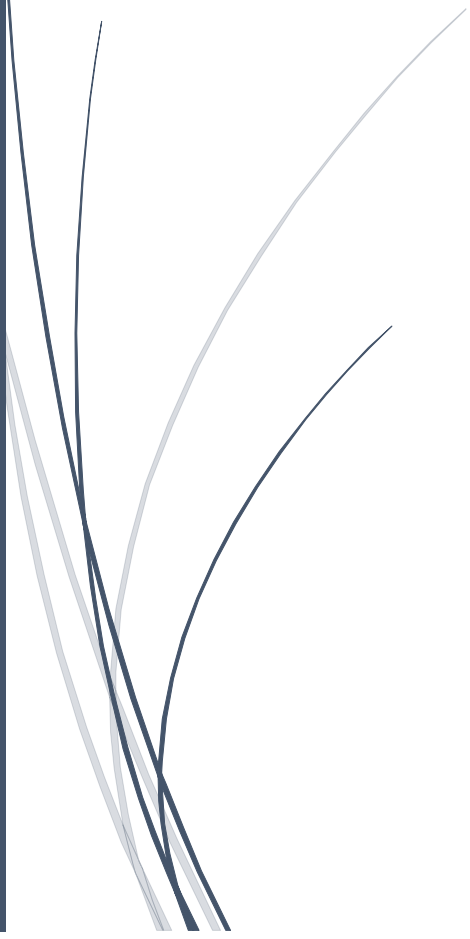
Clínic Comprehensive Cancer Centre

Clínic Barcelona | Universitat de Barcelona | IDIBAPS

May 28, 2024

COMPREHENSIVE CANCER CENTRE STRATEGIC PLAN 2024-2028



Content

1. Executive summary

Cancer is one of the leading causes of morbidity and mortality worldwide, and its effective management requires a comprehensive and multidisciplinary approach. In a tertiary hospital that serves as a leading reference centre for highly specialized care, the implementation of a strategic oncology plan is essential to enhancing patients' quality of life and clinical outcomes. The strategy is based on technological innovation, cutting-edge research, continuous staff training, and inter-institutional collaboration. Strengthening these areas aims not only to optimize clinical care but also to contribute to the advancement of scientific knowledge and public health, positioning the hospital as a leader in the fight against cancer.

The Comprehensive Cancer Strategic Plan (CCSP) 2024-2028 of the Clínic Barcelona Comprehensive Cancer Centre (4CB) is one of the priority plans of the hospital's management and was approved in May 2024.

Its objective is to define, develop, and evaluate the strategy encompassing the care, teaching, research, and innovation domains in the comprehensive cancer care provided at Hospital Clínic de Barcelona (HCB). This plan is built upon the hospital's characteristic decentralized management model while adopting a global outlook that integrates cross-disciplinary and multidisciplinary approaches.

The Strategic Planning process has been structured in the following phases:

- Strategy formulation:
  - Definition of the mission, vision and values.
  - Strategic analysis of cancer care across the different Institutes, Centres, and Areas of HCB, using the Catalonia Cancer Plan 2022-2026 as a reference.
  - Strategic diagnosis through a SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats).
  - Identification of the strategy using the CAME methodology, which enables the formulation of strategies to correct weaknesses, address threats, maintain strengths, and exploit on opportunities.
  - Definition of strategic lines (SL), strategic objectives (SO), operational objectives (OO) and operational actions (OA) that will shape the plan.

- Implementation and strategic assessments phase:
  - Developing the strategy based on the operational plan of lines, objectives and actions.
  - Evaluating the strategic plan to assess achievements and define a new plan.

A participatory process has been undertaken to define the strategic lines and objectives and to develop the specific actions that constitute the action plan.

A total of **8 strategic lines** have been defined, encompassing 21 strategic objectives and **47 operational objectives** for 2024.

2. Mission, vision and values

The following presents the mission, vision, and values of the **Strategic Plan of the Clínic Barcelona Comprehensive Cancer Centre**, which are aligned with the Strategic Plan of HCB **NUCLI2025**.

Mission

Deliver the highest standard of care to oncology patients and their families.

The care we provide is patient-centred, as they are our reason for being, and is driven by our dedicated professionals, who serve as the cornerstone of our institution. This care is based on the three core pillars of the organisation: excellence in care, integration of education and firm commitment to research and innovation.

Vision

We aim to sustain our position as a leading national and international leading reference centre, consolidating our care, innovation, research and education.

We lead projects that promote patient participation and empowerment, service innovation, and the fostering of comprehensive and coordinated care, building alliances with our surroundings.

We uphold corporate values and ethical leadership, focusing on establishing a healthy hospital environment for professionals and implementing the most suitable processes and tools for professional development.

Values

The CCSP adopts the values of trust, gratitude, and generosity from HCB to achieve the highest levels of excellence, through the integration of quality care, patient well-being and satisfaction, teaching capacity, research and innovation, personalized care, and efficient resource utilization for the sustainability of a public, high-quality health system.

The values of the CCSP at 4CB are structured around the four main pillars of NUCLI2025:

Clínic Human-Centred
A Clínic that understands and cares for patients, caregivers and professionals by fostering collaborative spaces for dialogue and support, leading with Generosity, Trust and Gratitude.

Clínic Intelligent
A Clínic that delivers agile and effective solutions by optimising resources, connecting professionals and applying the best available knowledge.

Clínic Sustainable
A Clínic that takes care of itself and its environment by identifying and implementing more conscious and balanced practices.

Clínic Pioneer
A Clínic that seeks and develops new and better ways to provide healthcare by experimenting, innovating and continuously challenging itself.

3. Context

HCB, with over 100 years of history, is a public health institution that serves as a reference in the city of Barcelona, Catalonia, and the world, with a clear commitment to excellence in its three core domains: clinical care, research and innovation, and education. HCB is a public consortium established by the Government of Catalonia (Catalan Health Service) and the University of Barcelona. Clínic functions as a community hospital for its catchment area, Barcelona Esquerra, which serves a population of 540,000 people, while simultaneously acting as a tertiary hospital of high complexity, providing services for patients from Catalonia, predominantly from the Barcelona Esquerra, Vallès Oriental, Osona, and Ripollès regions, as well as specific procedures for patients from other regions in Spain.

Clinical Care

HCB provides comprehensive coverage across nearly all medical and surgical specialties, forming strategic alliances with various healthcare institutions to ensure the delivery of high-quality care. The hospital consistently ranks among the top institutions in Spain, based on efficiency, quality indicators, and its reputation among patients and healthcare professionals.

Research and Innovation

HCB boasts a longstanding tradition of research and innovation, positioning it as a leading institution both at a national and international level. Most of the research activities are channelled through the Clínic Barcelona Foundation for Biomedical Research – August Pi i Sunyer Biomedical Research Institute (IDIBAPS). IDIBAPS is a distinguished research centre with substantial scientific output, addressing both high-prevalence and rare diseases. IDIBAPS resulted from the integration, in 2023, of the Clínic Foundation for Biomedical Research (FCRB), created in 1989, and the IDIBAPS consortium, established in 1996. It is a non-profit foundation, and its board includes representatives from the Department of Health and the Department of Research and Universities of the Government of Catalonia, the Hospital Clínic de Barcelona, and the University of Barcelona.

Education and Training

HCB conducts essential undergraduate and postgraduate educational activities, including residency training and the organisation of continuous professional development programmes. University-level educational activities are particularly aligned with the Faculty of Medicine and Health Sciences and the Faculty of Nursing at the University of Barcelona. Furthermore, the hospital offers external training programmes through the Aula Clínic brand. HCB is one of the most sought-after institutions in Spain for students upon completing their degrees in Medicine, Nursing, Pharmacy, or Psychology, consistently ranking among the top choices for specialised training over the years.

Governance

HCB is a public entity owned by the Government of Catalonia via the Catalan Health Service and the University of Barcelona. It is an integral part of the public healthcare system of Catalonia (SISCAT).

Organisation

HCB is organized into Institutes, Centres, and Areas. The 10 clinical Institutes group specialties that focus on the diagnosis and treatment of specific organs or systems of the human body. The Diagnostic Imaging and Biomedical Diagnostic Centres provide diagnostic tests and therapeutic procedures for patients treated within the Institutes. The Emergency, Surgical, and Pharmaceutical Areas are cross-functional entities reporting to Medical Management and collaborating across the hospital.

The Institutes, Centres, and Areas encompass 42 services in total. In addition, the hospital is committed to the development of Functional Units, which are intra- or inter-institute structures oriented towards patient care, integrating professionals from various specialties with common objectives in clinical care, education, and research and innovation surrounding a disease or group of diseases.

The Management and Functional Areas lead the hospital's transversal activities, ensuring coordination across the Institutes, Centres, and Areas, and fostering the necessary processes, tools, and resources to improve patient care and professional development.

The launch of the new Strategic Plan, NUCLI2025, is guided by four key principles: human-centred, sustainable, pioneering, and intelligent. In line with its predecessor, the NUCLI Strategic Plan, it maintains a participatory approach, open to patients and professionals alike. The aim is to continue evolving as an institution and to facilitate professional growth, always with a focus on patient-centred care.

In preparing for the future, HCB has modernised its brand and aligned its institutional nomenclature. A new logo has been introduced, symbolising the institution's identity, shared with the University of Barcelona to further strengthen the relationship between the two entities. This new branding was unveiled during an event at the Paranimf of the Faculty of Medicine and Health Sciences at the start of the 2023-2024 academic year, and it will be progressively rolled out in the coming years.

At HCB, we continually strive to reinforce our relationships within our area of influence and extend our alliances, particularly with hospitals along the C-17 road axis. In 2022, the construction of the new oncological radiotherapy centre adjacent to the Granollers Hospital, managed by Clínic, began. By 2023, it commenced providing services to centres in this region.

Transplantation plays a pivotal role in HCB's clinical activity. We lead in the number of transplants conducted in Catalonia and Spain, particularly in kidney, liver, pancreas, and uterus transplants, with a consistent increase in this activity annually.

NUCLI2025
expandim l'univers Clínic

HCB drives its Strategic Plan, NUCLI (New Clinical Universe) 2025, expanding it around its three core pillars: patients, professionals, and resources. The Institutes, Centres, Areas, Management, Services, and Units of the hospital have worked collaboratively in defining transversal projects, led by and involving the participation of healthcare professionals, focusing on four major axes:

Clínic Human-Centred
A Clínic that understands and cares for patients, caregivers, and healthcare professionals by fostering spaces for listening, collaboration, and support, underpinned by Generosity, Trust, and Gratitude.

Clínic Intelligent
A Clínic that delivers agile and effective solutions by optimising resources, connecting professionals, and applying the most advanced knowledge available.

Clínic Sustainable
A Clínic that ensures the well-being of both itself and the environment by identifying and implementing more conscious and balanced practices.

Clínic Pioneer
A Clínic that seeks and develops innovative, superior methods of healthcare delivery by experimenting, innovating, and continually challenging itself.

All hospital management, services, and areas are involved in the continuous development of this Strategic Plan, NUCLI2025. Listening, engaging, enhancing efficiency, and putting values into action are key components in providing superior patient care and fostering mutual support among professionals.

We are shaping the hospital's vision based on these attributes to advance the institution and provide optimal care to patients, while ensuring the well-being of all involved. This vision is grounded in the three pillars of NUCLI:

Patients
Projects that promote patient participation and empowerment, the innovation of services, and the promotion of integrated and coordinated care.

Professionals
Initiatives that deploy corporate values and ethical leadership, focusing on establishing a healthy hospital environment for professionals and implementing the most appropriate processes and tools for professional development.

Resources
Projects aimed at improving efficiency and sustainability, strengthening research and education, and expanding partnerships with the surrounding environment.

4. What sets up apart?

Disease-specific organisation

The HCB is organized into specialized Institutes, Diagnostic Centres, and Cross-functional Areas. These Units foster interdisciplinary teams to incorporate diverse expertise and provide holistic patient care from the perspective of the disease.

Professional participation

Those who best know the service are the most qualified to understand and focus on the real needs. Therefore, healthcare professionals play a fundamental role in the management of the institution itself.

Responsible commitment

We work collaboratively with high standards of rigor, always striving for continuous improvement and the highest level of excellence. Achieving sustained recognition requires a steadfast commitment to people.

Healthcare innovation

We encourage healthcare innovation to explore new methodologies and implement changes aimed at increasingly efficient results, benefiting individuals.

Tangible research

Translational research – moving from the bedside to the laboratory – is the driving force behind the enhancement of patient care. It motivates us to respond to emerging patient needs with a global outlook and local awareness.

Fostering Talent

A key objective is the development of talent to enhance healthcare and biomedical research in the country. The University of Barcelona is an essential partner in achieving this goal.

Knowledge Ecosystem

The hospital is part of various institutions and promotes strategic alliances to create and share knowledge, ensuring harmonious development in healthcare, research, and education.

Patient Empowerment

We strive to provide individuals with the best tools for knowledge, encouraging prevention and active participation in their care, while also improving the institution.

Trust, Gratitude, and Generosity

Strengthening trust, fostering gratitude, and practicing generosity are indispensable pillars of our attitude towards people.

Sustainability

Aligned with the institution's commitment to sustainability, Hospital Clínic is a signatory of the United Nations Global Compact, actively contributing to the 2030 Agenda and the achievement of the Sustainable Development Goals (SDGs).

5. Corporate Social Responsibility Area

HCB bases its social commitment and sustainability on a management model that integrates ethical and environmental values into its relationships with professionals, patients, families, and the community. Through CSR, the hospital goes beyond legal requirements and has adhered to the United Nations Global Compact to promote the 2030 Agenda and SDGs. Hospital Clínic conducts volunteer projects involving both active and retired professionals, engaging with society in a community-driven approach. Additionally, it manages the Humanitarian Aid and Development Fund (FAHID), currently part of the Campus Clínic Solidari initiative, financing healthcare cooperation and humanitarian aid projects both locally and internationally. In the cultural field, the hospital promotes artistic and literary activities that connect health with cultural expression. It also engages in active dialogue with patient associations, aiming to enhance healthcare, facilitate access to patient experience-related processes, and gather opinions and suggestions for continuous service improvement. Clínic strives to place the individual at the heart of its actions, promoting values such as trust, gratitude, and generosity.

6. Alliances and Affiliated Entities

HCB fosters alliances with various healthcare institutions to share knowledge and resources, ensuring high-quality care processes and the sustainability of the public healthcare system. By advancing preventive, predictive, and personalised medicine, we aim to treat patients with maximum accessibility, providing care at home whenever possible, in primary care centres as needed, and in the hospital when

technological requirements make it essential. This approach involves collaborating with multiple organisations for the benefit of patients.

Strategic Territorial Alliances

Barcelona Esquerra Integrated Health Area (AISBE[1]). HCB is part of AISBE, where coordinated work is carried out among professionals from 20 Primary Healthcare Areas, three hospitals (HCB, Sagrat Cor, and Sant Joan de Déu de Barcelona), and other healthcare providers, serving a population of over 540,000 people in the districts of Sants-Montjuïc, Les Corts, Sarrià, Sarrià-Sant Gervasi, and Eixample.

Hospital Sant Joan de Déu de Barcelona. Hospital Clínic has formed an alliance with Hospital Sant Joan de Déu to ensure continuity of care for patients transitioning from childhood care at Sant Joan de Déu to adult care at Clínic. Additionally, the two hospitals jointly manage the specialties of Gynaecology, Obstetrics, and Neonatology.

XC17. The C-17 Network strategic alliance promotes collaboration, coordination, and resource-sharing among various hospital institutions, providing care to over one million residents of the Vallès Oriental, Barcelonès (Barcelona Esquerra), Osona, and Ripollès regions. This includes Mollet Hospital, Granollers Hospital, Sant Celoni Hospital, Consorci Hospitalari de Vic, Campdevànol Hospital, and Hospital Clínic de Barcelona, with HCB serving as the tertiary referral hospital for this territory.

Affiliated Entities

Barcelona Esquerra Primary Healthcare Consortium (CAPSBE[2]). A public entity formed by the Catalan Institute of Health and HCB, managing three primary healthcare teams in Eixample, providing health services to the population residing in the Basic Health Areas of Barcelona 2-C (Comte Borrell), Barcelona 2-E (Casanova), and Barcelona 4C (Les Corts).

Barcelona Institute for Global Health (ISGlobal). This institute is the result of an innovative alliance between Obra Social "La Caixa", academic institutions (HCB, Hospital del Mar, University of Barcelona, and Pompeu Fabra University), governmental bodies (Government of Catalonia, Government of Spain, and Barcelona City Council), and the Ramon Areces Foundation. The institute's mission is to contribute to the international community's efforts in addressing global health challenges.

Barnaclínic. This is the entity of Hospital Clínic de Barcelona responsible for non-publicly funded healthcare activities, while respecting the fundamental principles of equity, access, and equality. Its revenues are reinvested in HCB and, in turn, benefit society.

7. Accreditations

HCB holds multiple accreditations at the European, national, and regional levels.

The hospital's accreditations recognize, among other aspects, the clinical expertise of our units, our capacity for research, information exchange, network collaboration, and the high qualifications of our professionals and facilities.

Currently, HCB holds the following accreditations:

- European Reference Networks (ERN): 5 accreditations
- Centres, Services, and Reference Units: 18 accreditations
- Network of Clinical Expertise Units (XUEC): 24 accreditations

8. Research

Biomedical research is one of the fundamental pillars of Clínic Barcelona. This research is primarily conducted through the Clínic Barcelona Research Foundation – August Pi i Sunyer Biomedical Research Institute (IDIBAPS).

Clínic Barcelona Research Foundation – August Pi i Sunyer Biomedical Research Institute (IDIBAPS)

IDIBAPS is at the forefront of cutting-edge biomedical research, focusing on the most prevalent diseases in society. Its mission is translational research, addressing clinical questions from the patient's bedside to the laboratory and transferring discoveries to patient care.

The institute employs around 2.000 professionals, with over 100 multidisciplinary research groups producing significant scientific contributions, including more than 1.500 original research articles published each year. IDIBAPS is one of Spain's leading biomedical research centres with a strong international presence. It is the result of the 2023 integration of the Clínic Foundation for Biomedical Research (FCRB), established in 1989, and the August Pi i Sunyer Biomedical Research Institute (IDIBAPS), founded in 1996. It is a non-profit foundation, with its Board of Trustees comprising representatives from the Departments of Health and Research & Universities of the Government of Catalonia, Hospital Clínic de Barcelona, and the University of Barcelona.

IDIBAPS is a CERCA centre and has been accredited as a Health Research Institute by the Carlos III Health Institute since 2009. It is also part of the Centres program of the Spanish Association Against Cancer (AECC) Scientific Foundation and the Network of Entities Managing Clinical and Biomedical Research (REGIC).
The activity of IDIBAPS is mainly carried out in two spaces: the Esther Koplowitz Centre (CEK) and the CELLEX Biomedical Research Centre. The first, inaugurated in 2010, spans nearly 5.000 square meters for laboratories, with a 2.500 square meter underground space housing various scientific platforms, including the Tumour Bank and Pathological Anatomy Collection, the Biological Fluids Bank, and platforms for genomics and cytometry. The CELLEX building, inaugurated in 2013, provides over 2,000 square metres dedicated to cutting-edge research laboratories.

La recerca en xifres

Indicadors més rellevants de l'IDIBAPS

98
grups de recerca

2.080
persones dedicades a la recerca

Publicacions originals
1.662

- Q1: 1.064 (64%)
- D1: 432 (26%)
- Open access: 1.213 (73%)

Projectes competitius actius dels grups de recerca
901

- Internacionals: 210
- Espanyols: 544
- Catalans: 147

Innovació

- Famílies de patents: 71
- Acords de llicència: 59
- Spin-offs: 12

Translational Cancer Research

Cancer is one of the most strategic and relevant areas in the research activity of IDIBAPS. The Cancer Area at IDIBAPS includes 25 research groups (https://www.clinicbarcelona.org/ca/idibaps/arees-i-programes/cancer) and several research programmes addressing the disease from an integrated and interdisciplinary perspective (https://www.clinicbarcelona.org/ca/idibaps/arees-i-programes/cancer). The three main programmes are:

Translational Cancer Research Program: This program, which brings together 8 research groups, focuses on a range of solid tumours such as liver, colorectal, pancreatic, gastric, and skin cancers. Its main goals include improving early detection methods and expanding therapeutic options for patients in advanced stages. Key research areas include exploring molecular and immune therapies using advanced technologies and preclinical models.

Lymphoid Neoplasms Program: Focuses on the multidisciplinary study of lymphoid tumours with 8 research groups. This group of tumours has seen significant advances in understanding thanks to translational research, which has considerably improved the prognosis for affected patients.

Precision Oncology and Immunology Program: This program is dedicated to integrating advancements in genomics, immunotherapy, and data analysis to develop new therapeutic strategies in the field of immuno-oncology. It brings together 14 groups that explore the interaction between the immune system and cancer, with the aim of innovating in the development of new immunotherapies.

The cancer research groups at IDIBAPS have produced between 250 and 360 original articles annually over the past five years, with a 30% increase in the last two years, and with high quality (71% published in the first quartile and 32% in the first decile, according to Web of Science). Five of the cancer researchers at IDIBAPS have been recognized among the top 1% most cited in the last five years (Clarivate).

The cancer research groups at IDIBAPS lead more than 280 active projects, 24 of which are funded by the European Commission and other international organisations, including two grants from the European Research Council (ERC), one from the National Institutes of Health (NIH) in the United States, and one from the CRUK/AECC Accelerator.

Furthermore, IDIBAPS actively promotes cancer innovation, with 20 patent families and 3 spin-offs focused on this field. The translation to patients is facilitated by numerous active clinical trials, 366 out of 604 in 2022 related to cancer. The main areas of excellence include lymphoid neoplasms, colorectal cancer, liver cancer, and breast cancer. These areas are addressed through a comprehensive and interdisciplinary approach that includes prevention, large-scale genomic and epigenomic studies, molecular pathogenesis, biomarker discovery, and the development of innovative therapies.

Another notable aspect is the Advanced Therapies Program of IDIBAPS-HCB, which includes several CAR-T products (Chimeric Antigen Receptor) developed to treat haematological and solid tumours, and is expanding to other strategies such as adoptive transfer of tumour-infiltrating lymphocytes (TIL) for breast cancer, cancer vaccines (colon, small cell lung cancer, diffuse intrinsic pontine glioma), and immunotherapies (liver), often in collaboration with other national and international centres.

Clinical Research in Cancer

Clinical cancer research is a fundamental part of Clínic Barcelona. Through the Clinical Trials Unit known as IntherUnit (Integrated Clinical Trials Unit), the centre has been able to manage a high volume of clinical trials, primarily in oncology and haematology. This unit, which operates independently from general care

units, offers specific resources dedicated exclusively to clinical research with the aim of providing patients with access to innovative therapies.

IntherUnit has its own 350 m² treatment area and is equipped with a multidisciplinary team that includes medical staff, nurses, and administrative personnel. Each year, this unit manages around 450 patients participating in clinical trials, maintaining a high level of professionalism and following strict clinical research protocols.

The capacity of IntherUnit to manage Phase I, II, and III clinical trials has allowed Clínic to position itself as a leader both nationally and internationally. This unit actively participates in highly complex trials, including immunotherapies and cell therapies such as CAR-T, one of the most innovative technologies for treating haematological and solid tumours.

Moreover, IntherUnit has become a key player in the research ecosystem at Clínic, working closely with other services such as the clinical trials pharmacy, which is currently being expanded to improve logistical efficiency and better manage the continuous growth of clinical trials.

The goal is to facilitate proximity between the unit and the pharmacy to ensure that experimental medications quickly reach patients, thus optimizing the treatment process.

This unit not only contributes to advanced clinical research but also promotes innovation in the treatment of cancer and other haematological diseases, offering patients access to innovative therapies that can change the course of their illnesses. In this way, IntherUnit strengthens Clínic Barcelona's commitment to excellence in clinical research and patient care.

9. Cancer and Haematological Diseases Institute (ICAMS)

The Cancer and Haematological Diseases Institute (ICAMS)[3] is a national and international reference centre for the care of individuals with malignant blood diseases and solid tumours at different stages of the process. It provides comprehensive follow-up of the patient during diagnosis and treatment, as well as in apheresis for obtaining hematopoietic stem and progenitor cells, in the administration of cellular therapies, and it also diagnoses and treats coagulation disorders. The ICAMS consists of four specialized services: Medical Oncology, Radiation Oncology, Haematology, and Haemostasis/Hemotherapy, and it has more than 600 professionals dedicated to care, research, and innovation in oncology and haematology.

The ICAMS works to offer safe and high-quality care to patients based on scientific evidence, understanding the complexity of each case and utilizing the latest innovations. At the same time, the ICAMS works on prevention, early detection, and treatment of cancer in the Barcelona Esquerra area and the C-17 network. It is also a leading reference centre for various malignant diseases, as well as for high-complexity therapeutic procedures throughout Catalonia.

All clinical practice is documented in clinical guidelines and protocols, which have been agreed upon with the hospital services involved in the multidisciplinary clinical committees, responsible for the diagnosis and treatment of haematological and oncological diseases.

The ICAMS administers the most effective treatments, whether conventional or experimental, within the framework of clinical trials and ensures a multidisciplinary approach to address all aspects of the disease. To achieve this, it has four linear accelerators for high-precision radiotherapy, a specialized Clinical Trials Unit, three-day hospitals, 70 hospitalization beds, and an Integrated Cancer Support Unit accredited by the European Society for Medical Oncology (ESMO).

The Institute also trains students and healthcare personnel both from within and outside the hospital and disseminates clinical and scientific knowledge, as well as fundamental values related to respect for patients.

In parallel, the Institute leads cancer research actions, with continuous evaluation of patients, participation in translational clinical trials with new targeted treatments, and basic research applied to daily assistance.

Annually, the ICAMS conducts more than 37.000 treatment sessions in the Day Hospital, more than 1.500 radiotherapy sessions, and slightly more than 100 hematopoietic progenitor transplants.

ORGANISATION

The Cancer and Haematological Diseases Institute (ICAMS) is made up of four services:

- **Medical Oncology**

This service is composed of specialists in the diagnosis and treatment of adult solid tumours through chemotherapy, immunotherapy, and targeted therapies, in coordination with other services to personalize treatments.

- **Radiation Oncology**

The service consists of specialists in advanced radiotherapy techniques. It participates in the management and treatment of both solid and haematological tumours with accredited clinical and technological expertise.

- **Haematology**

The service includes specialists in the diagnosis and treatment of benign and malignant haematological diseases, such as leukaemia, lymphomas, and myeloma, as well as bone marrow transplantation and other advanced therapies.

- **Hemotherapy and Haemostasis**

This service is responsible for apheresis to obtain hematopoietic stem and progenitor cells, cellular therapy, and assisting patients with blood coagulation disorders. It includes diagnosis, treatment, prognosis, and follow-up. The service also provides comprehensive care for patients undergoing oral anticoagulant treatment, combining activities in the emergency department, hospital consultations, day hospital, and outpatient clinics.

RESEARCH

Most of the research activity at the Cancer and Haematological Diseases Institute is conducted through IDIBAPS, specifically in the cancer area. The ICAMS leads several clinical and translational research initiatives.

1. **Clinical Research**

The ICAMS has a Clinical Trials Unit for phase I, II, and III trials. The team consists of oncology professionals, data managers, specialized nursing staff, and administrative personnel.

Clinical trials are carried out in different phases or levels to evaluate a drug:

- **Phase I**: The maximum tolerated dose of the drug is determined, and initial signs of activity are observed.
- **Phase II**: The drug's effectiveness and side effects are evaluated across different cancer types.
- **Phase III**: The new treatment is compared to the standard treatment, and its side effects are assessed.

2. **Translational Research**

The ICAMS has fully integrated oncology professionals at the Translational Genomics and Targeted Therapies for Solid Tumours Research Laboratory of IDIBAPS. By utilizing genomic and molecular data, the laboratory team guides the design of clinical trials and the development of biomarkers. Using preclinical cancer models, the team studies molecular mechanisms of drug sensitivity and resistance, aiming to identify the most suitable treatments for patients with solid tumours.

The research lines of the oncology teams focus on:

• The molecular mechanisms involved in cell proliferation and programmed cell death.

• Developing neoplastic models and improving the diagnosis of oncology patients through new tumour markers.

The ICAMS actively participates in various national and international networks and institutions, with dozens of articles published annually in highly prestigious journals.

Several professionals from the Institute contribute to the development of international clinical guidelines for the diagnosis and treatment of haematological and oncological diseases.

TEACHING AND TRAINING

The ICAMS leads educational initiatives for undergraduate students and vocational training, as well as continuing education for professional team members through training stays or visitors.

The Institute hosts and trains medical students and residents in the following specialties:

- Haematology and Hemotherapy (4)
- Medical Oncology (3)
- Radiation Oncology (2)
- Hospital Radiophysics (1)
- Nursing (28), both undergraduate and master's students in oncology, as well as technical staff.

The educational activity within the service is divided into four main groups:

- Training sessions
- Medical Oncology and Radiation Oncology subjects, and Blood Diseases at the University of Barcelona (UB) Medical Degree, Nursing Degree, Master's, and Postgraduate courses (UB)
- Resident training (MIR and FIR programmes)
- Undergraduate or Vocational Training students
- Training of professionals through training stays and visitors from other institutions
- Courses and training aimed at strengthening relationships with other collaborating centres (e.g., services/hospitals in the C-17 network)
- Coordination of symposia and annual training courses for nurses.

10. European Cancer Plan

The EU has been working for decades in the fight against cancer, and its actions, such as those related to tobacco control and protection against hazardous substances, have been ongoing. However, the last European Cancer Action Plan was developed in the early 1990s, and since then, the world has witnessed considerable progress in cancer treatment. The European Cancer Plan is the EU's response to these needs. Its objective is to address the entire cancer care process throughout the course of the disease. It is structured around four key areas of action where the Union can provide the greatest added value: prevention, early detection, diagnosis and treatment, and quality of life for oncology patients and survivors.

One of the key initiatives is the creation of a network of European hospitals that are properly accredited to offer comprehensive cancer care to all citizens of the European Union.

11. Health Plan 2021-2025

The Catalonia Health Plan 2021-2025, approved by the Government in December 2021, is the framework and reference instrument for all public actions in health within the scope of the Generalitat. Its goal is to improve the health and quality of life of the population.

Among its initiatives, the following stand out: screening and early detection, territorial organisation, promotion of research, ensuring equity for the cancer-affected population, establishing a network of reference centres in Catalonia, improving the quality of life of oncology patients, among others.

12. Catalonia Cancer Plan 2022-2026

The approach to cancer care in Catalonia is developed through the objectives outlined in the Catalonia Cancer Plan 2022-2026.

The main challenges for the coming years outlined in the plan are:

- Precision oncology: Implementation of CatSalut Instruction 3/2021 to evaluate its deployment.
- Integration of innovative diagnostic and therapeutic modalities into the healthcare system, yielding substantial improvements in patient survival and quality of life.
- Management of long-term cancer survivors and the coordination between primary and the hospital.
- Assessment of clinical outcomes based on service-generated data.

- Sustainability of oncological care within the public healthcare system, ensuring equity and high-quality standards.

13. CCSP vs SWOT vs NUCLI 2025

1. Governance (HUMAN-CENTRED/SUSTAINABLE/INTELLIGENT axes)
   - Clínic brand (Strength)
   - Implementation in the reference area (RAE[4], AISBE, and 19 ABS[5]) and establishment of strategic alliances in the territory (Sant Joan de Déu Hospital, C17 Hospitals) (Strength)
   - Limited visibility of Clínic Campus as a cancer reference centre (Weakness)
   - Global policies in a European context (European Cancer Action Plan) (Opportunity)
   - Local policies: Cancer Director Plan in Catalonia (Opportunity)
   - Presence in the media as a leading reference centre (Opportunity)
   - Inability to treat patients with bone and soft tissue tumours, and neuroendocrine tumours (Threat)
   - Health map conditioned by political changes (Threat)
   - Legislation and regulations applicable to the public sector complicating staff recruitment and hiring (Threat)

2. Patient quality and safety (HUMAN-CENTRED Axis)
   - Recognition of expertise through regional (XUEC), national (CSUR), and European (ERN) accreditations (Strength)
   - Implementation of a quality management model and commitment to improving patient safety (Strength)
   - Patient involvement in healthcare planning and organisation, and the incorporation of the patient perspective in decision-making (Strength)
   - Accreditation as an Integrated Cancer Centre according to the OECI model (Opportunity)
   - Increased patient participation in care, research, and education (Opportunity)
   - Low penetration of shared decision-making in daily practice (Threat)

3. Infrastructure and environmental and economic sustainability (SUSTAINABLE Axis)
   - Guarantee of public funding with consolidated private support and sponsorship, achieving financial-economic balance (Strength)
   - Centenary hospital with architectural limitations that negatively affect growth, with insufficient space for the demand of healthcare activities (Weakness)
   - Authorisation of the new hospital development plan (Opportunity)
   - Environmental protection policies (Opportunity)
   - High private financing capacity for research and innovative technologies (Opportunity)
   - Epidemiological changes in cancer caused by the impact of climate change and other factors (Threat)
   - Lack of funding and economic stability (Threat)
   - Exponential increase in pharmaceutical expenditure (Threat)
   - Restrictions on the application of unfunded treatments (Threat)
   - Increased competition for financial resources (Threat)

4. Professionals (HUMAN-CENTRED/SUSTAINABLE Axes)
   - Consolidated professional promotion system that values care, research, and education (Strength)
   - Aging healthcare professionals and difficulties in generational turnover (Weakness)

- Occupational burnout driven by excessive clinical workload (Weakness)
- Public trust in the public healthcare system (Opportunity)
- Highly competitive environment with the ability to attract talent (care and research centres) (Threat)
- Deficit of nursing professionals in the workforce (Threat)

5. Comprehensive care (INTELLIGENT Axis)

- Leading university hospital in care, education, and clinical and translational research at the national and international level within the Clínic Campus, integrating the Hospital, the Faculties of Medicine, Health Sciences, and Nursing of the University of Barcelona (UB), and IDIBAPS (Strength)
- Comprehensive and multidisciplinary care for oncology patients through Tumour Units and Committees (Strength)
- High specialization of the healthcare team and training for high complexity with nationally and internationally recognized professionals (Strength)
- High technological level in cancer diagnosis and treatment, with highly qualified healthcare support teams (Strength)
- Deployment of Advanced Practice Nurses (APNs) in Oncology (Strength)
- Cross-functional care and Home Hospitalization service (Strength)
- Specialist palliative care team (Strength)
- Heterogeneous functioning of the various Tumour Committees (Weakness)
- Challenges derived from managing patients across various locations (Weakness)
- Globalization and outsourcing of technological advances and new treatments (Opportunity)
- Increasing societal demand for health outcomes (Opportunity)
- Rising incidence and prevalence of cancer (Threat)
- Growing chronicity within the cancer domain (Threat)

6. New technologies and digital transformation (PIONEER/INTELLIGENT Axes)

- Electronic Health Records (EHR) with remote access capabilities (Strength)
- Capacity for technological, healthcare, and cancer prevention innovation (Strength)
- Partially structured information in the Electronic Health Record, hindering the extraction of health outcomes and research results (Weakness)
- Suboptimal Cancer Registry (Weakness)
- Different information systems between hospitals in the region and primary care (Weakness)
- Globalization and outsourcing of technological advances and new treatments (Opportunity)
- Implementation of telemedicine (Opportunity)
- Shared Catalan registry for molecular tumour information (Opportunity)
- Challenge of keeping pace with the rapid evolution of knowledge and emerging technologies in interdisciplinary fields such as Imaging, Personalised Medicine, and Big Data (Threat)
- Susceptibility to cybersecurity threats (Threat)

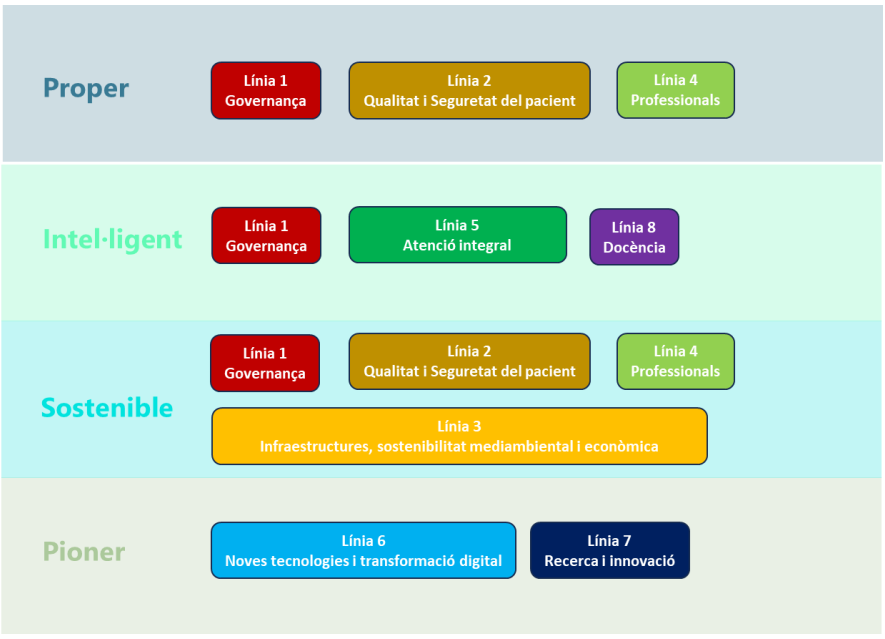
7. Research and Innovation (PIONEER Axis)

- Leading university hospital in healthcare, education, and clinical and translational research at the national and international level within the Clínic Campus, integrating the Hospital, the Faculties of Medicine, Health Sciences, and Nursing of the University of Barcelona (UB), and IDIBAPS (Strength)
- Specific space dedicated to clinical research in onco-haematology (Strength)
- Challenges in recruiting and developing clinical researchers (Weakness)
- Underdeveloped culture of knowledge translation into spin-offs and licensing agreements (Weakness)

- Lack of space for translational research and inadequate animal facilities (Weakness)

8. Education (INTELLIGENT Axis)
   - Leading university hospital in healthcare, education, and clinical and translational research at the national and international level within the Clínic Campus, integrating the Hospital, the Faculties of Medicine, Health Sciences, and Nursing of the University of Barcelona (UB), and IDIBAPS (Strength)
   - Suboptimal structuring of training programmes for newly appointed staff (Weakness)

14. Strategic Lines, Strategic Objectives, and Operational Objectives



SL 1 Governance

The implementation of a strategic pillar referred to as "Governance" in a comprehensive cancer plan is essential to ensure the effective and coordinated management of all the resources and processes involved. Governance centres on establishing a robust organisational framework that facilitates informed decision-making, resource optimization, and the continuous improvement of the quality of cancer care.

This strategic line includes the creation of multidisciplinary committees, the development of evidence-based policies and protocols, and the implementation of monitoring and evaluation systems to ensure the fulfilment of the set objectives. Moreover, it fosters transparency, accountability, and proactive engagement from all stakeholders, including patients, families, healthcare professionals, and the community at large.

Through effective governance, the hospital aims not only to improve the coordination and efficiency of oncological services but also to foster a collaborative work environment and ongoing learning, which translates into better clinical outcomes and patient-centred care. This integrated and structured approach is fundamental for positioning the hospital as a leader in cancer treatment and in healthcare innovation.

Objectives SL1

- Strategic Objective 1.1 (SO 1.1): Position the 4CB as an international leading reference centre for comprehensive cancer treatment

  OO 1.1.1: Align the functioning of the Cancer Centre with the OECI model

  - OA 1.1.1.1: Become a full member of the OECI
  - OA 1.1.1.2: Achieve OECI accreditation for the Hospital

- Strategic Objective 1.2: Consolidate territorial establishment as a tertiary leading reference centre in oncology

  OO 1.2.1: Deploy organic and functional integration with the hospitals of the XC17 network

  - OA 1.2.1.1: Establish the strategic alliance between HCB and the hospitals of the XC17
  - OA 1.2.1.2: Coordinate functionally with the Haematology and Oncology services of the hospitals in the XC17 and HCB

  OO 1.2.2: Consolidate the positioning of HCB as a reference oncological centre in the AISBE

  - OA 1.2.2.1: Establish the strategic alliance with Hospital Sagrat Cor
  - OA 1.2.2.2: Establish the strategic alliance with Hospital Sant Joan de Déu
  - OA 1.2.2.3: Establish shared cancer patient follow-up with Primary Care

SL 2 Quality and patient safety

The execution of the strategic pillar "Quality and Patient Safety" is crucial to ensure excellent care that prioritizes the safety and well-being of patients. This strategic pillar centres on the development and implementation of policies, procedures, and practices that ensure the provision of the highest quality oncological services, minimizing risks and errors.

Key aspects:

- Establishment of evidence-based protocols: Development and application of clinical guidelines and treatment protocols based on the most recent scientific evidence and best international practices.
- Continuous monitoring and evaluation: Implementation of monitoring and evaluation systems that allow identifying areas for improvement, measuring performance, and ensuring adherence to quality and safety standards.
- Ongoing training and capacity building: Promotion of continuous training programmes for all healthcare staff, focusing on advanced oncological treatment techniques, emergency management, and updates on safety protocols.
- Patient and family participation: Encouraging a culture of active participation from patients and their families in the care process by providing clear and accessible information about their condition, treatment options, and safety measures.
- Improvement of infrastructure and technology: Investment in state-of-the-art infrastructure and technology that support early detection, effective treatment, and the safe monitoring of oncological patients.
- Safety culture: Promoting an organisational culture that values and prioritizes patient safety, encouraging open communication, incident reporting, and the implementation of improvements based on lessons learned.

By focusing on quality and patient safety, the hospital not only improves clinical outcomes and the patient experience but also strengthens its position as a leader in cancer treatment. This commitment to excellence ensures that patients receive compassionate, safe care based on the highest professional standards.

Objectives SL2

- SO 2.1: Deploy a system for managing quality and safety of oncological patients

  OO 2.1.1: Consolidate a process-based management model for the different tumour lines

  - OA 2.1.1.1 Review and update the oncological patient pathways
  - OA 2.1.1.2 Define essential variables for oncological patient follow-up

  OO 2.1.2: Computerize the structured data model for tumour lines

  - OA 2.1.2.1 Integrate standardized clinical forms into the HIS (Hospital Information System)
  - OA 2.1.2.2 Integrate quality of life questionnaires and results into the HIS

  OO 2.1.3: Create automated outcome reports

  - OA 2.1.3.1 Create dashboards

- OA 2.1.3.2 Deploy outcome reporting Systems

OO 2.1.4: Manage oncological patient risks and safety comprehensively

- OA 2.1.4.1 Review and update the policy for managing risks and clinical safety
- OA 2.1.4.2 Implement improvement actions derived from notifications to the SNiSP Cat (Catalan National Health System)[6]

- SO 2.2: Evaluate the patient's perspective and implement improvements identified in the diagnostic and oncological treatment process

OO 2.2.1: Strengthen the patient's role in the decision-making process

- OA 2.2.1.1 Implement quality of life questionnaires and improvement actions
- OA 2.2.1.2 Promote and spread the culture of shared decision-making
- OA 2.2.1.3 Design and implement education and self-care programmes

OO 2.2.2: Evaluate oncological patient satisfaction and implement improvement actions

- OA 2.2.2.1 Stratify the oncological patient in the OPINAT[7] project
- OA 2.2.2.2 Establish improvement actions based on the OPINAT results

OO 2.2.3: Evaluate the oncological patient's experience and implement improvement actions

- OA 2.2.3.1 Develop activities to identify unmet needs of oncological patients. Focus group for oncological patients
- OA 2.2.3.2 Implement improvement actions based on the evaluation results

OO 2.2.4: Define patient representative bodies

- OA 2.2.4.1 Identify “expert patient” references
- OA 2.2.4.2 Increase engagement with support groups and volunteer associations

SL 3 Infrastructure, environmental and economic sustainability

The deployment of the strategic pillar "Infrastructure, Environmental and Economic Sustainability" is imperative to ensure that the hospital's resources and capabilities align with its mission to provide high-quality oncological care in a sustainable and socially responsible manner.

Key aspects:

Infrastructure

To provide advanced oncological care, having modern and suitable infrastructure is essential. This strategic line focuses on:

- Improvement and update of facilities: Renovating and expanding treatment units, operating rooms, and diagnostic areas to ensure they are equipped with the latest technology.
- Integration of advanced technologies: Implementing computer systems and management tools that optimize clinical and administrative processes, improving efficiency and reducing errors.
- Comfortable and accessible spaces: Designing spaces that promote patient well-being and ease of access for individuals with reduced mobility.

Economic sustainability

Ensuring economic sustainability is vital to maintain and improve oncological services in the long term. Actions in this area include:

- Efficient resource management: Optimizing the use of material and human resources to maximize efficiency and reduce unnecessary costs.
- Diversification of funding sources: Seeking new sources of financing, including public-private collaborations, grants, and donations.
- Transparency and accountability: Implementing transparent financial management practices that ensure the proper use of funds and build trust with investors and the community.

Social Responsibility

As a healthcare entity, the hospital has the responsibility to contribute to community well-being and sustainable development. In this sense, initiatives are promoted, such as:

- Education and prevention programmes: Developing awareness campaigns and educational programmes for cancer prevention and promoting healthy lifestyles.
- Support for patients and families: Implementing emotional and social support services for patients and their families, facilitating their integration and adaptation during and after treatment.
- Environmental commitment: Adopting eco-friendly practices, such as waste reduction, energy efficiency, and promoting recycling within the hospital.

This line is oriented towards building a robust and resilient hospital environment capable of continuously offering high-quality oncological care in a sustainable manner. By investing in modern infrastructure, ensuring economic viability, and acting with social responsibility, the hospital positions itself as a leader in cancer treatment and as a cornerstone in the health and well-being of the community.

Objectives SL3

- SO 3.1: Adapt healthcare facilities to the increase in oncological activity.

  OO 3.1.1: Increase inpatient and home care capacity for oncology patients.
  - OA 3.1.1.1: Expand the availability of oncology hospital beds.
  - OA 3.1.1.2: Strengthen the home hospitalization (HDOM)[8] program for oncology patients.
  - OA 3.1.1.3: Increase the activity of the day hospital.

OO 3.1.2: Expand spaces dedicated to cancer prevention, diagnosis, and treatment.
- OA 3.1.2.1: Bring the latest cancer treatment technology closer to the reference area.
- OA 3.1.2.2: Ensure the continuous maintenance and upgrading of equipment to incorporate technological advancements.
- OA 3.1.2.3: Guarantee the scheduled renewal of medical equipment.

OO 3.1.3: Improve the comfort of healthcare spaces.
- OA 3.1.3.1: Increase the availability of private spaces.
- OA 3.1.3.2: Enhance patient rest and well-being.

- SO 3.2: Reduce environmental impact and promote responsible resource consumption

OO 3.2.1: Encourage efficient use of supplies.
OO 3.2.2: Reduce waste generation and improve waste segregation.

- SO 3.3: Ensure economic sustainability

OO 3.3.1: Optimize spending on oncological pharmacological treatments.
- OA 3.3.1.1: Promote the use of biosimilar drugs.
- OA 3.3.1.2: Achieve the objectives set by CatSalut regarding drug consumption.

OO 3.3.2: Increase non-public funding through sponsorships and philanthropy.
- OA 3.3.2.1: Collaborate with non-profit foundations.
- OA 3.3.2.2: Define projects requiring non-public funding and implement sponsorship campaigns to secure financial support.

SL 4 Professionals

The implementation of the strategic line "professionals" is essential to ensure that healthcare staff possess the necessary skills, resources, and motivation to provide high-quality, patient-centred care. This approach focuses on continuous development, well-being, and job satisfaction, recognizing the crucial role of healthcare professionals in the success of any healthcare initiative.

Key aspects:

Continuous education and training:
- Ongoing Education: Establish structured and continuous professional development programmes to ensure healthcare personnel remain abreast of the latest advancements in oncology, therapeutic innovations, and palliative care.
- Development of communication and team management skills: Promote core competencies such as advanced communication, interdisciplinary collaboration, and empathy, all of which are essential for delivering holistic, patient-centred care.

Attraction and retention of talent
- Talent acquisition strategies: Implement targeted recruitment policies to attract highly qualified professionals with a strong commitment to oncological care.
- Career plans and professional development: Design clear career development frameworks and structured progression pathways within the hospital to enhance talent retention and professional satisfaction.

Staff well-being and health

- Well-being Programmes: Development of initiatives promoting the physical and mental well-being of healthcare staff, including access to healthcare services, psychological support, and exercise programmes.
- Work-life balance: Implement policies that promote a sustainable work-life balance, thereby optimising staff satisfaction, performance, and long-term retention.

Innovation and participation in research

- Promotion of research: Support for professionals to participate in research projects and clinical trials, contributing to advancements in oncological knowledge.
- Knowledge dissemination: Organise international congresses, symposia, and multidisciplinary workshops to facilitate the exchange of expertise and best practices among oncology professionals.

Organisational culture and leadership

- Transformational leadership: Promotion of leadership that inspires and motivates teams, fostering a culture of excellence and continuous improvement.
- Open and transparent communication: Establish structured communication channels that enable healthcare professionals to voice their insights, concerns, and recommendations in a constructive and proactive manner.

This strategic line prioritises the hospital's most valuable asset: its workforce. By investing in continuous education, well-being, and career development, the hospital fosters an environment that not only enhances the quality of oncological care but also strengthens staff commitment, professional satisfaction, and institutional loyalty. This holistic approach ensures that the hospital is not only a leading centre for state-of-the-art cancer treatment but also a benchmark institution for the development and support of healthcare professionals.

Objectives SL4

SO 4.1: Ensure the skills development and training of professionals

OO 4.1.1: I Implement a structured and specialised oncology training programme.

- OA 4.1.1.1: Guarantee continuous training for permanent medical staff and new recruits.
- OA 4.1.1.2: Provide specialized training in oncology patient care for nursing staff.
- OA 4.1.1.3: Facilitate hybrid learning models, integrating in-person and virtual training methodologies.

OO 4.1.2: Develop a professional growth policy in oncology patient care.

- OA 4.1.2.1: Promote internships at reference hospitals to integrate best practices.
- OA 4.1.2.2: Increase funding allocated to support study-abroad programmes for professional development.

SO 4.2: Promote talent acquisition and retention

OO 4.2.1: Enhance the hospital's capacity to attract leading oncology professionals.

- OA 4.2.1.1: Increase the visibility of 4C's research, teaching and innovation activities.
- OA 4.2.1.2: Develop a comprehensive communication strategy for 4C.

OO 4.2.2: Foster long-term professional retention.

- OA 4.2.2.1: Maintain a stable and competitive employment framework.
- OA 4.2.2.2: Facilitate work-life balance.

SO 4.3: Involve professionals in strategic decision-making

OO 4.3.1: Encourage professional engagement in the development of the Comprehensive Cancer Strategic Plan.

- OA 4.3.1.1: Established structured participation channels for the development of the Comprehensive Cancer Strategic Plan.
- OA 4.3.1.2: Create dedicated working groups and advisory committees to foster professional involvement.
- OA 4.3.1.3: Implement mechanisms to disseminate information on adopted strategies and actions.

SL 5 Comprehensive Care

The implementation of the strategic line "Comprehensive Care" is essential to providing a holistic and coordinated approach to the treatment of oncology patients. This strategic line focuses on ensuring that patients receive a timely and precise diagnosis, followed by personalized and multidisciplinary treatment covering all stages of their disease. Additionally, it aims to promote participation in breast, colorectal, and cervical cancer screening programmes.

Key aspects:

Prevention:

- Implementation of specific screening programmes for different types of cancer.
- Promotion of healthy habits: diet, exercise, etc.

Early and accurate diagnosis:

- Advanced diagnostic technology: Investment in state-of-the-art equipment, such as positron emission tomography (PET), magnetic resonance imaging (MRI), and genetic sequencing, to detect cancer at early stages with high precision.

Multidisciplinary care:

- Multidisciplinary Teams: Formation of care teams comprising oncologists, surgeons, radiologists, pathologists, specialist nurses, and other healthcare professionals to deliver an integrated and coordinated management approach.
- Tumour Board meetings: Regular organisation of tumour board meetings where clinical cases are discussed, and personalized treatment plans are designed.

Personalized treatment:

- Precision medicine: Utilisation of genomic data and biomarkers to personalize oncology treatments, enhancing efficacy and mitigating adverse effects.
- Individualized treatment plans: Development of treatment plans tailored to each patient's needs and preferences, including surgical options, chemotherapy, radiotherapy, and targeted therapies.

Psychosocial and palliative support:

- Palliative care: Integration of palliative care services from diagnosis to improve quality of life and manage disease symptoms and treatment side effects.
- Psychosocial support: Provision of psychological support services, counselling, and support groups for patients and their families, addressing the emotional and social impact of cancer.

Follow-up and rehabilitation:

- Follow-up Plans: Implementation of post-treatment follow-up programmes to monitor recovery, detect early recurrences, and manage long-term sequelae.
- Oncological rehabilitation: Offering rehabilitation programmes including physiotherapy, occupational therapy, and nutrition to help patients regain functionality and well-being.

This strategic line aims to provide a comprehensive and continuous approach to cancer patient care, from early diagnosis to treatment and long-term follow-up. By ensuring coordinated and personalized care, the hospital not only improves clinical outcomes and patients' quality of life but also positions itself as a centre of excellence in cancer treatment. This comprehensive approach ensures that each patient receives the best possible care, tailored to their specific needs and based on the latest scientific evidence.

Objectives LE5

SO 5.1 Deploy and promote comprehensive care in oncology processes

OO 5.1.1: Redefine and standardize the functioning of tumour boards
- OA 5.1.1.1 Standardize the operational guidelines of tumour boards
- OA 5.1.1.2 Define the process for including patients assessed in tumour board meetings
- OA 5.1.1.3 Evaluate wait-time management and implement corrective actions: inclusion/consultation/diagnosis/treatment

OO 5.1.2: Ensure coordination of the various supportive disciplines for oncology patients
- OA 5.1.2.1 Rehabilitation/Speech therapy
- OA 5.1.2.2 Nutrition and dietetics
- OA 5.1.2.3 Psychological care
- OA 5.1.2.4 Social work
- OA 5.1.2.5 Pain management clinic
- OA 5.1.2.6 Spiritual care

OO 5.1.3: Ensure continuity of care across different healthcare settings/levels
- OA 5.1.3.1 Formalize, document, and evaluate coordination between the hospital and primary care
- OA 5.1.3.2 Formalize, document, and evaluate coordination between intra-hospital services and departments
- OA 5.1.3.3 Formalize, document, and evaluate coordination with other hospitals
- OA 5.1.3.4 Formalize, document, and evaluate coordination with intermediate care centres

SO 5.2 Standardize structured healthcare data

OO 5.2.1: Develop a structured data model for each tumour type
- OA 5.2.1.1 Identify relevant clinical data

- OA 5.2.1.2 Determine the minimum essential set of clinical data
- OA 5.2.1.3 Design standardized clinical forms for variable registration

SL 6 New technologies and digital transformation

The implementation of the strategic line "new technologies and digital transformation" is fundamental to revolutionizing medical care, enhancing diagnostic accuracy, treatment efficiency, and patient experience. This strategy focuses on adopting and leveraging advanced and digital technologies to optimize all aspects of oncology care.

Key aspects:

Advanced and personalized diagnosis:

- High-Resolution Medical Imaging: Implementation of state-of-the-art imaging equipment, such as positron emission tomography (PET), magnetic resonance imaging (MRI), and high-resolution computed tomography (CT), to enable earlier and more accurate cancer detection.
- Artificial Intelligence (AI) in Diagnosis: Utilization of AI algorithms to analyse medical images and patient data, assisting physicians in identifying patterns and diagnosing cancer with greater precision.

Innovative treatments:

- Image-guided therapies: Integration of real-time imaging technologies to guide surgical procedures and radiotherapies with higher accuracy, minimizing damage to healthy tissues and improving outcomes.
- Precision medicine: Use of genomic data and biomarkers to design personalized treatments that are more effective and have fewer side effects.

Data management and analysis:

- Interoperable Electronic Health Records (EHR): Implementation of an EHR system that enables secure integration and access to patient information across different departments and systems, facilitating coordinated care.
- Big Data and predictive analytics: Utilization of large-scale data and predictive analytics tools to identify trends, forecast outcomes, and personalize treatment plans.

Telemedicine and remote monitoring:

- Virtual consultations: Development of telemedicine platforms that facilitate remote consultations between patients and their clinicians, enhancing access to care and minimising the need for travel.
- Remote monitoring devices: Use of wearables and other devices to track patients' health in real time, enabling a rapid response to any changes in their condition.

Digital education and training:

- Continuous training: Offering training programmes on new technologies and digital tools for all healthcare personnel, ensuring they are equipped to use these technologies effectively.
- Online educational resources: Development of online learning platforms for patients and professionals, providing access to updated information and educational materials.

Enhancing the patient experience:

- Patient Portals: The establishment of online portals through which patients can securely access their medical records, schedule appointments, and communicate with their healthcare team.

- Mobile applications: The development of mobile applications designed to assist patients in managing their health, tracking treatment regimens, and receiving reminders and support.

The strategic line is focused on the modernisation and digital transformation of all aspects of oncology care in the tertiary hospital. By adopting and optimising advanced technological innovations, the hospital aims to significantly enhance diagnostic accuracy, therapeutic efficacy, and the overall patient journey. This strategic direction not only positions the hospital at the forefront of cancer treatment innovation but also guarantees that patients receive state-of-the-art, tailored, and efficient care.

Objectives SL6

- SO 6.1 Implement integrated and secure systems for oncology medication prescription

  OO 6.1.1 Develop an advanced system for the prescription, preparation, and administration of chemotherapeutic agents.

  OO 6.1.2 Incorporate safety mechanisms and alert systems for medication management.

- SO 6.2 Automate data collection for survival rate calculation

  OO 6.2.1 Enable access to relevant official databases.

  OO 6.2.2 Develop a comprehensive survival rate dashboard.

- SO 6.3 Integrate hospital data into the shared catalan molecular tumour information registry

- SO 6.4 Develop a telemedicine model for oncology consultations

SL 7 Research and innovation

The implementation of the strategic line "research and innovation" is essential to drive scientific progress and continuous improvement in cancer treatment. This strategy is aligned with the IDIBAPS Strategic Research Plan, emphasising the promotion of pioneering research, the development of novel therapies and technologies, and the application of innovative discoveries in clinical settings to improve patient outcomes and quality of life.

Key aspects:

Promotion of translational research

- Interdisciplinary collaboration: Encourage synergies between basic, clinical, and translational researchers to accelerate the translation of scientific discoveries into new therapies and diagnostic methods.
- Research infrastructure: Develop and maintain cutting-edge research facilities and resources to support advanced scientific investigations and clinical trials.

Development and evaluation of new therapies

- Clinical trials: Increase participation in clinical trials, offering patients access to innovative treatments while contributing to medical knowledge advancement.
- Personalized medicine: Promote research in personalised medicine to devise treatments tailored to the genetic and molecular profiles of individual patients.

Adoption of innovative technologies

- Artificial Intelligence and Big Data: Implement AI tools and large-scale data analytics to enhance diagnostic precision, prognostic forecasting, and personalised treatment approaches.
- Advanced imaging technology: Integrate advanced imaging technologies to enhance cancer detection and monitoring.

Innovation in clinical procedures

- Robotic and minimally invasive surgery: Develop and apply advanced surgical techniques that reduce trauma and improve postoperative outcomes.
- Precision radiotherapy: Incorporate high-precision radiotherapy techniques that maximise treatment efficacy while minimising collateral damage to healthy tissues.

Training and capacity building in research

- Training programmes: Offer continuous education programmes for researchers and clinicians on research methodologies, ethics, and emerging technologies, including transferable skills training in collaboration with international research centres.
- Grants and support for young researchers and clinician-scientists: Provide grants and resources to young researchers to stimulate innovative ideas and projects. Encourage and support career development for clinician-scientists.

Dissemination and application of research findings

- Scientific publications: Promote the publication of studies in high-impact scientific journals and participation in international conferences to share knowledge and advancements.
- Technology transfer: Facilitate the transfer of scientific discoveries to the commercial and clinical sectors for practical application and direct patient benefit.

This strategic line focuses on advancing research and adopting technological innovations that transform cancer care. By fostering a robust research environment and strengthening collaboration between scientists and clinicians, the hospital positions itself as a leader in knowledge generation and the implementation of innovative treatments. This approach not only enhances clinical outcomes and patient quality of life but also significantly contributes to global progress in the fight against cancer.

Objectives SL7

- SO 7.1 Promote multidisciplinary translational research programmes

  OO 7.1.1: Promote research lines within translational cancer research.
  - OA 7.1.1.1 Research program “Translational Cancer Research”
    - Identify populations at risk of developing cancer using artificial intelligence algorithms and genomic data.
    - Define determinants of response and resistance to molecular/immune therapies in cancer and develop strategies to overcome resistance.
  - OA 7.1.1.2 Research program “Lymphoid Neoplasms”
    - Generation of "multi-omics" data.
    - Define the molecular mechanisms involved in pathogenesis.
    - Develop ex vivo patient-derived models to design personalized treatment approaches.
    - Implement generated data into clinical practice to improve patient care.
  - OA 7.1.1.3 Research Program “Immunology and precision oncology”
    - Understanding cancer-immunity interactions.
    - Develop innovative immune-based diagnostic tools.
    - Advance a broad spectrum of new immunotherapies.
    - Foster collaborative integration for multidimensional research.

- SO 7.2 Integration of new technologies and strengthening data utilization

  OO 7.2.1: "Single-Cell" and spatial “omics” methods
  - OA 7.2.1.1 Incorporation and implementation of the single-cell method.
  - OA 7.2.1.2 Integration of the single-cell method with spatial transcriptomics, proteomics, and spectral cytometry.

  OO 7.2.2: Establishment of a computational research platform
  - OA 7.2.2.1 Structure, enrich, and standardize clinical data.
  - OA 7.2.2.2 Integrate (epi)genomic parameters, single-cell analysis, and imaging with structured clinical data.

- SO 7.3 Expansion of cross-cutting research activities on cellular immunotherapy

  OO 7.3.1 Development of new methods to enhance emerging cellular immunotherapies.
  OO 7.3.2 Production of cellular vaccines through new clinical trials.
  OO 7.3.3 Development of T cell-based cellular immunotherapies.
  OO 7.3.4 Development of specific cellular immunotherapies using genetically modified T cells (or NK cells).

- SO 7.4 Improvement of the registration process and development of clinical research activities

  OO 7.4.1 Digitalization of general clinical trial data and integration into the hospital's electronic clinical information system (SAP).

OO 7.4.2 Integration of trial-specific procedures into SAP, both at a general level for each trial and specifically for each patient.
OO 7.4.3 Structured registration of activities performed on patients enrolled in clinical trials, allowing data exploitation, reporting, and follow-up analysis.

- SO 7.5 Facilitating consultation and access to clinical trials, with a special focus on patients Not treated at our centre

  OO 7.5.1 Documentation and structuring of available clinical trials at the centre to enhance dissemination and awareness, particularly for professionals treating patients at other institutions.
  OO 7.5.2 Implementation of a candidate management circuit to ensure comprehensive case evaluation and a prompt response to the referring physician.
  OO 7.5.3 Registration of referred cases to guide the strategy for incorporating new clinical trials at the centre, with the aim of expanding therapeutic options for patients.

- SO 7.6 Definition of key job roles to ensure the proper functioning of clinical trials

  OO 7.6.1 Liaison between the research team and the clinical trials pharmacy.
  OO 7.6.2 Start-Up manager.
  OO 7.6.3 Nuclear Medicine Clinical Trial coordinator.
  OO 7.6.4 Apheresis clinical trial coordinator.

- SO 7.7 Multidisciplinary approach and adaptation to the requirements of clinical trials in different settings

  OO 7.7.1 Development of a workflow for study procedures and treatment administration in Nuclear Medicine, ensuring coordination with the research team.
  OO 7.7.2 Organisation of leukapheresis procedures and coordination with associated clinical trial procedures, ensuring seamless interaction with the research team.

SL 8 Education

The implementation of the strategic line "education" within a comprehensive cancer plan in a tertiary hospital is essential for training the next generation of healthcare professionals, ensuring they are well-prepared to face the challenges of oncology care. This strategy focuses on providing high-quality education and training for medical students, residents, nurses, and other healthcare professionals, while also promoting ongoing learning and knowledge updates for current staff.

Key aspects

Excellence in academic training

- Undergraduate and Postgraduate Programmes: Development and strengthening of educational programmes in oncology and related disciplines, including undergraduate, postgraduate, and specialization programmes.
- Residency and Fellowship Programmes: Offering residency and fellowship programmes in oncology, oncologic surgery, radiotherapy, and other key fields, providing high-level theoretical and practical training.

Continuous training and professional development

- Continuing Medical Education (CME): Implementation of continuous education programmes to keep healthcare professionals updated with the latest scientific and technological advances in oncology.
- Workshops and seminars: Organisation of workshops, seminars, and conferences to facilitate ongoing learning and knowledge exchange among professionals.

Innovation in teaching methods

- Clinical simulation: Use of simulators and virtual reality environments for practicing complex procedures and improving clinical skills in a safe and controlled setting.
- E-learning and digital platforms: Development of online learning platforms offering access to courses, educational resources, and remote training materials.

Research in medical education

- Research projects: Promotion of research on educational and pedagogical methods in the field of oncology to identify and apply best practices in professional training.
- Publications and dissemination: Encouragement of the publication of studies on medical education in scientific journals and participation in international conferences.

Collaborations and educational networks

- University agreements: Establishment of collaboration agreements with universities and other educational institutions to offer joint programmes and facilitate student and professional exchange.
- Training networks: Participation in national and international oncology training networks, allowing access to shared resources and cooperation in educational projects.

Mentoring and student support

- Mentorship programmes: Implementation of mentorship programmes where students and residents receive guidance and support from experienced professionals.
- Academic support resources: Provision of additional resources such as libraries, access to scientific databases, and academic and professional counselling services.

The strategic line focuses on ensuring high-quality training for healthcare professionals, which is essential for improving long-term oncology care. By investing in education and training, the hospital not only enhances the competence and preparedness of its staff but also contributes to the advancement of medical knowledge and the continuous improvement of cancer care. This approach ensures that patients receive cutting-edge treatment from highly qualified professionals committed to excellence in cancer management.

Objectives SL 8

- SO 8.1 Strengthening the hospital's leadership in education at the national and international levels

  Consolidating the hospital as a leading institution in the field of education at both national and international levels. This involves not only improving the quality of teaching and training provided but also increasing the hospital's visibility and recognition as a leading reference centre in medical and healthcare education.

OO 8.1.1 Enhancing the visibility of "Campus Clínic": Increasing the visibility and recognition of "Campus Clínic" as a centre of excellence in training and research. This includes strengthening its brand, improving its presence in the media and on social networks, and establishing collaborations with other academic institutions.

- OA 8.1.1.1 Strengthening the Campus Clínic brand: Developing a comprehensive marketing strategy, including advertising campaigns, presence at academic and medical events, and collaborations with the media to enhance the visibility of Campus Clínic.

- OA 8.1.1.2 Enhancing the Faculty of Nursing and the Faculty of Medicine at the UB: Improving and strengthening the training and research capabilities of the Faculty of Nursing and the Faculty of Medicine at the University of Barcelona (UB), with the aim of positioning them as national and international benchmarks.

OO 8.1.2 Advancing as a reference teaching centre for specialized cancer training
Establishing the hospital as a leading reference centre for specialised oncology training. This includes the creation of new educational programmes, the expansion of residency positions, and fostering collaboration with other institutions to deliver high-calibre education.

- OA 8.1.2.1 Promoting postgraduate oncology training for doctors, nurses, and other professionals: Developing a postgraduate programme that offers advanced training in oncology nursing, including theoretical and practical modules, research opportunities, and collaborations with oncology experts.

- OA 8.1.2.2 Expanding the training capacity of specialized personnel in oncology patient care: Ensuring that healthcare professionals are highly qualified to provide comprehensive and high-quality care to oncology patients.

- SO 8.2 Expanding national and international partnerships in education

Expanding the hospital's collaborations and partnerships with other academic and medical institutions at both national and international levels. This will facilitate knowledge exchange, access to emerging technologies and methodologies, and the enrichment of the educational experience for healthcare professionals.

OO 8.2.1 Promoting the hospital as a host centre for exchange healthcare professionals
Establishing the hospital as an attractive centre for healthcare professionals seeking exchange programmes. This includes offering new exchange positions, establishing support and welcoming programmes, and establishing agreements with other institutions to facilitate these exchanges.

- OA 8.2.1.1 Offering new exchange positions for oncologists: Establishing and promoting new exchange positions for oncology specialists, establishing welcoming programmes that include logistical and cultural support, and ensuring that exchange physicians achieve their training objectives.

- OA 8.2.1.2 Offering new exchange positions for oncology nurses: Establishing agreements with international nursing institutions to facilitate exchanges,

developing continuous training programmes for exchange nurses, and establishing a support framework for their integration and professional development.

15. Glossary

- [1] *AISBE*: Àrea Bàsica de Salut de la Barcelona Esquerra
- [2] *CAPSBE*: Consorci d'Atenció Primària de Salut Barcelona Esquerra
- [3] *ICAMS*: Institut del Càncer i Malalties de la Sang
- [4] *RAE* (Reorganització d'Atenció Especialitzada): a project or initiative implemented within the healthcare system, particularly in Catalonia, aimed at reorganising and optimising the delivery of specialised care services. This process focuses on improving accessibility, efficiency, and the quality of specialised medical care, adapting it to the needs of the population and the evolving socio-health realities.
- [5] *ABS* (Àrees Bàsiques de Salut)/ BHA (Basic Health Areas)
- [6] *SNiSP Cat* (Sistema de Notificació d'incidents de Seguretat dels Pacients de Catalunya)/ Patient safety reporting and learning system of Catalonia: allows healthcare professionals to analyse incidents occurring at their centre in order to identify and implement solutions to prevent recurrence. It is a valuable tool for promoting patient safety culture in healthcare organisations and for the development of healthcare policies.
- [7] *OPINAT*: we use the digital platform OPINAT to create and manage satisfaction surveys. Its purpose is to facilitate the collection of feedback and data efficiently.
- [8] *HDOM* (Hospitalització a Domicili)/ Hospital at Home Service: is a hospital service that offers the patient the alternative of receiving treatment and hospital care at home, under conditions comparable to those provided to conventional hospitalization. HDOM has proven to be a real alternative to conventional hospitalization, being very satisfactory for both the patient and their family environment, as long as it achieves quality standards that have been defined by the Catalan Health Service.