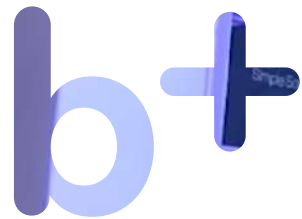


barnaclínica<sup>+</sup>  
GRUP HOSPITAL CLÍNICA



KNOWLEDGE  
AND INNOVATION  
FOR OUR PATIENTS

# MEDICAL EXCELLENCE AND INNOVATION

IF YOU WANT TO KNOW MORE ABOUT US,  
SCAN THE QR CODE...





*“We are committed to the health of people”*

*“Our team is formed by nationally and internationally recognized professionals”*

*“We respect and care for the health of people who trust in us”*

*“State-of-the-art in technological facilities and equipment”*

*“Wide range of health care services and medical-surgical specialties”*

*“We are committed to society. Our income returns to public health”*

*“We will be pleased to welcome you”*



# Summary

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8 Teaching, Innovation & Research



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12 Leading services and professionals





# Summary

4 Who we are



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12 Leading services and professionals



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# Who we are



## KNOWLEDGE AND INNOVATION

We are a University Hospital associated to the University of Barcelona engaged in teaching and training at undergraduate and graduate levels.



## TRANSLATIONAL RESEARCH

The Hospital Clínic Group has a long tradition of research that places it as an institution with international recognition. Translational research and its application in clinical practice play a key role in barnaclinic+ reputation.



## FIRST LEVEL CLINICAL CARE

The clinical activity is carried out comprehensively in units and interdisciplinary teams applying quality protocols and processes based on the best scientific evidence available







## LAST GENERATION TECHNOLOGY

Our professionals are committed to high-tech equipment that allows minimally invasive procedures and high complex surgeries.



GRUP HOSPITAL CLÍNIC

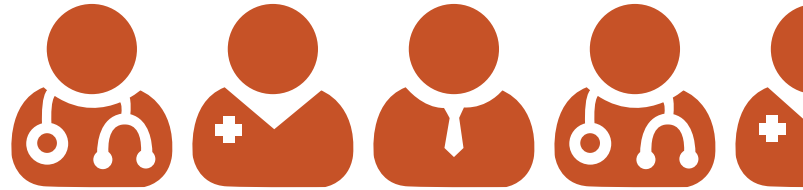


## PROFESSIONALS

The knowledge and experience gained over more than 100 years with comprehensive vision has allowed our professionals to be in a leadership and reference position of the most complex pathologies.



# Our hospital



1.100

Doctors



1.300

Nurses



42.150

Admissions



485.700

Outpatient visits



132.000

Emergencies



22.625

Surgeries



3.120

Births



122.000

Day care sessions

# Our facilities



32  
OPERATING  
ROOMS



5  
ANGIO HEMODINAMIC  
ROOMS



10  
IMAGING  
ROOMS



60  
ICU BEDS



800  
BEDS



# Teaching, Innovation & Research



## Teaching activity



932

Undergraduate Students  
(Medicine, Nursing, Biomedical  
engineering Biomedical Sciences)



385

University  
Master students



1.738

Professional  
Master students



280

Foreign medical  
Master students



279

Nursing master  
and postgraduate  
students



80

External  
courses



## Innovation activity



37

License  
Agreements



51

Patent portfolio



8

Spin-off  
companies

## Research activity



1.021

Papers

Q1

69%

First quartile



5.878

Global Impact  
Factor



5.8

Impact Factor  
Average

IF

130

IF>10



94

PhD theses  
defended

# Our results



Clinic Institute of Digestive  
and Metabolic Diseases



Clinic Institute of Nephrology  
and Urology



Clinic Institute of Hematology  
and Oncology Diseases

RAMI	RACI	RARI	Admissions	Complexity	Length of stay
0,925	0,933	0,854	42.151	1,14	5,14
0,98	1,03	0,95	6.188	1,23	5,89
0,67	1,06	0,93	3.311	1,15	4,63
1,18	1,15	1,14	2.210	1,50	9,76

\* RAMI - Risk-adjusted Mortality Rate  
RACI - Risk-adjusted Complication Index  
RARI - Risk-adjusted Readmissions Index



# Our results



Clinic Institute of Cardiovascular



Clinic Institute of  
Neurosciences



Clinic Institute of Gynaecology,  
Obstetrics and Neonatology



Clinic Institute of Medical  
and Surgical Specialities



Clinic Institute of Medicine  
and Dermatology

RAMI	RACI	RARI	Admissions	Complexity	Length of stay
0,83	0,94	0,84	4.576	2,19	6,01
0,86	0,86	0,81	2.914	1,28	9,93
0,54	0,94	0,90	6.928	0,67	3,20
0,82	0,72	0,73	5.130	1,15	4,41
0,77	0,93	0,84	6.188	1,23	5,89

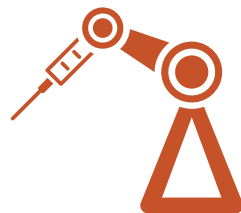
# Leading services and professionals



## DIGESTIVE ONCOLOGY AND METABOLIC DISEASES' SURGERY

The **Digestive Oncology and Metabolic Diseases Surgery Department** is the international leader and pioneer in the application of minimally invasive and robotic surgery techniques.

Experts in 3D  
laparoscopic and  
NOTES surgery

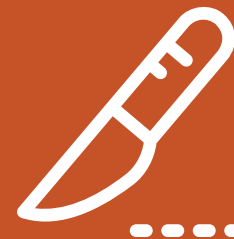


## ANTONIO DE LACY FORTUNY

### DIGESTIVE ONCOLOGY AND METABOLIC DISEASES' SURGERY

Head of the Gastrointestinal surgery Department at Hospital Clinic of Barcelona. A specialist in minimally invasive robotic and laparoscopic surgery for gastrointestinal cancer and metabolic diseases.

In over 25 years of experience he has performed over 15.000 interventions.



More than  
**15.500**  
interventions



## HEPATIC ONCOLOGY

The Hospital Clínic Group has more than 30 years of experience in liver cancer. They have performed more than 13,000 liver surgeries. The surgery is performed in an Intelligent Operating Room through 3D laparoscopic technique.

**1st** Living donor  
Liver Transplant in  
Spain



## JUAN C. GARCÍA VALDECASAS

### HEPATIC ONCOLOGY AND LIVER TRANSPLANT

Head of the General and Digestive surgery Department and of the liver Transplant Department at Hospital Clinic of Barcelona. He was the responsible surgeon of the first living Donor liver Transplant in Spain in 2000. More than 1.900 transplants in more than 25 years of activity.



More than  
**1850**  
Liver Transplants



# Leading services and professionals



## PROSTATE AND KIDNEY ONCOLOGY

The **Urology team** is an international leader in the diagnosis and treatment of prostatic hyperplasia and prostate and kidney cancer. They are leaders and pioneers in kidney transplantation and the use of minimally invasive and robotic surgery techniques.

**1st**

Kidney Transplant  
through the vagina



## ANTONIO ALCARAZ

### PROSTATE AND KIDNEY ONCOLOGY AND KIDNEY TRANSPLANT

Head of the Urology Department at Hospital Clinic of Barcelona. A specialist in robotic and minimally invasive surgery for treatment of prostate cancer, kidney cancer and kidney transplant. He performs more than 500 operations per year during more than 25 years of experience.



**2.750**

Renal transplant &  
prostatectomies



## TRANSPLANT

KIDNEY, LIVER AND HEMATOPOIETIC STEM CELLS'

The transplant program of the **Hospital Clinic Group** has a long history. They have performed more than 4.250 kidney transplants, 1.925 liver transplants and more than 2.150 hematopoietic stem Cells' transplants. The hematopoietic stem cells' transplantation unit of barnaclinic+ has the JACIe accreditation.



**330**

transplants per year



## ÁLVARO URBANO ISPIZUA

HEMATOPOIETIC STEM CELL  
TRANSPLANTATION

Director of the Hematology and Oncology Institute at Hospital Clinic of Barcelona.

He has performed more than 2.150 hematopoietic cell transplantation in the center which he directs, one of europe's centers with more annual activity.



More than  
**2.150**  
hematopoietic cell  
transplantation

# Leading services and professionals



## CARDIOLOGY, SPORTS MEDICINE & ARRHYTHMIAS

The **Cardiology Unit** consists of a multidisciplinary team of internationally recognized cardiologists that provides the diagnosis of heart disease and sudden death by non-invasive tests in the context of sports medicine and comprehensive treatment of arrhythmias.



Referring  
physicians for  
**FC Barcelona**



## MARTA SITGES

CARDIOLOGY, SPORTS MEDICINE &  
ARRHYTHMIAS

Head of the Cardiovascular Institute at the Hospital Clínic de Barcelona and barnaclinic+. Dr. Sitges is also responsible for the Work Group in Sports Cardiology and chief of the non-invasive cardiologic diagnostics section, as well as a researcher of Arrhythmias, Cardiac Resynchronization and Cardiac Imaging at IDIBAPS.



More than **20**  
years of experience



## NEUROSURGERY

The **Neurosurgery Department** is an expert and international leader in the use of minimally invasive techniques for brain, spinal cord and pituitary tumors. This team have performed more than 300 surgeries.



CT, MRI and  
Intraoperative  
neuronavigation



## JOAQUIM ENSEÑAT

### NEUROSURGERY

Head of the Neurosurgery Department at Hospital Clinic of Barcelona. He is international leader in minimally invasive surgery of brain and spine cancer using endoscopic techniques. He and his team have performed more than 375 surgeries and he continues performing over 65 per year.



Performs over **65**  
surgeries per year



# Leading services and professionals



## FETAL MEDICINE

The **Fetal Medicine Center** has pioneering professionals in medicine and fetal surgery. It has a comprehensive healthcare service for the fetus, the mother and the newborn. A multidisciplinary team that includes doctors, engineers, biologists, nurses, psychologists as well as his own management structure.

Multidisciplinary team of  
more than

**70** professionals



## EDUARD GRATACÓS

### FETAL MEDICINE

Head of Obstetric and maternalfetal medicine at Hospital Clinic of Barcelona. International pioneer in fetal surgery, he has participated in the design and execution of various types of fetal surgery for the first time in history. More than 1.500 fetal surgery interventions.



More than **1.500**  
fetal surgeries



## ENT (EAR, NOSE AND THROAT)

The **ENT Department** at barnaclínica+ has 11 specialists, forming one of the most prestigious centers in the country. Based on grants, research projects, number of publications and types of high-level surgeries, it can be considered one of the leading centers in the country.



**11** international referents  
in endoscopic head and  
neck surgery



## MANUEL BERNAL SPREKELSEN

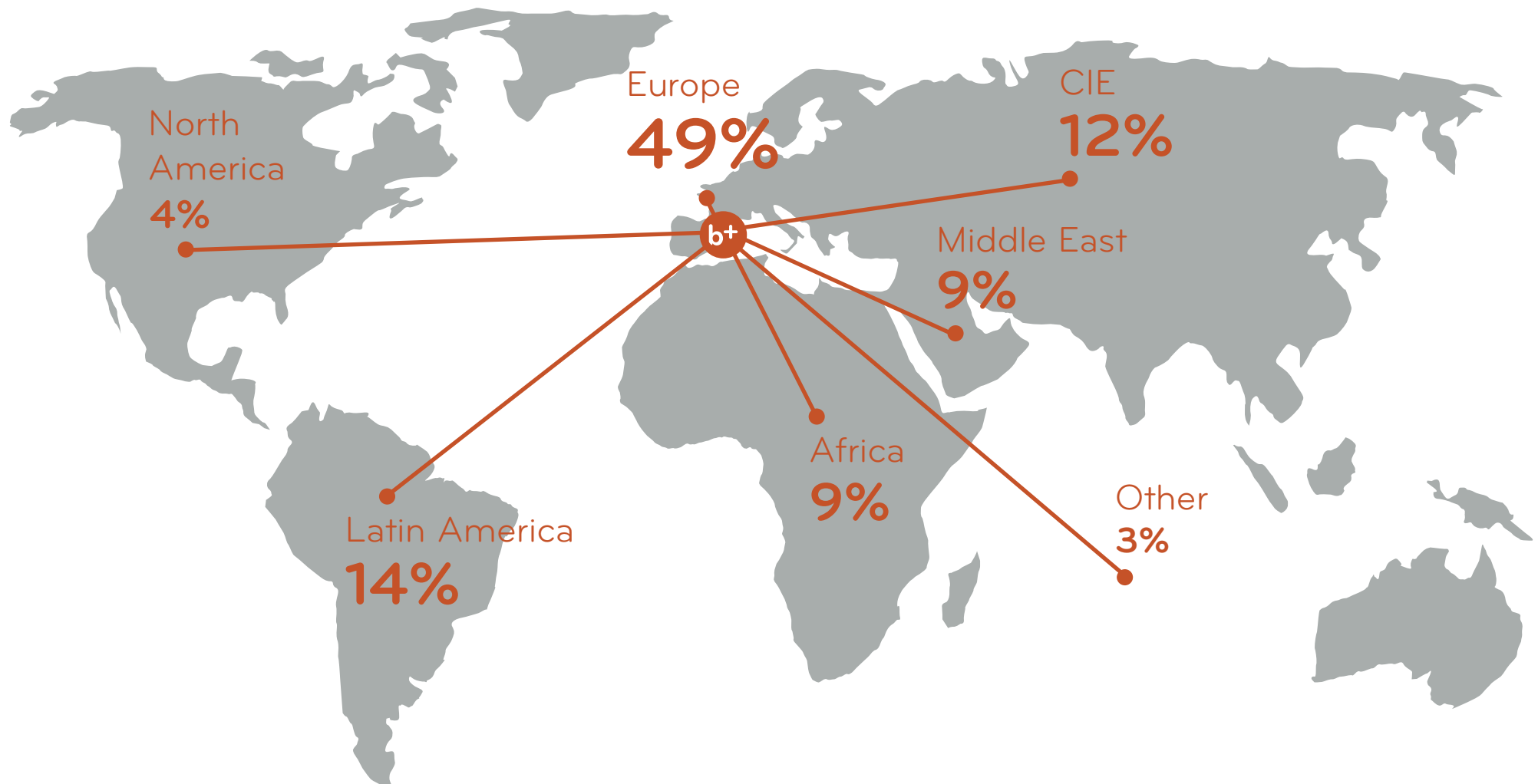
### ENT (EAR, NOSE AND THROAT)

Head of the ENT Department at Hospital Clinic of Barcelona. He is pioneer in endoscopic sinus surgery and skull base, in minimally invasive laser surgery of malignant tumors of the larynx and hypopharynx and in reconstructive tympanoplasty with cartilage. Over 500 yearly interventions.



Over **500**  
interventions per year

# Our international patients



# Our acreditations



## STEM CELLS TRASPLANT

Joint Accreditation Committee-ISCT & EBMT (JACIE) for autologous transplant or from a donor (allogeneic transplant)



## LIVER TRASPLANT

UNE-EN ISO 9001:2008. AENOR ER-0817/2011.



## ANESTHESIOLOGY, RESUSCITATION AND PAIN TREATMENT

UNE-EN ISO 9001:2015. AENOR Quality management systems - Requirements



## CENTRE DIAGNOSTIC BIOQUÍMIC

ISO Certification 9001:2008

Certification Good Laboratory Practice (GLP) number BPL01CAT

**EFI ACCREDITATION:** In Histocompatibility Laboratory of Immunology is accredited by the European Federation for Immunogenetics (EFI) (09-ES-005 995) to undertake histocompatibility studies (transplant, HLA and diseases, transfusions).



## HEMODIALYSIS UNIT

ISO 9001: 2008: Renal Transplant Program has a quality management system in accordance with the requirements of the UNE-EN ISO 9001: 2008. Has the certificate of compliance, by AENOR since October 2013.



## BIOBANC (IDIBAPS)

ISO 9001:2008: Biobank has a quality management system in accordance with the requirements of the UNE-EN ISO 9001: 2008. The scope of the certification of the biobank includes the following banks: Bank of DNA Tumour Bank and Neurological Tissue Bank.



## PHARMACY

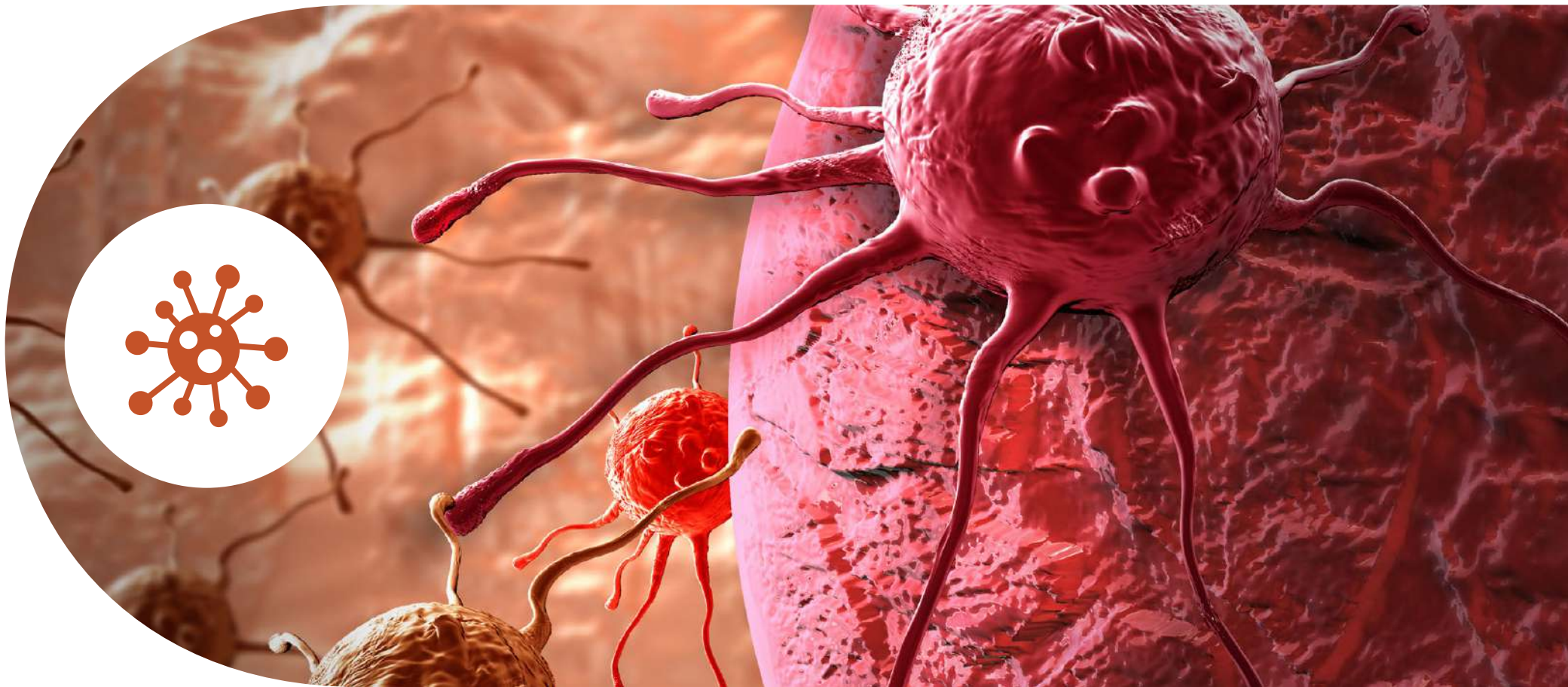
ISO 9001: 2008: The Pharmacy has a quality management system in accordance with the requirements of the standard UNE-EN ISO 9001: 2008. The domain of application of the elements of quality management system, includes the provision of service in the field of Hospital Pharmacy in the following areas: Clinical Trials, Dispensation and distribution of medicines, Preparation, processing and repackaging of medicines, Pharmaceutical Patient Care, Development of educational programs.



# OUR PATIENTS, OUR MOTIVATION

IF YOU WANT TO KNOW MORE...  
FOLLOW US:





# THE MEDICAL ONCOLOGY DEPARTMENT

The Hospital Clinic of Barcelona Medical Oncology Unit started in 1974 to meet the new requirements of oncology care and has become one of the oncological reference centers in Barcelona, Spain. Over the past years has grown our clinical, research and education activity, improving the quality and quantity of the patient care. Cancer diagnosis and treatment at Hospital Clinic of Barcelona involves a team of experts in radiology, pathology, surgery, chemotherapy, radiation therapy, and symptom management, which work together in multidisciplinary cancer teams. Our team of doctors, nurses and other cancer experts will create a plan that's tailored to patient needs, focusing in personalized care. So, we offer state of the art oncological treatment, molecular diagnosis, radiotherapy and supportive/palliative care from an integrative perspective. ESMO accreditation of: Designated Centre of Integrated Oncology and Palliative Care.





# Activity

The increasing activity in the medical oncology department during the past years, has allowed us to develop an integrative and personalized treatment to patients, focused in the different care perspectives that affect quantity and quality of life. Personalized care always guided by the different expert physicians of the multidisciplinary oncological team. Outpatient activity has grown exponentially from 1993 to 2015, from 700 first visits to 1.700, and from 7.000 to 23.000 second visits. In our hospital day we administer 100-120 daily treatments, in 28 armchairs.

The clinical trials unit offers 100 different trials by year for the different types of cancer, with a median of 300 patients included annually. Has 6 armchairs for the administration of the novel therapies.

Inpatient care unit has 30 beds, 6 dedicated to palliative care. Hospitalized patients are attended by 3 teams of specialized physicians in multimodality/integral attention.





# Personnel

The medical team is 100% dedicated to oncological patients. As a result, our patients are always seen by the same team of physicians throughout the entire procedure.

Specially trained hospital nurses and nursing assistants, have extensive experience in the care of these patients with a nurse-to-patient ratio that is never more than 1:6.



# Lines of care



MELANOMA



BREAST CANCER



DIGESTIVE  
CANCER



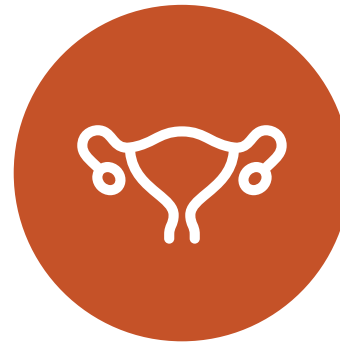
UROGENITAL  
CANCER



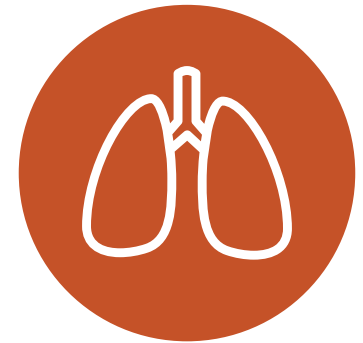
BRAIN CANCER



HEAD AND NECK  
CANCER



GYNECOLOGICAL  
CANCER



LUNG CANCER

# Material resources



**MOLECULAR DIAGNOSIS**  
Expertise in pathological studies



**CLINICAL TRIALS UNIT**  
Research studies with novel therapies in the different levels of development: clinical trials from phase I to phase IV.



**HOSPITAL DAY TREATMENTS**  
Chemotherapy, targeted therapy and immunotherapy



**RADIOTHERAPY TREATMENTS**  
Including IMRT (intensity modulated radiotherapy), intraoperative radiotherapy and brachiterapy.



**LOCAL THERAPIES**  
Liver chemo/ radioembolization, radiofrequency and microwaves for lung and liver metastases



**HIGH COMPLEXITY SURGERIES**  
Including cytoreductive surgeries with HIPEC microwaves (Hyperthermic Intraperitoneal Chemotherapy) for lung and liver metastases



**PSYCHOLOGISTS AND PSYCHIATRISTS**  
Specialized in oncological patients



**SUPPORTIVE/ PALLIATIVE CARE**  
ESMO accredited center



**INTENSIVE CARE UNIT**

# Our results



**1.700**  
FIRST VISITS



**23.000**  
SECOND VISITS



**36.500**

TREATMENTS IN  
HOSPITAL DAY



**300**

Patient included in  
**clinical trials**



**100**

Diferent  
clinical trials



# HEPATOBILOANCREATIC SURGERY AND TRANSPLANTATION

The Hospital Clinic of Barcelona has long been a reference in liver diseases. Its Liver Unit is a well recognized center all over the world. Since the start of the liver transplantation program in 1988, our group has increased its activity, being among the most active centers in liver transplantation in Europe maintaining an overall long term survival results, well over the European mean value (European Liver Transplant Registry). At the same time we have progressively increase the number of hepatobiliopancreatic procedures performed at the clinic, including laparoscopic liver resections. After a period of almost 30 years more than 2000 liver transplants, including 105 adult living donor liver transplantations and more 1800 highly complex liver resections have been performed (apart from simple straight forward procedures).





# Activity

The increasing activity in HBP Surgery during the past years, has allowed us to develop different types of procedures apart from the conventional liver transplantation. Among them, the use of livers from non heart beating donors, as well as starting in 2000 the first adult living donor liver transplantation program in Spain. Our long term result confirm the success of this type of transplantation achieving similar survival to that obtained after conventional cadaveric liver transplantation. A 99% survival rate at one year and 78% and 70% survival rate at 5 and 10 years. Besides we have been developing complex liver surgery procedures, specifically in relation to metastatic colorectal cancer liver disease (MCLD) and Hepatocellular Carcinoma (HCC). We performed around 250 liver resections and 80 liver transplantations each year.





# Personnel

The medical team is 100% dedicated to HOSPITAL. As a result, our patients are always seen by the same team of physicians and surgeons throughout the entire procedure.

Specially trained hospital nurses have extensive experience in the care of surgical or transplant patients with a nurse-to-patient ratio that is never more than 1:2.



# Lines of care



## LIVING DONOR LIVER TRANSPLANTATION (LDLT)

Besides to the normal activity, we perform around 8-10 LDLT's each year. The usual indication is associated to Hepatitis B or C virus related problems, either Cirrhosis or Hepatocellular Carcinoma. Our group has designed an specific protocol in which extended indications beyond Milan Criteria are included. Specific care is taking in relation to the donor. Our results in the donor have been recently published and taking as the benchmarks for Major Liver Surgery.



## HEPATOCELLULAR CARCINOMA

Is one of the most frequent indications for liver Surgery, as long as the liver function remains stable. It includes surveillance of patients affected of hepatitis B or C virus, local or regional treatment in terms of Radiofrequency or Microwave ablation as well as transarterial chemoembolization. Surgery remains the gold standard treatment whenever is possible. Procedures contemplates the possibility of laparoscopic segmental liver resection.



## METASTATIC COLORECTAL CANCER LIVER DISEASE

Due to the high incidence in western countries of Colorectal cancer, metastatic liver disease is also one of the most important indications for liver surgery. As a reference center, the multidisciplinary approach includes a close relationship with our oncologists and radiologists in order to increase the possibility of a successful resection and recovery. This includes neoadjuvant as well as adjuvant chemotherapy, and/or portal embolization in order to increase the remnant liver volume.

# Material resources



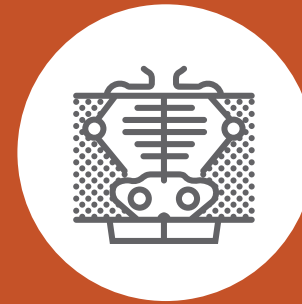
ROOMS



DAY HOSPITAL



SPECIFICALLY  
ORIENTED INTENSIVE  
CARE UNIT



HIGHLY TRAINED  
INTERVENTIONAL  
RADIOLOGY



LAST GENERATION  
CUSA DISECTOR  
FOR LIVER SURGERY



LAST GENERATION  
3D ULTRASOUND  
SCAN



INTEGRATED OPERATING  
THEATER, INCLUDING 3D  
LAPAROSCOPIC TOWER

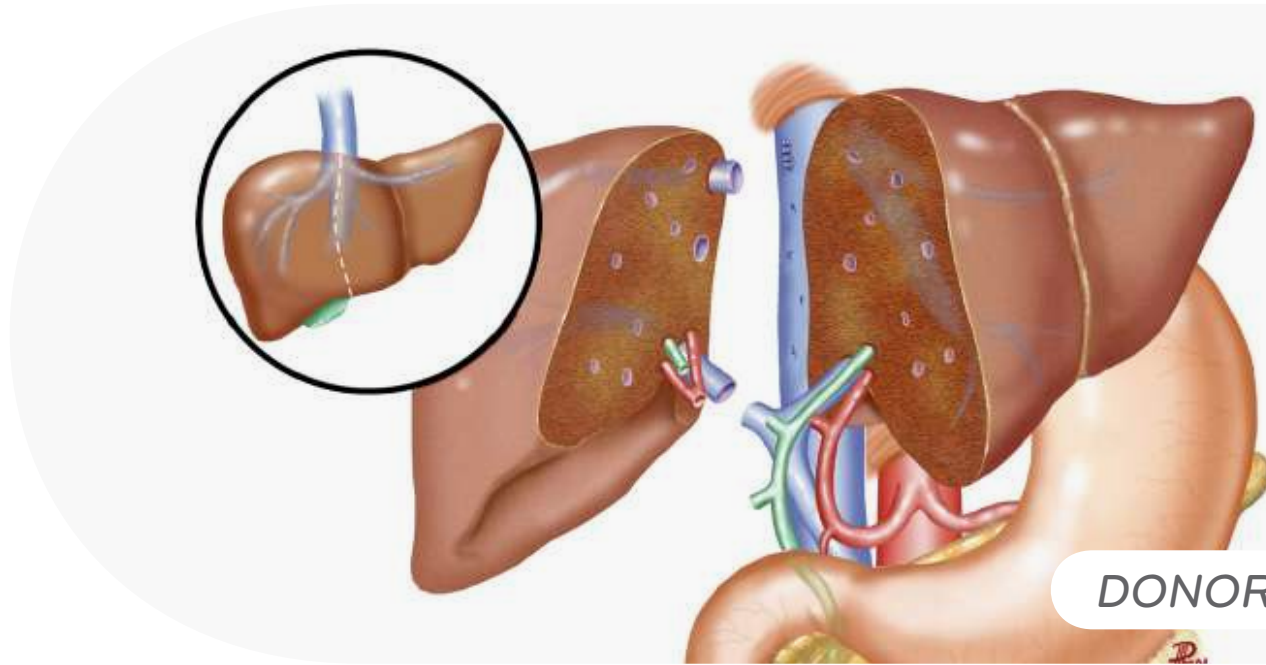


EXPERTISE IN ULTRASOUND  
EXPLORATION AND  
THERAPEUTIC PROCEDURES.  
RFA AND MWA



INDOCYANIN GREEN  
(FLUORESCENCE)  
IMAGING TECHNIQUES





# Process

- A** FOR PATIENTS AFFECTED OF HCC OR MCCLD:
  - Specific Multidisciplinary Approach Evaluation. Hepatology, Interventional Radiology and Surgery
- B** DONOR EVALUATION:
  - Overall health status including psychological evaluation
  - Specific Liver Evaluation. Vascular and Biliary Distribution.
  - Sequential donor evaluation, including a transparent and strict donation process
- C** SPECIFICALLY DESIGNED AND EQUIPPED INTEGRATED OPERATING THEATER (X2)
  - Performance of the transplant in parallel (independent OR's).
    - Right/Left Hepatic Donation/Retrieval
    - Patient Explant Hepatectomy and Implant
- D** STRICT POSTOPERATIVE FOLLOW UP AT ICU AND WARD
- E** POSTRTANSPLANT LONG TERM FOLLOW UP OF THE DONOR AND THE PATIENT



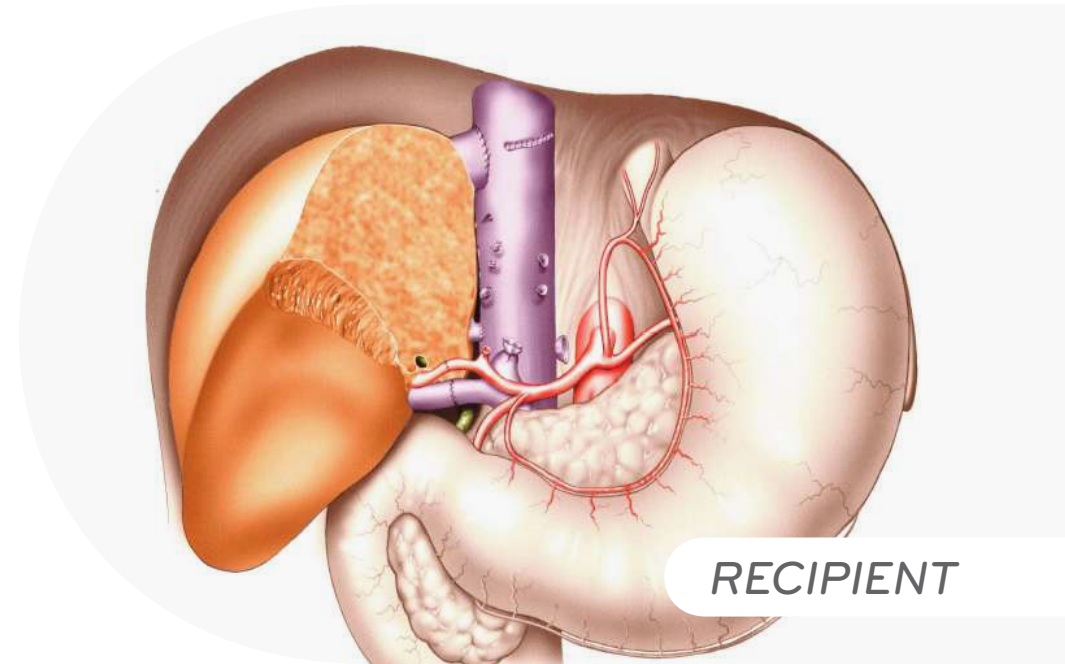
# Our results

## LIVER TRANSPLANTATION



# 105

Living Donor Liver  
Transplantation



## Survival rate

### Patient Survival

99%



First year

75%



For 5 years

### Graft Survival

90%



First year

70%



For 5 years

# Our results

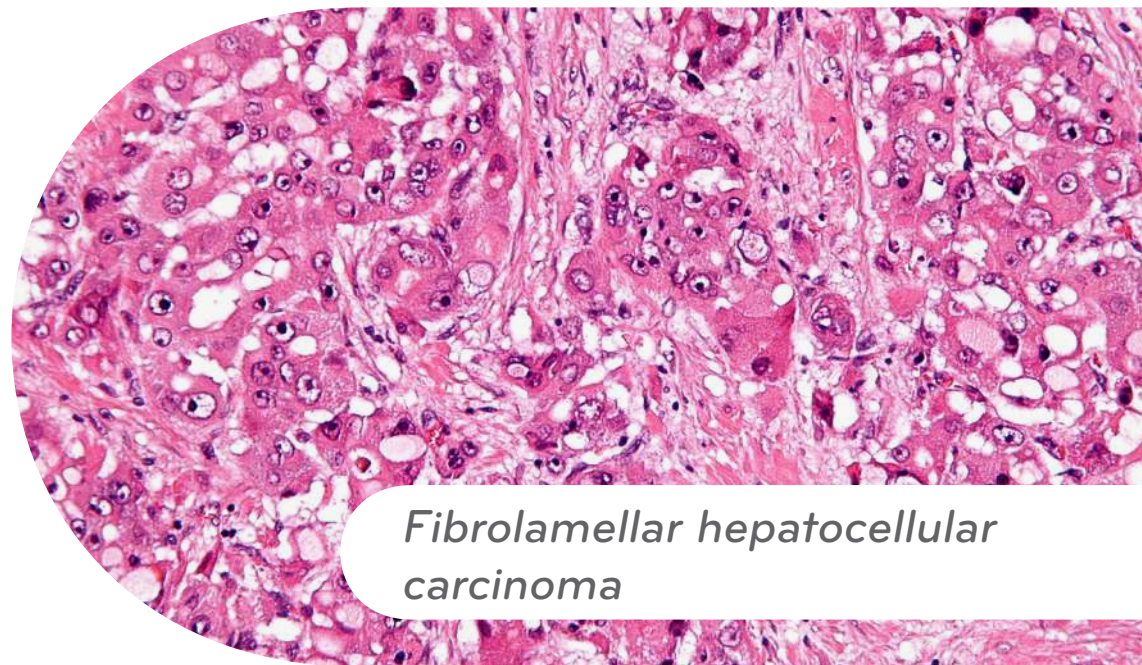
## HEPATOCELLULAR CARCINOMA



>300

HCC resected in the  
last ten years

*Following the BCLC Classification Criteria*

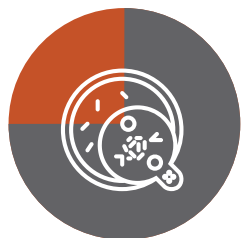


*Fibrolamellar hepatocellular  
carcinoma*

## Survival rate

Overall Survival

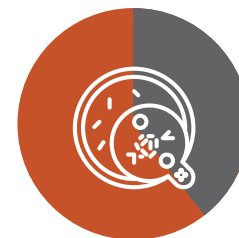
75'6%



At 5 years

Disease Free Survival

38'6%



At 5 years

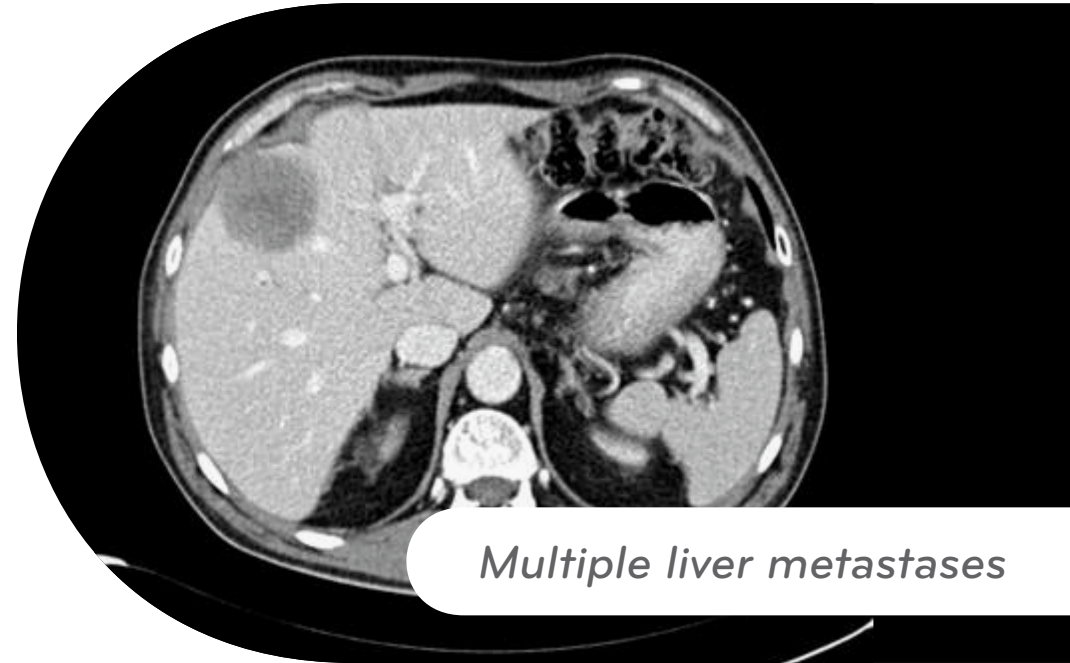
# Our results

METASTATIC COLO-RECTAL  
LIVER DISEASE



>400

Major Hepatectomies  
(2005-2015)



## Survival rate

Overall Survival

56,1%



At 5 years

Disease Free Survival

29,6%



At 5 years

# Estimated time frame



## RECIPIENT AND DONOR EVALUATION

1 week



## ICU STAY

DONOR

2 days

RECIPIENT

5/7 days

ONCOLOGY SURGICAL PATIENT

2 days



## HOSPITAL STAY

DONOR

7 days

RECIPIENT

15 days

ONCOLOGY SURGICAL PATIENT

7 days



## IN BARCELONA

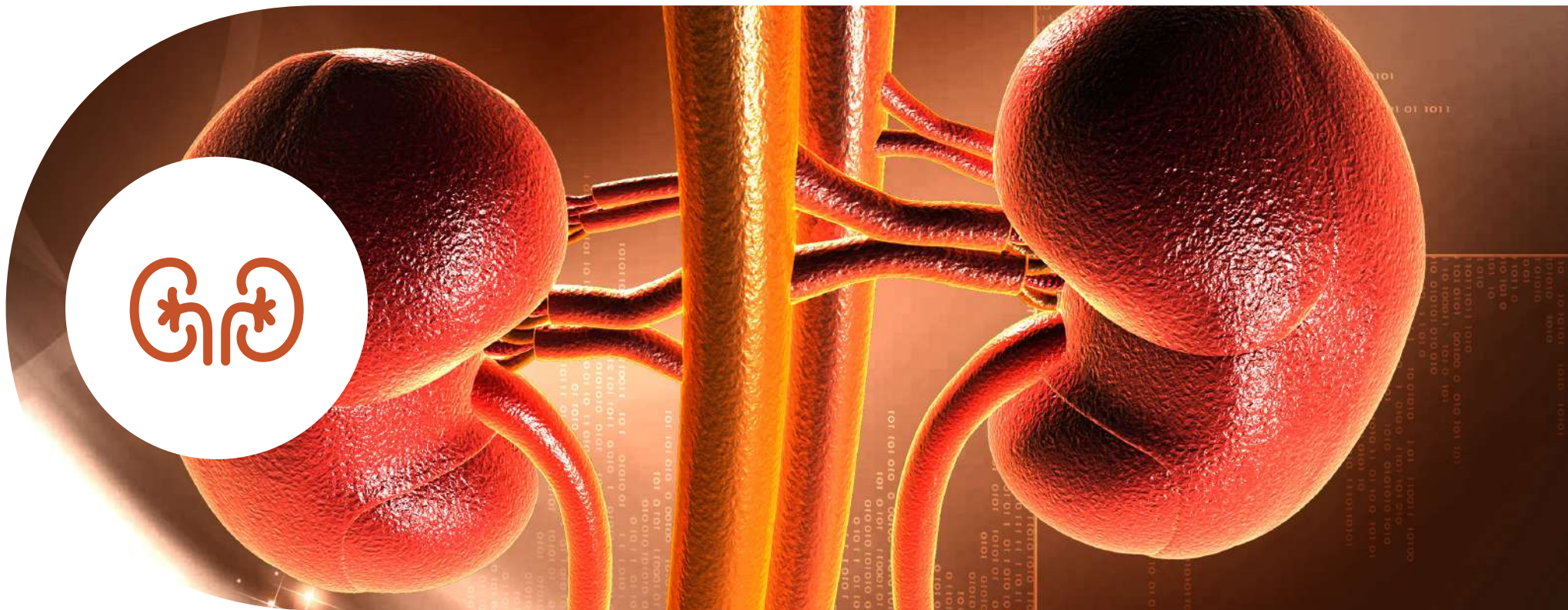
DONOR

2 weeks

RECIPIENT

1 month





# KIDNEY TRANSPLANT AND PROSTATE CANCER

Recently we celebrated the **50th anniversary of the first kidney transplantation performed in Spain**, carried out by the team of **professor Gil-Vernet** in the **Hospital Clínic of Barcelona**. Since then, we had done **more than 4000 kidney transplants** (nearly 800 from living related donors, 3,100 from deceased donors from brain death or non heart beating donors). Combined transplant was done in 455 cases (liver, pancreas and heart).

**Our center is reference for living donor kidney transplantation**, specially in cases with ABO incompatible blood group.

Since a year ago one out of four kidney transplants from living donors performed at our institution are done assisted by the **Da Vinci Robot system**, being a **reference in Europe on that surgery**.



# Activity

Since 2009 living donors nephrectomies are done using the transvaginal access por trocar introduction and specimen retrieval when feasible. In 2010 we introduced **LESS (Laparo endoscopic single site surgery)** technique for living donor nephrectomy. To date more than 100 transvaginal living donor nephrectomies have been done and more tha 60 LESS living donor nephrectomies with good results.

In August 2015, **we introduced the robotic surgery in the kidney transplantation** specially in obese recipients, in two cases we introduced the kidney graft trough the vagina recient.

In March 2016, a record of kidney transplants was archieved by the team led by Dr. Alcaraz with a total of 24 kidney transplants. During the first 9 month of 2016 a total of 55 kidney transplants (deceased and living) have been performed in the **Hospital Clínic**, of which 14 were assisted by the Da Vinci system.

*"Our goal is to reach 40% of transplantsliving donor kidney transplant assisted by robot. Since last summer we have taken a leap forward and we want to carry on this path", says Dr. **Antonio Alcaraz**. Dr. Alcaraz also indicates that "Robotic surgery is our preferred technique for living donor kidney transplantation. We reserve open surgery when surgical difficulties are expected ". The incorporation of robotics in kidney transplantation is a breakthrough, according to Dr. Alcaraz opinion because "we were not able to use laparoscopy because the instruments didn't allow us to maneuver properly. With the Da Vinci Xi we can get more movement than with a human wrist and we can move it with high accuracy because every gest is reproduced on a scale of 1 to 10. This means we can get a minimum displacement with a natural movement".*





# Personnel

The barnaclinic+ Urology team is reference in Europe in all urological disorders. Specially in the diagnosis and treatment of prostatic hyperplasia and prostate cancer, kidney cancer and transplantation.

They are leaders and pioneers in minimally invasive (NOTES and LESS) and robotic surgery techniques. The team led by Dr. Antonio Alcaraz is famed for its research and innovation. *"Thanks to the commitment of the whole team we could place the Clinic in the kidney transplant forefront of Europe or even the World"*, says the Dr. Alcaraz.



# Lines of care



## KIDNEY TRANSPLANTATION

The treatment of choice for **End stage renal disease (ESRD)** is **kidney transplantation**, because offers a better survival and quality of live. **Living donor kidney transplant** give a better results than a cadaveric one. The introduction of minimally invasive techniques in living donor nephrectomies like the transvaginal amb single port surgery have represent an increase in donor interest, because the reduction on morbidity and better cosmetic results.

**The first kidney removal (affected by cancer) through the vagina, and the first robotic kidney transplantation with implantation of the graft through the vagina were performed in the Hospital Clínic,** under the direction of Dr. **Antonio Alcaraz**, using minimally invasive and robotic surgeries. Since then, Dr Alcaraz's team has performed about 100 single-port nephrectomies, 60 of these living donors, and another 130 transvaginal nephrectomies (NOTES), of which 100 were living donors. Last year, of the 60 living-donor kidney transplants, 25 extractions were transumbilical or transvaginal. The **NOTES technique** enables a **short postoperative period and less pain**, in addition to minimising the cosmetic impact, as it leaves **no visible abdominal scars**.

**Hospital Clínic already performs 25% of living donors kidney transplants using robotic surgery.** The kidney robotic transplantation technique is complex but it is totally standardized.



## PROSTATE CANCER SURGERY

The Urology team of **barnaclínic+** is an **international reference, leader and pioneer group in the treatment of prostate diseases using minimally invasive and robotic surgery.**

Hospital Clínic became the **first hospital in Spain, and one of the firsts in Europe in using the surgical robot da Vinci Xi.** This high technology equipment is used by the team of Dr. **Antonio Alcaraz** to perform surgical procedures with the **minimal invasion for the patient** for the treatment of **prostate cancer** and other urological diseases. The **Da Vinci Xi surgical robot** opens the door to perform many more surgical procedures from a minimal invasive approach and with a greater precision than conventional laparoscopy. The use of **robotic techniques in prostate surgery** can benefit the **maintenance of the sexual function** of the patient and can make possible the maintenance of a **low level of surgical margins**.

# Material resources



DA VINCI XI ROBOT



ROOMS



DAY HOSPITAL



SPECIFICALLY  
ORIENTED INTENSIVE  
CARE UNIT



HIGHLY TRAINED  
INTERVENTIONAL  
RADIOLOGY



LAST GENERATION  
3D ULTRASOUND  
SCAN



INTEGRATED OPERATING  
THEATER, INCLUDING 3D  
LAPAROSCOPIC TOWER AND  
ROBOTIC TECHNOLOGY



EXPERTISE IN ULTRASOUND  
EXPLORATION AND  
THERAPEUTIC PROCEDURES



GREEN AND  
HOLMIUM LASERS

# Estimated time frame



**RECIPIENT AND DONOR EVALUATION**

2 days



**ICU STAY** RECIPIENT / DONOR

0 days



**HOSPITAL STAY**

DONOR

2 days

RECIPIENT

7 days

ONCOLOGY SURGICAL PATIENT

3 days



**IN BARCELONA**

DONOR

2 weeks

RECIPIENT

30 days



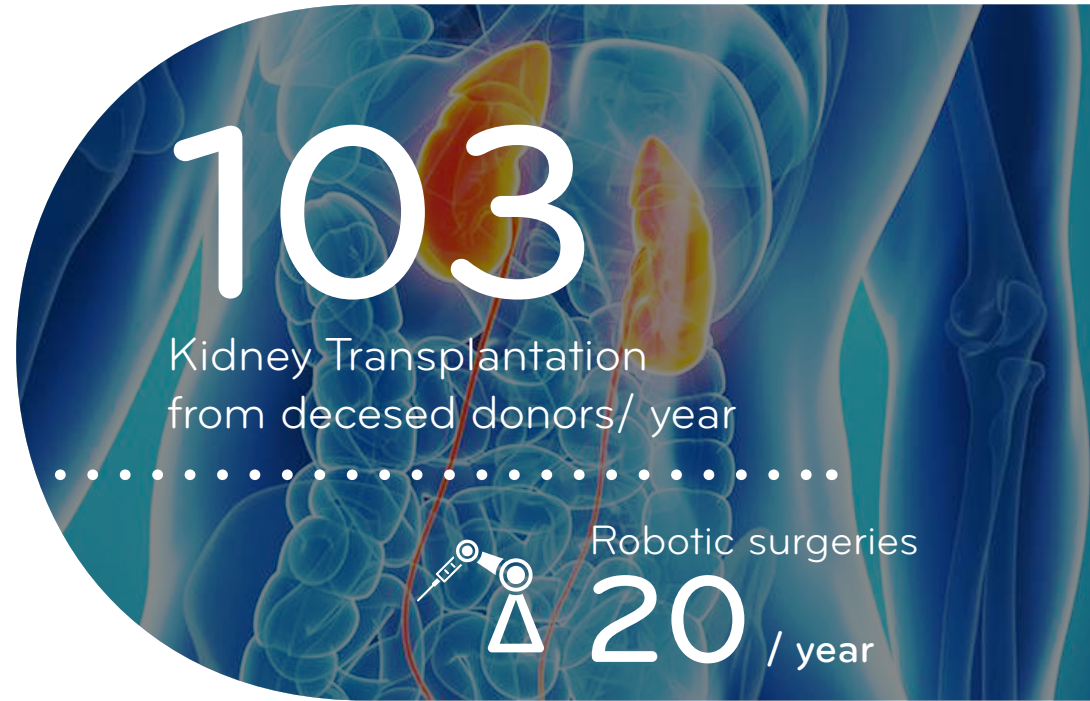
# Our results

## KIDNEY TRANSPLANTATION



50

Living Donor Kidney  
Transplantation/ year



## Survival rate

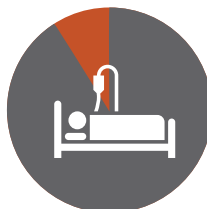
### Patient Survival

99%



First year

90%



For 10 years

### Graft Survival

98%



First year

74%



For 10 years

# Our results

## PROSTATE CANCER SURGERY



120

Radical prostatectomies / year



Robotic surgeries

115 / year

## Survival rate

Overall Survival

98%



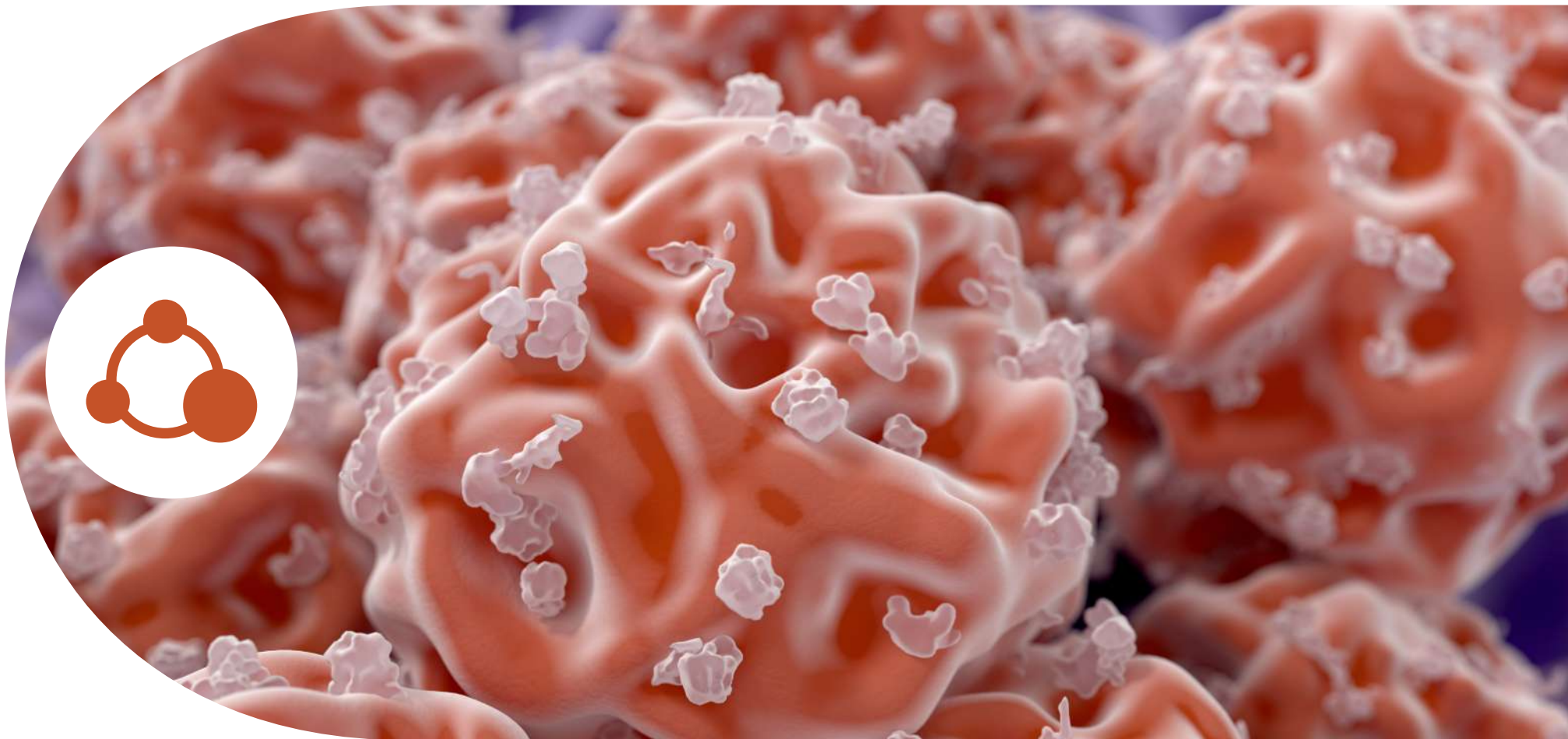
At 5 years

Disease Free Survival

75%



At 5 years



# HEMATOPOIETIC STEM CELLS' TRANSPLANTATION UNIT



The Hospital Clínic de Barcelona Hematopoietic Stem Cell Transplant (HSCT) Program started on 12 June 1976 and the clinic became the first Spanish center to perform an Allogeneic transplant. Over the past thirty plus years, more than 2.150 transplants have been performed with 1.000 of these being allogeneic transplants many of them being highly complex.



# Activity

The progressive improvement in our country's health system has meant that more and more centers are performing conventional hematopoietic stem cell transplants. That is why our program, in compliance with the usual line of advance of our institution, has directed its efforts towards highly complex transplant programs. Furthermore, in addition to conventional transplants for all types of diseases, we are also developing other lines of care.





# Lines of care



## AUTOLOGOUS TRANSPLANT FOR UNUSUAL DISEASES

- Autoimmune diseases. Multiple sclerosis, Crohn's disease and lupus erythematosus. We are the only center in Spain taking part in international studies for the treatment of these diseases.
- Plasma cell dyscrasias. Our center is the most experienced center in the country regarding the treatment of light chain diseases or scleromyxedema.



## ALLOGENEIC TRANSPLANT FROM AN UNRELATED DONOR

- It represents more than half of all allogeneic transplants and the center is responsible for the highest number of these procedures per year in Spain. More and more patients are being treated by umbilical cord transplant due to not being able to locate a compatible volunteer donor.



## ALLOGENEIC TRANSPLANT FOR UNCOMMON DISEASES

- Lines of transplant care have been developed for patients with diseases that are not curable by any other means, such as idiopathic myelofibrosis, multiple myeloma, aggressive lymphomas, chronic lymphocytic leukemia or paroxysmal nocturnal hemoglobinuria.



# Personnel

The medical team is 100% dedicated to HSCT. As a result, our patients are always seen by the same team of physicians throughout the entire procedure.

Specially trained hospital nurses have extensive experience in the care of these patients with a nurse-to-patient ratio that is never more than 1:2.

# Material resources



18 equipped rooms with filtered air that allow ISO Class 8 environmental isolation.



Day hospital specifically for HSCT recipients that is open 7 days a week.



The Apheresis performs a minimum of three procedures a week and provides all the single donor transfusion support that our patients require.



The graft processing, handling and cryopreservation unit is especially equipped to perform all types of cell screening.



The Radiotherapy unit is prepared to administer total body.



# Process

1

Individualised evaluation, proposing the most suitable type of transplant for each patient.

2

Search for potential donors in the patient's circle and in national and international donor banks.

3

Performance of compatibility tests.

4

Extraction of stem cells, with processing, preparation and conservation until transplantation.

5

Performance of the transplant.

6

Post-transplant follow-up of the patient.



# Our results



# 140

Stem cell transplants per year

## Survival rate

### Allogeneic trasplant

70%



First year

55%



For 5 years

### Autologous trasplant

100%

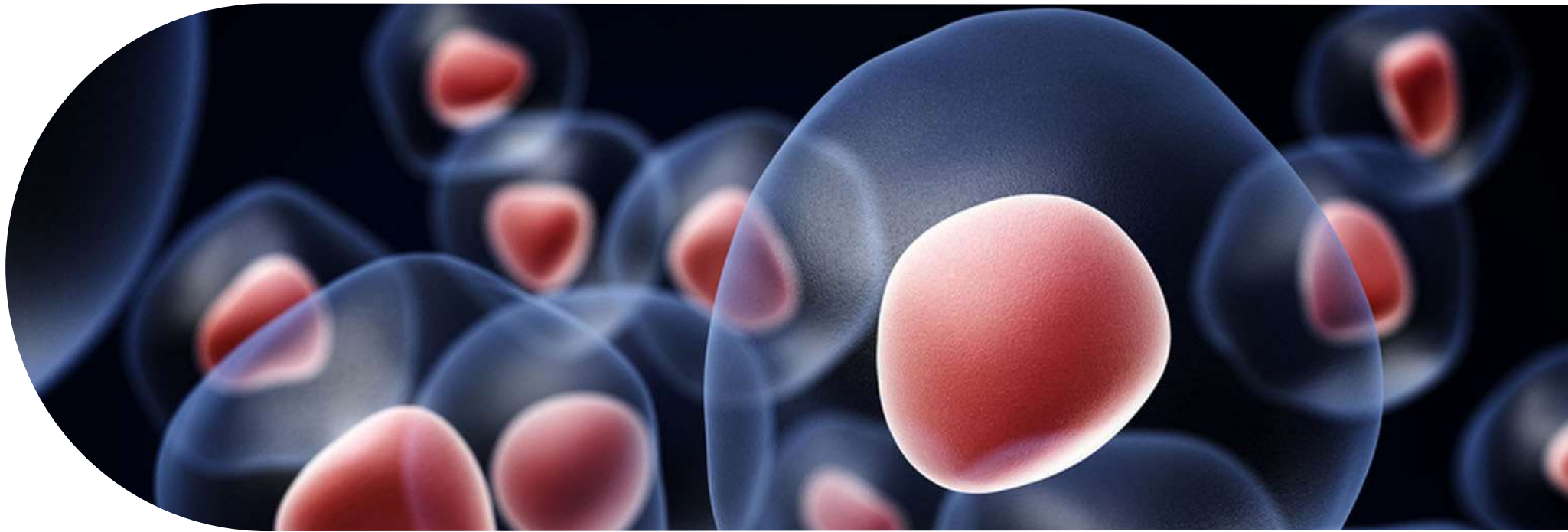


First year

80%



For 5 years



## Estimated time of treatment



Autologous  
transplants

**4-5 months**



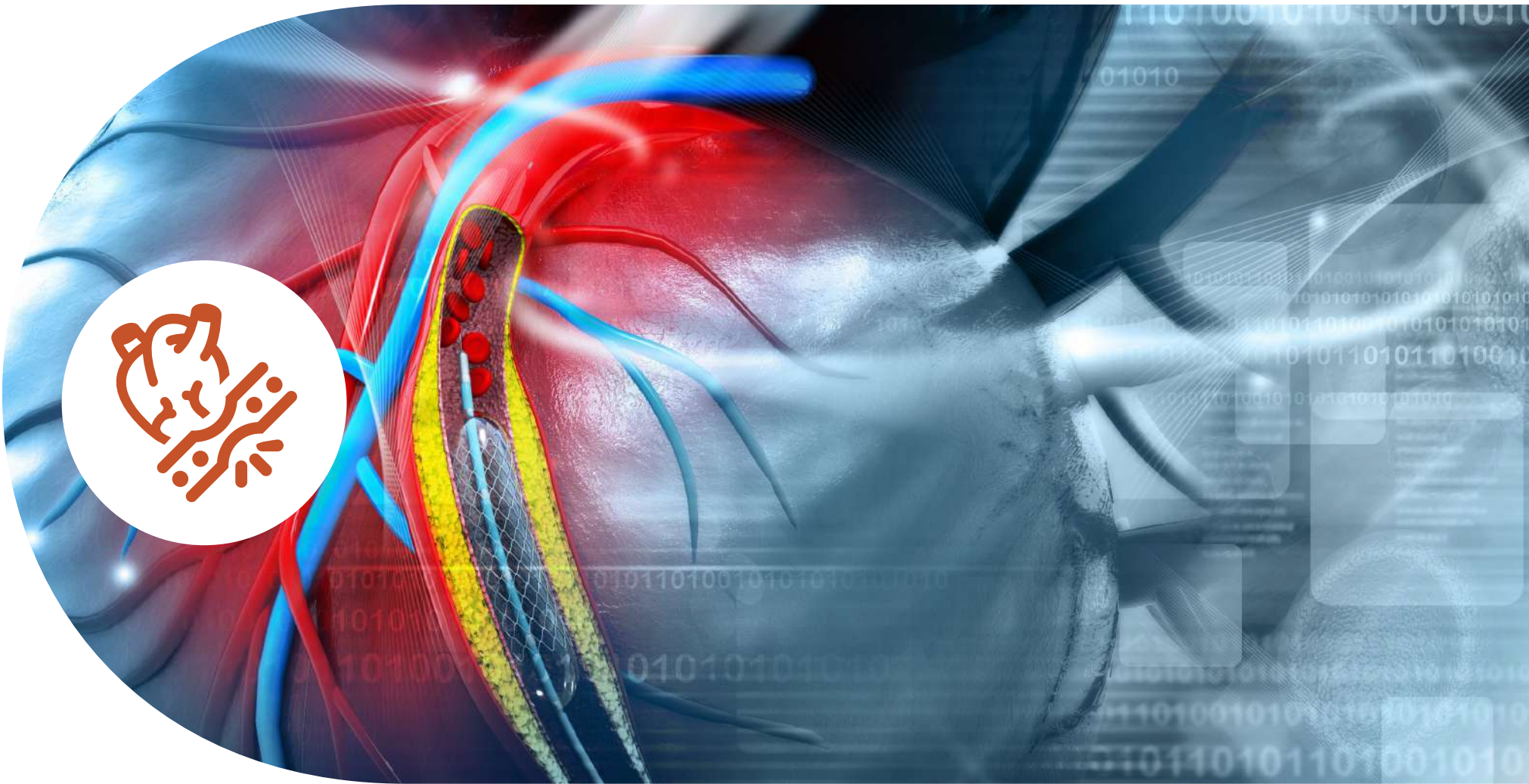
Allogeneic  
related donor

**8-9 months**



Allogeneic  
unrelated donor

**12 months**



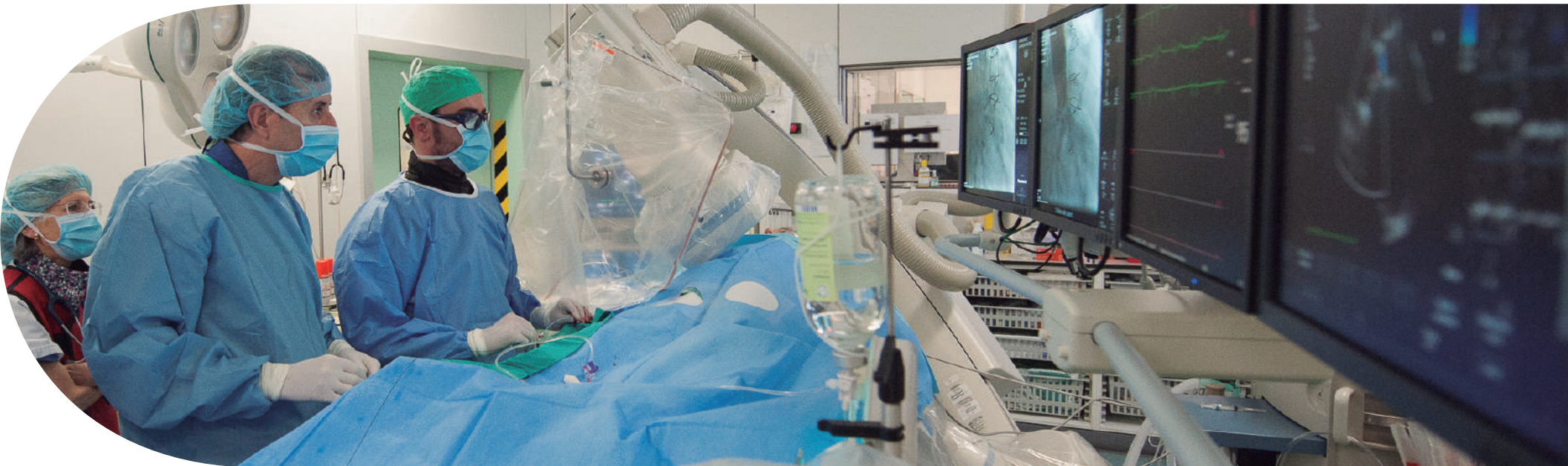
# INTERVENTIONAL CARDIOLOGY





# Activity

- Interventional cardiology techniques include any cardiac procedure that can be performed through dedicated catheters in a non-invasive way, avoiding the classic surgical approach.
- The barnaclinic+ team has pioneered and led the treatment of acute and chronic ischemic cardiomyopathy in Spain during the last 30 years.
- In the last 5 years, interventional cardiology has experienced a major development with the arrival of several novel non-invasive therapies. These new catheter techniques allow the treatment of other cardiac disorders including the repair of cardiac valves, congenital defects, post-surgical complications or even offering alternative therapies to anticoagulation in patients with atrial fibrillation.
- The Hospital Clínic Group once again is leading these new cardiology revolution, offering the most advanced non-invasive cardiac therapies with the perfect merge among high-quality staff and last-generation facilities.







# Personnel

The medical team is 100% dedicated to Hospital and patient care. Our doctors are international opinion leaders in interventional cardiology.

The medical team have extensive experience in the care of cardiac patients and committed to the intervention process but also to the post-procedural care.



# Lines of care



## CORONARY ARTERY DISEASE

Cardiac ischemic disease is one of the leading causes of death in developed countries. The treatment of coronary narrowing/occlusions with catheters has become a first-line treatment in several situations. Our center has pioneered and led this field during the last 30 years offering last generation treatments for ischemic disease.



## VALVE DISEASE (TAVI, MITRACLIP...)

The treatment of cardiac structures other than coronary arteries has experienced a major development within the last 10 years. Transcatheter aortic valve implantation (TAVI), Mitral repair (Mitraclip), closure of residual para-valvular leaks after cardiac surgery and other interventions can be currently performed through catheters. Once again, our institution has led this field in Europe and offers all available techniques with a highly experience medical team.



## LEFT ATRIAL APPENDAGE OCCLUSION

Left atrial appendage occlusion is probably one of the interventional techniques with a higher expansion worldwide. This technique is mostly oriented to patients with atrial fibrillation in whom oral anticoagulation might produce or has already produced a health problem (mostly bleedings).



## ADULT CONGENITAL DISORDERS

Our hospital has created a strategic alliance with the reference kids hospital Sant Joan de Déu. All congenital patients over 18 years are followed and treated in our institution. Medical cooperation between adult and pediatric interventionalists is a pivotal factor to achieve the excellence in this kind of procedures.



## TEACHING /RESEARCH

- Course organization, International fellowship, Invited lectures.
- The Hospital Clinic of Barcelona has always shown by a major interest in research projects. Our medical staff has contributed and published in several national and international medical journals in all aforementioned fields.
- >100 research manuscripts published in national/international journals per year.

# Equipment



HOSPITAL ROOMS



DAY HOSPITAL



SPECIFICALLY  
ORIENTED INTENSIVE  
CARE UNIT



HIGHLY TRAINED  
INTERVENTIONAL  
CARDIOLOGY TEAM



LAST GENERATION  
CATHETERIZATION  
LABS



STATE OF THE ART  
IMAGING MODALITIES:  
3D echocardiography,  
cardiac tomography and  
magnetic resonance.



24 HOURS HEART  
TEAM:  
Surgeons, anesthesiologists,  
imaging experts and clinical  
cardiologists.





# Process

- A** Clinical Evaluation
- B** Complete pre-procedural test/ imaging
- C** Non-invasive cardiac intervention
- D** Strict post-operative follow-up with the safest surveillance protocols depending on the type of intervention



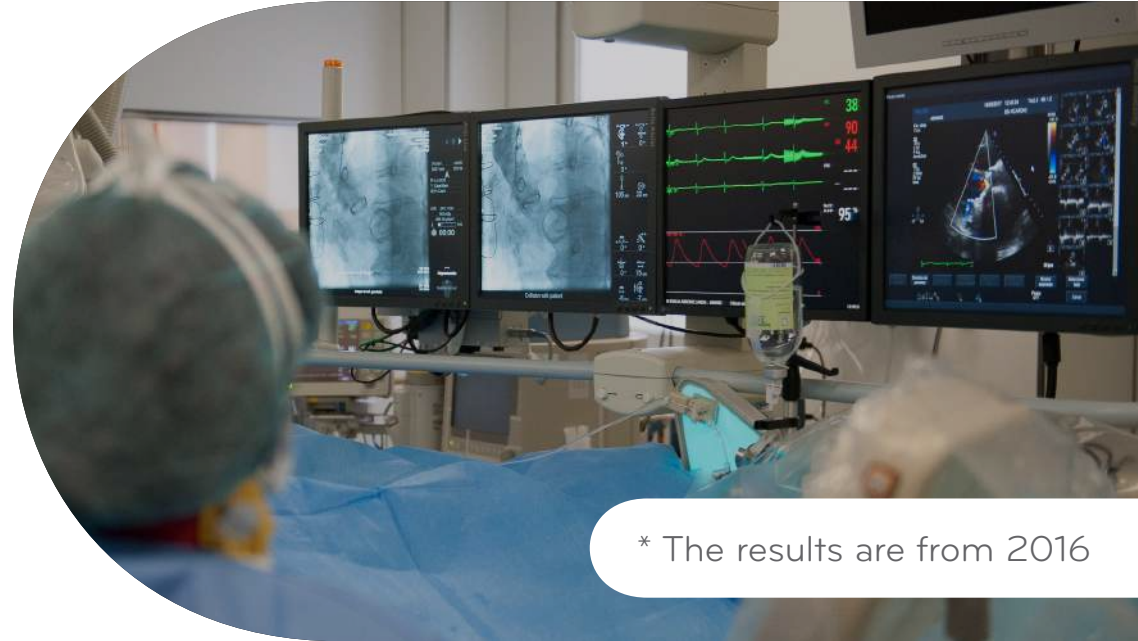
# Outcomes/ Our results

Coronary Artery Disease:



3.500

Diagnostic catheterizations



\* The results are from 2016



1.500

percutaneous coronary interventions

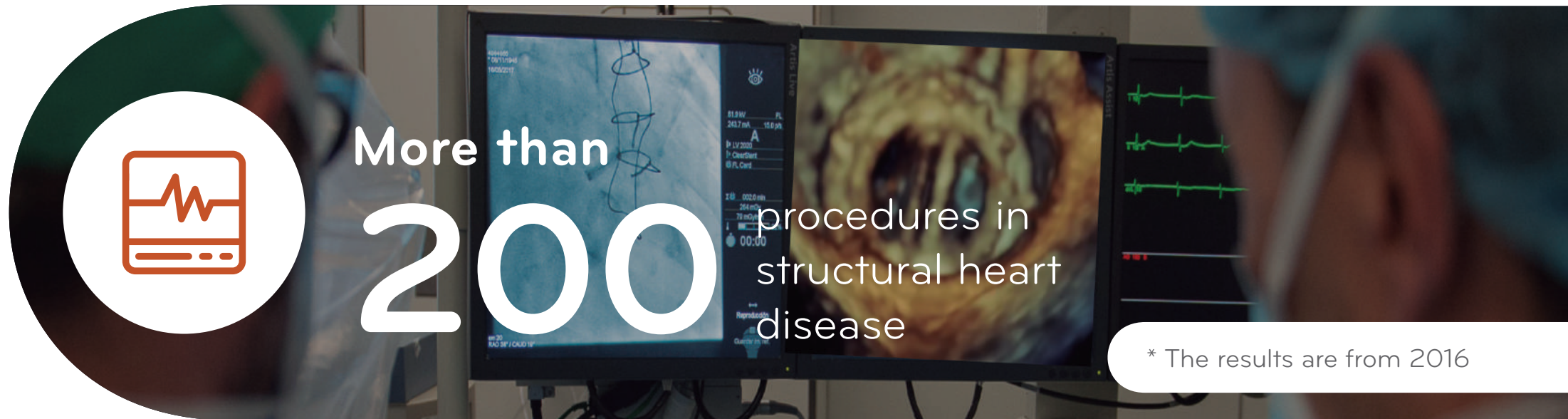


550

primary angioplasties in acute myocardial infarction

# Outcomes/ Our results

Structural Heart Disease:



**1st**

Percutaneous tricuspid valve repair in Spain



**1st**

Mitraclip implantation in Catalonia



**Leading**

structural program in Spain

# Outcomes/ Our results

Left atrial appendage occlusion:

More than

100

procedures, including  
international proctorship



100%

of procedural  
success



<1%

pericardial  
effusion



0%

in-hospital  
mortality

# Outcomes/ Our results

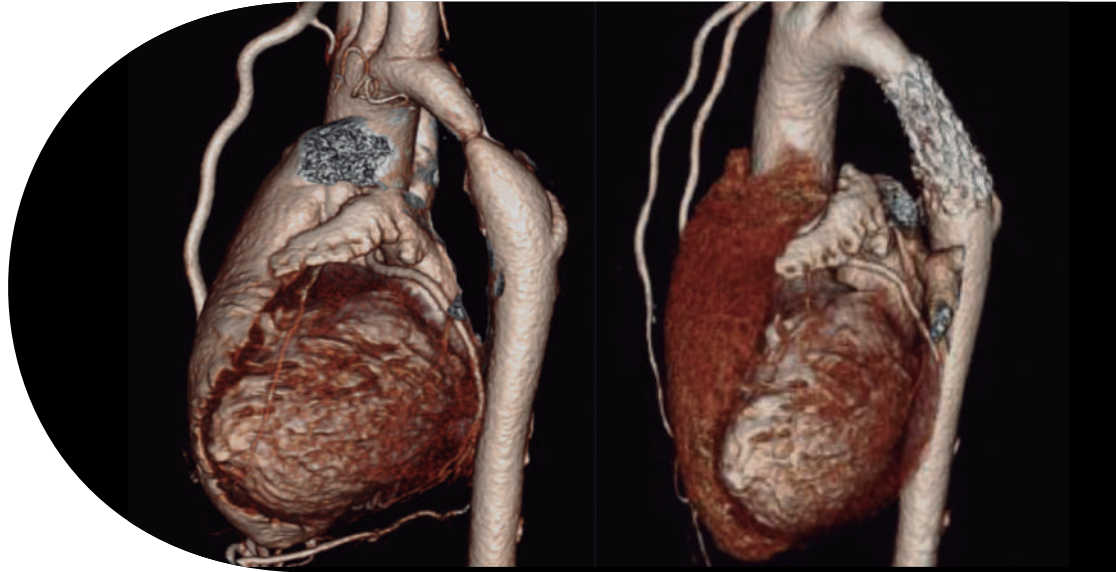
## Adult Congenital Disorders

More than

50



procedures last year



\* The results are "yearly"



0%

in-hospital mortality



### Reference center

for adult congenital disorders  
for all Spain (CSUR)



0%

complications



### Enhanced safety

Combined staff of adult and pe-  
diatric interventional cardiologists





# SPORTS CARDIOLOGY

Since the creation of the Group of sports cardiology at the Hospital Clinic in 2009 to present, its clinical, teaching and research activity has become one of the European references and opinion leader in this area. The approach of a joint evaluation by a multidisciplinary team makes our experience unique. The multidisciplinary team include sports physicians, non-invasive cardiologists mastering the area of cardiac imaging and invasive cardiologists with internationally renowned expertise in the field of arrhythmia. Additionally, the back of the whole team at the Cardiovascular Institute provides all the potential therapies currently available such as percutaneous or minimally invasive surgery for congenital heart disease, arrhythmia ablation or valve disease treatment.

Our team addresses not only the prevention of heart disease in athletes by our preparticipative screening programmes but also, the personalized treatment of cardiac disease in athletes, a subset of subject who deserve and specific and tailored approach adapted to their needs.



# Activity

Our group has evaluated more than 6,000 competitive and amateur athletes during the last 6 years, from all nationalities and ethnies. Our partnership with the **Catalan Council for Sports** (Catalan Government) and **FC Barcelona** has provided the opportunity to quickly be imbedded in the world of high performance sport.

A regular and routine screening is performed at the corresponding sportive centers and whenever an abnormality is detected, the subject is transferred to our Cardiobvascular Institute where a second line of tests and specific treatments can be provided.



# Personnel

The medical team is 100% dedicated to the hospital. Athletes are always evaluated by the same team of doctors, all members of the Group of Sports Cardiology are sub-specialized and have extensive experience in alterations that are associated with high-level athletes.



# Lines of care



## PRE-PARTICIPATION SCREENING

The assessment of each athlete by a cardiac evaluation including interview, physical exam, 12-lead ECG, echocardiogram and stress test; this comprehensive evaluation rules out most of the diseases that cause sudden death in athletes. Our group has extensive experience in this area.



## TREATMENT OF HEART DISEASE IN ATHLETES

Our Unit has extensive experience in the treatment of heart diseases in athletes taking into account the special characteristics of this group and always considering the equilibrium between willingness of continuing sport practice and the safety of the athlete:

- Arrhythmias
- Valve Disease
- Congenital heart Disease
- Cardiomyopathy



# Lines of care



## TEACHING

- Course organization
- Fellowship
- Dissemination activities among sports physician and exercise physicist



## RESEARCH

- Adaptation of the heart to exercise
- Pre-participation screening; utility, teaching and safety
- Potential harm on the heart:
  - Atrial fibrillation pathogenesis; research in animal model (marathon rat) and athletes
  - Ventricular fibrosis

# Equipment



DIGITAL  
ECHOCARDIOGRAPHY



ECHOCARDIOGRAPHY  
WITH STATE OF THE  
ART MODALITIES: 3D,  
strain imaging, Tissue  
Doppler Imaging



EXERCISE  
ECHOCARDIOGRAPHY



TREADMILL STRESS  
TEST  
CARDIAC  
MAGNETIC RESONANCE



CARDIAC TOMOGRAPHY  
Non invasive  
coronariography



ELECTROPHYSIOLOGICAL  
STUDY  
Diagnosis & treatment  
arrhythmias



AMBULATORY  
CONTINUOUS  
ECG  
MONITORING



CARDIAC  
CORONARIOGRAPHY



CARDIAC  
SURGERY AND  
PERCUTANEOUS  
THERAPY OR



# Process

## A ONE STOP CLINIC FOR PRE-PARTICIPATIVE SCREENING - 1 HOUR EVALUATION

- Focused clinical interview and physical examination
- 12-lead ECG
- Echocardiography
- Stress test

## B 2ND LINE (WHENEVER ABNORMALITIES ARE FOUND IN STEP 1) - 1 WEEK

- Cardiac magnetic resonance
- Cardiac Tomography
- Electrophysiological study
- Ambulatory continuous ECG monitoring

## C EXPERT OPINION

# Our results

Screening in

**+6.000**

Athletes



10 % International elite

ABNORMAL  
FINDINGS



**10%**  
athletes

## GLOBALLY



**1 of 40**

Requires 2° line of  
investigation



**1 of 160**

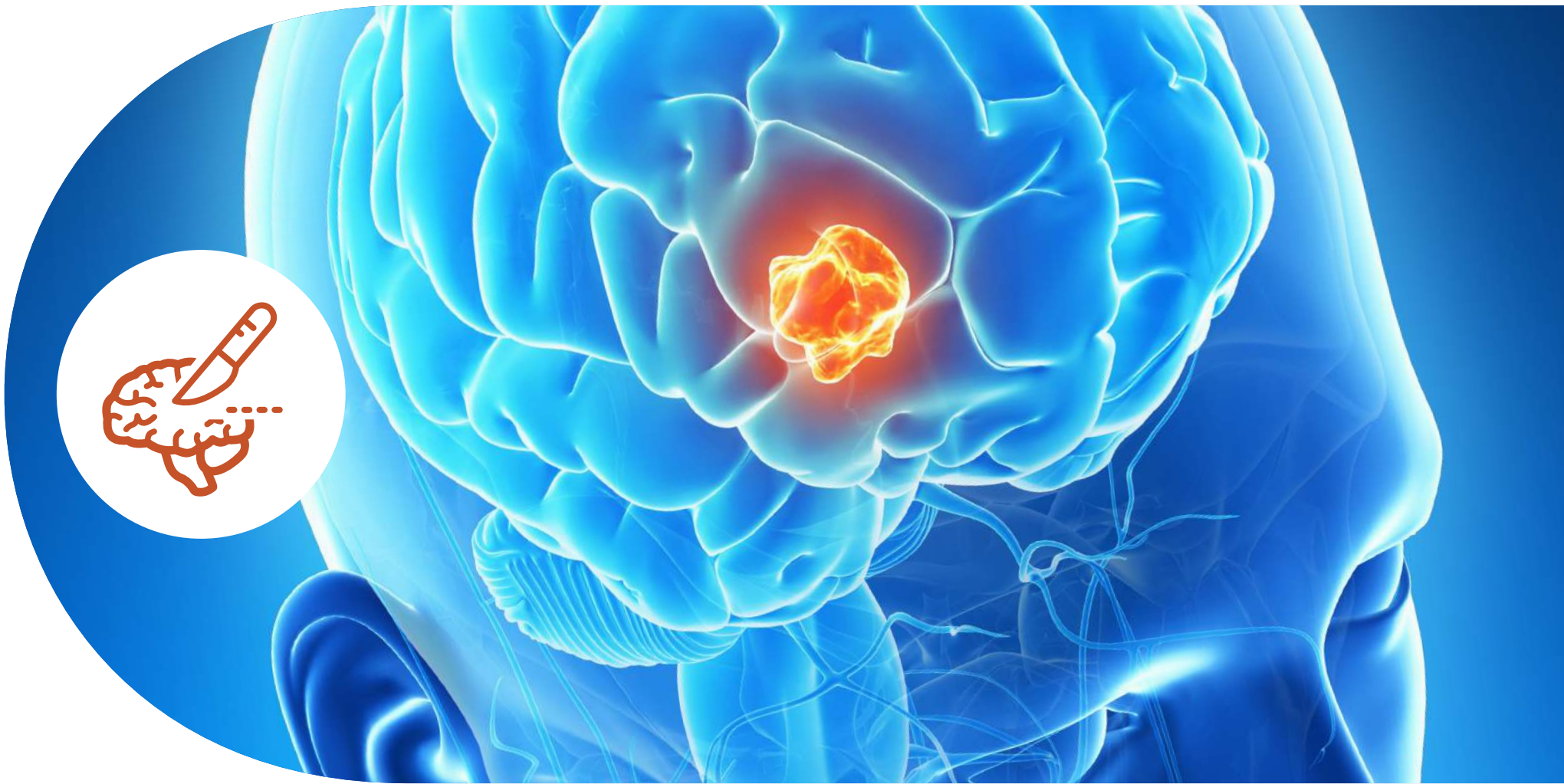
Requires specific treatment for  
continuing sport practice



**1 of 350**

Had a severe heart disease  
and was disqualified for sport  
practice





# NEUROSURGERY

The Neurosurgery Department in barnaclinic+ is specialised in minimally invasive high-complex surgery. Our Department is equipped with the most advanced technology, being one of the most advanced operating centres in the world consisting in MRI, Inter-operative CT scan and the latest neuronavigation systems. Such technology is essential for improving results and reducing complications during the surgical treatments performed. We always choose techniques that allow access to the brain in the least aggressive way possible, often preventing of external scars and increasing post-operative comfort.





# Professionals

Our medical team is completely dedicated to patients with neurological diseases. As a result, our patients' follow-up is always done by the same team of professionals throughout the entire process. Specially trained hospital nurses and nursing assistants, have extensive experience in the care of these patients with a nurse-to-patient ratio that is never more than 1:6.

# Lines of care



## PITUITARY TUMOUR

The Neurosurgery team of the Hospital Clínic Group is a pioneer in the use of endoscopic techniques for the treatment of tumors of the pituitary gland, having performed more than 300 procedures of minimally invasive surgery. The benefits of the technique compared to the classical technique directly benefit the patient with a significant reduction of local complications, a decrease in surgical time, an increase in comfort for the patient and a reduction in the average postoperative stay, which can be only 24 - 48 hours in centers with vast experience like ours.



## CEREBRAL ANEURISM

The treatment of cerebral aneurysms must be done in centers with experienced professionals and multidisciplinary teams. It is performed by cerebral microsurgery or sometimes by embolization (through the artery) depending on the characteristics of the aneurysm, the age and the neurological state of the patient.



## ARNOLD-CHIARI MALFORMATION

The therapeutic base is mainly focused on surgical treatment since there is no evidence that medical treatment interrupts the process. There are several possibilities for surgical treatment. All of them are aimed at decompressing the cerebellar tonsils and restoring the cerebrospinal fluid circulation between the cranial and spinal compartments.

# Lines of care



## BRAIN TUMOUR

In most cases, if the brain tumor is not very widespread or the patient's conditions do not allow it, surgery is the treatment of choice. The objectives of surgery are, on the one hand to obtain tissue for an accurate diagnosis of the tumor (biopsy) and on the other to achieve the highest degree of excision possible.



## FUNCTIONAL NEUROSURGERY

The Functional Neurosurgery Program at the Hospital Clínic of Barcelona celebrates 22 years, in which more than 1.000 patients with epilepsy and movement disorders have been treated. In 2006 the Sant Joan de Dèu Hospital was incorporated, and today it is the National Reference Unit (CSUR) of the National Health System in refractory epilepsy, surgery of movement disorders and in rare diseases that deal with movement disorders, in adults and children, respectively.



## CERVICAL AND LUMBAR PATHOLOGY

Discopathy is a pathology in which all or part of a disc of the spine (intervertebral) dehydrates, loses height (black disc) and, on many occasions, travels through a weakened ligament. This disc produces pain due to its deterioration, and the herniated part can exert pressure on the nerves or spinal cord, causing neurological lesions or sciatic pain. Conservative treatment methods range from physiotherapy to pain therapy. Once these methods have been proven, the Disc-FX procedure is presented as the best alternative before reaching an open surgery.



# Highlighted Surgeries and procedures



## INTEGRATED NEUROSURGERY OPERATING ROOM WITH INTRAOPERATIVE IMAGE

The Hospital Clínic Group has a new integrated neurosurgery operating room that offers the latest technology in intraoperative image. The new surgical equipment allows to carry out high complex interventions through minimally invasive techniques. Specifically, this new equipment optimizes cranial and spine surgeries not only minimizing the effects of the surgery but also accelerating the recovery and postoperative process.



## DISC-FX, MINIMALLY INVASIVE TREATMENT OF DISCOPATHY WITH OR WITHOUT HERNIA

Disc-FX is known as percutaneous endoscopic nucleoplasty. This is, a minimally invasive and percutaneous technique. This intervention involves inserting a guide needle and a working cannula laterally through a small incision in the skin to the affected disc. Control of the operation is done by means of an endoscopic camera installed in the working cannula. The disc herniation is eliminated by a disc clamp and a cold radiofrequency probe (Elliquence system®), which has just removed the compressive material and inflammation.



## ICM+® THE BEST TECHNOLOGY FOR THE DIAGNOSIS AND TREATMENT OF THE HYDROCEPHAL

ICM+® is a state-of-the-art technological resource aimed at the accurate diagnosis of cerebrospinal fluid pathology and the treatment of hydrocephalus. The technology of this software allows to capture, process, analyze and save in real time all the indicative parameters of the state of the patient and the disease. Although more and more hospitals are acquiring this software, there are still few centers in Europe that can offer this technology. On the other hand, the accumulated experience in its use and development is a key factor to offer the best results.

# Material resources



## MOLECULAR DIAGNOSIS

Experience in anatomopathological studies.



## CLINICAL TRIALS UNIT

Research studies with novel treatments at different levels of development: clinical trials from phase I to phase IV.



## TREATMENTS IN DAY CARE CENTER

Chemotherapy, targeted treatment and immunotherapy



## RADIOTHERAPY

Including IMRT (intensity modulated radiotherapy), intraoperative radiation therapy and brachytherapy.



## LOCAL TREATMENTS

Chemo / hepatic, radiofrequency and microwave radioembolization for pulmonary and hepatic metastases



## HIGH COMPLEX INTERVENTIONS

Including cytoreductive surgeries with microwaves and HIPEC (hyperthermic intraperitoneal chemotherapy)



## PSYCHOLOGISTS AND PSYCHIATRIES

Specialized in cancer patients



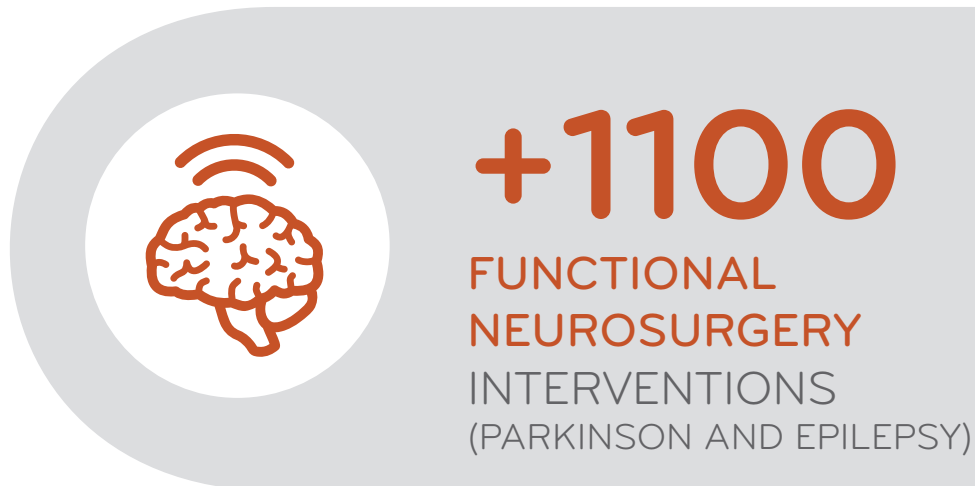
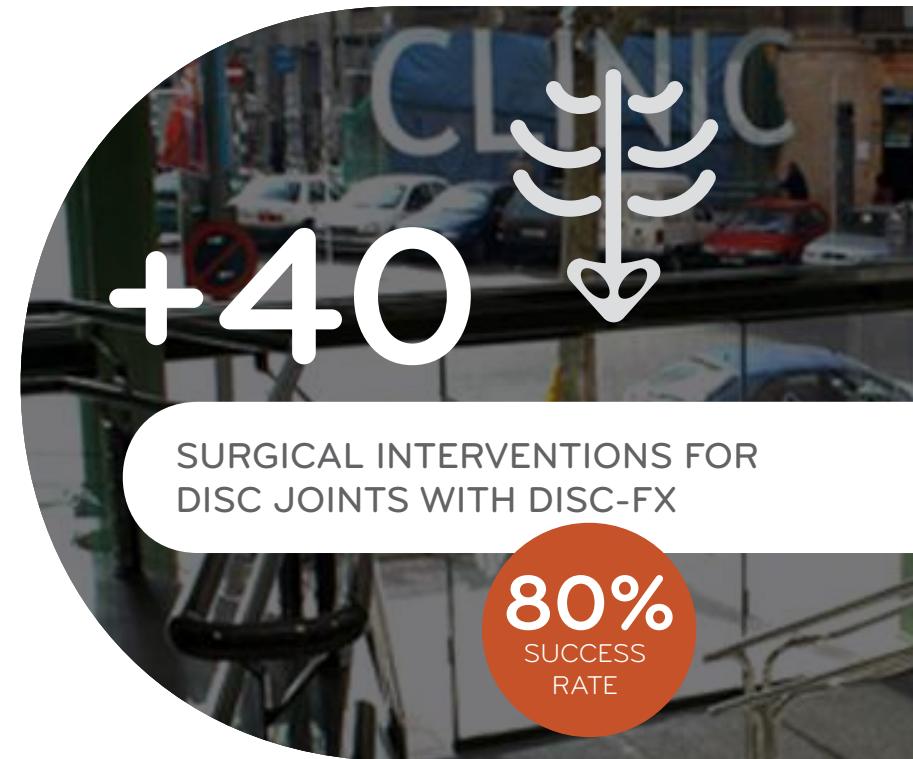
## SYMPTOMATIC TREATMENT / PALLIATIVE CARE CENTER

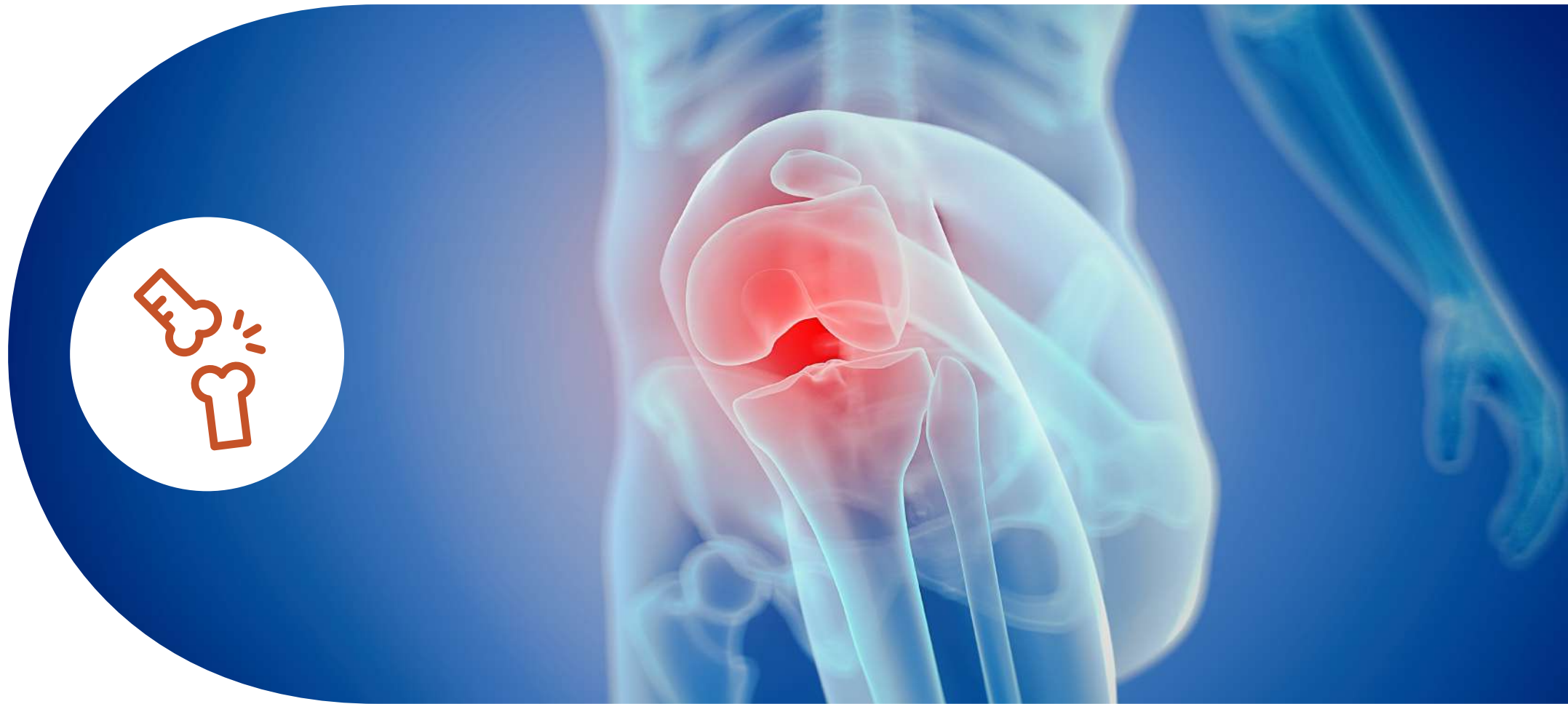
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## INTENSIVE CARE UNIT

# Our results





# ORTHOPAEDIC TRAUMA

We are a highly specialised team in arthroscopic surgery and knee pathology. Since the beginning of the Foundation of the Knee Unit at the Hospital Clínic we have been leaders in our country in these types of surgeries, incorporating the latest developments in arthroscopic visualization techniques, as well as the rapid recovery programmes in knee surgery.

We carry out more than 800 surgeries per year of total knee replacements by arthroscopy (TKA) and numerous knee, shoulder, hip, wrist and ankle arthroscopies. As our Hospital is a leading centre both nationally and internationally we are used to treating highly complex pathologies. All this involves a multidisciplinary team who care for the patient to achieve the best results.





# Activity

Our team is constantly innovating in their use of the latest developments in this pathology. We have several lines of research in the field of arthroscopic surgery that have led to the publication of numerous scientific articles in prestigious magazines as well as Doctoral Theses by some Orthopaedic Surgery and Traumatology residents. We have also been awarded numerous national and international research grants in order to develop international scientific work based on this pathology. As well as this, we participate as teachers in numerous conferences and national courses to teach and disseminate our knowledge to other professionals who want to train in this surgical technique.



# Personnel



All members of the team including the surgeons, anaesthetists, physiotherapists and nurses in the operating theatre and the room combine their skills in this multidisciplinary team focused on obtaining the best results for the patient. It is the surgeon responsible in each case who personally supervises the entire process during the patient's stay in hospital. The whole team is fully trained and prepared to perform this type of highly specialised surgery.



# Lines of care



## MENISCAL PATHOLOGY

The meniscus is the main protector of the knee and patients with meniscus injuries are becoming more and more common. All articles recommend repairing the meniscus, providing that it is repairable, rather than removing it; this will protect the medium and long term wear on the knee. Through an arthroscopy we can access the inside of the knee through 2 tiny incisions and perform all kinds of operations on the meniscus: remove part of it if it is not viable, repair it completely if it is viable and even perform meniscal transplants where previous meniscectomies have taken place that have led to wear on the joint in the medium term. All meniscus pathologies can be treated through an arthroscopy.



## CRUCIATE LIGAMENT

Anterior cruciate ligament (ACL) injury is the most common ligament injury in sport and of the knee, and is an injury which implies not being able to perform any type of sport involving twisting or pivoting. We have the latest techniques for repairing the ACL through arthroscopy and will advise you on the most appropriate in each case, as well as which graft would be best (hamstrings, patellar, quadriceps, the tissue bank) in order to be able to get back to playing sports again with total normality.



## CARTILAGE LESIONS

Cartilage lesions are irreversible and lead to permanent damage to the joint and the early onset osteoarthritis in cases of serious injury. We have the latest techniques in cartilage treatment to try and get it to regenerate, and will advise you of the most advisable treatment in each case (Meshes, Stem Cells, BST-Cargel...)

# Lines of care



## SHOULDER ARTHROSCOPY

Recurrent instability and dislocation injuries. Lesions on the labrum can cause the shoulder to become unstable and prevent us from moving with normality, and even causing it to move "out of place", which can cause excruciating pain. These injuries are grouped under various acronyms: Bankart, ALPSA, SLAP, Hill-Sachs... Each case must be treated individually. Arthroscopy can access the inside of the shoulder and repair these lesions without having to make large incisions. Thanks to this method we can take up our previous sporting activity once again. This technique can also be applied effectively when repairing the tendons of the rotator cuff muscles (Supraspinatus, infraspinatus and subscapularis) that can be injured by trauma or by degeneration.



## HIP ARTHROSCOPY

Known as femoroacetabular impingement. There are some forms of "abnormalities" of the hip (CAM, Pincer) which cause lesions on the cartilage of the femoral head or the acetabulum, as well as to the acetabular labrum. This combination can lead to a limited movement and a pain which is often crippling even when doing daily activities. This is known as hip disease in young adults (30-60 years). Arthroscopy gives us the option of fully treating this pathology, which could perhaps prevent wear in the joints and the need for placing an artificial hip in the patient before it is really necessary. All of these types of treatment should be personalised for each patient on the basis of the existing lesions.



## RAPID RECOVERY IN KNEE PROTHESIS

This is a multidisciplinary system with which we try to achieve the best results for the patient in the shortest possible time. Applying minimally invasive surgery systems as well as involving the patient to start early physiotherapy enables those who have undergone knee prostheses surgery only needing 2 days hospitalization.



# Strengths

Through arthroscopy we can perform very complex operations with all the benefits that come with arthroscopic surgery. In addition to the techniques mentioned above we can also perform:



**ARTHROSCOPICAL LATISSIMUS DORSI TRANSFER FOR IRREPAIRABLE ROTATOR CUFF TEARS**



**MENISCAL TRANSPLANTS FROM THE TISSUE BANK IN CASES OF POST MENISCECTOMY SYNDROME FOR PREVIOUS MENISCUS REMOVAL**



**PROSTHETIC KNEE USING THE RAPID RECOVERY SYSTEM, WHICH IN SOME CASES CAN BE DONE WITH ONLY 1 DAY'S HOSPITALIZATION. WE ARE THE FIRST HOSPITAL IN SPAIN TO INTRODUCE THIS SURGERY SYSTEM**



# Process


Sport is becoming increasingly important in society, and more and more people practice different types of sports for various reasons: to keep in shape, to maintain A healthy lifestyle, competition and even out of necessity due to certain pathologies... The increase in people practising sports, often without sufficient preparation and knowledge, has caused an increase in joint, muscles and tendon lesions, which can, in some cases, cause serious damage if they are not diagnosed and treated well. Many of these lesions can be solved with an arthroscopy.

These lesions often require a diagnosis and early treatment, since in some cases the lesion may progress and cause serious damage in the future. At barnaclínic+ we can offer immediate diagnostic services and treatment in just a few days.

- A** WHEN THE PATIENT VISITS AS AN OUTPATIENT AND THE DIAGNOSIS IS CONFIRMED, **IT IS POSSIBLE TO SCHEDULE THE SURGERY FOR THE FOLLOWING DAY.**
- B** IN THE CASE OF ARTHROSCOPIC SURGERY, **THE PATIENT IS DISCHARGED THE DAY AFTER THE SURGERY** WITH VERY PRECISE GUIDELINES REGARDING THE PHYSIOTHERAPY PROCESS THEY SHOULD FOLLOW AFTERWARDS.
- C** DEPENDING ON THE COMPLEXITY OF THE SURGERY AND THE REHABILITATION PROCESS, **THE PATIENT MAY RETURN TO THEIR COUNTRY IMMEDIATELY OR CONTINUE THEIR STAY IN BARCELONA** IN A HOTEL FOR THE FOLLOW UP CHECK UPS BY THE TEAM OF SURGEONS WHO HAVE PERFORMED THE OPERATION.

# Our results

## ARTHROSCOPIES PER YEAR



**230**  
KNEE



**220**  
SHOULDER



**50**  
HIP



**40**  
WRIST, ANKLE,  
ELBOW

**<0,05 %**  
infection index  
arthroscopic  
procedures

## PROSTHESIS FITTED PER YEAR



**465**  
Total knee  
arthroplasty



**115**  
Total knee  
replacement

**3 %**  
infection  
index TKA  
procedures

**5 %**  
infection  
index TKR  
procedures



**barnaclínic+**

GRUP HOSPITAL CLÍNIC



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