

**The future of hospitals in conditions of financial
constraint.
The case of a large Italian Hospital**

Gemelli



Pietro Grasso


Athens, June 5 th, 2019

**Fondazione Policlinico Universitario Agostino Gemelli IRCCS
Università Cattolica del Sacro Cuore**

Topics

- The Context
- Policlinico Gemelli Hospital
- The institutional evolution
- The organizational changes
- Principals results
- Next challenges

THE NATIONAL CONTEXT

- ❖ Good health indicators ( life expectancy in good health conditions)
- ❖ Good healthcare coverage, but
 - ❖ Reduced rates of universal coverage & equity (-13,4 % = 8,1 mln);
 - ❖ Increasing waiting list
- ❖ Economic sustainability of Italian health Service
 - ❖ Insufficient capacity of investments
 - ❖ Increased costs on new technologies, drugs and medical devices
 - ❖ Block of public fundings
 - ❖ Disparity between the services provided in the different Regions
 - ❖ Increasing number of people who forego the treatments
 - ❖ Increasing out-pocket health spending (+9% from 2013 to 2018)

THE REGIONAL CONTEXT - LAZIO

- ❖ A big debt burden for Health Care
- ❖ The Commissioner for the Regional government
- ❖ The aid package
- ❖ The hiring freeze
- ❖ The budget squeeze on Hospitals
- ❖ The spending cuts on pharmaceuticals
- ❖ Increased controls and economic sanctions on inappropriate admissions



201

Net loss
€ -100.000.000

1

2012

First Change
management

The slimming
diet

201

Second Change
management.
The birth of the
Foundation
Gemelli

5

201

Third Change
management
Foundation
Gemelli-
IRCCS

8

201

Next projects

9

The steps of our route

2011 Problems



Relationship problems with regional health authority

No financial agreement.



New standards in hospital bed equipment

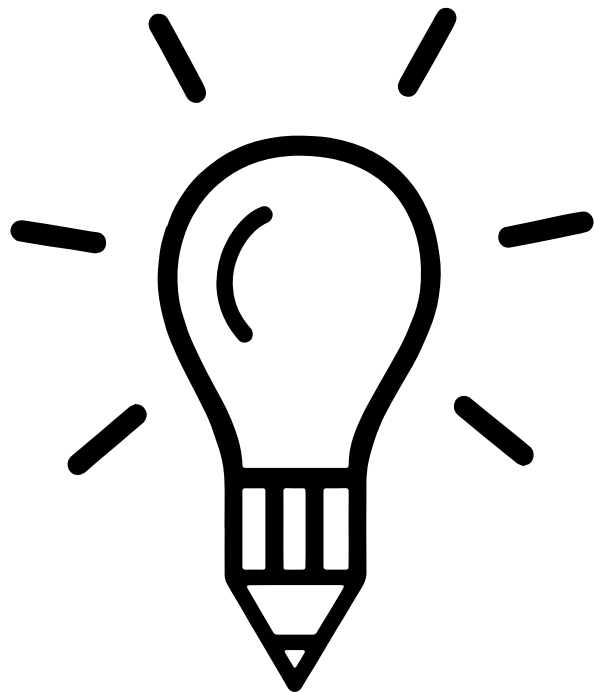
Gemelli had to reduce 100 beds.



Rigid organization & management

Gemelli had to reduce costs

Strategic Plan 2012-2016



01 Increase efficiency & appropriateness in performing

hospital activities

02 Develop Gemelli recovery plan in the regional, national & international context.

03 Develop revenues from private activities .

04 Develop the bridge between research and healthcare .

THE HR COST CUTTING MEASURES (2012-2014)



- Include reduction of the duration of seasonal contracts equivalent to 25 FTE
- Breakdown 5/10% of severance pay on the exit year; 90 % the following year)

**FTE
Aggregate**

100

36

75

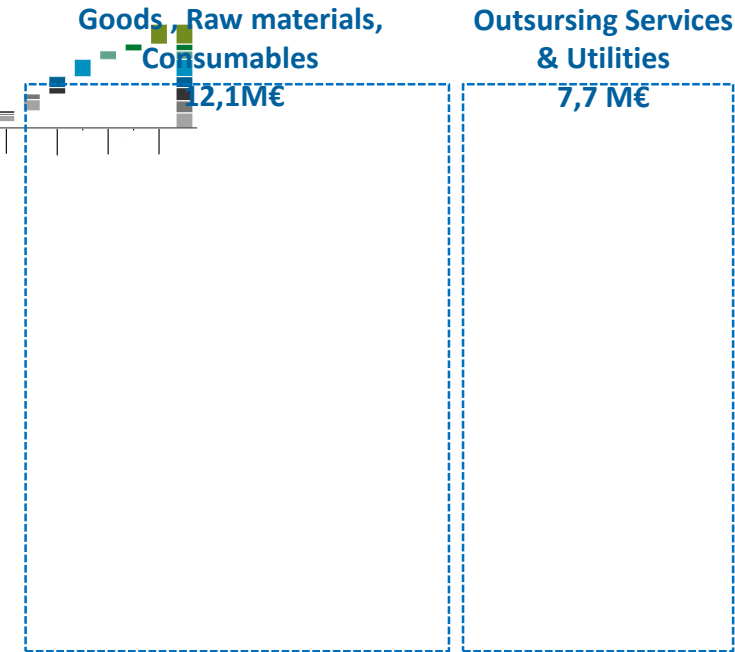
190

88

At the end in 2015 saving for € 29,5 M

**Results at the end of actions: Cutting staff (490 fte units)
Saving € 30 M**

OTHER COST CUTTING MEASURES (2012-2014)



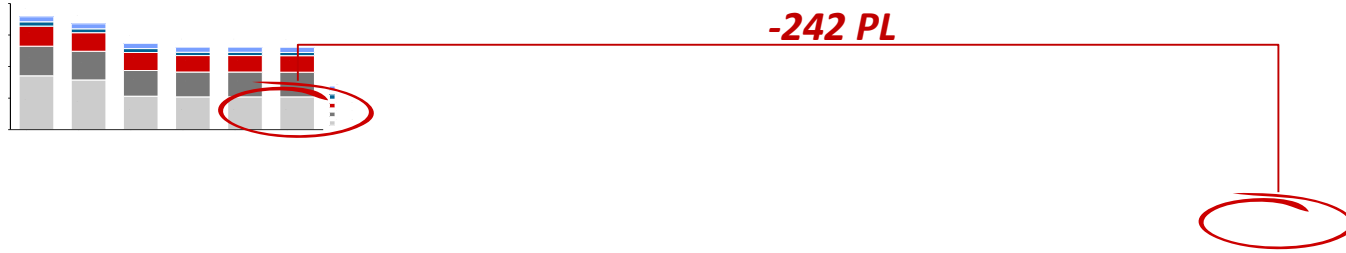
<u>Cost items</u>	<u>Costs 2011 (M€)</u>	<u>Impact of intervention</u>
• Renting, leasing	61	8%
• Energy & water	14	11%
• Maintenance	18	11%
• Outsourcing	28	15%
• Chemicals	12	22%
• Purchasing	16	19%
• Medical devices	11	26%
• Pharmacy (except File F)	56	7%
	211	12%



Pharmacy provides the medical supplies;
Purchasing provides Oxygen, Laboratory & Trasfusional materials

**Results at the end of measures : Saving € 25 M on external costs
(reduction of 12%)**

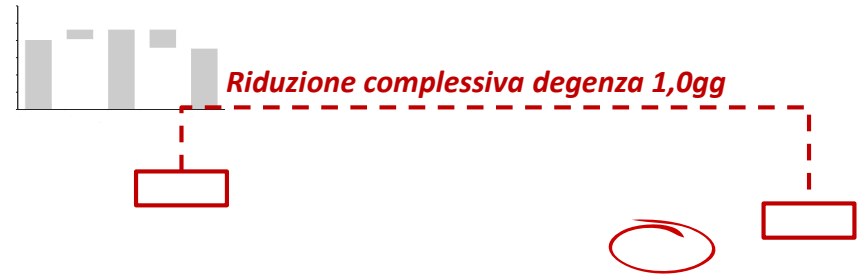
Hospital Bed Equipement Gemelli + Columbus
2011-2016



Cut 240 hospital bed in 5 years , 205 inpatients and 35 day hospital

TARGET: REDUCE 240 BED WITHOUT NEGATIVE IMPACT

- Improving the appropriateness of hospital treatment: Shifting from inpatient to outpatient treatment and day hospital
- Enhancing the hospitalization efficiency for reducing the average length stay:
 - Reducing pre-op stay;
 - Reducing waiting time of radiological examinations;
 - Discharging and moving patients who need long term care;



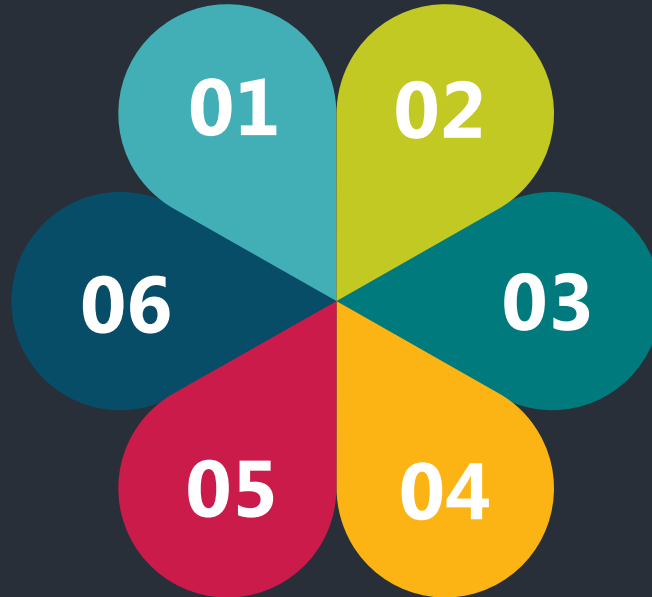
Enhancing performances for reducing the average length stay of one day (-1,0)

The new hospital organization

01 Cancer Hub

02 Emergency Hub

03 Women Hub



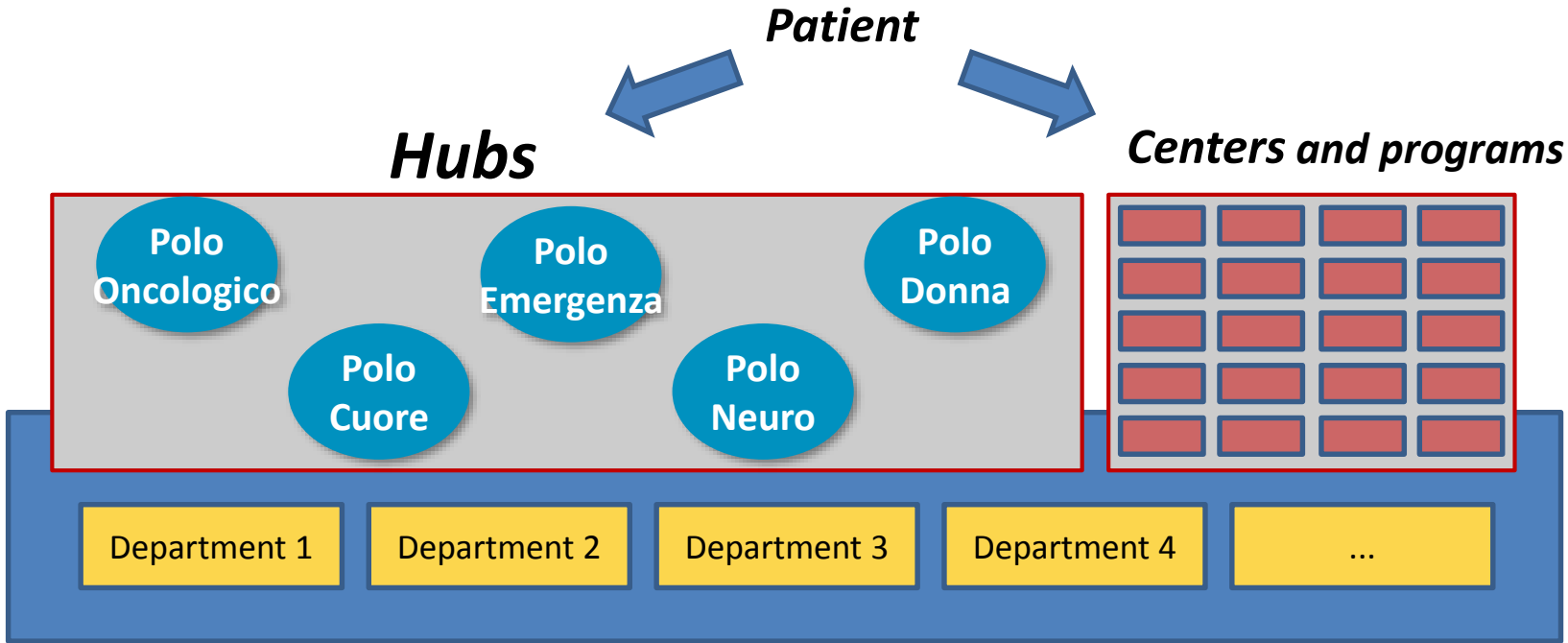
04 Cardiovascular Hub

05 Neurological Hub

06 Departments
Programs
Centers
Pathways

Hubs and Centers/Programs

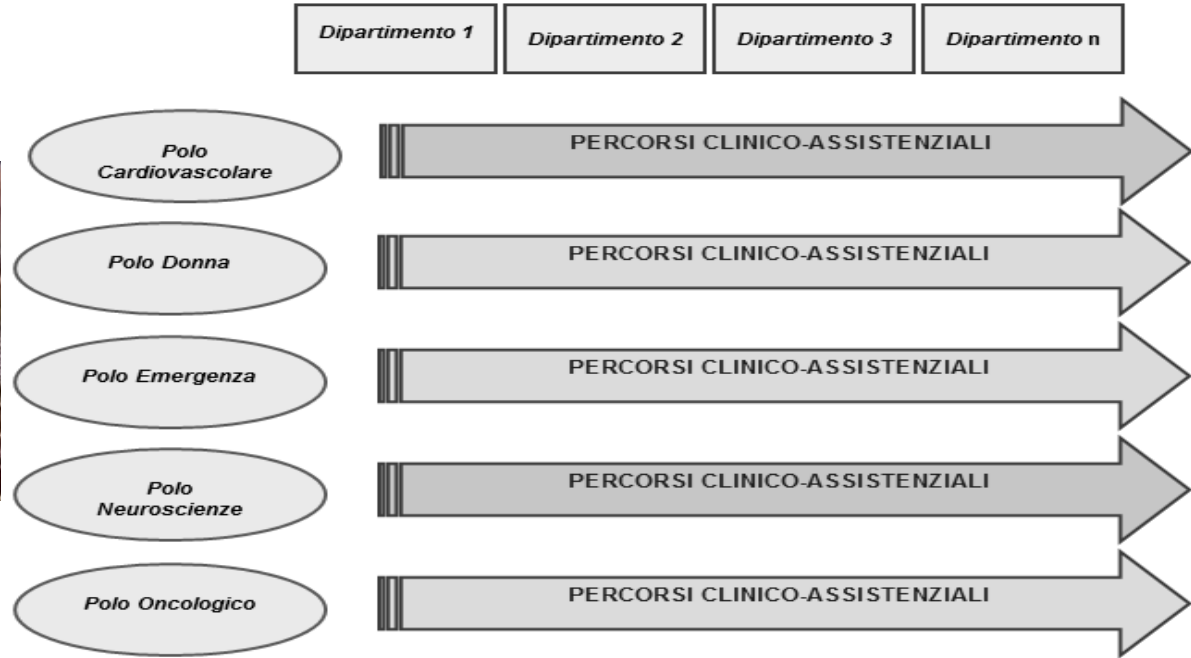
the interfaces between hospital organization and patients



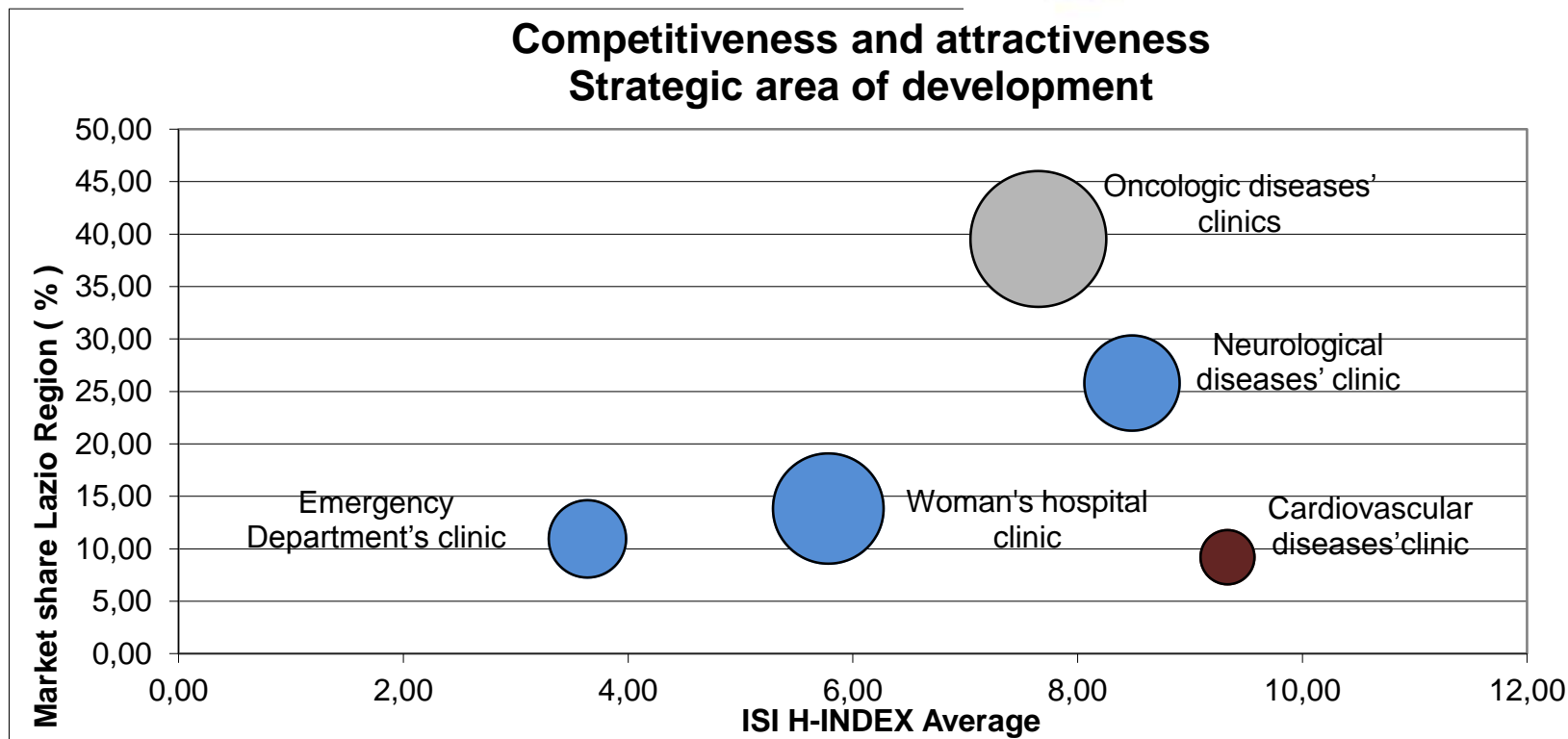
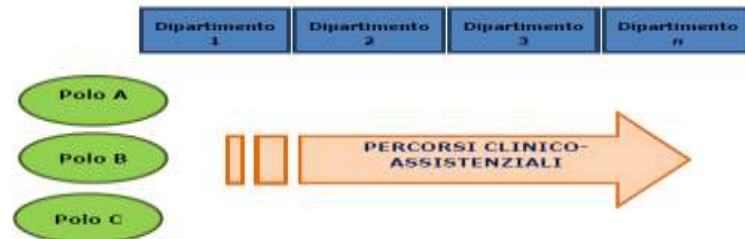
Departments

Management of the academic staff according to the teaching classes

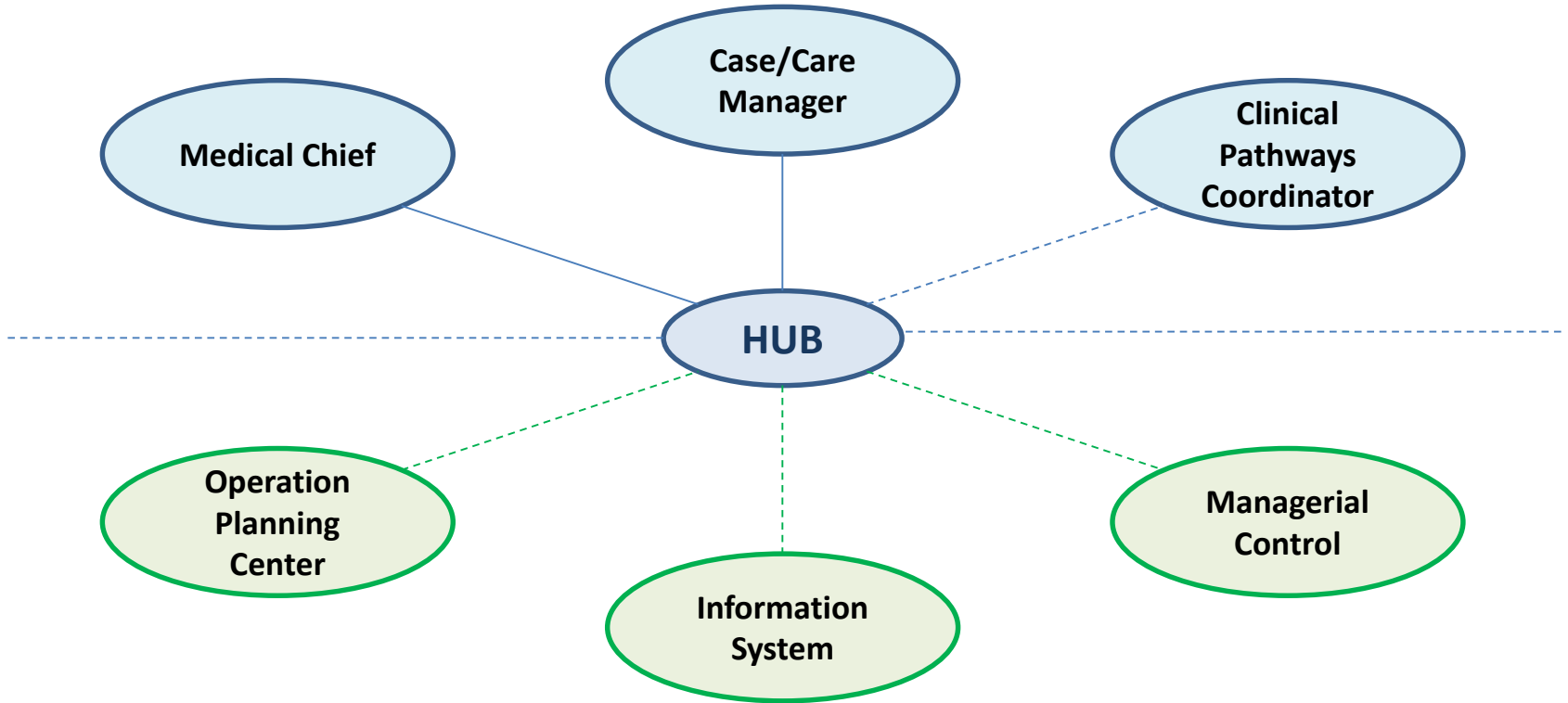
Policlinico A. Gemelli – 5 Hubs



Policlinico "Agostino Gemelli" Strategic Evolution 2012-2016

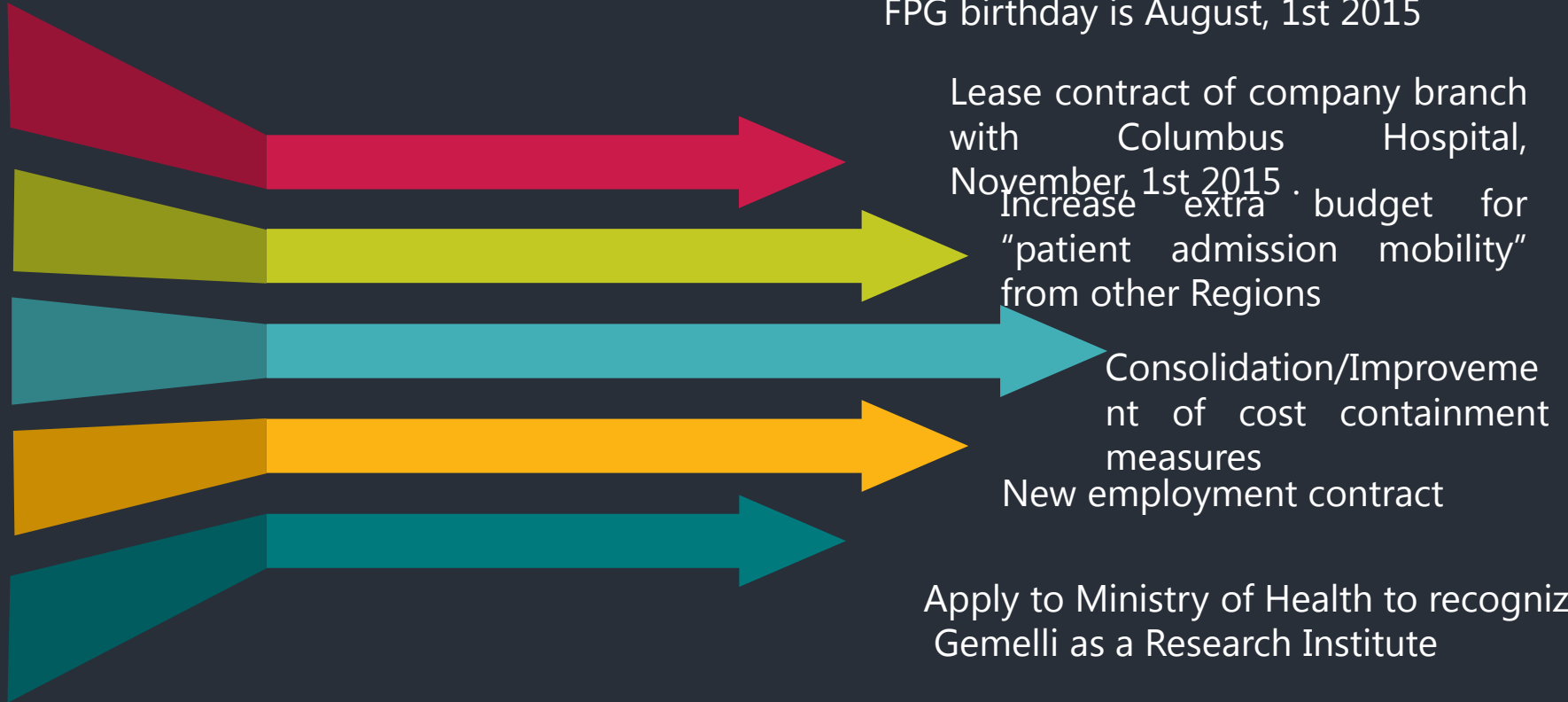


Hub Tools



Gemelli Foundation Strategy 2015-19

FPG birthday is August, 1st 2015





Our Mission

Care as a value

LOOKING TO THE FUTURE VISION 2021

- TO ESTABLISH AS A POLE OF EXCELLENCE IN ATTRACTING PATIENTS & PROFESSIONALS
- COMMITTING ONESELF TO BEING A HOSPITAL AT THE SERVICE OF EVERYONE WHO CARE FOR PEOPLES AND JUST NOT THEIR ILLNESSES

Award

IN MARCH 2018



POLICLINICO GEMELLI FOUNDATION WAS
AWARDED AS

ISTITUTE OF SCIENTIFIC CHARACTERIZATION &
TREATMENT (IRCCS)

FOR “PERSONALIZED MEDICINE” AND
“INNOVATIVE BIOTECHNOLOGIES”

ROUTE TO IRCCS

- August 2015** **Fondazione Policlinico Universitario Agostino Gemelli IRCCS officially and fully takes over the management of the Foundation.**
By becoming a Foundation, the Gemelli acquires the necessary autonomy to manage its ever-increasing complexity and to better face the challenges imposed by an evolving healthcare context.
- November 2015** **Fondazione Policlinico Universitario Agostino Gemelli IRCCS rents the CIC Company attributable to the Association Columbus.**
This one, hit by a phase of serious corporate crisis, in order to guarantee the continuity of employment and to rationalize the health services offered.
- January 2016** **The Pediatric Emergency Department was inaugurated**
An integral part of the new DEA and Emergency Department of Gemelli, which covers a total of 3,100 m2 and a point of reference not only for the territory of Rome and the Province but, also, for the whole regional and extra-regional territory, putting at the service of the little patients all the skills and technologies for the management of all cases of pediatric emergency.
- February 2017** **Presentation of the Gemelli ART (Advanced Radiation Therapy)**
The Advanced Oncological Radiotherapy Center, which currently has unique technologies and equipment in Europe and among the few in the world of this complexity, is a technological center for the fight against cancer that has no equal in Europe.
- May 2017** **The new Cardiac Surgery Intensive Therapy is operational**
For greater safety towards patients suffering from important cardiovascular pathologies that need heart operations, thanks to a better organization of beds and thanks to innovative technologies.
- July 2017** **Qatar Foundation Endowment (QFE) and Policlinico Universitario A. Gemelli IRCCS announce the signing of a joint venture for Mater Olbia in Olbia, in Sardinia**
The Hospital, acquired by QFE through the European investment platform in May 2015, has been the subject of considerable structural and technological interventions in these two years that led to the definition of the structure of the new hospital in Olbia.
- August 2017** **Principia SGR joins the capital of Clinical Trial Center SpA**
Principia SGR, through the Principia III Fund - Health has entered with a 35% stake in the capital of Clinical Trial Center SpA, a spin off of the Fondazione Policlinico Universitario Agostino Gemelli IRCCS. The objective is to support the development and growth of the Clinical Trial Center business unit within the Foundation itself.
- November 2017** **CEMAD is born**
The CEMAD (Centro Malattie Apparato Digerente - Digestive Disease Center) is the new center for the diagnosis, treatment and prevention of diseases of the digestive system, made possible thanks to the precious support of Fondazione Roma.
- February 2018** **Fondazione Policlinico Universitario Agostino Gemelli is an IRCCS**
The Minister of Health Beatrice Lorenzin signed the decree of recognition of the scientific character of the Foundation for the disciplines "Personalized Medicine" and "Innovative Biotechnologies".
- September 2018** **Fondazione Giovanni Paolo II of Campobasso enters the welfare network of the Policlinico Universitario A. Gemelli IRCCS in Rome**
The integration with the Policlinico Universitario A. Gemelli IRCCS will further improve the quality of services offered to the Molise territory and to neighbouring regions and to achieve significant synergies in sharing common services.

ASSET

Fondazione Policlinico Universitario Agostino Gemelli IRCCS is organized in two hospital units: **Policlinico Gemelli** and **Columbus**.



241 Units of which
85 Complex Operating Units,
124 Simple Operating Units and
32 Simple Operating Area Units.

7
Departments

20
Areas

GEMELLI IN NUMBERS*

*Reference to calendar year 2018



1.526

Total beds



94.919

Total discharged



about **400**

Transplants performed
(kidney, liver, cornea
and bone marrow)



82.076

Access to the Emergency
Department



4.110

Babies born



53.701

Surgical procedures



10.514.533

Outpatient services



167.386

Internal Private Practice
Outpatient services
performed at the Foundation's
ambulatories



1.200.000

Website visits at
policlinicogemelli.it



5.322

Number of employees



over **40**

No Profit Organizations
operating within the Gemelli



62.138

Hours of training
enjoyed by staff



17,7%

Percentage of opposition
to organ donation



2.500

Scientific publications



171.297

Online reports



1.495.221

Meals provided
to patients and staff

VALUE PRODUCTION

Determination of added value*	31/12/18	31/12/17
Value of production and other revenue	671.108	668.504
Intermediate costs of production		
Consumption	-173.580	-173.373
Services	-82.602	-83.114
Third party fruition	-6.919	-6.895
Different management fees	-1.272	-750
Gross characteristic added value	406.736	404.372
Accessory and extraordinary components		
Extraordinary income / expenses	134	11.499
Gross global added value	406.870	415.871
Depreciation and write-downs	-43.672	-43.388
Total net added value	363.198	372.483

During 2018, due to the lower incidence of extraordinary components compared to 2017, the Net Added Value decreased by approximately 2.5%, going from € mil. 372 to € mil. 363.

The allocation of value added was mainly directed to remuneration of personnel costs (substantially in line with the previous year) and of the Public Administration (for Value Added Tax paid on the purchase of goods and services).

There was a reduction in the contribution to the Public Administration compared to 2017 due to the lower impact of IRAP following the redevelopment of the Foundation's tax status in previous years.

A slight decrease is also seen in the remuneration of the loan capital, deriving from the reduction of the total debt during 2018.

Allocation of added value*	31/12/18	31/12/17	Var%
Staff remuneration	321.683	320.299	0,4%
Remuneration of the Public Administration	30.831	41.608	-25,9%
Remuneration of credit capital	8.956	9.103	-1,6%
Remuneration of the Community / Environment	933	4.403	-78,8%
Net Result	795	-2.930	-127,1%
Total	363.198	372.483	-2,5%

The remuneration of the community and the environment, down compared to 2017, includes the donations made and the effects on the environment of eco-sustainable initiatives produced by identifying the associated costs.

The Net result, which represents the financial statement result, shows an operating profit of € mil. 0.8.

* in thousand of €

CLINICAL ACTIVITY HIGHLIGHTS



81,5%

Ordinary stay in acute patients Region



18,5%

Ordinary stay in acute patients Extra Region

88,4%

Occupation Rate (Patients discharged, OS)



91%

Ordinary stay in acute patients SSN



9%

Ordinary stay in acute patients out of SSN



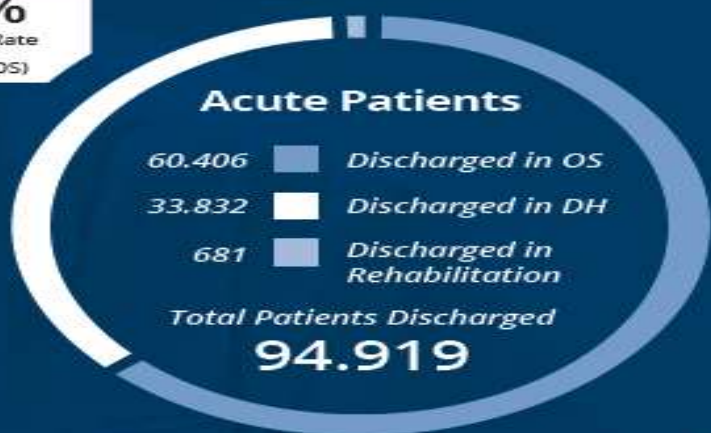
7,5

Average length of ordinary stay (days)



1.526

Total beds



Surgical procedures

53.701



Outpatient services



63%

INTERNAL

6.653.321

37%

EXTERNAL

3.861.212

of which

20%

NO SSN

RESEARCH



1.157

Number of Researchers
and Clinicians




11.125.475 €

Total Value of research
Gemelli's projects



2.500

Number of Scientific Publications
per year



With the official recognition of its scientific character by the Italian Ministry of Health, the research activity at Fondazione Policlinico Universitario Agostino Gemelli IRCCS (Istituto di Ricovero e Cura a Carattere Scientifico) becomes a powerful source of innovation, primarily devoted to improve patient's quality of life and care and, more generally, to the general growth of the national and international bio-medical knowledge. The results produced by the cutting-edge research carried out confirm Gemelli researchers as renown lead scientists in the frontier areas of the Medicine of Complexity, particularly on Personalized Medicine and Innovative Biotechnology as the two main disciplines for which the Gemelli Hospital is now a recognised reference site.

THE IRCCS RESEARCH: THE RESEARCH LINES

The “research hospital” status (IRCCS) was given to the Policlinico Universitario A. Gemelli IRCCS for two research disciplines (“Personalized Medicine”, “Innovative Biotechnologies”) that represent today the most innovative frontier of medical science, and they are also those that have a greater impact not only with respect to care but also - and above all - with respect to prevention. In fact, Biomedical Research has evolved towards approaches oriented to unravel the intrinsic complexity of the transition from a state of “health” to that of “disease”. The Gemelli is a reference actor in these fields that belong to the Medicine of Complexity, and is developing its own activity through 7 specific research lines.

- 1 **Translational Research in Personalized Medicine of Complex Chronic Diseases**
- 2 **Clinical Research in Personalized Medicine of Complex Chronic Diseases**
- 3 **Sustainability of Personalized and Predictive Medicine in the National Health System**
- 4 **Innovative and predictive approaches in the elderly subject**
- 5 **New frontiers of innovation in health technologies and development of medical surgical devices**
- 6 **Innovative and personalized approaches in the science of women's and children's health**
- 7 **Innovative biotechnologies and personalization paths in diagnostic and intensive therapy for acute pathologies**

THE IRCCS RESEARCH CHAIN

Complex chronic diseases (Chronic Non-Communicable Diseases) constitute the focus of the research activity of the Policlinico Universitario A. Gemelli IRCCS. In particular, there are 8 Major Disease Categories (*infographics 1*) identified as pivotal of the Research activities as they are more representative of the Foundation in healthcare services in terms of volumes and excellence in health services. The Scientific Direction has initiated a process of implementation of the factors enabling

research in the disciplines of Personalized Medicine and Innovative Biotechnologies (recognition disciplines) which will guarantee full support to the Researcher by streamlining administrative procedures, drafting policy documents and standard operating procedures (SOPs) for studies clinical, enhancing and organizing the technology park in centralized and certified core facilities. This process will ensure that the synergy between the Gemelli care pathways and the Research activities is fully and mutually enhanced.



THE ETHICS COMMITTEE

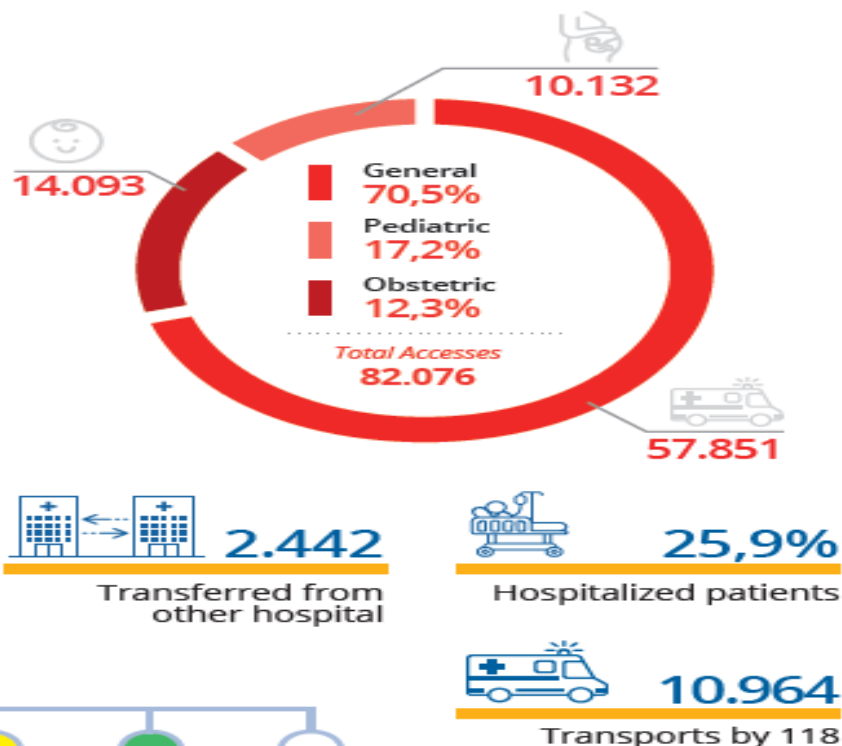
EMERGENCY DEPARTMENT

The Gemelli Emergency Department, with over 200 accesses every day, responds to the emergency and urgent needs of an area of over 1.5 million inhabitants, who find a 24-hour service here thanks to the presence of a team of four emergency doctors, an orthopedist, a pediatrician, a gynecologist and two radiologists. Neurological consultants, neurosurgeons and otolaryngologists are also available on an ongoing basis, as well as - in the 12 daylight hours - ophthalmologist consultants. At the Emergency Department the first medical and surgical treatments are given to cases of emergency and urgency, the necessary interventions for reanimation and stabilization of the critical patient are carried out, and the necessary tests are carried out to assess the actual severity of the case.

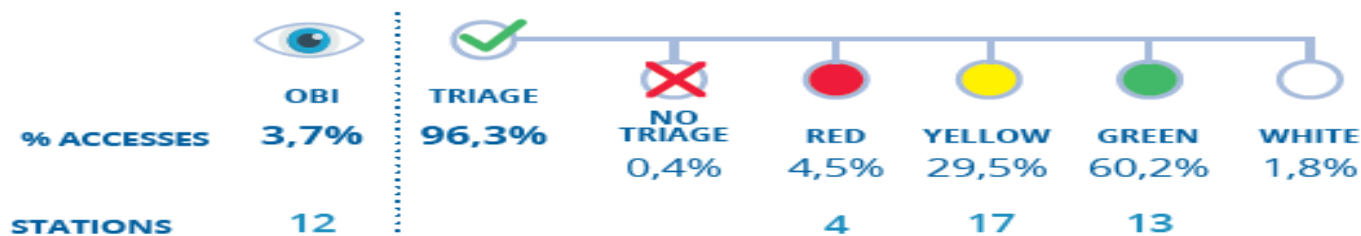
In 2015, the service was completely reorganized, going beyond the traditional concept of the visiting room. The new organizational and architectural model has been designed according to the criterion of intensity of care, which allows patients to be "separated", requiring greater intensity of treatment from others, thus achieving a situation of greater safety and comfort.

The Gemelli Emergency Department - equipped with a heliport active 24 hours a day, which allows the transport by helicopter of major traumatological and medical-surgical emergencies - is DEA (Department of Emergency and Acceptance) of II level, and is the reference for 7 Level I DEA and 6 emergency principals.

Accesses to the Emergency Department



Percentages of Accesses to the Emergency Department and Stations





PRONTO SOCCORSO
POLICLINICO AGOSTINO GEMELLI

TRANSPLANTS

The transplant activity continues to be a flagship for the Foundation. There are 4 Complex Operative Units in which transplantation activities take place: the COU of General Surgery and Liver Transplantation, the Kidney Transplantation COU, the COU of Hematology and Hematopoietic Stem Cell Transplantation and the COU of Ophthalmology.

Specifically, the bone marrow transplant activity, started since 1988, is accredited according to current legislation and complies with the GITMO (Italian Bone Marrow Transplantation Group), EBMT (European Blood and Marrow Transplantation group) and JACIE (Joint Accreditation Committee regulations ISCT & EBMT). The activity covers all types of hematopoietic stem cell transplants from the simplest, such as autologous transplantation (the patient receives, after high-dose chemotherapy, his own cells that were taken from the marrow and then temporarily cryopreserved) to the most complex, such as allogeneic transplantation from an unfamiliar donor that can be performed with hematopoietic stem cells taken from bone marrow or peripheral blood via apheresis or from cryopreserved umbilical cord blood. To date, more than 1.000 transplants have been performed.

In 2018, 66 kidney transplants were performed, considering deceased donor transplants (47) and living donor transplants (19), which lead to more than 1300 kidney transplants performed at Gemelli. In particular, the living donor kidney transplant activity in 2018, with the 19 transplants performed, places the Foundation in 3rd place in Italy, after the Padua and Turin centers, and in 1st place in the Central South. This result is explained by the organizational and innovative effort made in recent years, to offer to the patients with chronic renal failure, modern models of kidney transplantation that are not widespread elsewhere, such as incompatible living ABO donor transplantation, living donor cross-transplantation between hyperimmune couples and preemptive living donor transplantation, ie before entering dialysis.

Corneal transplant surgery is one of the flagships of the Eye Clinic of the Fondazione Policlinico Universitario Agostino Gemelli IRCCS. The Institute performs all types of corneal perforating transplantation, anterior lamellar, posterior lamellar. In the three-year period from 2015 to 2018 it was possible to increase progressively the number of transplants performed at the Ophthalmology Clinic year after year, which turn out to be 405. It underlines as excellence the "DMEK" posterior lamellar transplant for which the group is positioned as Pilot in Italy with original techniques and lots of demonstrative surgery in "direct", presentations at national and international congresses.

Transplants in numbers



66

Kidney transplants

(47 from deceased donor, 19 from living donor)



33

Liver transplants



129

Corneal transplants



81

Autologues

81

**Allogeneic
between blood related
and non-blood related**



72

Beds dedicated to transplants

ONCOLOGY AT THE GEMELLI

The Gemelli, since its establishment in 1964, has always devoted a pioneering attention to Oncology and over the years has developed an integrated network of reception, diagnosis, therapy and rehabilitation services, fielding a continuous capacity for innovation. Always aware that assistance to these patients does not only concern the management of the cure of the disease, but requires a "global management", aimed at recognizing and alleviating psychological and relational problems, which can influence the therapeutic course.

Comprehensive Cancer Center

Starting from this philosophy of approach, which is declined in the avant-garde activity of medical oncology, surgery, interventional radiology and radiotherapy, the Gemelli deploys the Comprehensive Cancer Center to structure all the structures even more organically who carry out oncological activities within the Foundation, reinforcing the principle of taking charge globally throughout the patient's clinical-assistance pathway, through staff with integrated skills, professional figures (such as psycho-oncologist, nutritionist etc.),

reception programs and humanization of care.

The Comprehensive Cancer Center of the Fondazione Policlinico Universitario Agostino Gemelli IRCCS will be the site of a structured basic and translational research on cancer conjugated with an integrated portfolio of services and performances that cover the entire clinical-assistance pathway of the patient. Clinical-assistance pathways specific to each disease are currently in place for cancer patients, favouring complete integration between the various specialists, according to a patient-centered multidisciplinary approach.

The coordinated activity with all the Foundation structures allows to offer a global response to the patients' health demand, making use of the most advanced equipment, useful both in the diagnostic phase (latest generation multi-layer CT, PET-CT) and in the therapeutic phase (three-dimensional conformal radiotherapy, intensity modulated radiotherapy and stereotactic radiotherapy, increasingly personalized drugs and treatments on the molecular target).

The management of the patient is taken in charge by the Tumor Boards, multidisciplinary and multi-professional groups that jointly discuss the individual cases to make joint decisions, establishing the best diagnostic and therapeutic course. Continuous research is a fundamental component of this holistic approach to the patient and his needs.

The numbers of Oncology



about
50.000

Cancer patients treated
each year



over
22.000

Hospitalizations



over
1.000.000

Outpatient services

PRIVATE PRACTICE



 **167.386**

Internal outpatient services performed at the Foundation clinics

 **over 750**

Doctors engaged in private outpatient activities

 **79**

Beds

 **52**


Outpatient specialties ALPI - Foundation

 **28.000**

Monthly calls to the call center 06-8881 8881

 **101**
71

Check-up (April-December 2018)

 **Gemelli's Private Practice** is aimed at both patients who pay for their own services and those who are covered by supplementary health funds and insurance (there are 34 active agreements). The offer of services structured by the Foundation for patients who choose to access private services has grown over the course of 2018: a wide range of outpatient, surgical and hospitalization activities that allow the patient to resort to services by choosing the professional who he will follow him in his care path.

<http://privato.policlinicogemelli.it>

 **about 34.000**

Website visits in 2018

 **+13,3%**

Increase in visits to the website since the previous year

In addition to the classic diagnostic or therapeutic services, the proposal of the Private Practice is organized in Prevention and Health Packages, in structured outpatient pathways that allows you to have a complete, multidisciplinary and personalized picture relating to a specific health problem.

Packages can have the preventive purpose of providing a general picture of health even in the absence of symptoms (general check-ups for men and women, dermatological check-up for control of moles, pediatric cardiology package, etc.), or be aimed at identifying a complete diagnosis around a single health problem (diabetes, osteoporosis, thyroiditis, liver disease, menopause, recurrent spontaneous abortions, keratoconus, rhinopathy).

There are also packages related to nutrition (intolerances and malabsorption, lifestyle, eating disorders) and for patients who are candidates for surgery (diagnostic procedures for refractive surgery and for patients who are candidates for bariatric surgery).

In total, there are 14 active Packages, which cover an important part of the most significant health needs, across the different age and gender groups.



PUNTO GEMELLI - SAN BASILIO

By 2019 the first "external" first-level outpatient point dedicated to diagnostic health activities, not in the SSN agreement, will open its doors to the public, covering an area of about 500 square meters which will have its own authorization for the exercise of health private practice in the district San Basilio.

At the end of 2018 the company Gemelli a Casa s.p.a. (GAC) has been established, the result of collaboration between the Foundation (50%) and OSA Cooperativa sociale (50%), one of the main Italian operators in the field of integrated home care.

The aim is to offer highly qualified social and health services according to a model of global and integrated management directly at home.

The multidisciplinary team will assess the complex needs of patients with the aim of identifying an adequate care plan and monitoring it over time; this will also be possible for hospitalized patients, to guarantee continuity of care.



TECHNOLOGICAL AND INFRASTRUCTURE INNOVATION



From the hybrid cardiac surgery room, a unicum at European level that allows the execution of minimally invasive and hybrid procedures, guaranteeing a wide range of therapeutic solutions tailored to each type of patient, to the “network” of intensive care, the Foundation is growing as a hospital that makes technological progress a tool of care but also of spreading an increasingly advanced medical culture, even on the research front. This requires continuous investment in know-how and dedicated structures, which make Gemelli a continuous yard of innovation.



The Gemelli Advanced Radiotherapy Center (GemelliART) has been confirmed as an international reference institution in radiation oncology after the installation in

www.gemelliart.it

December 2018 of the MRIdian technology, an advanced hybrid delivery unit that couples magnetic resonance imaging with radiotherapy.

In addition to the areas dedicated to therapies, the cutting-edge technologies and research laboratories, the Center offers training spaces for doctors and operators and places for information or listening to cancer patients, which make it one of the most accredited European institutions in cancer care.

The Gemelli ART offers to its patients the most advanced clinical assistance and therapeutic possibilities, providing innovative technologies both in outpatient and inpatient settings.

Highly specialized treatments are offered through modern radiation therapy techniques, which combine imaging with radiation delivery and guarantee extreme precision, treatment personalization, organ and function preservation, achieving greater opportunities of cure.

The high level of innovation and the number of technological solutions available at the Gemelli ART allow a very high standard of service, which goes from the reduction of waiting times to the possibility of extremely versatile personalization of patient's treatment times, according to his needs. The large majority of the patients was followed in a multidisciplinary context, discussing the situation of each patient in dedicated meetings involving various specialists in order to propose the treatment strategy that fitted best to the specific clinical situation and to help patients in taking the most appropriate decisions for their needs.



Gemelli ART in numbers



35.000

Radiotherapy fractions



14.000

IMRT fractions
(Intensity Modulated RadioTherapy)



about
400

Interventional oncology procedures



about
19.000

Radiotherapy visits

QUALITY OF CARE

Also for 2018, the indicators of evaluation of care performance are based on the quality monitoring system of Italian hospital structures, implemented through the AGENAS National Outcome Program (PNE).

In this way it is possible to compare the care quality of the professionals within the Foundation with the teams of the best Italian hospitals. The Treemap is the instrument used by the PNE to represent the hospital performance in a chromatic way. To date, the last Treemap available is the one for 2016 (Figure alongside: the best performances are in green), which recorded a substantial improvement in Gemelli's performance compared to the previous year. However, this system complains of a significant time delay: in 2018, the data for 2016 is still available at national level. This does not help to represent the current situation and, above all, does not allow for timely action to improve the quality of assistance.

For this reason, in 2018, together with the Sanitary Direction and the ICT Department, the "Clinical Outcome Trails and Evaluation" Unit developed a monitoring system that, on a quarterly basis, reports internally the trend of the main PNE indicators of the Foundation and compares them with the expected assistance standards. This system, based on protocols validated at national level, allows, therefore, to monitor in real time the performance of the areas and the main routes assistance, promptly highlighting

situations worthy of improvement, in a perspective of constant pursuit of the best care for our clients. This, also according to what is foreseen by the assistance standards to be guaranteed with the recent recognition of the Foundation as IRCCS.

Treemap: quality indicators by clinical area

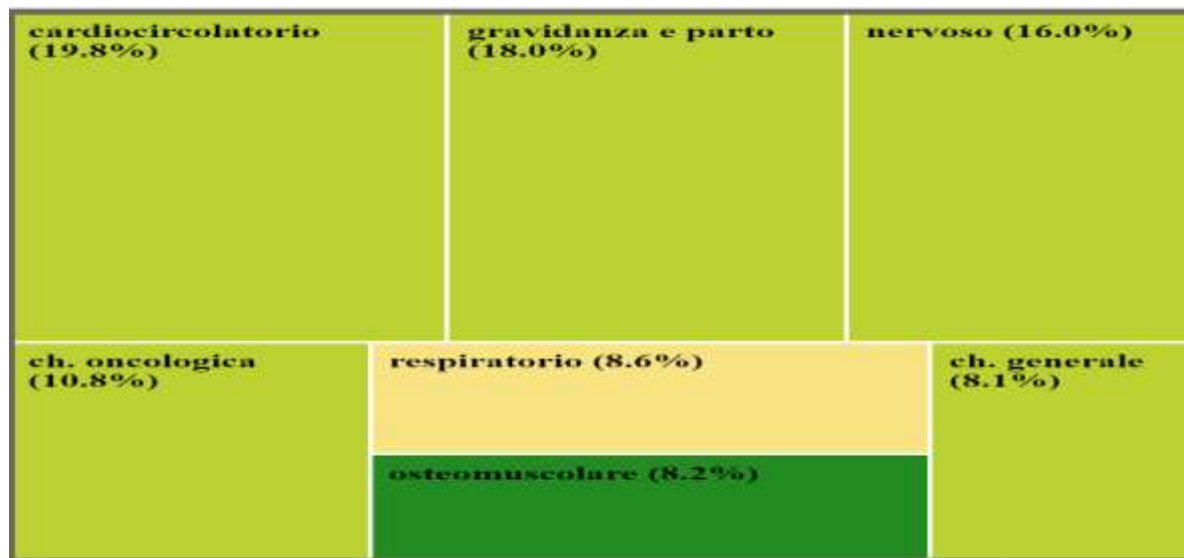


**Joint Commission
International
Accreditation Process**

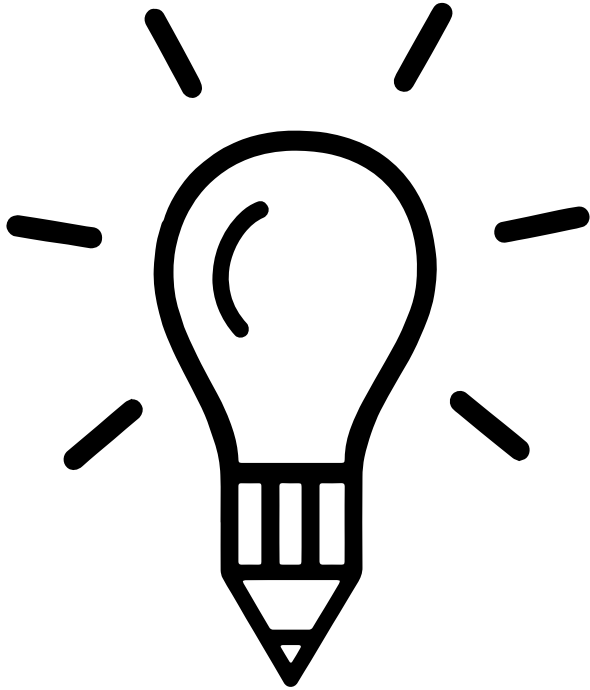


Policlinico Universitario A. Gemelli IRCCS has chosen to adopt the Joint Commission International model by 2020 and pursue the recognition of accreditation in order to strengthen and make systematic the continuous improvement of the quality of services. The Joint Commission International (JCI) is one of the largest and most prestigious accrediting bodies in the world and the voluntary accreditation process ensures that a health organization respects specific standards in terms of quality and safety, with a "transversal" application in every area.

TREEMAP - GEMELLI



Strategic Plan 2018-2021



01 Consolidate the achieved results

02 Enhance the economic performance

03 Improve the operational and managerial processes

04 New strategic Projects

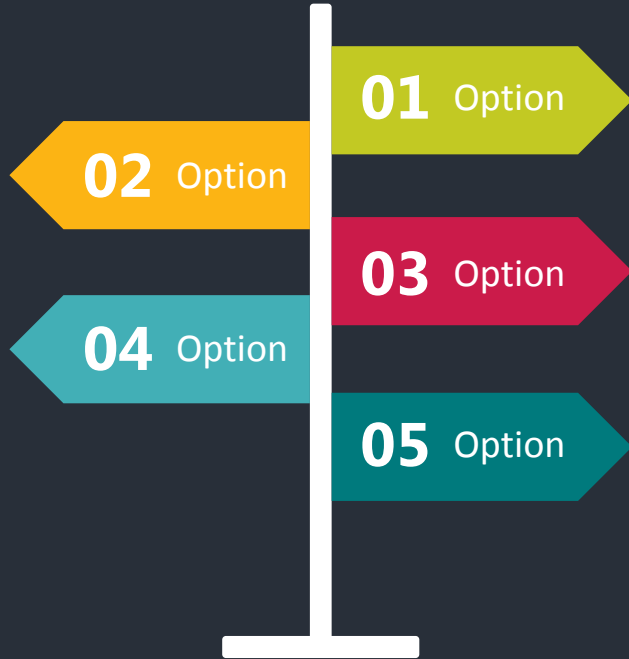
Goals



- 01** Increase revenues of hospital activity
- 02** Achieve a sustainable growth
- 03** Improve EBIT
Increase Net Worth
Improve Net Financial Position



Growth Perspective



01 Network Gemelli

02 New Aquisitions

03 Joint Commission Accreditation

04 Increase private revenues

05 New generations of Clinical leaders

THE GREAT PROJECTS OF TOMORROW

2018 was a year of "incubation" for two major projects that will give a fundamental contribution to the Foundation, both on the medical-assistance front and in the field of research and training, a characterizing trait of Gemellii from the beginning.

New building for Sanitary, University and Research Activities

The new building will be the result of the fusion of the needs of the Health and University Area: the laying of the first stone will take place in 2020. It is an important work, also in terms of size, with an area of almost 30 thousand square meters, which responds to a logic of integration between research, training and assistance according to a patient-centered organizational model.

Floors for health activities (from 4th to 10th) will host outpatient, day hospital and hospitalization spaces, with double or single rooms for 170/200 total beds. From the architectural point of view, the introduction of "light wells" - windowed modules placed in the side plugs - which allow natural light to filter through and the creation of a reception point at the entrance of each hospital ward humanize the spaces, for the benefit of patients and their families. The building will also house a new University area (from floor 0 to level 3), with the unification and reorganization of the Biological Institutes Laboratories and with new spaces for the Departments.

New Ambulatory Hub

The second major project in the pipeline involves the construction of a new outpatient hub at the Healthcare Residence of Protected Hospitality. The project, which will cover an area of over 2.500 square meters, provides for the definition of a reception area, with a central reception on the entrance level and waiting areas, as well as additional reception and waiting points provided for in each floor; 7 front office positions and 3 administrative offices; 38 outpatient clinics, one of which is for withdrawals, a radiological area (MRI and CT) and a radiological section with mammograph and ultrasound scanners.



PARTICIPATIONS



By putting its excellence to value, and by structuring itself to face the national and international markets in a competitive way, in recent years the Foundation has accompanied the development of some successful spin-offs in different areas. Taking advantage of the vocation gained over the years in combining scientific research and practical application. With an ongoing focus on sustainability and long-term project strategy.



The second year of activity of Clinical Trial Center SpA, a company controlled by the Fondazione Policlinico Universitario Agostino Gemelli IRCCS and owned by Principia SGR, represents the first "full" year of activity of the new spin-off with the achievement of important results in conducting clinical trials for profit.

The contacts initiated with the pharmaceutical companies, together with a strong involvement of the Foundation's investigators, have led to an increase in the number of new studies launched and, consequently, of the activity in support of the Ethics Committee.

The attraction of new studies, together with the significant improvement in performance, with particular regard to the clinical areas related to child and women's health, gastroenterology, neuroscience, medical oncology and hematology, have led to an increase in turnover compared to the previous year, for a total value of 2018 over 6 million euros. These results, achieved thanks to the contribution of the experimenters and all the internal structures of the Foundation, provide a representation of the ever increasing attention of the Foundation and all its operators towards the new frontiers of clinical research, also in light of the recent recognition as IRCCS, and will be the basis for the development of new collaborations with pharmaceutical and healthcare organizations for future years.



XBioGem - a company born from the partnership between the Policlinico Universitario A. Gemelli IRCCS and BioRep, a Sapio Group company specialized in cryopreservation services - provides laboratory and biological material storage services to public and private research institutes, guaranteeing the highest levels quality and safety. The high specialization, the avant-garde technologies available to the company and the standardization of the most advanced material sampling methods make XBioGem the reference

provider of biological samples and high-level laboratory services able to create and provide useful data for the success of scientific research.

In fact, one of the company's objectives is to structure and manage a biobank aimed at collecting, preserving and distributing human biological samples - and the related data assets - that can support research activities in the academic field, but also by developing paths collaboration with the pharmaceutical industry, the biotech industry, public and private health centers and laboratories.




Each person is different from the others due to the genetic characteristics that distinguish them. The specialists working at the Gemelli Health System (GHS), a company born within the Fondazione Policlinico Universitario Agostino Gemelli IRCCS, are well aware of this, dealing with personalized therapies obtained thanks to micronutrient mixtures.

Nutrigenomics and nutrigenetics are innovative and rapidly expanding sectors: GHS, also taking into account these evolving elements, is committed to implementing treatments with nutrient mixtures for rare diseases and particular patients, with increasingly personalized approaches that enhance the commitment of Gemelli, filling the gaps in the supply of micronutrients and macronutrients.

The idea of a company dedicated to Special Medical Foods (AFMS) stems from the implementation implemented by the specialists of the Gemelli of a European protocol, called ERAS, born with the intention of improving the patient's operative and post-operative course. The Gemelli doctors declined the ERAS protocol through nutrient mixtures (NutriCatt). A logical choice based on scientific evidence has therefore guided the choice to make available a line of Special Medical Foods able to respond to the concrete demand for well-being, which doctors collect daily from patients and their families. All the doctors of the Fondazione Policlinico Universitario Agostino Gemelli IRCCS were therefore invited to participate in this project.

THE NETWORK



The skills, operational processes, good clinical, welfare and management practices developed by the Foundation become models of development. Which allow Gemelli to "exit" from the historic Rome campus and feed other health experiences with its know-how. From Campobasso to the new structure in Olbia, a culture of care is spreading that is becoming a school. Laying the foundations for a possible network of relationships and collaborations that benefit a more and more extended audience of territories and communities.

GIOVANNI PAOLO II RESEARCH AND CARE FOUNDATION (CAMPOBASSO)



www.fgps.it

With its 130 beds and the recognized quality of specializations in the areas of oncology and cardiovascular diseases, the **Giovanni Paolo II Research And Care Foundation (FGP) of Campobasso** is an important health reference for the whole area of southern-oriental Italy: delivers excellent clinical-assistance activities as well as hosting nursing degree courses, medical radiology techniques for images and radiotherapy and physiotherapy of the Università Cattolica del Sacro Cuore of Rome and to promote refresher courses, conferences and training events for health professionals. From July 2018 the Foundation - an hospital institute promoted in 2002 by the Università Cattolica del Sacro Cuore - has been fully integrated into the clinical - assistance offer perimeter of the Fondazione Policlinico Universitario Agostino Gemelli IRCCS.

A step that allows the Foundation to further improve the quality of services offered to the Molise territory and to the neighboring regions, as well as being able to achieve important synergies in sharing common services, combining two fundamental objectives of greater effectiveness of care and greater efficiency in management .

Since 2008 he has been awarded the "Hospital for women" award by the National Observatory on Women's Health (O.N.Da). In 2016 the quality of the services provided by the Foundation was also attested by the National Outcomes Plan (PNE), the tool with which the National Agency for Regional Health Services (AGE.NA.S) develops in the Italian Health Service the evaluation of outcomes of health interventions. The hospital has a modern and constantly improving technological park.

MATER OLBIA HOSPITAL (OLBIA)



www.materolbia.com

The first outpatient activities started in December 2018 and during the course of 2019 the **Mater Olbia Hospital**, the new hospital located in the north of Sardinia that guarantees an excellent medical-health garrison to the whole island, will progressively become fully operational.

The Policlinico Universitario A. Gemelli IRCCS, minority partner of Mater Olbia SpA and scientific partner of the Qatar Foundation Endowment, owner of the structure, will manage the clinical activities of the new hospital, bringing its know-how, its professionalism and expertise in the management of a complex and

articulated proposal of health and hospital services in an area where the demand for care exceeds the offer that has existed up to now.

Mater Olbia will offer a wide range of services including neurological, orthopedic and pediatric specialties, as well as a modern radiotherapy center. In the start-up phase, 12 outpatient clinics were operated: cardiology, general surgery, ultrasound, endocrinology, psychiatry, gastroenterology, gynecology, mammography, neurosurgery, neurology, otorhinolaryngology and pneumology. The hospitalization wards will start operating in the coming months. Through a big data platform, created together with General Electric, Mater Olbia will provide more effective, faster and targeted care and can also be a valuable reference point for the Sardinian hospital network.

thanks

**Success is not final, failure is not fatal.
it is the courage to continue that counts.**

W. Churchill