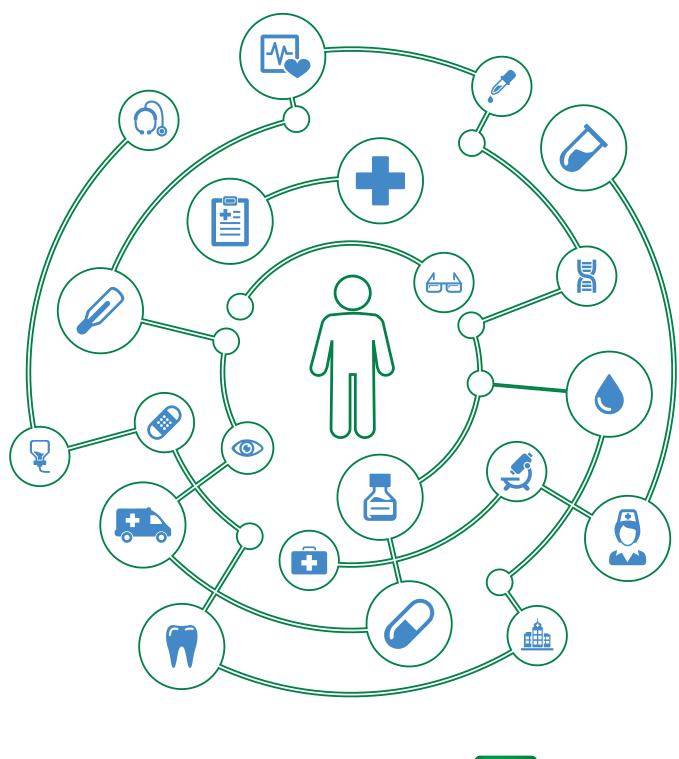
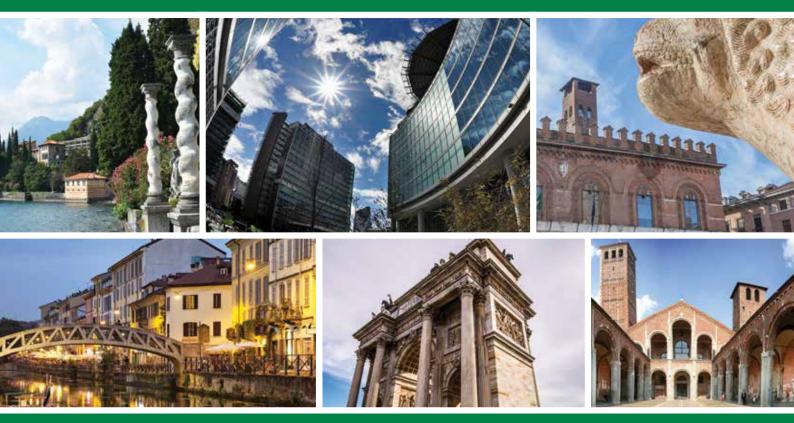
# Be healthy, come to Lombardy!





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# Lombardy, Italy

The Lombardy territory, about 24,000 square kilometres, is a symbol of modernity and development, but at the same time, Lombardy boasts many natural attractions and a remarkable artistic and cultural heritage.

Several indicators testify to the vitality of Lombardy's economic system: the gross domestic product (GDP) amounts to 296 billion euros and represents 20% of the Italian GDP. The Lombardy healthcare system, characterised by quality and efficiency, is a model of reference both in Italy and worldwide. With the benefit of private partnerships in fact, it ensures its citizens and those who live in other regions or abroad have access to prime level health care with all the advantages of a public system.

Lombardy has 56 University Departments of Medicine, 19 IRCCS (IRCCS means an institution devoted to excellence in clinical care and research) which represent 42% of the national total, 47 Institutes and 32 Research Centres. As a result, Lombardy and in particular Milan have always attracted the most renowned physicians in every field of expertise.

Lombardy's health service, acknowledged as one of the top health services in Europe, provides its services not only for Italian citizens; it is also an important international point of reference.

The Lombardy health service model is characterised by efficiency and quality, with dedicated research, innovation and studies in a structure of excellence. This model represents the state-of-the-art, and today Italy has the 3rd most efficient health service in the world (Bloomberg).

Lombardy's Public and Private Hospitals need to comply with all the standards required and established by the Lombardy Regional Authority, such as high structural, technological and organisational standards.

Many hospitals have launched a Quality Certification System for transversal clinical processes, in accordance with international Joint Commission Standards required for accreditation. In order to receive accreditation, public hospitals have to be compliant with over 1,300 standards.

Several hospitals are also oriented to developing new organisation and administration procedures aimed at improving the quality of their services in term of efficiency and effectiveness on the basis of the national guidelines in the Lombardy Regional Authority's Social Health Care Plan.

Modern medicine requires a new model of hospital organisation designed for the patient to guarantee the best treatment for everyone's health needs in every circumstance. In this way, public hospitals are able to offer their services also to foreign patients in partnership with private hospitals, universities and IRCCS. In fact, they have an international website that shows the main activities, clinical dates, health and care excellence.

The most important hospitals can arrange services for every kind of client, also by CRM to make it easier for a foreign patient to stay in a foreign country and guarantee proper assistance through a foreign patients' office, open all day, and a free 24-hour translation service. All communications, reports and medical documentation are translated into the most widely-spoken languages.

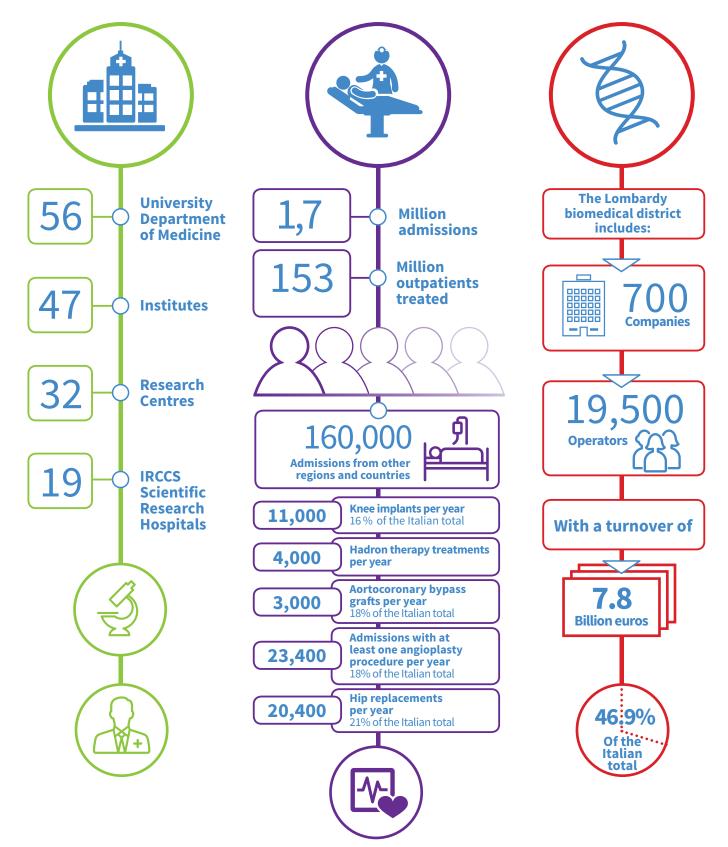
Public and private hospitals have to look after the patient and his/her relatives. In fact, the hospital is equipped with single or double-bed rooms with a private bathroom. Alternatively, the patient can reserve a room in a hotel or an apartment at a special price through a back office.

Many hospitals can offer their services covered either by the NHS or by a private health care system with separate admissions and outpatients' services. Regarding the second system, hospitals have signed contracts with international insurance companies or with most bodies managing health policies to get direct conventions (the insurance company/mutual assistant who signed an agreement with the hospital assumes direct responsibility to complete payment of the services provided for its claimant) or indirect ones and to guarantee more facilities for the patient.

Patients can visit the hospital web site, send e-mails or contact the dedicated call centre for further information about the structure, the examinations and nurses' assistance. They can also make an estimate or check if there are contractual relations with international insurance companies. Patients can book all they need.



# Some figures to describe the Lombardy health service





# Areas of specialisation

## Oncology

Hadron Therapy General surgery Thoracic surgery Gynaecology Urology Breast unit Ears, nose & throat Nuclear Medicine Radiotherapy Radiosurgery

## Cardiac care

Cardiology Vascular surgery Electrophysiology Haemodynamics Echocardiography Rehabilitation Transplants

## Orthopaedics

Prosthetics Shoulder Knee Hand Foot Traumatology Rehabilitation Neurosurgery Head Spinal column Functional neurosurgery Neurology Stroke unit Rehabilitation

### **Other Specialisations**

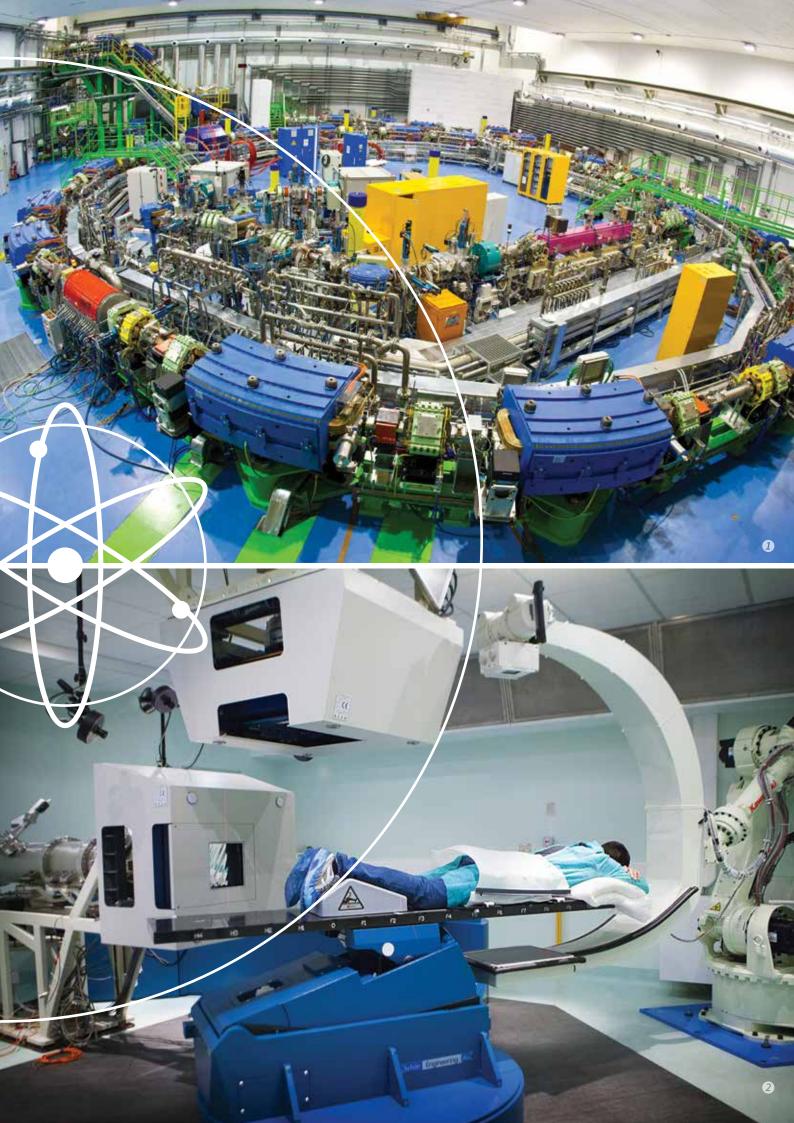
Ophthalmology Neurorehabilitation Endocrinology Immunology and rheumatology Prevention Rehabilitation Neurology Interventional neuroradiology Transplants











# State-of-the-art technology

## **Robot-assisted surgery**

The most recent innovation in the field of minimally invasive techniques, is robot-assisted surgery.

The surgeon controls high-precision instruments, placed inside the abdomen through a small 1-2 cm incision, using a console. The operator's movements are reproduced in the operating field in a more precise way, filtering out naturally occurring hand tremors. Using a robot-assisted technique reduces the risks of classic surgery, and offers numerous potential benefits for patients:

Shorter stays in hospital
Less postoperative pain
Less risk of infection
Less bleeding
Less likely to need a transfusion
Faster return to normal daily activities

# **Hadron therapy**

A highly-evolved form of radiotherapy that can destroy the DNA of tumour cells with a very high degree of precision. The centre in Lombardy is the only one of its kind in Italy and the forth in the world that can produce both protons and carbon ions, the most powerful particles for treating tumours on which traditional radiotherapy is ineffective, or in inoperable cases. The therapy is painless and can be customised to each particular patient, in a limited number of sessions, without the need for hospitalisation.

#### > The synchrotron

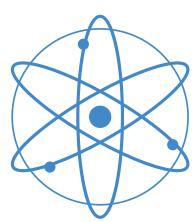
The synchrotron is an accelerator used to treat tumours with Hadron therapy. Atomic particles travel in the accelerator at almost the speed of light to hit the tumour selectively.

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#### > 4D therapy for moving tumours

Hadron therapy room equipped with horizontal and vertical beam. Robot-assisted patient positioning system that guarantees hitting the tumour with a precision down to two tenths of a millimetre. "Organ motion" system that synchronises beam irradiation with the patient's breathing to follow the movements of the tumour.



# **Diagnostics**

High-field nuclear magnetic resonance imaging (1.5–3 Tesla) is a technique that can provide an accurate and highly detailed 3D picture, and study the internal organs in the human body on an extremely precise scale.



# Interventional neuroradiology



Interventional neuroradiology suite, with a biplane angiography system mainly used for cerebral angiography, the embolisation of cerebral aneurysms and cerebral thrombolysis.

## Radiosurgery

#### > EDGE

EDGE is a Radiosurgery system designed to treat brain tumours. The beacons, which are tiny indicators, send the position of the tumour in the lung and prostate, guiding the beam with absolute precision.





#### > CyberKnife

The CyberKnife is a radiosurgery robot used to attack tumours with submillimeter end-to-end accuracy, delivering a hypofractionated dose (high dose radiation). The neoplastic target can be identified and observed during therapy, helping protect healthy organs in the vicinity, without the need to use invasive immobilising systems.



#### > The Gamma Knife



The Gamma Knife is a dedicated, fully integrated system for brain radiosurgery, often an alternative to normal surgery. It is known for exceptional dose conformity and precision, enabling the dose to be wrapped around the most complex shapes while limiting radiation to the surrounding brain tissue and critical structures

#### > O-arm

O-arm, spinal neuronavigation system based on intra-operative CT scan. It acquires images of the patient's anatomy, gives the surgeon extremely precise control of the surgical field and reduces average surgery time from 5-6 hours to 1.5 hours.





# Research figures



representing

of the Italian impact factor (IF)

The impact factor is a synthetic index that measures the average number of times an article published in a scientific journal is quoted in the two years since it was published.





Lombardy is a leader in clinical trials in Italy, accounting for 58% of the total.



