

07

Annual Report 2007
Na Homolce Hospital



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Na Homolce Hospital, a JCI accredited facility

We are one of the most modern hospitals in Europe

We provide health care in all areas of medicine. We specialize in disorders of the cardiovascular and nervous systems.

We offer state-of-the-art diagnostic and therapeutic procedures, some of which are unique in the Czech Republic.

We use fast and minimally invasive methods to diagnose and treat the patient's condition.

Our specialists are professionals in their fields.





About Us

Na Homolce Hospital offers comprehensive medical services in the field of cardiovascular medicine, as well as in neurology and neurosurgery, with emphasis on minimally invasive methods of treatment.

Managing Director's Opening Statement

Esteemed friends!

You are holding in your hands the annual report of Na Homolce Hospital for 2007 which evaluates our work during this year; and I would like to say a few words about the highlights of this period.

The year 2007 was very significant, as well as exacting for us. The twelve months of the previous year brought many changes to our hospital. The most distinct footprints left changes in the organizational structure, which were related to extensive personnel replacements at all levels. Measures taken included total exchange of the management, reduction of members of the top management and, subsequently, broadening of competencies of the individual members. This, of course, also resulted in higher demands placed on the managing staff.

To ensure a really top team of specialists for our hospital, we organized tenders for all heads of departments. The position of the head of department was strengthened and, as a result, each head of department is now responsible not only for flawless operation of his/her department in terms of medicine, but new this year, also for its economic performance, with all the consequences ensuing from such responsibility.

In 2007, we began preparing for defense of JCI accreditation with new, stricter terms, that Na Homolce Hospital is to pass in 2008. To acquire the accreditation, a medical facility has to meet more than 1,500 quality and security indicators. Only around 50 hospitals in 16 countries are JCI accredited outside the USA. The accreditation is not just a matter of prestige, but it is most of all connected with the following commitment: each accredited hospital guarantees a patient security and high quality care through continual monitoring, analyses and improvement of quality indicators in all areas of operation.

Apart from preparations for accreditation, we faced and are still facing a great challenge in the area of finance: here we focused primarily on gradual optimization of the hospital's economic results, and, among other things, also the change of our credit policy. The question of funding of medical facilities is a hot topic today, as well as a burning issue that is very sensitively apprehended by the society. We would love to stand this test with honour, too.

Last but not least, when evaluating the year 2007, we must mention the preparation for the hospital's transformation that was in progress in close cooperation with the founder, the Ministry of Health of the Czech Republic. Implementation of this task will also require from all of us maximal efforts and flexibility.

Esteemed friends, I would like to thank you all for your excellent work throughout 2007, thanks to which Na Homolce Hospital continues to maintain its reputation as a top medical facility. I wish you all many successes in fulfilling all the demanding tasks we are facing!



Vladimír Dbały, M.D., MBA
Managing Director, Na Homolce Hospital



Hospital Management and Bodies

Managing Director

Director of Treatment and Preventive Care
Director for Quality, Safety and Accreditation
Finance Director

Finance Director
Head Nurse
Legal Specialist

Vladimír Dbalý, M.D. ¹

Michal Toběrný, M.D. ²

Petr Kolouch, M.D. ³

Pavel Brůna, M.Sc.

(1 January 2007–23 July 2007)

Jan Attl, Ph.D., M.Sc. ⁴ (from 1 October 2007)

Eva Holá ⁵ (from 1 January 2008), MA

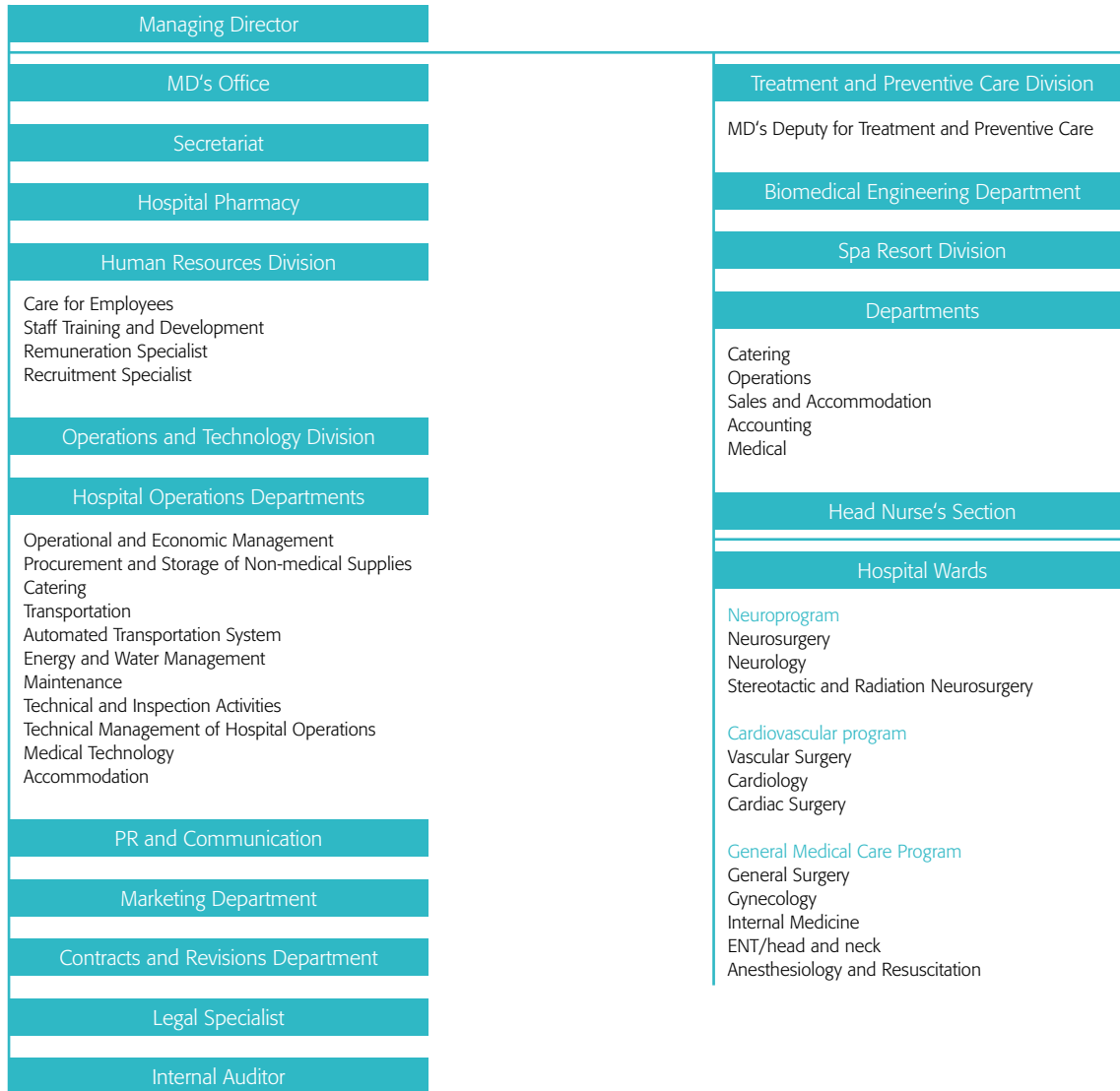
Jiří Kodýdek ⁶ (from 1 January 2008), LLM





Organizational Structure

(as at 31 December 2007)



Quality, Safety and Accreditation Division

MD's Deputy for Quality, Safety and Accreditation

Departments

Quality Control
Hospital Hygiene and Epidemiology
Documentation and Archives
Medical Physics
IT

Special Units

Work Safety and Health Protection
Fire Protection/KM

Finance Division

MD's Deputy for Finance

Departments

Accounting
Controlling
Health Care Economics
Sales
Project Management

Outpatient Clinics

Neurosurgery
Neurology
Stereotactic and Radiation Neurosurgery
Vascular Surgery
Cardiology
Cardiac Surgery
General Surgery
Gynecology
Internal Medicine
ENT
Clinical Oncology
Nephrology
Ophthalmology
Pediatrics
Dentistry
Dermatology
Allergology and Clinical
Immunology
Psychiatry

Common Examination and Treatment Units

Clinical Biochemistry, Hematology and Immunology
Clinical Microbiology and Antibiotic Center
Radiodiagnostics
Nuclear Medicine/PET Center
Pathology
Physiotherapy

Other Medical Units

Hemodialysis Center
Central Operating Theatres and Central Sterilization
Robotic Surgery Center
Industrial Medicine Specialist

Na Homolce Hospital Profile

A Specialized Health Care Center providing cardiovascular and neurosurgical medical treatment nationwide

Neurological-Neurosurgical Program

Comprehensive care for patients suffering from diseases of, or injuries to, the central and peripheral nervous system, and from diseases of, or injuries to, the spine. The three independent program centers provide a full range of care, from diagnostic services and therapy by conservative methods, through complex neurosurgical operations, including radiosurgery and stereotactic surgery, to the latest methods of interventional neuroradiology. Part of the treatment process also covers related physiotherapy and long-term follow-up of patients.

- Department of Neurology
- Department of Neurosurgery
- Department of Stereotactic and Radiation Neurosurgery

Cardiovascular Program

Comprehensive care for patients suffering from diseases of the cardiovascular system, the heart and blood vessels. The three independent program units focus on complex diagnostics and treatment by conservative methods, as well as surgical treatment of cardiac and vascular diseases including interventional radiology. Medical care includes special physiotherapy for patients with diseases of the circulatory system and follow-up of selected groups of patients.

- Department of Cardiology
- Department of Vascular Surgery
- Department of Cardiac Surgery

General Medical Care Program

A comprehensive range of general health care treatment supported by a large outpatient department and related wards. The four independent hospital wards within this program offer patients a wide range of modern diagnostic and therapeutic procedures for diseases related to internal medicine and general surgery, in particular minimally invasive surgery. These are closely linked to the extensive outpatient services provided by individual specialized departments.

- Department of Internal Medicine
- Department of Surgery
- Department of Gynecology
- Department of ENT/Head and Neck Surgery

Number of beds as at 31 December 2007

	ICU beds	Total	%
Neurology-neurosurgery program	26	106	30%
Cardiovascular program	63	147	41%
General medical care program	39	104	29%
Total	128	357	100%

Na Homolce Hospital Profile

Basic data

	2006	2007	Change
Staff	1,706	1,751	103%
Beds	357	357	100%
Number of patient admissions	14,621	15,114	103%
Number of interventions (incl. one-day)	14,431	14,115	98%
Number of outpatient examinations	1,140,588	1,172,464	103%

Number of admissions

	2006	2007	Change
Neurology-neurosurgery program	4,461	4,481	100%
Cardiovascular program	7,700	7,996	104%
General medical care program	6,492	6,733	104%
Total	18,653	19,210	103%

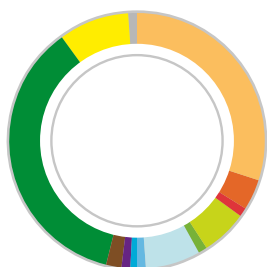
Mortality 2000–2007

	2000	2001	2002	2003	2004	2005	2006	2007
NNH	1.9%	2.2%	2.1%	1.6%	1.6%	1.5%	1.5%	1.4%
Neurology	2.2%	2.3%	2.2%	3.7%	1.9%	1.8%	1.4%	1.2%
Neurosurgery	1.7%	2.1%	1.5%	1.5%	1.7%	1.9%	1.3%	1.5%
SRN	0.0%	0.1%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%
Cardiology	1.4%	1.7%	1.4%	1.2%	1.0%	1.0%	0.8%	1.0%
Cardiac Surgery			3.2%	2.5%	3.0%	2.4%	3.1%	3.0%
Vascular Surgery	2.5%	3.4%	2.3%	2.2%	2.1%	2.3%	2.3%	2.3%
Internal Medicine	4.2%	4.3%	3.2%	3.0%	4.0%	4.7%	5.0%	3.7%
General Surgery	1.2%	1.1%	0.5%	0.2%	0.5%	0.1%	0.1%	0.3%
Gynecology	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
ENT	0.4%	0.1%	0.6%	0.2%	0.0%	0.0%	0.1%	0.0%

Na Homolce Hospital Profile

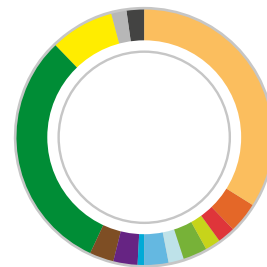
Origin of admitted patients in 2007
– Cardiovascular program

Prague	30%
Southern Bohemia	4%
Southern Moravia	1%
Karlovy Vary Region	6%
Hradec Králové Region	1%
Liberec Region	7%
Moravia-Silesia Region	1%
Olomouc Region	1%
Pardubice Region	1%
Plzeň Region	2%
Central Bohemia	36%
Ústí nad Labem Region	9%
Vysočina Region	1%
Zlín Region	0%



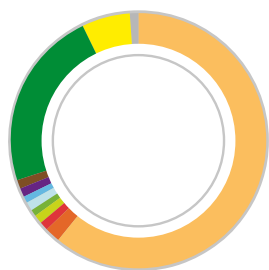
Origin of admitted patients in 2007
– Neurological-neurosurgical program

Prague	34%
Southern Bohemia	4%
Southern Moravia	2%
Karlovy Vary Region	2%
Hradec Králové Region	3%
Liberec Region	2%
Moravia-Silesia Region	3%
Olomouc Region	1%
Pardubice Region	3%
Plzeň Region	3%
Central Bohemia	31%
Ústí nad Labem Region	8%
Vysočina Region	2%
Zlín Region	2%



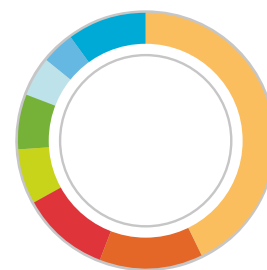
Origin of admitted patients in 2007
– General medical care program

Prague	61%
Southern Bohemia	2%
Southern Moravia	1%
Karlovy Vary Region	1%
Hradec Králové Region	1%
Liberec Region	1%
Moravia-Silesia Region	1%
Olomouc Region	0%
Pardubice Region	1%
Plzeň Region	1%
Central Bohemia	23%
Ústí nad Labem Region	6%
Vysočina Region	1%
Zlín Region	0%



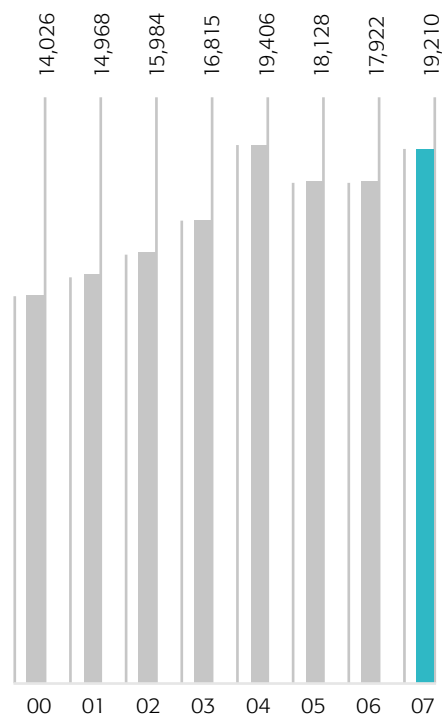
Breakdown of the main diagnosis

Diseases of the circulatory system	43%
Neoplasms	13%
Diseases of the musculoskeletal system and connective tissue	11%
Diseases of the urinogenital system	7%
Diseases of the digestive system	7%
Diseases of the nervous system	5%
Diseases of the respiratory system	4%
Miscellaneous diagnosis	10%

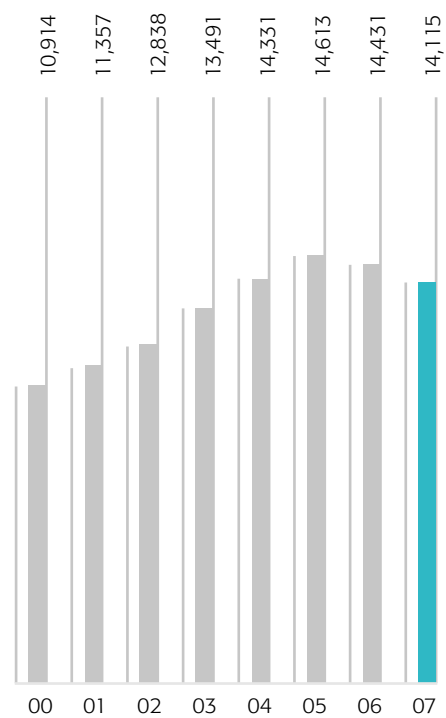


Na Homolce Hospital Profile

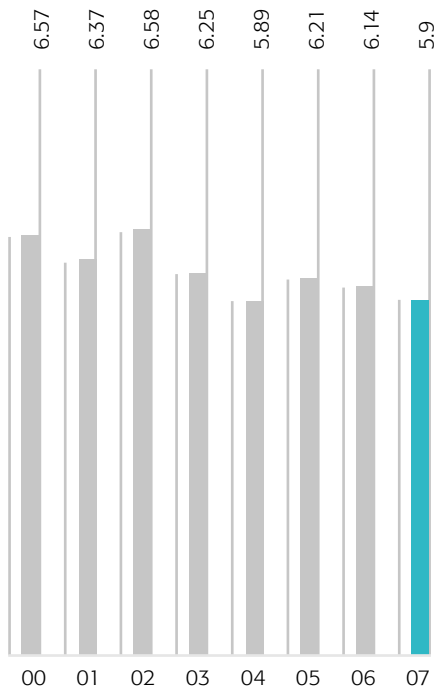
Number of admissions 2000–2007



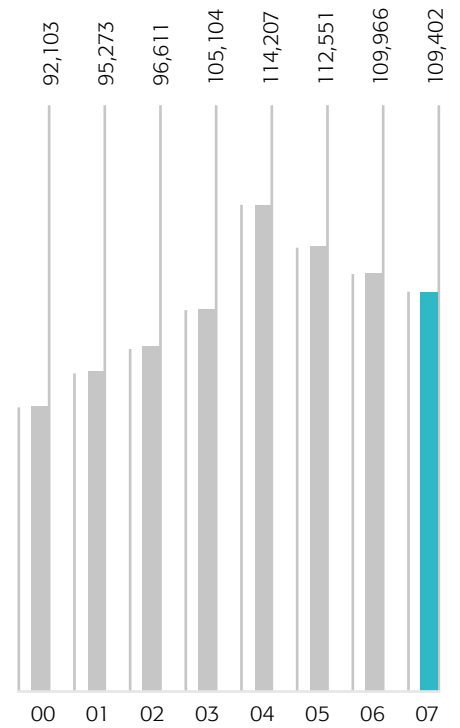
Number of interventions
(incl. one-day surgery) 2000–2007



Average length of stay



Number of days of treatment



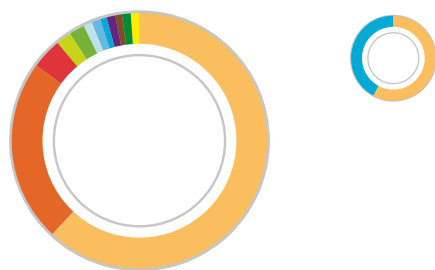
Na Homolce Hospital Profile

Outpatients in 2007 – origin of patients

Prague	62%
Central Bohemia	23%
Ústí nad Labem Region	4%
Southern Bohemia	2%
Liberec Region	2%
Karlovy Vary Region	1%
Plzeň Region	1%
Hradec Králové Region	1%
Pardubice Region	1%
Vysočina Region	1%
Moravia-Silesia Region	1%
Southern Moravia	1%
Olomouc Region	0%
Zlín Region	0%

– by gender

Women	58.3%
Men	41.7%

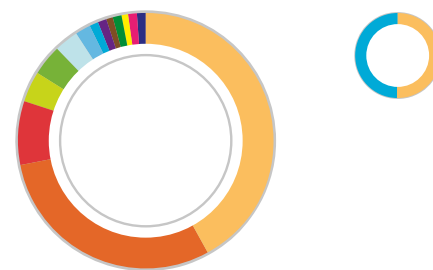


Inpatients in 2007 – origin of patients

Prague	42%
Central Bohemia	30%
Ústí nad Labem Region	8%
Liberec Region	4%
Southern Bohemia	4%
Karlovy Vary Region	3%
Plzeň Region	2%
Hradec Králové Region	1%
Pardubice Region	1%
Moravia-Silesia Region	1%
Vysočina Region	1%
Southern Moravia	1%
Olomouc Region	1%
Zlín Region	1%

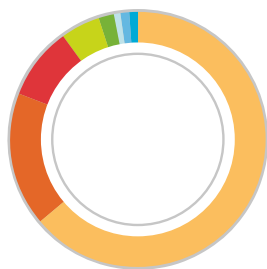
– by gender

Women	50.4%
Men	49.6%



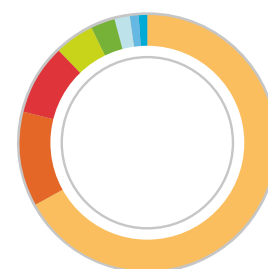
Outpatients in 2007
– Health Insurance Company

111	VZP ČR, Praha (General Health Insurance Company, Prague)	64%
207	OZP bank a pojišťoven, Praha (Occupational Health Insurance Company for Employees of the Banking, Insurance and Building Industry (OZP))	17%
211	ZP Ministerstva vnitra, Praha (Ministry of Interior Health Insurance Company, Prague)	9%
201	Vojenská ZP ČR, Praha (Military Health Insurance Company, Prague)	5%
217	ZP METAL-ALIANZE	2%
222	Česká národní ZP Praha	1%
209	ZZP ŠKODA, Mladá Boleslav	1%
205	Hutnická pojišťovna, Ostrava	1%



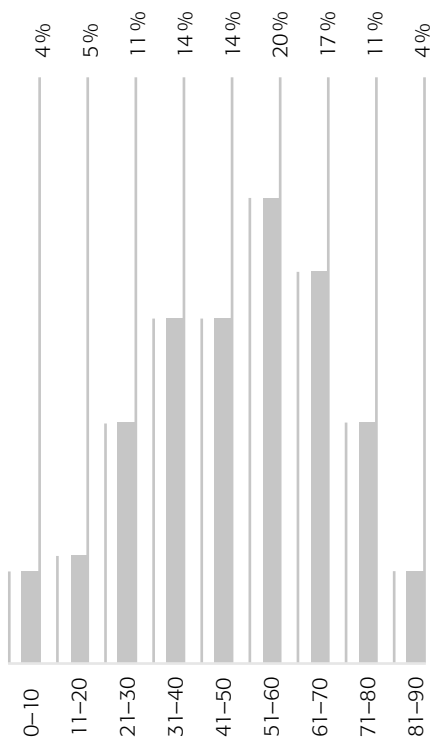
Inpatients in 2007
– Health Insurance Company

111	VZP ČR, Praha (General Health Insurance Company, Prague)	67%
207	OZP bank a pojišťoven, Praha (Occupational Health Insurance Company for Employees of the Banking, Insurance and Building Industry (OZP))	12%
211	ZP Ministerstva vnitra, Praha (Ministry of Interior Health Insurance Company, Prague)	9%
201	Vojenská ZP ČR, Praha (Military Health Insurance Company, Prague)	5%
217	ZP METAL-ALIANZE	3%
222	Česká národní ZP Praha	2%
209	ZZP ŠKODA, Mladá Boleslav	1%
205	Hutnická pojišťovna, Ostrava	1%

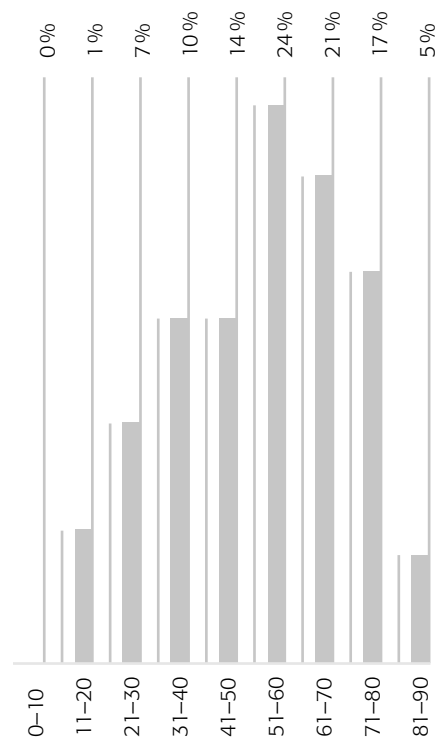


Na Homolce Hospital

Outpatients in 2007 – breakdown by age



Inpatients in 2007 – breakdown by age



Bed occupancy as a % 2000–2007

	NNH	CZ
2007	89	77
2006	89	78
2005	90	79
2004	92	79
2003	91	73
2002	93	76
2001	92	75
2000	88	74

Average length of treatment (in days) 2006–2007

	NNH	CZ
2007	5,9	7,7
2006	6,1	7,9
2005	6,2	8,0
2004	5,9	8,1
2003	6,3	8,1
2002	6,6	8,4
2001	6,4	8,5
2000	6,6	8,6

Highlights of 2007

March

Department of Cardiac Surgery begins robotic-assisted operations.

June

Opening of the multifunctional catheterization lab complex with three theaters for magnetic navigation (the Niobe system) and robotic navigation (the Hansen system) in heart surgery, and implantology.

July

Launch of pilot operations in a certified experimental cardiac electrophysiology laboratory for the verification and development of new methods. The laboratory is located at the Institute of Physiology of the First Faculty of Medicine, Charles University.

August

Opening of the newly reconstructed intensive care unit in the Department of Neurosurgery.

October

Second anniversary of the launch of the Czech Center of Robotic Surgery at Na Homolce Hospital.

Over the past year, the robotic surgery center served general surgery, urology, gynecology and vascular surgery. Between October 2005 and 31 December 2007, a total of 377 patients underwent robotic-assisted interventions, and 228 of these were performed in 2007. The robotic operating system improves the precision, control and skill of the surgical procedure to a level that cannot be achieved by humans. It also enables surgeons to carry out types of minimally invasive procedures that cannot be performed using existing technology. Robotic surgical systems provide patients with the highest possible level of operating safety. The Na Homolce Hospital Center of Robotic Surgery also serves as a national and international training center for robotic surgery.

The 15th anniversary of the opening of the Leksell Gamma Knife unit at Na Homolce Hospital. This apparatus, which provides the least invasive treatment of neurological conditions began operations on 28 October 1992. Since that date, doctors have performed over 8,600 surgeries using the Leksell Gamma Knife – around 800 patients are treated in the hospital annually.

December

Na Homolce Hospital staff and partners attended a Christmas theater performance of "Yes, Minister" in the Vinohradské Theater.

Personnel and Social Policies

In 2007, the personnel policy of Na Homolce Hospital was characterized by the stability of all activities carried out in the hospital and by preparation of new concepts in the area of medical care provided.

Two major personnel changes took place at Na Homolce Hospital in 2007. The first involved the appointment of the hospital's new management. As at 1 January 2007, Dr Michal Toběrný was appointed MD's Deputy for Treatment and Preventive Care, and Dr Petr Kolouch became MD's Deputy for Quality, Safety and Accreditation. In August 2007, Pavel Brůna M.Sc., MD's Deputy for Finance, terminated his employment and Jan Attl, Ph.D., M.Sc. was put in charge of the Finance Section from 1 October 2007.

The second major change in the area of human resources was opening of tenders for individual departments' heads and for head physicians of the clinical oncology ward, children's and youth ward and the main

pharmacist. Dr. Vladimír Dbalý, the hospital's Managing Director, announced results of tenders at the end of 2007 and new department heads and head physicians were appointed to their posts from 1 January 2008.

Tenders for the department heads of the Stereotactic and Radiation Neurosurgery Department, Neurology Department, Neurosurgery Department and ENT/Head and Neck Surgery Department were postponed until the beginning of 2008.

In 2007, Na Homolce Hospital had 1,751 employees (average full-time), which was a 2.6% increase compared with 2006.

Salaries continued to maintain an upward trend during 2007. Staff salaries totalled 719,029,881 CZK, while the average wage rose to 34,220 CZK. The wage structure remained motivational in nature, and was linked to compliance with financial restraints and observance of the quality standards set for the care provided.

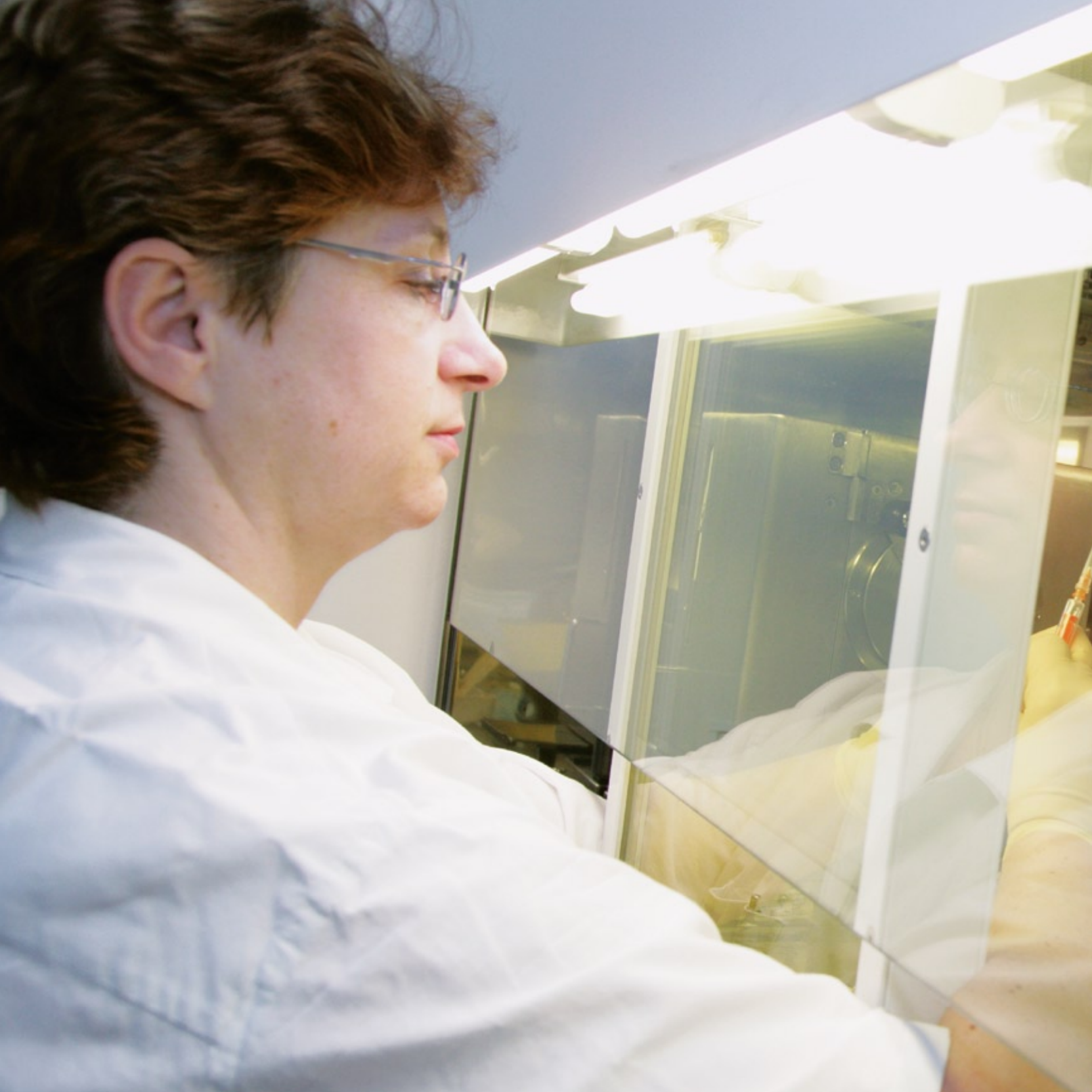
The employee social program is funded from the Cultural and Social Needs Fund created by the employer in compliance with the law and the decree concerning cultural and social needs funds. The social program focuses in particular on the fields of culture, sports, social needs and health care. In accordance with the Collective Bargaining Agreement, 13.8 million CZK was paid to employees from the Fund in 2007.

Personnel and wage data for individual employee categories in 2007 are listed in the table below

	Physicians	Pharmacists	General nursing staff	Medical staff	Medical staff
			§ 5	§ 7–21	§ 22–28
Total wages paid in CZK	231,493,954	3,022,309	254,994,610	41,401,030	15,926,326
Average full-time employees	249.63	4.58	737.69	113.92	38.86
Average wage in CZK	77,279	54,991	28,806	30,285	34,153
Fluctuation %	4.08	16.82	6.32	3.14	2.59

	Medical staff	Other medical staff	Technical and administrative staff	Auxiliaries	Total
	§ 29–42				
Total wages paid in CZK	43,186,255	3,654,059	86,757,500	38,593,838	719,029,881
Average full-time employees	179.78	7.37	240.84	172.54	1,745.21
Average wage in CZK	20,018	41,317	30,019	18,640	34,333
Fluctuation %	9.92	9.63	3.55	8.24	

Physicians and pharmacists in compliance with Act No. 95/2004 Coll.
 Other medical staff in compliance with Act No. 96/2004 Coll.
 § 5,6 – Registered nurses, midwives
 § 7–21 – Radiography assistants, lab assistants, dietary therapists, pharmaceutical assistants
 § 22–28 – Specialized graduate medical staff and physiotherapists
 § 29–42 – Assistant nurses, medical orderlies, ambulance drivers
 § 43 – other non-specialized medical personnel





Quality and Safety

Na Homolce Hospital's priority is to guarantee high quality and safe medical care for our patients.

Clinical Programs – Summary of Activities

Neurological-Neurosurgical Program (Neuroprogram)

DEPARTMENT OF NEUROLOGY

Head of Department Miroslav Kalina, M.D.

The department focuses on diagnostics and the non-surgical treatment of diseases of the brain, spinal cord, peripheral nerves and muscular apparatus, using special electrophysiological and ultrasonic diagnostic methods. For these areas it also provides comprehensive outpatient and ward care. The department includes an Epilepsy Center providing specialized outpatient and ward care for patients suffering from epilepsy. This comprises two epilepsy counseling units and an epilepsy monitoring unit (EMU), which, in addition to other activities, conducts long-term monitoring and selection of patients for epileptosurgical treatment and provides consultancy for neurological centers throughout the Czech Republic. In 2007, 286 patients were admitted to the EMU, of whom 13 were monitored by surgically implanted electrodes and 39 patients were indicated for epileptosurgical treatment. Routine treatment included stereotactic thermolesions, which is a global priority. The treatment of epileptic patients throughout the year was marked by strong interdisciplinary cooperation between the

hospital's neuroscience departments. Alongside the Department of Neurology, the following departments have traditionally participated in their treatment: the Department of Stereotactic and Radiation Neurosurgery, the Department of Radiodiagnostics and the Department of Nuclear Medicine/PET Center. Na Homolce Hospital is one of the three largest epilepsy and epileptosurgical centers in the Czech Republic, with the highest number of operated patients

The specialized Intensive Care Unit for the treatment of acute and critical neurological cases also serves as a postgraduate training center for neurological intensive care. In the course of 2007, 14 intra-arterial thrombolyses and 22 intravenous thrombolyses were performed on intensive care patients, which represented an increase against 2006 figures. The number of patients in critical condition suffering from failure of the vital organs stabilized.

The outpatient care includes also the neurovascular clinic for the treatment of neurological

disorders, and the spinal counselling unit, which also refers patients for surgical interventions to the spinal canal, as well as the evoked potential laboratory, the EEG laboratory, the elektromyographic laboratory and the transcranial Doppler ultrasound unit.

The Sleep Disorder Center, which includes a sleep laboratory with two monitored beds enabling monitoring by sleep polygraphy, continued its operation in the past period. In 2007, 286 patients had been admitted to the Center.

The Department of Neurology participated in two grant projects in 2007.

Basic data

Number of beds	34
standard	30
intensive care	6
Number of physicians	14
Number of general nursing staff	58
Number of outpatient examinations	19,104
Number of patient admissions	1,467
Number of days of treatment	9,432
standard	7,631
intensive care	1,801
Bed occupancy rate (in %)	81.42
standard	80.51
intensive	85.2
Average length of stay (in days)	5.5
standard	5.33
intensive	9.05

Clinical Programs – Summary of Activities

Neurological-Neurosurgical Program (Neuroprogram)

DEPARTMENT OF NEUROSURGERY

Head of Department: Vladimír Dbalý, M.D.

Michal Šetlík, M.D., acting head of department

In 2007, the Department of Neurosurgery focused on further developing its complex diagnostic, surgical and follow-up care of patients suffering from diseases of the central and peripheral nervous system in order to provide comprehensive and safe treatments which improve the quality of life of its patients.

As usual, patient therapy fell into four key areas, namely the neurooncological, neurovascular, epileptosurgical and spinal programs, complemented with specialized neurointensive care. The total number of operations performed in 2007 rose to 2,226. 2,152 patients were admitted to the department's wards and 11,281 outpatients were treated.

In the Neurooncological program, in addition to standard and usually combined therapy of patients, cooperation on the TTF project (the treatment of malignant primary cerebral tumors by magnetic field) further continued. Na Homolce was the first hospital in the world where this method was used to treat almost

two dozens patients and the Department of Neurosurgery was invited to collaborate on international scale in this area and to present its results in the USA, where this method has received FDA approval. A multicentric randomized international study is currently carried out, with Na Homolce Hospital as the primary center. In the course of 2007, the use of perioperational navigation and functional navigation during cerebral surgeries was intensively developed through the Centre of Excellence in navigated neurosurgery for the Czech Republic and countries in the East European region. A new project to equip operating theatres with perioperational MRI was launched in 2007 to further improve the quality of perioperational diagnostics.

Inter-sectoral neurological seminars attended by a team of specialists from Na Homolce Hospital and oncologists from the Motol Teaching Hospital, who recommend suitable follow-up oncological treatment, were held as a rule in the period under review.

In the Neurovascular Program, the Department of Neurosurgery continued to centralize patients with diseases of the intracranial vessels at Na Homolce Hospital, offering the option of combined treatment of these diseases by open surgery or endovascular intervention. A team of experienced specialists provide patients suffering from these potentially life-threatening diseases with with 24-hour care.

In cooperation with the Department of Neurology, criteria indicating patients for decompressive craniectomy were set for certain types of strokes due to ischemia and for bypass surgeries between extra- and intracranial blood vessels. If these conditions are treated with open surgeries, the perioperational dopplerography of intracranial arteries is uniquely used

In the Epileptosurgical Program - the Na Homolce Hospital Neurosurgical Department is one of the largest centers in the Czech Republic. Working together with the Department of Neurology, the Leksell Gamma

Knife unit, the Department of Radiodiagnostics and the PET Center, the total number of indicated and operated patients stabilized at between thirty and forty annually and the total number of patients with drug resistant epilepsy operated at Na Homolce Hospital reached around 250. Resections were performed on patients using standard navigation techniques and stimulation treatment (the application of vagal nerve stimulators) was also applied. Treatment of chronic pain was further developed with the Anesthesiology and Resuscitation department (neurostimulation of the spinal cord).

In the framework of the Spinal Program, Na Homolce Department of Neurosurgery has ranked for several years now as one of the most successful and active centers in the Czech Republic. The surgeries are performed on the whole length of the spine using all access paths to treat degenerative diseases as well as trauma and oncological patients. So-called "minimally invasive" spondylosurgery, using navigational or transcutaneous

techniques was by far the preferred method. Use of perioperational navigation CT apparatus was newly introduced in the surgeries of indicated spinal diseases in 2007.

Na Homolce's Department of Neurosurgery is a Center of Excellence in neurosurgery for the dynamic stabilization of the cervical spine (Bryan, Prestige, Prospace) for the Czech Republic and countries in the East European region. The dynamic stabilization technique was intensively used also in surgeries of lumbar spine in the period under review.

One grant project was prepared in the Department of Neurosurgery in 2007.

Clinical Programs – Summary of Activities

Neurological-Neurosurgical Program (Neuroprogram)

Basic data

Number of beds	65
standard	45
intensive care	8
intermediate	12
Number of physicians	18
Number of general nursing staff	86
Number of outpatient examinations	11,281
Number of admissions	2,152
Number of days of treatment	18,205
Bed occupancy rate (as a %)	93.6
Average length of stay (in days)	9.12

Breakdown of surgical interventions

Cerebral tumors	201
Cerebro-vascular diseases	72
Spinal diseases including tumors	1,220
Injuries	57
Epileptosurgery	27
Miscellaneous	649
Total	2,226

Number of surgical interventions

2000	2001	2002	2003	2004	2005	2006	2007
1,744	1,837	1,930	1,974	2,203	2,107	2,115	2,226

DEPARTMENT OF STEREOTACTIC AND RADIATION NEUROSURGERY

Head of Department:
Roman Liščák, M.D., Ph.D.

The clinical activity of the department is focused on the non-invasive radiosurgical treatment of certain types of cerebral tumors, cerebral vascular malformations and functional diseases of the brain using the Leksell gamma knife as well as stereotactic and functional neurosurgery. The out-patient clinic, in addition to providing consultations and follow-up care for the department's neurosurgical patients, also offers specialized ophthalmologic, neurophysiological and neurological care.

854 patients were treated in the department in 2007. The number of surgical interventions performed in the department totalled 1,016 (including 819 Leksell gamma knife irradiations and 197 miscellaneous interventions). Neurostimulators were implanted or reimplanted to 20 patients. The department still retained a small number of patients from the Slovak Republic (19 in 2007). Among the patients irradiated by the Leksell gamma knife were, as traditional, patients from Ukraine who were offered this treatment free of charge under the terms of a tripartite agreement between

Na Homolce Hospital, Charta 77 Foundation and Ukraine (12 pediatric patients) or under the same conditions as Czech nationals (11 patients).

In 2007, work continued on internal grant projects in association with the Střešovice ÚVN Eye Clinic to study the treatment of early stages of glaucoma by Leksell gamma knife and the effects of the Leksell gamma knife irradiation on the progress of age influenced macular degeneration. Both projects are supported by the Elekta company. The number of patients with ophthalmologic indication for irradiation by the Leksell gamma knife accounted for 3.5% of all referrals last year. The Department of Stereotactic and Radiation Neurosurgery is the only center of its kind in the Czech Republic and the East European region. The quality of its work and the range of its experience have ranked it among the foremost centers of its type worldwide.

Two grant projects were completed at the Department of Stereotactic and Radiation Neurosurgery in 2007.

Clinical Programs – Summary of Activities

Neurological-Neurosurgical Program (Neuroprogram)

Basic data

Number of beds	
Day-care	8
Number of physicians	6
Number of supervised medical staff, technical and administrative staff and X-ray assistants	6
Number of general nursing staff	13
Inpatient ward	
Number of patient admissions	854
Number of surgeries by Leksell gamma knife	819
Number of other stereotactic operations	197
Number of days of treatment	1188
Bed occupancy rate (in %)	68.71
Average length of stay (in days)	1.39
Outpatient clinic	
Number of outpatient examinations	3,687
Number of written outpatient consultations	2,045
Number of patients attending the oncological clinic	1,310
Number of patients attending the eye clinic	62
Number of neurophysiological examinations	398
Number of neurostimulators implanted	11

Number of patients treated by Leksell gamma knife

2000	2001	2002	2003	2004	2005	2006	2007
566	735	781	803	856	798	802	819

Radiosurgical treatment by Leksell gamma knife broken down by individual diagnosis

2000	2000	2001	2002	2003	2004	2005	2006	2007
Malignant tumors of the brain	34%	30%	31%	33%	32%	30%	26%	34%
Benign tumors of the brain	41%	34%	37%	39%	36%	37%	45%	40%
Functional diseases of the brain	14%	16%	14%	10%	12%	14%	12%	12%
Vascular malformations of the brain	11%	9%	9%	9%	10%	11%	10%	10.5%
Eye indications		11%	9%	9%	11%	8%	7%	3.5%

Clinical Programs – Summary of Activities

NEUROPROGRAM 2000–2007

Development in the number of Neuroprogram patient admissions

	2000	2001	2002	2003	2004	2005	2006	2007
Gamma knife	669	815	788	768	1,121	1,020	870	854
Neurology	866	1,042	970	1,145	1,376	1,295	1,477	1,467
Neurosurgery	2,112	2,226	2,402	2,470	2,541	2,190	2,115	2,152
Total	3,647	4,083	4,160	4,383	5,038	4,505	4,462	4,473

Development in the number of Neuroprogram outpatient examinations

	2000	2001	2002	2003	2004	2005	2006	2007
Gamma knife	2,212	2,583	2,544	2,553	2,245	2,695	3,110	3,687
Neurology	13,333	13,654	14,115	15,755	16,079	16,563	18,798	19,104
Neurosurgery	7,318	7,913	9,020	9,559	10,679	10,524	11,240	11,281
Total	22,863	24,150	25,679	27,867	29,003	29,782	33,148	34,072

Clinical Programs – Summary of Activities

Cardiovascular Program

DEPARTMENT OF CARDIOLOGY

Head of Department:

Professor Petr Niederle, M.D., Ph.D.

Miloš Táborský, M.D., Ph.D., FESC, MBA

The clinical activities of the department cover the full range of preventive, diagnostic and therapeutic methods for patients with diseases of the heart and blood vessels, or with a high risk of incurring these diseases. As in previous years, the department provided full coverage of several individual specialized areas in 2007.

Acute cardiology along with coronary unit serves for examination and intensive care of patients suffering from acute and critical conditions and monitoring of their essential vital functions. Invasive cardiology deals with diagnostics of diseases of the coronary arteries, including therapeutic interventions. In 2007, a total of 2,506 coronographies were performed, and 1,056 stents were implanted. **Invasive cardiology** also covers cardiac electrophysiology, and in particular the diagnostics and treatment of cardiac rhythm disorders. For a long time, Na Homolce Hospital has been one of the largest European centers specializing in this field, and last year (2007) 3,896 diagnostic and therapeutic interventions were performed, including the implantation of

pacemakers and defibrillators, radiofrequency ablations and other types of interventions. Opening of the new multifunctional catheterization laboratory with three theatres featuring the NIOBE magnetic navigation system, robotic cardiac navigation (Hansen system) and implantology was a major event. It ranks the Department of Cardiology of the Na Homolce Hospital among the most modern facilities of the field of electrophysiology in Europe and the world. Newly reconstructed arrhythmologic outpatient clinic was open to patients in 2007. In the same year, certified experimental laboratory of cardiac electrophysiology which serves for testing and optimisation of new methods in this field was built in cooperation with the First Faculty of Medicine of the Charles University. The lab is placed in the Institute of Physiology of the First Faculty of Medicine, Charles University.

Non-invasive cardiology continued to offer patients a wide range of diagnostics of cardiovascular diseases during this period

Clinical Programs – Summary of Activities

Cardiovascular Program

including, among others, ultrasound, electrocardiography stress tests and echocardiograms, as well as long-term monitoring of cardiac rhythm and blood pressure.

Clinical cardiology traditionally covered diagnostics and treatment of cardiovascular diseases both in hospital wards and in specialized outpatient clinics, and participated in the provision of final treatment and physiotherapy for acute conditions and in the treatment of chronic diseases of the circulatory system.

Almost 24 thousand outpatients were treated in the department in 2007.

The specialized heart failure unit which offers continuous follow-up of patients with heart failure and care for patients at less advanced stages of the disease, monitored a total of 966 patients during 2007.

In 2007, the Department of Cardiology continued in its work on the BARI 2D international multicentric study, in

which Na Homolce Hospital is the only European Center to participate. In collaboration with IKEM (Institute of Clinical and Experimental Medicine) it continued in one grant project.

The most successful publications in 2007:

Reddy, V.Y, Reynold, M.R., Neužil, P., Richardson, A.W., Táborský, M.: Prophylactic Catheter Ablation for the Prevention of Defibrillator Therapy. *N Engl J Med* 2007; 357:2657-65. IF: 44,08.

Basic data

Number of beds	61
standard	30
intermediate	4
intensive	18
Day care clinic	5
Number of physicians	26
Number of general nursing staff	90
Number of outpatient examinations	46,950
Number of patient admissions	4,664
Number of days of treatment	15,944
standard	9,995
intensive	5,949
Bed occupancy (in %)	86.29
standard	82.99
intensive	92.45
Average length of stay (days)	3.46
standard	3.25
intensive	2.52

Specialized interventions

Angiography center	
Coronarography (SKG)	2,506
Ventriculography (LVG)	921
Right-side angiocardiography	121
Pulmonary artery angiography	89
P catheterization	127
P – L catheterization	313
Percutaneous Coronary Intervention (PCI)	886
Direct angioplasty PCI (AIM)	228
Stents	
Number of patients	879
Number of stents	1,056
Bulbus aortography	41
Alcohol septal ablation	11
Oclusion of ventricular septal defect (Amplatz)	12
Enhanced external counterpulsation	29
Tandem Heart	5
Pericardial puncture	17
Other angiographies and specialized procedures	21
Complications	
emergency bypass (CABG)	1
mortalities	4 (0.45%)

Electrophysiology Center

Primary implantation and exchange of pacemakers	727
Electrophysiology	1,878
Implantation + reimplantation of ICDs	359
Biventricular stimulation	121
RF ablations in total	466
Extraction of electrodes	75
Right ventricle biopsy	17
Implantation of IV port for the administration of drugs	0
Implantable arrhythmia monitor (REVEAL)	42
Outpatient pacemaker implantation/exchange	211
Total	3,896
Complications	
pneumothorax	21 (0.50%)
hemothorax	2 (0.05%)
a–v fistula	3 (0.07%)
perforations / electrode penetrations	11(0.23%)
mortalities	1 (0.03%)

Outpatient clinics

General cardiology	10,787
Pacemakers	7,981
Angiology	2,252
Heart failure clinic	966
High blood pressure outpatient clinic	1,684

Non-invasive cardiology

Echocardiography	5,300
Esophagus examination	614
Dobutamin load	51
Total	5,919
ECG stress test	1,007
Holter EKG + recollect	1,794
TK monitor	1,275
TT test	41
Spiroergometry	79

Clinical Programs – Summary of Activities

Cardiovascular Program

DEPARTMENT OF VASCULAR SURGERY

Head of Department:
Pavel Šebesta, M.D., Ph.D..

The department deals with surgical and angio-radiological invasive diagnostics and treatment of diseases of the vascular system, primarily the narrowing or complete occlusion of the blood vessels as a result of atherosclerosis, and also with the injuries of arterial and vascular system except for coronary arteries, ascending aorta and the aortic arch. It is the only center of its type with nationwide coverage of complex vasculo-surgical problems, ranging from radical replacement of the thoraco-abdominal aorta to palliative interventions such as radiofrequency sympathectomy. The department provides 24-hour emergency surgical care for all critical vasculo-surgical conditions.

In 2007, the spectrum of surgical interventions included operations on the arteries supplying the brain, **operations on the thoracic and abdominal aorta including aneurysms, reconstruction of arteries supplying abdominal and retroperitoneal organs and operations of arteries serving the lower limbs.** Patients with the ischemic disease of lower limbs and with narrowing of arteries supplying blood to brain form

the largest group of patients treated. Miniinvasive medical interventions performed in the department included thoracic sympathectomies by thoracoscopic method, laparoscopic lumbar sympathectomies and endoscopic operations of the varicose veins.

In 2007, the vascular surgery at Na Homolce Hospital further fostered its **worldwide leading position in the area of robot-assisted vascular surgery.** The first hybrid intervention of robot-assisted aortobifemoral reconstruction directly followed by robot-assisted operation of hernia in the scar was performed here. Almost one hundred robotic vascular interventions took place in the department by the end of 2007, which is an outstanding achievement in this field. Many robotic operations performed in the Department of Vascular Surgery of Na Homolce Hospital had a world premiere here, and our experience with vascular surgical interventions has been well received by the professional public at home, as well as abroad, particularly in the US.

Endovascular surgery represents another area of the department's activities that focuses on implantations of stentgrafts in the treatment of abdominal aneurysms or thoracic aorta.

A new intensive care unit was open for patients in April 2007.

The Department of Vascular Surgery at Na Homolce Hospital also serves as a training center in vascular surgery for postgraduate studies at the Institute of Postgraduate Medical Education. It also functions as a specialized consultancy for serious and complicated angiosurgical cases.

Award for the most successful publication:
Štádlér P., Matouš P., Vításek P., Špaček M.: Robot-assisted aortoiliac reconstruction: A review of 30 cases. *J Vasc Surg.*, 2006, 44(5), 915-919.

In May 2007, this publication was awarded as the best publication in the field of cardiovascular surgery for 2006 by the Czech Society of Cardio-Vascular Surgery of the J. E. Purkyne's Czech Medical Society.

Basic data

Number of beds	61
standard	36
intensive care	12
intermediate	13
Number of physicians	19
Number of general nursing staff	96
Number of outpatient examinations	14,950
Number of patient admissions	2,365
Number of days of treatment	18,330
standard	10,298
intensive	3,654
intermediate	4,378
Bed occupancy rate (in %)	89.05
standard	85.79
intensive	99.80
intermediate	90.51
Average length of stay (in days)	7.74
standard	3.09
intensive	3.50
intermediate	3.14

Clinical Programs – Summary of Activities

Cardiovascular Program

Total number of reconstructions performed

2000	2001	2002	2003	2004	2005	2006	2007
1,345	1,349	1,552	1,573	1,625	1,410	1,585	936

Breakdown of vascular and general surgical interventions

Thoracic aneurysm:	5
Abdominal aneurysms:	
1. traditional	72
2. stentgrafts	104
Aortofemoral reconstructions:	63
Pelvic reconstruction:	55
Extraanatomic reconstruction in aortoiliac area:	18
Operations on branches of the aortic arch:	240
Femoropopliteal proximální rekonstrukce:	89
Reconstructions of arteries supplying the limbs:	72
Operations on varicose veins:	128

Minimally invasive interventions

Total robotic vascular reconstructions:	46
Robotic operation of hernia in the scar:	1
Thoracic sympathectomy – thoracoscopic method:	32
Lumbar sympathectomy – laparoscopic method:	4
Endoscopic operations of the varicose veins:	7

Department OF CARDIAC SURGERY

Head of Department:
Štěpán Černý, M.D., Ph.D.

The Department of Cardiac Surgery deals with complex surgical treatment of diseases affecting the heart and the major endo-thoracic vessels. Its activities also cover outpatient monitoring of selected groups of patients before and after surgical intervention.

The range of cardiosurgical operations in the previous year was comparable with the range of these interventions throughout the Czech Republic, but their breakdown reveals a tendency for the department to specialize in **valvular surgery**, which in 2007 comprised 49.4% of the total number of operations. In the course of 2007, 814 cardiosurgical interventions were performed in the department. The program of surgical maintenance of the mitral valves and reconstruction of the left ventricle was further developed, while the ratio of mitral valvuloplasty in the total number of mitral interventions again exceeded 70%.

In the period under review, the unit worked in collaboration with the Department of Cardiology

on the successful development of the **peri-operative cryoablations in patients with chronic atrial fibrillation** program, when 153 patients were treated using this method. As a result, Na Homolce Hospital remains the center performing the highest number of these interventions in the Czech Republic. Working together with the Department of Vascular Surgery and the Department of Radiodiagnostics, **the interdisciplinary care for patients with complex disorders of the aortic arch** focusing primarily on their endovascular treatment, continued in 2007. Na Homolce Hospital is gradually becoming a center with the highest number of interventions performed on thoracic aorta in the Czech Republic.

The program of care for adult patients with congenital heart condition was systematically developed in 2007. **The program consists of a specialized outpatient clinic for adult** congenital heart conditions and a separate operating theater and post-operative care which is provided in

Clinical Programs – Summary of Activities

Cardiovascular Program

Department of Cardiac Surgery of Na Homolce Hospital, in collaboration with the pediatric Cardiocenter at Motol Teaching Hospital.

In 2007, **the da Vinci robotic operating system** for cardiosurgical interventions was introduced. In the period under review, a total of 36 robot-assisted cardiosurgical operations took place. Certain procedures, for example the robot-assisted closure of the septum defect, became a routine intervention and preferred option for the surgical treatment of diagnosed heart disorders..

Basic data

Number of beds	34
standard	14
intensive	10
semiintensive	10
Number of physicians	21
Number of general nursing staff	96
Number of outpatient examinations	3,320
Number of patient admissions	968
Number of days of treatment	10,564
standard	3,983
intensive	2,822
intermediate	3,759
Bed occupancy rate (in %)	85.41
standard	77.95
intensive	77.32
intermediate	100
Average length of stay (in days)	10.91
standard	2.83
intensive	3.27
intermediate	4.15

Surgical interventions

Isolated aortocoronary reconstructions	286
Combined aortocoronary reconstructions (EACI, MAZE etc)	35
Coronary valve replacement/reconstruction	402
Isolated operations on the ascending aorta and the aortic arch	28
Epicardial stimulator electrode implants	36
Mixcellaneous (myxoma, pericardectomy, PM extraction)	27
Total	814
MAZE operations (combined with ACB and valvular surgery)	153
Total thoracic aorta operations (combined with other interventions)	83
Robot-assisted interventions	36
Acute and emergency operations	149
Planned operations	665

Development in the numbers of patient admissions in the Cardiovascular Program

	2000	2001	2002	2003	2004	2005	2006	2007
Cardiac Surgery	312	322	325	669	962	986	876	968
Vascular Surgery	2,380	2,400	2,884	2,736	2,743	2,494	2,506	2,365
Cardiology	2,982	3,058	3,972	3,984	4,592	4,523	4,318	4,664
Total	5,674	5,780	7,181	7,389	8,297	8,003	7,700	7,997

Development in the number of outpatient admissions in the Cardiovascular Program

	2000	2001	2002	2003	2004	2005	2006	2007
Cardiac Surgery	439	452	487	1,440	1,714	2,257	3,017	3,320
Vascular Surgery	9,722	9,793	10,463	11,516	11,763	14,029	14,804	14,950
Cardiology	23,241	24,988	28,561	29,059	28,136	46,313	47,312	46,950
Total	33,402	35,233	39,511	42,015	41,613	62,599	65,133	65,220

Clinical Programs – Summary of Activities

General Medical Care Program

DEPARTMENT OF INTERNAL MEDICINE

Head of Department:
Jan Kábrt, M.D., Ph.D.

The department's activities include ensuring preventive, diagnostic and conservative treatment for diseases of internal nature, with distinct above-regional sub-specializations in **gastroenterology and pneumology**. The department provides traditionally care in the areas of **artificial nutrition and metabolism. The outpatient services also comprise diabetology, endocrinology and obesityology**. The intensive care unit is dedicated to patients suffering from acute internal diseases.

In 2007, the department continued to provide the necessary clinical back-up to the key parts of the Na Homolce Hospital's Cardiovascular program and Neuroprogram. The intensive care unit focused on internally polymorbid patients, and particularly on patients suffering from complicated infections.

In the area of gastroenterology, the double balloon enteroscopy was introduced in the period under review. The unit was equipped

with a gastroscope and a colonoscope with NBI (narrow band imaging) allowing more precise diagnostics of the diseases of the digestive tract and with an endosonograph with a surgical channel. **The Gastroenterologic unit** served as a center for biological treatment of unspecified intestinal inflammations.

In November 2007, the **Pulmonary Endoscopy Center** was open in the Department of Internal Medicine. It offers comprehensive bronchologic diagnostics including autofluorescent bronchoscopy, NBI (narrow band imaging) and endobronchial ultrasonography – unique in the Czech Republic. The range of Center's services also features rigid bronchoscopy in general anaesthesia, endobronchial rechannelling, electrocauterization and implantations of endobronchial stents. The pleuroscopy using semirigid videopleuroscope is also performed in the department, a unique method in the Czech Republic, which allows precise diagnostics and therapy of the pleural syndrome. The new

diagnostic methods combined with the existing ones (such as PET-Center at the Department of Nuclear Medicine) provide exceptional opportunity for early diagnosis and staging of carcinoma of the bronchi in the Czech Republic.

The Department of Internal Medicine also runs an emergency service for acute patients who are not admitted directly to Na Homolce Hospital's specialized departments. The internal medicine specialist's unit in the Czech House (Český dům) in Moscow continued its work in 2007.

The Department of Internal Medicine also acted as a training center in the specialized field of "Artificial Nutrition and Metabolic Care" in 2007.

Basic data

Number of beds	29
standard	21
intensive care	8
Number of physicians	25
Number of general nursing staff	51
Number of outpatient examinations	41,053
internal medicine clinic	33,391
gastroenterological examinations	10,586
Spirometry	2,783
Flexible and autofluorescent bronchoscopy	963
Number of patient admissions	1,110
Number of days of treatment	9,328
standard	6,627
intensive care	2,701
Bed occupancy rate (as a %)	89.99
Standard	88.15
intensive care	94.84
Average length of stay (in days)	8.40
standard	6.45
intensive care	9.44

Clinical Programs – Summary of Activities

General Medical Care Program

Specialized interventions in 2007

Gastroscopy	2,305
Colonoscopy	2,057
Endoscopic sonography	612
ERCP	516
PEG	24

DEPARTMENT OF ONCOLOGY

Head of Department:
Tomáš Vlášek, M.D.

The Department of Clinical Oncology specializes in the **treatment of adult patients with malignant tumors**.

With the exception of therapy by irradiation, anti-tumor therapies in all indications are performed in the department – adjuvant, neoadjuvant and palliative. The overwhelming majority of patients are treated for breast, colorectal, lung and prostate carcinoma, which are the most commonly occurring tumors in the country. A team of specialists in the fields of radiodiagnostics, surgery, internal medicine, gynecology and pathology participate in the diagnostic process of the most often occurring malignant tumors. The radiotherapy is performed at linear accelerators in collaboration with Motol Teaching Hospital and Na Bulovce Teaching Hospital.

Na Homolce's Department of Oncology became part of a united comprehensive oncological grouping, together with the Department of Radiation Oncology at Motol Teaching Hospital and the Central Military Hospital's Department of Clinical Oncology.

Their collaboration enables targeted biological treatment of diagnosed patients.

Basic data

Number of physicians	3
Number of general nursing staff	3
Number of outpatient examinations	7,345
Number of cycles of chemotherapy	2,372

Clinical Programs – Summary of Activities

General Medical Care Program

DEPARTMENT OF SURGERY

Head of Department:

Pavel Beňo, M.D.

The department provides a wide spectrum of services covering diagnostics and surgical treatment in the areas of **general surgery, orthopedics and urology**, while the outpatient clinic also includes **counselling centers for abdominal, gastroenterological and lung surgery and oncosurgery, as well as a counselling center for mammology, phlebology and bariatry, an orthopedic outpatient clinic, a urological outpatient clinic and a clinic for minor surgical interventions**. The intensive care unit provides post-operative care for complicated and life-threatening cases.

In the field of general surgery, as in previous years, abdominal and thoracic surgery was performed using minimally invasive methods in all areas of laparoscopic surgery and one-day surgery was prioritized. Care continued to be provided in oncological surgery of the digestive tract, mammology and bariatric surgery (for morbid obesity). In 2007, the surgical team performed the standard range of interventions,

primarily using the perioperational radiofrequency ablation method for the treatment of liver metastasis in colorectal carcinoma, as well as laparoscopic reconstructions of inguinal and frontal hernias, laparoscopic bariatric surgery, operations for anal prolapse and hemorrhoids using the Long method, and laparoscopic surgical interventions to treat the gastro-esophageal reflux disease. During the period under review, further developments were made in the most demanding laparoscopic procedures on the colon, rectum and gastrointestinal tract using the harmonic scalpel. 2007 was the third year of operation of the **da Vinci robotic operation system**, which was primarily used for bariatric surgical procedures and for the gastro-esophageal reflux disease, hiatus hernia and surgeries of the colon and rectum. Na Homolce Hospital's Department of Surgery is a national training center for anal prolapse surgery and the Long method of treatment of hemorrhoids.

Orthopedic operations performed in 2007 comprised the total replacement of

joints, including shoulder and ankle joints, as well as the reimplantation of joints. The orthopedic navigational system was routinely used for surgery on large joints during 2007. Na Homolce Hospital's Department of Surgery is a reference center for ankle joint surgery and a training center for knee joint surgery using a LCS rotating plate and the Orthopilot orthopedic navigation system.

Urological operations included, as in previous years, open and endoscopic surgery on the urinary system, including urological oncosurgery, using minimally invasive laparoscopic, cystoscopic and ureterorenoscopic surgical techniques. 2007 was the third year when **da Vinci robotic operation system** was used during urologic surgical procedures (in particular for radical prostatectomies, pyeloplasty and kidney resections).

Basic data

Number of beds	31
Standard	16
Intensive care	15
Number of physicians	24
Number of general nursing staff	44
Number of outpatient examinations	39,309
Number of patient admissions	2,374
Number of surgical interventions	2,257
minor outpatient interventions	707
Number of days of treatment	10,706
Standard	7,849
Intensive care	2,857
Bed occupancy rate (as a %)	99.54
Average length of stay (in days)	4.51
Standard	2.73
Intensive care	4.19

Clinical Programs – Summary of Activities

General Medical Care Program

Number of outpatient examinations

Surgery	17,133
Orthopedics	11,710
Urology	8,541
Total	37,384

Number of surgical interventions

Surgery	1,270
Urology	204
Orthopedics	657
Robot-assisted operations	126
Minor outpatient interventions	707

Number of patient admissions by diagnosis

Neoplasms	331
Diseases of the digestive system	862
Orthopedic disorders	615
Urological disorders	133
Benign tumors	98
Morbid obesity	62
Other conditions	273

DEPARTMENT OF GYNECOLOGY

Head of Department:
Zdeněk Zelenka, M.D.

The department's activities cover diagnosis and surgical treatment of gynecological diseases. The complete spectrum of pelvic and gynecological surgery was concentrated in five clinical programs in 2007: **oncologic and oncolaparoscopic surgery, urogynecological surgery and reconstruction operations, complex diagnostics and endometriosis surgery, robot-assisted interventions and general gynecologic surgery.**

Oncological and oncolaparoscopic surgery includes classical, laparoscopic, laparoscopically assisted and laparovaginal surgery for tumors of the vulva, cervix, endometrium and ovaries. The department's modern operating methods and state-of-the-art equipment have significantly contributed to improvements in the precision and speed of oncolaparoscopic interventions. A unique program of complex laparoscopic operation of cervical carcinoma was introduced in the department (and the Czech Republic) in 2007.

Urogynecologic surgery covers surgical treatment of incontinence and complex surgical procedures for cases of pelvic organs prolapse and muscular insufficiency of the pelvic floor, where emphasis is placed on finding a laparoscopic solution to these problems. 315 patients were operated on for the problems of complex urogenital prolapse using reticulate implants. A technique referred to as laparoscopic global repair was standardized in the unit back in 2003, and subsequently adopted by other gynecological centers in the Czech Republic. In this field, the department also serves as a center for the treatment of incontinence using the transobturator urethropexy approach.

Complex diagnostics and endometriosis surgery program offers patients from the Czech Republic a comprehensive treatment comprising radical laparoscopic operations, a predictive histological diagnosis of growth factors and subsequent hormonal therapy with a final check-up

Clinical Programs – Summary of Activities

General Medical Care Program

to verify its success. Na Homolce Hospital's Department of Gynecology is still one of the few centers in the Czech Republic to perform radical surgical excision of retrovaginal septal endometriosis, a procedure that involves the resection and suturing of the vaginal walls.

2007 was the third year in which the **da Vinci robotic operating system** was used for gynecological surgery, representing a totally new level of quality, in particular in oncogynecological surgical interventions and in reconstruction surgery for disorders of the pelvic floor, as well as other indications. In 2007, routine robotic surgical operations included also oncological surgical procedures and global reconstructions of the pelvic floor.

General gynecological surgery offers surgical treatment of infertility, myomatosis, adnexal tumors and cysts, chronic pelvic pain, inflammation and congenital development disorders of the uterus.

Overall, the number of surgical interventions totalled 2,095 operations in 2007, of this 87%, including oncological interventions, **were performed** laparoscopically or hysteroscopically, i.e. by methods which are referred to as **minimally invasive**.

The Department of Gynecology is the headquarters of the secretariat of the Czech Association of Gynecological Endoscopy and Pelvic Surgery (CSGE) and an accredited center for gynecologic oncosurgery.

In 2007, the department co-organized the 2nd nationwide workshop with urogynecologic and oncogynecologic programs.

Radical oncogynecological operations:

Vulvar carcinoma	7
Cervical carcinoma	23
Endometrial carcinoma	37
Ovarian carcinoma	25
Fallopian tube carcinoma	2

Basic data

Number of beds	26
Standard	20
Intensive care	6
Number of physicians	9
Number of general nursing staff	17
Number of outpatient examinations	24,164
Number of surgical interventions	2,095
of which oncological operations	94
Number of days of treatment	7,810
Standard	6,389
Intensive care	1,421
Bed occupancy rate (as a %)	92.81
Standard	97.26
Intensive care	76.98
Average length of stay (in days)	3.53
Standard	2.14
Intensive care	1.82

Clinical Programs – Summary of Activities

General Medical Care Program

DEPARTMENT OF ENT / HEAD AND NECK SURGERY

Head of Department:

Jan Paska, M.D.

The department specializes in diagnostics, and conservative and surgical treatment of diseases of the ears, nose and throat. Surgical interventions in 2007 included so called **one-day surgery**, as well as **a complete range of head and neck surgery**, concentrating on comprehensive oncological ENT surgery, cophosurgical interventions, surgery to the nose and paranasal cavities including endoscopic interventions, complex surgery on the thyroid gland, adenotomy, as well as reconstructive surgery in the area of head and neck, microsurgery on the larynx, operations to the soft tissues of the head and neck and surgery for injuries to the facial bones. Surgery to the base skull was developed in collaboration with the Department of Neurosurgery.

The **Program of comprehensive treatment of the lower jaw** continued in 2007 and a jaw clinic began routine operations. The therapy for diseases of the lower jaw requires the widest possible range of treatment options – from conservative treatment methods, through

minimally invasive methods (arthrocentesis under local anesthetic, initial arthroscopic surgery) to traditional surgery of the jaw (temporomandibular) joint including its total replacement.

The department's outpatient clinic again provided a comprehensive range of services throughout 2007, including specialized counseling in the fields of **oncology, otoneurology, cophosurgery, otoprosthesis, a rhinology clinic, a clinic for thyroid disorders, a clinic for corrective nose surgery, a foniatic outpatient clinic and a joint clinic**. There was a significant expansion of the services provided by **the sleep and snoring disorders clinic**, particularly in collaboration with the Department of Neurology and sleep disorders laboratories. The department also has a **specialized pediatric practice**.

Basic data

Number of beds	11
Standard	8
Intensive care	3
Number of physicians	11
Number of general nursing staff	19
Number of outpatient examinations	37,064
Number of patient admissions	964
Number of surgical interventions	1,428
Number of days of treatment	3,692
Standard	2,808
Intensive care	884
Bed occupancy rate (as a %)	92.30
Standard	91.30
Intensive care	96.16
Average length of stay (in days)	3.83
Standard	1.88
Intensive care	1.65

Number of surgical interventions

Adenotomies	0
Operations under local anesthetic	421
Operations under general anesthetic	849
Operations using tracheotomies	148
TEP/TMJ surgery	147
Adenotomies	10

Clinical Programs – Summary of Activities

General Medical Care Program

DEPARTMENT OF NEPHROLOGY

Head of Department:
Lukáš Svoboda, M.D.

The Department of Nephrology provides **non-stop nephrological care and an entire range of hemopurification treatments for patients suffering from chronic and acute kidney failure.** The department also includes a nephrological clinic providing diagnostics and treatment of kidney disease as well as a specialized counseling unit for ischemic kidney disorders.

The Hemodialysis Center is open 24 hours a day and has ten dialysis units, including one cubicle for patients suffering from hepatitis B and one cubicle for patients with hepatitis C. Comprehensive continuous dialysis treatment covers chronic and acute hemodialysis, hemofiltration, hemodiafiltration, plasmapheresis, hemoperfusion peritoneal dialysis and continuous elimination methods. In 2007, the cumulative mortality rate of chronic patients remained below average Czech and European rates.

The reputation the Na Homolce Hospital Department of Nephrology enjoys at a Czech and European level is strengthened by its long-term efforts to create an integrated rehabilitation program for dialysis and transplant patients. The sports club for these patients, part of the Czech Sporting Association, was founded in association with Na Homolce Hospital and not only devotes itself to educational and informational activities, but primarily to the organization of sporting activities for dialysis and transplant patients, including their representation at international sporting events.

Basic data

Number of full-time physicians	3
Number of general nursing staff	16
Number of dialysis units	10
of which 1 cubicle for patients with hepatitis B	
of which 1 cubicle for patients with hepatitis C	
Number of dialysis monitors	18
Number of monitors for continuous hemopurification	4

Number of outpatient examinations

Number of patients monitored in the nephrology clinic	1,165
Number of patients sent for kidney transplants	8

Interventions performed

Hemodialysis	5,492
-acute hemodialysis	406
Hemodiafiltration	3,142
Hemofiltration	5,084
Continuous techniques	351
Plasmaphoresis	17

Clinical Programs – Summary of Activities

General Medical Care Program

DEPARTMENT OF ANESTHESIOLOGY AND RESUSCITATION (AR)

Head of Department:
Milan Ročeň, M.D.

The Department of Anesthesiology and Resuscitation provides comprehensive care for patients during surgery as well as in the periods prior to and following their operations, the administration of general anesthesia and the more demanding types of local anesthesia. The Resuscitation unit provides comprehensive diagnostics and treatment of patients whose general state of health is affected by disorders to their basic vital functions, so severe as to be life-threatening and who require the highest level of medical care. The overwhelming majority of cases are patients with injuries to the brain and cranium. The facilities provided by the center include a hyperbaric chamber offering the possibility of artificial pulmonary ventilation and other specialized methods of reanimation treatment. The pain management clinic deals with problems experienced by patients in chronic pain. In 2007, an independent anesthesiology unit for bronchology was added to the department.

Breakdown of units

- 1 resuscitation unit
- 7 central operating theaters
- 3 operating theaters for general surgery
- 2 operating theaters for gynecology
- 1 operating theatre for robotic surgery
- 9 other operating theaters and units (ENT, stereotaxis, x-ray, dentistry, eye clinic, CAR, NM-PET, GASTRO, bronchiology)
- 1 hyperbaric chamber

Basic data

Number of beds	8
Number of physicians	28
Number of general nursing staff	57
Number of outpatient examinations	1,259
Number of patient admissions	80
Number of days of treatment	2,784
Bed occupancy rate (as a %)	97%
Average length of stay (in days)	39.8

Summary of selected anesthesiology interventions

Number of patients anesthetized for interventions lasting longer than 2 hours	3,462
Number of local anesthetics	824
Number of patients over the age of 70 anesthetized	1,647
Number of children anesthetized	107
Number of anesthetics administered for acute interventions	1,355
Number of other anesthetics administered	2,783
Total number of anesthetics administered	10,178
Interventions in the pain clinic	517

Clinical Programs – Summary of Activities

General Medical Care Program

Development in the numbers of General Medical Care Program patient admissions

	2000	2001	2002	2003	2004	2005	2006	2007
ENT	707	876	788	949	1,133	1,076	988	964
Internal Medicine	1,060	1,026	1,006	1,023	1,234	1,110	1,082	1,110
Gyneology	1,686	1,916	2,016	1,986	2,094	1,978	2,050	2,210
Surgery	1,780	1,874	2,095	2,156	2,408	2,194	2,372	2,374
Total	5,233	5,692	5,905	6,114	6,869	6,358	6,492	6,658

Development in the numbers of General Medical Care Program outpatient examinations

	2000	2001	2002	2003	2004	2005	2006	2007
ENT	31,401	33,542	29,327	31,612	35,202	35,489	35,522	37,064
Internal Medicine	42,310	44,515	45,296	45,769	44,093	39,765	44,104	41,053
Gyneology	22,611	21,580	22,768	24,855	23,650	22,951	20,603	24,164
Surgery	30,954	33,592	37,268	39,255	42,705	39,923	44,217	39,309
Nephrology	8,170	9,271	10,174	10,141	10,799	11,623	10,381	10,381
Oncology					5,157	8,074	7,577	7,345
Total	135,446	142,500	144,833	151,632	161,606	157,825	162,404	159,316

Clinical Programs – Summary of Activities

Summary of activities of the complementary services

- Department of Radiodiagnostics
- Department of Clinical Microbiology
- Department of Nuclear Medicine
- Department of Pathology
- Department of Clinical Biochemistry, Hematology and Immunology
- Department of Central Sterilization and Hygiene

DEPARTMENT OF RADIO DIAGNOSTICS

Head of Department:

Ladislava Janoušková, M.D., Ph.D.

During 2007, the department continued to provide services to Na Homolce Hospital, as well as to other health care facilities including those available around-the-clock. The scope of its activities included diagnostic examinations in all areas of radiodiagnostics with emphasis on diseases of the nervous, locomotive and cardiovascular systems, as well as on vascular and non-vascular interventions.

The department continued to apply **vascular techniques** during the year under review, working closely with the vascular and cardiac surgery departments on a program to implant stents in aneurysms of the abdominal and thoracic aorta and the pelvic circulatory system, with the total number of interventions reaching 98. Na Homolce Hospital is thus ranked first in the Czech Republic for the number of implants performed. Use of platinum coils was newly introduced in the treatment of aneurysms facilitating its closure. The revascularization treatment for acute ischemic cerebrovascular diseases, based on acute occlusion of one of the main cerebral

arteries, was extended by adding a new technique involving mechanical removal of the thrombus with the help of MERCI equipment to the intra-arterial thrombolysis. It is so far the only technique, which acquired the FDA approval for clinical use.

A new double-projection angiograph Axiom Artis serving, thanks to superior postprocessing and sophisticated road-mapping, especially for neuro-radiological examinations, expands the therapeutic possibilities of vascular interventions in the area of head, spine and other parts of the body.

In the area of **non-vascular methods** the percutaneous vertebroplasty, alongside the newly introduced kyphoplasty was applied in the treatment of compress fractures of the vertebrae due to osteoporosis or from other causes in 2007. In the segment of interventional radiology, Na Homolce Hospital is the leading Czech medical facility.

A new feature of 2007 in **magnetic resonance** examinations is the introduction of

Clinical Programs – Summary of Activities

Summary of activities of the complementary services

diffuse imaging into routine clinical practice and development of the diffuse tensor imaging for white matter tractography with the perspective of its routine use in the second half of 2008. 2007 also saw further development of functional MR Bold imaging for neuronavigational surgery and deep brain stimulation.

Quality markers for **mammography screening** from evaluation as at 31 December 2006 placed Na Homolce Hospital mammogram unit in the first place out of 58 units in the Czech Republic that were evaluated.

All **radiography and radioscopy** photographs are filed in the hospital's on-line information system, where they are immediately available for physicians from the entire hospital. With the exception of mammography and ultrasonography the operation of the Radiodiagnostic Department is digitalized, i.e. no films are used.

In 2007, the Department of Radiodiagnostics completed three grant projects.

Technical equipment

Angiography Center:	1x Multistar Siemens Siemens Axiom Artis biplane 1x theater OEC 9700
CT unit:	1x Siemens Somatom Plus 4 1x Siemens Sensation
MR unit:	1x Magnetom Impact Expert 1 T 1x Magnetom Symphony 1,5 T
USG unit:	1x Toshiba Aplio 1x Toshiba Eccocee 1x GE Logiq 9
Mammography:	1x Lorad M-IV
Basic equipment:	4 radiosopic and radiographic units, mobile x-ray units, PACS work stations, scanners, printers, laser cameras, data archives

Basic data

Number of physicians	19
Number of laboratory technicians	29
Number of general nursing staff	9

Specialized therapeutic interventions in 2007

PTA	426
Implantation of stents into abdominal and thoracic aortal aneurysms	98
Endovascular treatment of cerebral aneurysms using GDC	38
Local thrombolysis and PTA in the extra- and intra-cranial area	42
Vascular embolisation and interventions to the head and spine	17
CT-guided radicular injections	1,089
Drainage of abscesses and cysts, guided biopsies	23
Vertebroplasty	62
Kyphoplasty	9
Radiofrequency ablations	33
Breast node biopsies	130
Biopsies of other locations	67

Selected radiodiagnostic examinations in 2007

Computer tomography	14,027
Magnetic resonance	15,127
Angiography	16,092
Ultrasound examinations	17,595
Mammography	11,388
Total number of radiodiagnostic examinations	120,000

Clinical Programs – Summary of Activities

Summary of activities of the complementary services

DEPARTMENT OF NUCLEAR MEDICINE / PET CENTER

Head of Department:
Otakar Bělohávek, M.D., Ph.D.

The services provided by the center include **scintigraphic functional imaging**, which includes **PET** (positron emission tomography) and **PET/CT** (combination of positron emission tomography and computer tomography), mainly used to diagnose oncological, neurological and cardiovascular disorders. Further services of the center include **immunoanalytic laboratory testing techniques** including RSA – radiosaturation analysis and chemiluminescence.

During 2007, the Department of Nuclear Medicine / PET Center continued to serve patients in other health care facilities throughout the Czech Republic, as well as those in Na Homolce Hospital (primarily **PET and PET/CT** examinations). The number of PET interventions and examinations fell slightly compared to 2007; 64.3% PET examinations were performed using the hybrid PET/CT Siemens Biograph duo LSO scanner, with the rest being performed on the Siemens ECAT EXACT PET scanner.

In terms of the number of PET examinations performed, Na Homolce Hospital ranks among the largest European centers of its kind, and is now probably the leader in this field.

The **immunoanalytic laboratory** reported a slight increase in the number of assays performed in 2007 and the proportion of onco-markers assays rose. The assays of the tumor marker of the bladder carcinoma (BTA test) and congenital development disorders markers (PAPP P) were introduced into clinical practice.

The Department of Nuclear Medicine/PET Center has been awarded ISO 9001-2000 certification on the basis of a certification audit carried out by the Det Norske Veritas firm of auditors. In 2007, department successfully completed a recertification audit.

In 2007, the center participated in five grant projects.

Basic data

Number of physicians	7
Number of college graduates/other medical staff	2
Number of general nursing staff	6
Number of qualified personnel/laboratory technicians	11
Technical equipment	
Instruments	
2 scintillation cameras	
1 positron emission tomography camera	
1 positron emission tomography and CT camera	
Imaging station	
Immunoanalysers	

Number of interventions/examinations in 2007

Radiography	
number of interventions	5,524
number of examinations	1,735
Positron emission tomography	
number of interventions	6,196
number of examinations	6,011
Laboratory tests	
number of interventions	135,698
number of assays	104,690

Breakdown and number of immunoanalytic assays in 2007

Thyroid screening	45%
Onco-markers	34%
Non- thyroid hormones	9%
Pregnancy screening	11%
Miscellaneous	1%

Breakdown of PET + PET CT examinations in 2007

PET – Mozek	4%
PET – Myokard	0,4%
PET – Torzo	31%
CT	0,6%
PET/CT bez i. v.	26%
PET/CT s i. v.	38%

tato tabulka je v překladu jina resp chybi radek

Breakdown and number of radiographic examinations in 2007

Myocardium	40%
Skeleton	35%
Phlebography	11%
Lungs	5%
Kidneys	4%
Brain	3%
Miscellaneous	1,8%
Leucocytes	0,2%

Clinical Programs – Summary of Activities

Summary of activities of the complementary services

DEPARTMENT OF CLINICAL BIOCHEMISTRY, HEMATOLOGY AND IMMUNOLOGY (DCBHI)

Head of Department:

Miroslav Průcha, M.D., Ph.D.

In the field of **clinical biochemistry** the department provides a routine biochemical service for both hospital wards and outpatient clinics in Na Homolce Hospital, and focuses on the diagnosis and treatment of critically ill patients admitted to the hospital. In the case of inpatients in a critical state, targeted testing is carried out directly by the bedside (POCT diagnostics), and all patients are screened for mineral levels, enzyme activities, substrate concentrations, cardiomarker levels, amino acids, selected prohormones, vitamins, the full range of lipids and drug levels and their metabolites, including pharmacokinetic analyses of concentrations measured. In 2007, the clinical biochemistry continued to provide services to general practitioners, pediatricians and other specialists working in the field. The department's efforts to continually expand and improve the quality of its services resulted in wider range of examinations offered and shorter time of waiting for results. Introduction of variable electronic applications which are available in all hospital wards and outpatient clinics

contributed to this. Higher comfort of laboratory services provided is also related to a growing number of modern equipment for bedside monitoring working in the intensive care unit and in anaesthesiology and resuscitation ward. The laboratory's supervision of all devices for ABR examinations and glucose meters through the hospital information system was introduced. The lab continually checks functioning of the devices and internal quality audits' results.

The range of biochemical tests was expanded to include certain new markers, particularly procalcitonin, that was included in the emergency examination regime, as well as examination for active vitamin B12 (holo-trans-cobalamin). Semiquantitative assay of nine types of drugs and their metabolites in urine is also a widely used examination.

A pharmacokinetic analysis continues to be a constant part of medication level examination, followed, if necessary, by a recommendation to adjust drug doses.

The analysis of lipid metabolism diagnosis is an important part of the work carried out by the biochemical unit. In the previous year, the Club of Parents of Children Suffering from Lipid Disorders continued to provide a metabolic counseling service in the area of rehabilitation, reconditioning and educational activities for Club members.

The **hematology** laboratory provides a routine service for clinical units and conducts specialized analysis of coagulation parameters, in particular for departments involved in the Cardiovascular program. In 2007, the method of accelerated assay of erythrocytes sedimentation and the assay of aspirin resistance allowing the selection of correct antiaggregation therapy was introduced. **The Transfusion Center** ensures a supply of blood and blood derivatives. In 2007, the lab was equipped with a new immunohematologic examination analyser.

In 2007, **the Immunology Laboratory** applied a wide spectrum of examination methods

of humoral and cellular, autoimmune diseases of the system and organs and allergies broken down by individual hospital units. The specialized activities are focusing on the diagnosis and therapy of septic conditions in critically ill patients in intensive care units. An important part of the lab's activities involves the diagnosis of allergies in relation to the activities of the hospital's interdisciplinary Center for Clinical Immunology and Allergies. The outpatient allergology and clinical immunology clinic provides treatment to patients with allergies, immunodeficiencies and immunopathologic conditions. In the case of patients suffering from asthma bronchiale the Laboratory performs a so far above-standard outpatient diagnosis for asthma using non-invasive examination of the breathed out air and functional tests. In 2007, the laboratory further expanded its offer of diagnostic options for autoimmune diseases and was equipped with new diagnostic devices. The allergology and clinical immunology outpatient clinic continued to perform its unique non-invasive diagnosis of

eosinophil inflammation in asthma bronchiale; on this theme it organized the second national conference with international attendance in January 2007 at Na Homolce Hospital.

The Laboratory for Cerebrospinal Fluid and Neuroimmunology carries out routine analyses of serum and cerebrospinal fluid on patients with diseases of the central and peripheral nervous system. It also serves as a long-term reference center for cerebrospinal fluid laboratories in the Czech and Slovak republics, particularly in the area of cytological analysis, as well as the quantitative and qualitative examination of cerebrospinal fluid and serum proteins. The Laboratory is an External Quality Control System (SEKK) reference lab for the External Quality Control System in tests on cerebrospinal fluid in the Czech Republic and Slovakia.

The **DNA Diagnostic Laboratory** carries out molecular genetic diagnostics of hereditary diseases and genetic predispositions for diseases frequently occurring in the

Clinical Programs – Summary of Activities

Summary of activities of the complementary services

population and serious diseases. Within the hospital, the Laboratory focuses primarily on specific cases depending on the needs of individual units. The DNA Diagnostic Laboratory is a member of the Neurogenetic Center at the Charles University's Second Faculty of Medicine and a member of the Czech Group for Chronic Lymphocytic Leukemia (CLL) of the Czech Hematology Society at ČLS JEP.

The Department of Clinical Biochemistry, Hematology and Immunology was included in the system of external quality control in the Czech Republic (SEKK), in Germany (INSTAND), in the Netherlands (SKZL) and in Great Britain (NEQAS). It has earned an ISO 9001-2000 quality certificate, that was awarded to it on the basis of a certification audit carried out by the Det Norske Veritas auditing firm. In 2007, the Department successfully completed a recertification audit.

In 2007, the Department of Clinical Biochemistry, Hematology and Immunology contributed to the completion of two grant projects.

Breakdown of laboratory tests in 2007

	Počet
DCBHI	
Total Biochemistry (including POCT)	1,687,483
Hematology	243,446
Spinal fluid screening	89,194
Immunology	108,239
DNA diagnostics laboratory	52,674
Blood bank	30,993
Total laboratory tests	2,245,228

Basic data

Number of physicians	13
Number of college graduates / other medical staff	6
Number of laboratory technicians	39
Number of general nursing staff	9
Number of examinations performed	2,245,228

Breakdown of DCBHI outpatient numbers

Type of outpatient clinic	Number
Metabolic	6,502
Hematologic	2,164
Immunology and allergology	6,227
Neuroimmunological	738
Total	15,631

DEPARTMENT OF CLINICAL MICROBIOLOGY AND ANTIBIOTIC CENTER

Head of Department:
Vlastimil Jindrák, M.D.

The Department of Clinical Microbiology provides **laboratory diagnostics of community and nosocomial infectious diseases or complications** in hospitalized patients, as well as consultative work dealing with their diagnosis, treatment and prevention. The department's consultants participate in routine interdisciplinary work in a team of specialists to provide the highest possible level of treatment for both ward patients and outpatients. The laboratory diagnostic services have traditionally been provided both to Na Homolce Hospital, as well as to primary care general practitioners and specialists working in the field.

An important part of the department's activities comprises the work of the **Antibiotic Center**, which deals with antibiotic Practices in Na Homolce Hospital, as well as in primary outpatient care. In 2007, the total number of patients with infectious complications whose condition required consultation with specialists of the Antibiotic Center remained about the same as in previous year. The consumption

of antibiotics in wards slightly decreased as did the costs of this group of medicines. The consumption of antibiotics is permanently dropping in departments involved in the Neuroprogram and in the ARO Department, while remaining stable in the Cardiovascular program. There were no vital changes in the structure of antibiotics consumption. From the point of view of antibiotic resistance, the incidence of MRSA was stabilized.

In the area of **prevention and control of infection**, an infection monitoring unit was established (open) in 2007 within the department; its activities were focused particularly on the barrier treatment regime including hand hygiene, isolation measures, MRSA monitoring and Clostridium difficile. At the end of 2007, the hospital program of infection prevention and control was updated and a new decree was drafted: its approval is expected at the beginning of 2008.

Clinical Programs – Summary of Activities

Summary of activities of the complementary services

Part of the activities of the Department of Clinical Microbiology also involved participating in, or organizing, **specialist projects**. In 2007, the European Union's ABS (Antibiotic Strategy) International continued, coordinated from Austria and focusing on the implementation of a rational approach to the use of antibiotics and the prevention of antibiotic resistance in hospitals. Nine EU member states are participating in the project, which is supported and financed from the European Commission budget. Na Homolce Hospital is partner of the project on behalf of the Czech Republic. In the period under review, the cooperation continued on another EU project – IPSE (Improvement of Patient Safety In Europe), focusing on the area of nosocomial infections and their control in hospitals. In 2007, comments to prepared standards were prepared and questionnaires for the area of infection monitoring and control in European hospitals. Data were also submitted to the partial ICU-IPSE (Resistance to antibiotics and their consumption at intensive care units in European hospitals) project.

As regards the national project for a Register of nosocomial infections, the record of infections in surgical sites was completed and a pilot study was planned focusing on the incidence of nosocomial infections and the efficiency of treatment with specific antibiotics to be carried out in the first half of 2008. In the period under review, the cooperation continued on the bilateral WHO-BCA project organized on the basis of an agreement between WHO-EURO and the Czech Ministry of Health in 2006 and 2007. The Department of Clinical Microbiology is co-author of the project which focuses on the rational use of antibiotics.

The Department of Clinical Microbiology has been awarded ISO 9001-2000 certification on the basis of a certification audit carried out by the Det Norske Veritas firm of auditors. In 2007 the Department successfully passed a recertification audit.

Basic data

Number of physicians	5
Number of college graduates / other medical staff	1
Number of laboratory technicians	17
Number of examinations	12,844

Consultations for antimicrobial therapy in admitted patients

	2000	2001	2002	2003	2004	2005	2006	2007
Number of consultations	4,287	5,069	6,076	6,960	7,291	8,493	7,922	8,122
Number of patients consulted	905	1,024	1,266	1,559	1,622	1,833	1,970	1,964
Proportion of patients consulted out of the total of admitted patients	6.5%	6.8%	7.5%	9.3%	8.4%	10.1%	10.4%	10.6%

Number of examinations performed

Na Homolce Hospital

	2000	2001	2002	2003	2004	2005	2006	2007
Bacteriology	35,251	39,018	41,473	45,952	54,306	51,582	54,726	65,033
Serology	11,330	12,257	14,282	15,194	17,238	15,506	16,511	18,485

External clients

	2000	2001	2002	2003	2004	2005	2006	2007
Bacteriology	44,809	47,387	48,985	47,969	54,209	49,001	35,680	36,687
Serology	8,727	8,343	9,380	9,989	11,889	10,290	6,460	6,631

Total number of microbiological examinations

	2000	2001	2002	2003	2004	2005	2006	2007
Bacteriology	80,060	86,405	90,458	93,921	108,515	100,583	90,406	101,722
Serology	20,057	20,600	23,662	25,183	29,127	25,796	22,971	25,122

Na Homolce Hospital Quality Management in 2007



A JCI accredited facility

One of the main pillars ensuring the hospital's stability is the high quality service it provides. Its endeavours to provide top quality medical care, in compliance with clearly defined standards, encouraged Na Homolce Hospital to apply for the internationally recognized Joint Commission International (JCI) accreditation on healthcare organizations. In June 2005, Na Homolce Hospital successfully passed the final accreditation audit and was only the second hospital in the Czech Republic which the international JCI auditors recommended for the award of the „global badge of quality“ - the Joint Commission International (JCI) international accreditation. In 2008, the hospital will have to pass a JCI re-accreditation audit in order to receive JCI accreditation for a further three years. It will be the first Czech hospital accredited under new JCI standards in effect from 1 January 2008.

JCI accreditation

Joint Commission International (JCI) is an international organization with one hundred years of history, which accredits specialized health organizations. Accredited hospitals guarantee their patients safety and top quality care by continuously tracking, analyzing and improving quality markers in all areas of hospital operations. In the event a hospital is awarded JCI accreditation, it must comply with a total of 1,000 markers that directly affect patient safety and the reliability of medical procedures. These markers are incorporated in precisely defined accreditation standards covering all areas concerning the management and provision of medical care, and with which the hospital must comply in order to be awarded JCI accreditation. JCI accreditation is awarded for three years, after which the health care organization must again apply for approval.

JCI practice

In May 2007, Na Homolce Hospital enabled newly trained JCI auditors from European countries to perform a test JCI audit in its premises. During the training course, the compliance of the Na Homolce Hospital practice with JCI accreditation standards and safety targets was verified.



Na Homolce Hospital's ISO 9001:2000 certificates

Three hospital departments – the Department of Clinical Biochemistry, Hematology and Immunology, the Department of Clinical Microbiology/Antibiotic Center and the Department of Nuclear Medicine / PET Center were awarded quality management system certificates for their laboratory and diagnostic services, confirming their compliance with ISO 9001:2000 standards. The ISO certification requirements not only include improved staff-patient relations, but also higher personnel safety. The aim of this quality management system is to ensure early disclosure and elimination of various risks which leads to higher safety in the provision of medical care.

In 2007, the certification of all certified departments was confirmed.



QUALITY AND SAFETY COMMITTEE

A system to improve quality and safety has been introduced at Na Homolce Hospital with the aim to minimize errors in the process of providing health care. It is based on the conscious identification of errors and deficiencies in the organization and provision of patient care, their analysis and implementation of programs to prevent errors caused either by failure of the human factor or technologies. Priority processes, which are monitored at Na Homolce Hospital, comply with the JCI safety targets. They, for example, include the administration of medication, control of nosocomial infections and monitoring of patients' satisfaction.

Dozens of markers are tracked in order to assess the level of individual processes in the hospital. The Hospital monitors and analysis data concerning each exceptional event that occurs in the course of treatment and medical care, such as, for example, patient falls, errors connected with the subscription and administration of medication, incidence of bedsores and infections.

The Quality Management advisory board for the hospital director is the Quality and Safety Committee, where physicians and nurses are represented as well as administrative and technical staff. The board is interdisciplinary, which enables it to make complex evaluations of adverse events and the results of specific quality markers. The committee also serves to channel employee suggestions and practical observations from different departments. It then carries out risk analyses and proposes remedial and preventative measures to the hospital executives.

Research grants in Na Homolce Hospital in 2007

Grant National Institutes of Health, USA

(National Heart, Lung and Blood Institute, National Institute of Diabetes and Digestive and Kidney Diseases)

Title: **International multicentric BARI 2D Study (Bypass Angioplasty Revascularization Investigation 2 Diabetes)**

Period: 2002–2007

Authors: University of Pittsburgh Graduate School of Public Health and 40 other university medical centers in the USA and Canada, Na Homolce Hospital in Europe

Co-authors for Na Homolce Hospital:

Petr Neužil, M.D., Ph.D. – Department of Cardiology, Na Homolce Hospital

Štěpánka Stehlíková, M.D. – Department of Internal Medicine, Na Homolce Hospital

Grant NR 9190-3

Title: **Effect of biventricular stimulation on patients where persistent cardiostimulation is indicated and left ventricular dysfunction is present.**

Period: 2007–2009

Author: Miloš Táborský, M.D., Ph.D., FESC, MBA, Department of Cardiology, Na Homolce Hospital

Co-authors: Professor Jindřich Špinar, M.D., Ph.D., Brno Teaching Hospital

Professor Jiří Vítovec, M.D., Ph.D., FNUSA, Brno

Grant NR 9093-4

Title: **Genetic determination in acute coronary syndrome – a population study**

Period: 2006–2009

Author: Professor Vladimír Staněk, M.D., Ph.D., IKEM

Co-author for Na Homolce Hospital:

Professor Petr Niederle, M.D., Ph.D., Department of Cardiology, Na Homolce Hospital

Research grants in Na Homolce Hospital in 2007

Grant NS 1296

(Na Homolce Hospital and Elekta)

Title: **Treatment of Glaucoma with the Leksell Gamma Knife at the Early Stages of the Disease**

Period: 2003–2008

Authors for Na Homolce Hospital:

Associate Professor Vilibald Vladyka, M.D., Ph.D., Department of Stereotactic and Radiation Neurosurgery, Na Homolce Hospital Roman Liščák, M.D., Ph.D., Department of Stereotactic and Radiation Neurosurgery, Na Homolce Hospital Gabriela Šimonová, M.D., Ph.D., Department of Stereotactic and Radiation Neurosurgery, Na Homolce Hospital Josef Novotný, Msc., Department of Medical Physics, Na Homolce Hospital Martin Kořán, Ph.D., Clinical Psychologist, Na Homolce Hospital Daniela Tlacháčová, M.A., Department of Stereotactic and Radiation Neurosurgery, Na Homolce Hospital

Grant NS 1297

(Na Homolce Hospital and Elekta)

Title: **Can Leksell gamma knife treatment halt the progress of the disease and improve vision in age-dependent macular degeneration?**

Period: 2003–2008

Authors for Na Homolce Hospital:

Associate Professor Vilibald Vladyka, M.D., Ph.D., Department of Stereotactic and Radiation Neurosurgery, Na Homolce Hospital, Roman Liščák, M.D., Ph.D., Department of Stereotactic and Radiation Neurosurgery, Na Homolce Hospital Gabriela Šimonová, M.D., Ph.D., Department of Stereotactic and Radiation Neurosurgery, Na Homolce Hospital, Josef Novotný, M.Sc., Department of Medical Physics, Na Homolce Hospital, Martin Kořán, Ph.D., Clinical Psychologist, Na Homolce Hospital, Daniela Tlacháčová, M.A., Department of Stereotactic and Radiation Neurosurgery, Na Homolce Hospital

Grant GA ČR 309/05/0693

Title: Breakdown in spatial orientation in the initial stages of Alzheimer's Disease

Period: 2005–2007

Author: Jakub Hort, M.D., Ph.D., 2nd Faculty of Medicine, Charles University

Co-author for Na Homolce Hospital:

Miroslav Kalina, M.D., Department of Neurology, Na Homolce Hospital

Grant NR 8523-3

Title: Treatment of severe spasticity in multiple sclerosis by long-term intrathecal administration of baclofen

Period: 2005–2007

Author: Associate Professor Ivana Štětkařová, M.D., Ph.D., Department of Neurology, Na Homolce Hospital

Grant NR 8491-3

Title: Relationship found between the form of amyotrophic lateral sclerosis and the level of cognitive impairment, markers of neurodegeneration and cerebral atrophy

Period: 2005–2007

Author: Peter Ridzoň M.D., Ph.D., Department of Neurology IPVZ

Co-author for Na Homolce Hospital:

Associate Professor Josef Vymazal, M.D., Ph.D., Department of Radiodiagnostics, Na Homolce Hospital

Grant NR 8937-4

Title: Extrapyramidal disease – correlation between the morphological, functional and clinical findings

Period: 2006–2009

Author: Associate Professor Josef Vymazal, M.D., Ph.D., Department of Radiodiagnostics, Na Homolce Hospital

Research grants in Na Homolce Hospital in 2007

MSM 0021620849

Title: Neuropsychiatric aspects of neurodegenerative diseases

Period: 2007–2013

Author: Professor Evžen Růžička, M.D., Ph.D., 1st Faculty of Medicine, Charles University

Co-author for Na Homolce Hospital:

Associate Professor Josef Vymazal, M.D., Ph.D., Department of Radiodiagnostics, Na Homolce Hospital

Grant 1A8629-5

Title: The use of deep brain stimulation in the treatment of the Parkinson's disease and other extrapyramidal mobility disorders

Period: 2005–2009

Author: Professor Evžen Růžička, M.D., Ph.D., 1st Faculty of Medicine, Charles University

Co-author for Na Homolce Hospital:

Duřák Urgošík, M.D., Ph.D., Department of Stereotactic and Radiation Neurosurgery, Na Homolce Hospital

Grant GA ČR 202/05/H031

Title: The use of ionizing radiation in dosimetry and radiological physics

Period: 2005–2007

Author: Associate Professor Tomáš Čechák, Ph.D., Czech Technical University

Co-author for Na Homolce Hospital:

Associate Professor Josef Novotný, Ph.D., Department of Medical Physics, Na Homolce Hospital

Research Center established by the Ministry of Education, Youth and Sports: IM0002375201

Title: **Center of neuropsychiatric studies – Neurobiology in clinical practice**

Contribution made by Na Homolce Hospital to the project:

Utilization of positron emission tomography in the study of neuropsychiatric disorders

Period: 2005–2009

Author: Associate Professor Cyril Höschl, M.D., Ph.D., Psychiatric Centre Prague

Co-author for Na Homolce Hospital:

Associate Professor Otakar Bělohlávek, M.D., Ph.D., Department of Nuclear Medicine / PET Center, Na Homolce Hospital

Grant IGA MZ ČR: NR 8033-6

Title: **Reduction in the toxicity of primary treatment of advanced Hodgkins lymphoma**

Period: 2004–2009

Author: Jana Marková, M.D., Department of Clinical Hematology, Karlovy Vary Teaching Hospital

Co-author for Na Homolce Hospital:

Associate Prof. Otakar Bělohlávek, M.D., Ph.D., Department of Nuclear Medicine / PET Center, Na Homolce Hospital

Grant NR 8843-4

Title: **Drug-resistant focal epilepsy with normal MRI findings: An analysis of the ethiopathogenesis and an evaluation of the benefits of different diagnostic methods**

Period: 2006–2009

Author: Pavel Kršek, M.D., Ph.D., 2nd Faculty of Medicine, Charles University

Co-author for Na Homolce Hospital:

Associate Professor Otakar Bělohlávek, M.D., Ph.D., Department of Nuclear Physics / PET Center, Na Homolce Hospital

Research grants in Na Homolce Hospital in 2007

Grant NR 9502-3

Title: **Integrated FDG-positron emission and computer tomography as the prime imaging method for assessing non-Hodgkin's lymphoma**

Period: 2007–2009

Author: Tomáš Papajík, M.D., Ph.D., UP Olomouc

Co-author for Na Homolce Hospital:
Magdalena Skopalová, M.D., Department of Nuclear Medicine / PET Center, Na Homolce Hospital

Grant NR 9453-3

Title: **Protocol enhancement in patient care on the basis of intermediate PET restaging and the analysis of effective treatment of patients with non-Hodgkin's lymphoma (a retrospective appraisal from the register of cooperating lymphoma groups)**

Period: 2007–2009

Author: Associate Professor Marek Trněný, M.D., Ph.D., General Teaching Hospital Prague

Co-author for Na Homolce Hospital:
Iva Kantorová, M.D., Department of Nuclear Medicine / PET Center, Na Homolce Hospital

Grant NR 8304-3

Title: **The importance of establishing markers for inflammation and oxidative stress in condensates of exhaled air, in order to monitor and manage the progression of cystic fibrosis (CF)**

Period: 2005–2007

Author: Associate Professor Jaromír Musil, M.D., 2nd Faculty of Medicine, Charles University

Co-Author for Na Homolce Hospital:
Miroslav Průcha, M.D., Ph.D., Department of Clinical Biochemistry, Hematology and Immunology, Na Homolce Hospital

Grant FT-TA3/053

Ministry of Industry and Trade, CR

TANDEM program

Title: Development of a new generation of diagnostic sets for in vitro diagnostics of cardiovascular diseases based on molecular biotechnological methods

Period: 2006–2010

Author: Josef Fišer, M.D. - GeneTiCA s.r.o.

Co-author for Na Homolce Hospital:

Václav Maňoška, M.D., Department of Clinical Biochemistry, Hematology and Immunology, Na Homolce Hospital

Grant NR 9186-3

Title: Mutations in gene p 53 in patients with chronic lymphocytic leukaemia and their biological and prognostic significance

Period: 2007–2009

Author: Soňa Peková, M.D., Ph.D., Department of Clinical Biochemistry, Hematology and Immunology, Na Homolce Hospital

Co-author: Tomáš Kozák, M.D., Ph.D., Teaching Hospital at Královské Vinohrady Prague

Grant NR 9324-3

Title: Candidate genes for schizophrenia: influence of phenotypic variability of sufferers and in vitro manipulation on gene expression of helper siRNA

Period: 2007–2009

Author: Jiří Horáček, M.D., Ph.D., Psychiatric Center Prague

Co-author for Na Homolce Hospital:

Soňa Peková, M.D., Ph.D., Department of Clinical Biochemistry, Hematology and Immunology, Na Homolce Hospital

Teaching Activities in 2007

Undergraduate teaching

The following specialized units of Na Homolce Hospital participated in the teaching of students from the Charles University (CU) Faculties of Medicine, the Faculty of Physical Education and Sport, the Czech Technical University's Faculty of Natural Sciences and others:

Department of Neurology	CU 1st MF, CU 3rd MF
Department of Stereotactic and Radiation Neurosurgery	CU 1st MF, CU 3rd MF
Department of Cardiology	CU 1st MF, CU 2nd MF, CU 3rd MF
Department of Vascular Surgery	CU 1st MF, CU 2nd MF
Department of Internal Medicine	CU 1st MF, CU 3rd MF
Department of Surgery	CU 3rd MF
Department of ENT	CU 2nd MF, CU PedF, CU MF Plzeň
Department of Radiodiagnostics	CU 1st MF, CU 3rd MF, Faculty of Nuclear Sciences and Physical Engineering of the Czech Technical University, South Bohemian University
Department of Nuclear Medicine / PET Center	CU 1st MF, CU 3rd MF
Department of Clinical Microbiology	CU 1st MF, CU 2nd MF
Department of Medical Physics	Faculty of Nuclear Sciences and Physical Engineering of the Czech Technical University

Postgraduate Teaching with the Institute for Postgraduate Studies

The following specialized units of Na Homolce Hospital participated in the postgraduate teaching of physicians and nursing staff through IPGS in 2007:

Department of Neurology	Acute neurology Neurological intensive care
Department of Neurosurgery	Neurotraumatology Neurooncology Spondylosurgery
Department of Stereotactic and Radiation Neurosurgery	Neurosurgery
Department of Cardiology	Echocardiography
Department of Vascular Surgery	Vascular surgery
Department of Surgery	Surgery
Department of AR	Anesthesiology and resuscitation Emergency medicine
Department of Radiodiagnostics	Neurology Radiology
Department of Nuclear Medicine / PET Center	Nuclear medicine Radiodiagnostics
Department of Clinical Biochemistry, Hematology and Alergology	Clinical immunology Alergology Spinal fluid Urine sediments
Department of Clinical Microbiology	Clinical microbiology Infectious medicine
Department of Medical Physics	Radiological physics

Teaching Activities in 2007

Other Training Activities

Department of Neurology	Postgraduate training for the League against Epilepsy
Department of Radiodiagnostics	Training for the European School of Magnetic Resonance
Department of Nuclear Medicine / PET Center	Consulting activities for IAEA, Vienna Postgraduate training for doctorate studies
Department of Clinical Biochemistry, Hematology and Immunology	Postgraduate training for the Czech Society for Atherosclerosis and Pediatric Society of J. E. Purkyne Czech Medical Society
Department of Medical Physics	Postgraduate training for doctorate studies

Training and Reference Centers

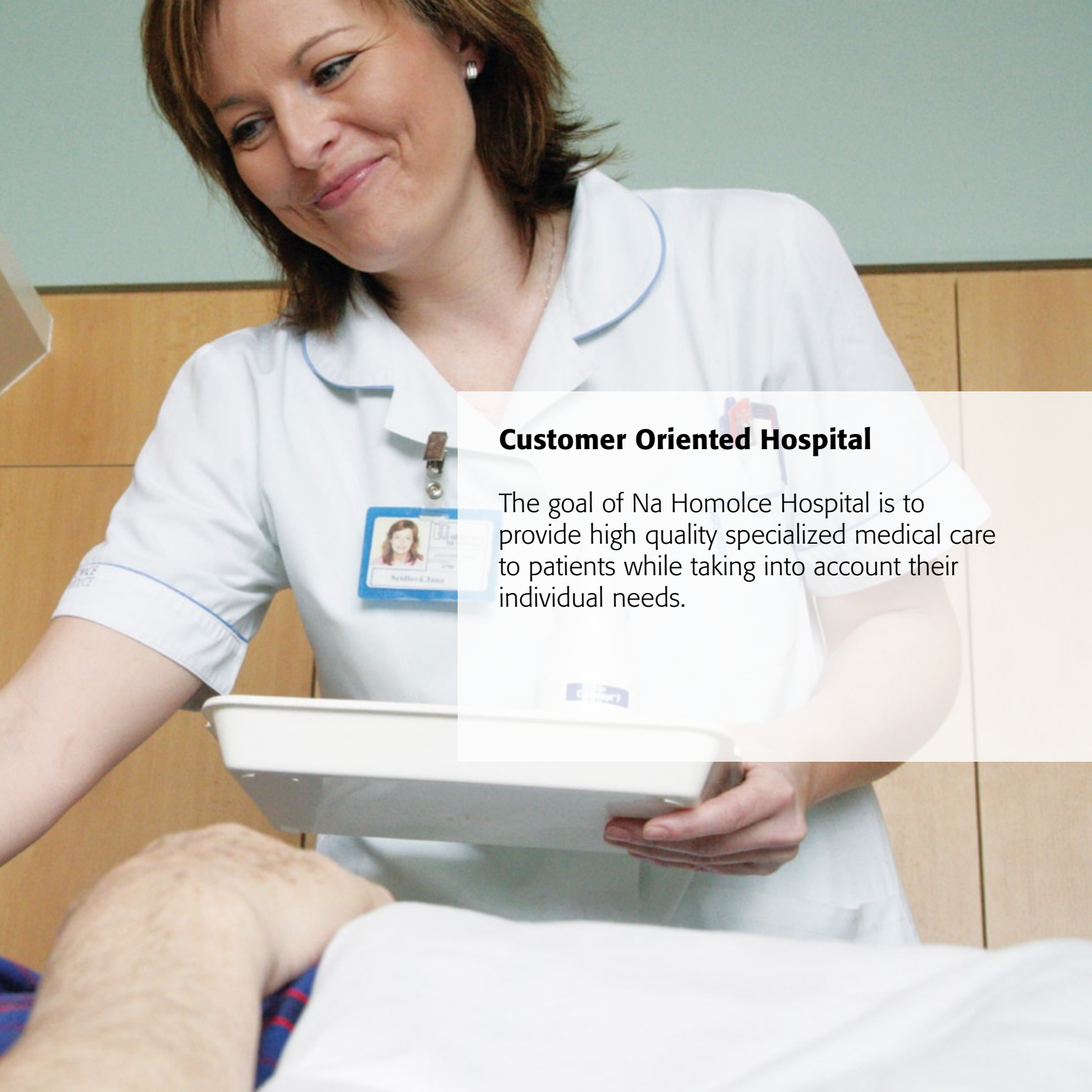
Department of Neurosurgery	Center for navigational neurosurgery for the Czech Republic and countries of the East European region Center for dynamic stabilization of the spine (Bryan, Prestige) for the Czech Republic and countries of the East European region
Department of Cardiology	Center for resynchronization treatment of heart failure (biventricular stimulation) for EU countries
Department of Surgery	Center for anal prolapse and Long hemorrhoid surgery for the Czech Republic Center for ankle joint surgery Center for knee joint surgery using an LCS rotating plate Center for Orthopilot orthopedic navigation
Department of Clinical Biochemistry, Hematology and Immunology	Reference laboratory for the system of external quality control in clinical bioche- mistry Reference laboratory for the system of external quality control in spinal fluid Reference laboratory for the system of external quality control in CLL diagnostics

Czech Medical Chamber Accreditation for Training in the Physicians Lifelong Training Program

The CMC accreditation has been awarded to specialized Na Homolce Hospital units in the following areas:

- Allergology and Clinical Immunology
- Anesthesiology and Resuscitation
- Dermatovenerology
- Epidemiology
- Physiotherapy, Balneology and Remedial Medicine
- Gynecology and Obstetrics
- Surgery
- Internal Medicine
- Medicinal Microbiology
- Cardiology
- Cardiac Surgery
- Clinical Biochemistry
- Neurology
- Neurosurgery
- Nuclear Medicine
- Ophthalmology
- Otorhinolaryngology
- Pathological Anatomy
- Pediatrics
- Radiodiagnostics





Customer Oriented Hospital

The goal of Na Homolce Hospital is to provide high quality specialized medical care to patients while taking into account their individual needs.

The Quality of Care and Patient Safety 2007

Accreditation not only signals that a medical facility has complied with all the required standards in its organization and provision of health care, but also that it is making systematic efforts to improve its performance in these areas and to reduce any potential risks to patients and staff. One of the priorities of accreditation standards is to fulfill safety targets, and meeting requirements of the national legislation is the absolutely necessary condition for acquiring the JCI certificate.

JCI Safety Targets

- Correct identification of the patient
- Safe communication
- Safe handling of high risk drugs
- Prevention of errors during invasive interventions
- Prevention of nosocomial infections - hygiene
- Prevention of falls of patients at risk

In 2007, Na Homolce Hospital continued to apply a system of continuous monitoring to improve the quality of its services, comprising particularly the following:

- monitoring of serious events which endanger the patients' safety
- monitoring of patient falls
- records of new bedsores
- monitoring of possible and actual errors in drug administration
- monitoring of infections related to the patient's hospital stay
- recording of unplanned re-operations
- monitoring of patient satisfaction
- keeping medical records
- monitoring of work-related accidents and their causes

The monitoring and checking of the compliance of practice with safety targets, accreditation standards, legal requirements and quality markers is carried out in the form of external and internal audits of all medical and non-medical units in Na Homolce Hospital. During external

audits the auditing team is led by an external consultant, it also comprises a representative of the Quality Management Department and persons responsible for units' technical equipment and observance of hygiene and epidemiology standards. Internal audits are performed by the hospital's physicians and nurses and are focused on the issues of clinical units. A detailed study of the cumulated findings from the audits is always drawn up and then analysed by the auditors and the department under review, after which checks are made to discover whether the deficiencies have been eliminated or measures to avoid them have been introduced. Keeping and filing of medical records has regularly been checked in the course of 2007.

Heliport in Na Homolce Hospital

Opening of a heliport after more than 15 years allowed for accelerated admission and beginning of treatment of patients, in particular with cardiovascular diseases.

Safety audit

An external firm performed a safety audit in the entire Na Homolce Hospital complex in 2007.

Patient Safety and Privacy

One of the principal elements of medical care is patient safety and a fundamental part of this is the clear identification of patients and medical supplies. In Na Homolce Hospital, patients are routinely issued with identification bracelets. All inpatients wear a plastic PID (Personal Identification) bracelet on

their wrist, marked with a barcode that not only clearly identifies the patients, but also provides information on all the interventions that have been, or are due to be performed on them during their hospital stay.

An important factor contributing to a reduction in the number of prescription errors has been the introduction of a uniform record of the prescription and administration of medication throughout the hospital. All prescriptions for drugs to be administered to ward patients are filed in the same folder in the medical records in every hospital department.

An essential aspect of patient care tracked by the accreditation standards is patient privacy during health care delivery. In order to apply this principle, procedures have been drawn up for communication with patients, and all Na Homolce Hospital staff must comply with them.

The Quality of Care and Patient Safety 2007

Rights of Patients and their Families

An implicit element of the provision of medical care is the right of patients to be clearly informed of the nature of their illness and the proposed treatment, including details of any available alternatives and its likelihood of success. A special hospital directive also provides a register of major diagnostic or therapeutic procedures which require the patient's written consent. Without this consent, the procedure cannot be performed. The patient obviously has the right to refuse any proposed diagnostic or therapeutic intervention, again by signing a written statement. Na Homolce Hospital also lays great emphasis on maintaining the confidentiality of all information concerning the medical condition of its patients.

On admission to hospital, patients are always asked to provide the names of people who have the right to be informed of their state of health.

Na Homolce Hospital respects the patients' right, stipulated by a law, to see their medical records and make copies of these.

Questionnaire on patient satisfaction in 2007

Satisfaction of inpatients

Number of respondents	1,717
1. Required to move after admission if required	1.12
2. Orientation within the hospital	1.43
3. Organization of central admissions procedure	1.17
4. Waiting time for admission to the department	1.41
5. Hygiene	1.13
6. Amount and quality of food	1.24
7. Personal comfort and privacy	1.19
8. Quietness of the department	1.19
9. Examination appointments kept	1.14
10. Explanations given of your condition	1.14
11. Treatment provided for pain	1.05
12. Staff cooperation with your family	1.08
13. Nurses' attitude and willingness to help	1.09
14. Attitude of the physicians	1.05
15. Sufficient information provided on discharge	1.12
Average - inpatients	1.17

Satisfaction of outpatients

Number of respondents	729
1. Orientation within the hospital	1.62
2. Attitude of the staff and willingness to help	1.27
3. Length of time spent waiting for examinations	1.86
4. Privacy during examination	1.27
5. Environment and personal comfort	1.44
6. Explanations given of your condition	1.32
7. Meeting your expectations of the visit	1.34
8. Information provided concerning future treatment	1.31
9. Was it a planned appointment?	1.11
Average - outpatients	1.39

Unique medical interventions performed at Na Homolce Hospital in 2007

Harvesting of an arterial graft for aortocoronary reconstruction using the da Vinci robotic operating system. Performed for the first time in the Czech Republic.

Implantation of a pacemaker electrode on the left ventricle using the da Vinci robotic operating system. Performed for the first time in the Czech Republic.

Robotic-assisted surgery to correct a congenital defect of the septum using the da Vinci system. Performed for the first time in the Czech Republic.

A complete robot-assisted aortocoronary bypass using the da Vinci system. Performed for the first time in the Czech Republic.

Implantation of an EnRhythm cardiostimulator, compatible with magnetic resonance (MR). Performed for the first time in the Czech Republic.

Implantation of Reveal XT, a digital heart monitor, which acts to detect atrial and ventricular tachycardia. Performed for the first time in the Czech Republic.

Performance of a catheterization ablation using magnetic heart navigation (Niobe system). Performed for the first time in the Czech Republic.

Unilateral aortofemoral bypass using the da Vinci robotic operation system. Performed for the first time in the Czech Republic.

A robot-assisted aortobifemoral bypass and subsequent plastic surgery of a hernia in the scar using the da Vinci system. Performed for the first time in the world.

Performance of the first robot-assisted vascular reconstruction in the USA (aortobifemoral bypass, University of Tennessee, Memphis) under the guidance of a vascular surgeon from Na Homolce Hospital.

Patient Clubs

Club for parents of children suffering from lipid disorders

The Club was established in 1995 by the Clinic for Metabolic Disorders in Na Homolce Hospital. It links families with children suffering from inherited disorders related to the metabolism of lipids, so called hypercholesterolemia. Patients with this disorder have increased cholesterol level in their blood, which gives rise to a high risk of cardiovascular diseases. Basic treatment for children suffering from this disorder involves keeping a controlled low-calorie diet, with medication prescribed for those patients who are worst affected. The Club is affiliated with the Association for the assistance of chronically ill children. The Club is run primarily by medical volunteers and parents. Parents, doctors and dietary nurses work closely together to form good health habits in families at risk, to provide information on health nutrition and suitable types of food products, as well as on new discoveries concerning the treatment of hypercholesterolemia. The Club's traditional and popular activities include the publication of the club magazine, Cholesterol, organized water therapy exercises in the Na Homolce Hospital

pool, day or weekend trips, and, most of all, the summer fitness camp, focusing on a low cholesterol diet and exercise. In the summer of 2007, children and their parents met at the 11th one-week therapeutic camp with a low-calorie diet in Dolní Žďár, near Jindřichův Hradec. The Club for parents of children suffering from lipid disorders plays an important part in preventing cardiovascular disease by encouraging healthy nutrition and eating habits, as well as increased physical activity.

Contact details:

Club for parents of children
suffering from lipid disorders
Clinic for Metabolic Disorders
Na Homolce Hospital
Roentgenova 2, 150 30 Praha 5
Tel.: 257 273 229
E-mail:
jana.privarova@homolka.cz

Patient Clubs

AA Homolka Club

AA Homolka Club established by the Department of Pediatric Allergology and Clinical Immunology in Na Homolce in 1998. It brings together families with children suffering from allergies and asthma. The membership (families), does not only consist of patients treated at Na Homolce, but is also made up of those from other facilities in Prague and elsewhere. The club's activities are diverse, ranging from the retrieval and circulation of information concerning individual allergic diseases, through the organization of discussions with experts for the parents, to the publication of the club magazine, Motýlek (Butterfly), which includes contributions from the children themselves, or organizing entertaining and educational activities for the young patients. The most popular club event is the annual three-week trip to the sea for children with allergies, when they are accompanied by medical professionals. This is for school-age children suffering from atopic eczema, bronchial asthma, allergic rhinitis, immune disorders or repeated respiratory infections. Last year the children spent their

therapeutic holiday in Messagal, Greece. AA Homolka Club is a member of the Association for the assistance of chronically ill children.

Contact details: AA Homolka Club

Department of Pediatric
Allergology and Immunology
Na Homolce Hospital
Roentgenova 2, 150 30 Prague 5
Tel.: 257 272 017
E-mail: jaroslava.simonickova@homolka.cz

Patient Clubs

Sports Club for Dialysis and Transplant Patients - Czech Sporting Association

The sports club for dialysis and transplant patients was established by the Hemodialysis Center at Na Homolce Hospital in 1995. It is a member of the Association of internally handicapped sportsmen and women and also a member of the WTGD and EDTPF international federations. The club unites both active members and a number of supporters from throughout the Czech Republic. The club's activities are not confined to creating and promoting an integrated physiotherapy program for patients who have to rely on artificial kidney treatment, or those living with a transplanted kidney (the creation of education and reference materials for the disabled, specialized lectures), but also extend into putting these ideas into practice. Examples of this are the organization of the annual winter and summer sporting competitions for dialysis and transplant patients.

In 2007, the 14th annual games were held in the Czech Republic, with the participation of foreign patients. Last year, the Club also co-organized the Czech representation in World Sports Games of Transplant Patients in Bangkok. At the end of 2007, the Club initiated foundation of the independent Czech team of transplant sportsmen.

Contact details: Sports club for dialyses and transplant patients – Czech Sporting Association
Hemodialyses Center
Na Homolce Hospital
Roentgenova 2, 150 30 Prague 5
Tel.: 257 272 220
E-mail:
lukas.svoboda@homolka.cz





Economic Stability

Na Homolce Hospital strives for maximal cost efficiency while ensuring widely available specialized medical care.

Auditor's Report

Auditor's Opinion (unauthorized translation)

The organization's statutory body is responsible for keeping correct, accurate, supportable, clear and well structured accounting records in a way that guarantees their durability. The auditor's duty is to express an opinion on the organization's annual report in compliance with Act No. 254/2000 Sb., on Auditors and the Czech Republic's Chamber of Auditors.

Based on our evaluation of auditing procedures used we have not disclosed any major discrepancies indicating that the accounting records of the accounting entity might be significantly distorted and not provide a true and fair picture of the company's accounting and financial situation.

We have verified the compliance of information on the audited organization, Na Homolce Hospital, for the previous period, as shown in the annual report, with the audited financial statements as at 31 December 2007.

In our opinion, this information complies, in all material respects, with these financial statements from which they were drawn.

Čelákovice, 20 June 2008

ATLAS AUDIT s.r.o.

Tomáš Bartoš

Licence no. 300



Economic Information

Balance Sheet (in thousands of CZK)

ASSETS	as at 1/1/2007	as at 31/12/2007
A. Fixed assets	1,682,052	1,616,526
1. Intangible fixed assets	63,771	69,698
2. Accumulated depreciation of intangible fixed assets	(40,579)	(40,533)
3. Tangible fixed assets	3,214,841	2,999,816
4. Accumulated depreciation of tangible fixed assets	(1,556,882)	(1,442,840)
5. Financial investments	900	30,386
B. Current assets	761,188	998,668
1. Inventory	16,494	39,923
2. Receivables	431,012	615,138
3. Financial assets	244,214	175,852
5. Temporary asset accounts	69,467	167,755
TOTAL ASSETS	2,443,240	2,615,195
LIABILITIES	as at 1/1/2007	as at 31/12/2007
C. Own resources	1,781,413	1,866,322
1. Property funds	1,635,323	1,603,962
2. Financial and cash funds	144,493	207,315
5. Net income	1,596	55,055
D. Other resources	661,828	748,863
1. Reserves	4,250	4,250
2. Long-term liabilities	73,919	63,646
3. Short-term liabilities	302,772	413,984
4. Bank loans and borrowings	260,000	260,000
5. Temporary debit accounts	20,886	6,982
TOTAL LIABILITIES	2,443,240	2,615,195

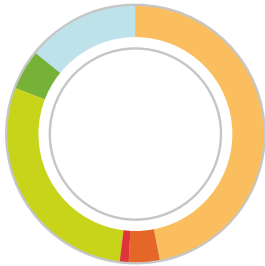
Economic Information

Profit and Loss Statement (in thousands of CZK)

	as at 31/12/2007	as at 31/12/2006
Revenue from merchandise	152,141	168,432
Cost of goods sold	114,329	148,145
Sales margin	37,812	20,287
Production	2,947,211	2,721,160
Production consumption	1,729,251	1,618,728
Value added	1,255,772	1,122,719
Personnel expenses	931,349	918,667
Taxes and fees	118	222
Depreciation of tangible and intangible fixed assets	148,195	145,056
Revenue from sales of tangible and intangible fixed assets and materials	628	163
Net book value of tangible and intangible fixed assets sold	318	279
Difference between accounted reserves, accruals and deferrals (+/-)		850
Other operating revenues	11,443	126,572
Other operating expenses	174,638	131,433
Operating profit (loss)	13,225	52,947
Interest income	3,238	
Interest expense	14,431	
Other financial revenues		2,108
Other financial expenses	436	
Financial profit (loss)	(11,629)	2,108
Profit (loss) for the current accounting period	1,596	55,055

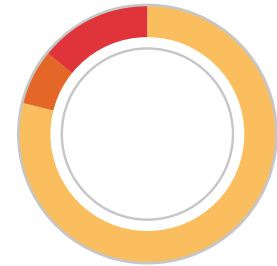
Breakdown of costs by type in 2007

Material	47%
Goods consumption	4%
Energy	1%
Personnel expenses	29%
Depreciation	5%
Other	14%



Breakdown of costs by type in 2007

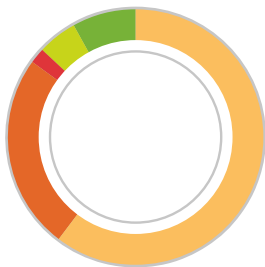
Health care sector	79%
Commercial sector	7%
Administrative sector	14%



Economic Information

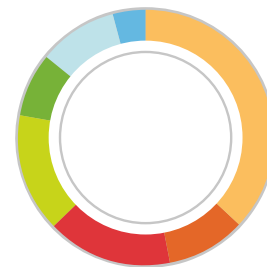
Breakdown of revenue in 2007

General Health Insurance Company (VZP)	61%
Other health insurance companies	24%
Direct payments	2%
Revenue from sale of goods	5%
Miscellaneous revenue	8%



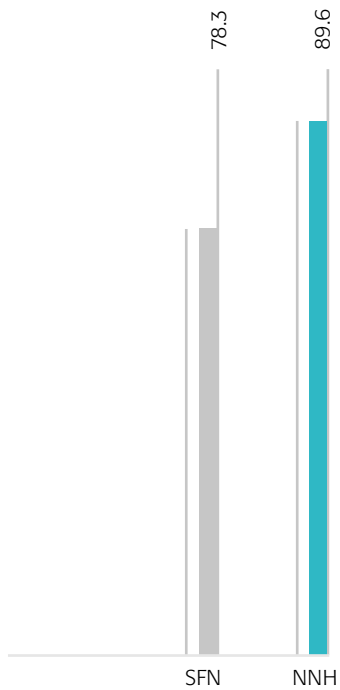
Breakdown of costs by type in 2007

Cardiovascular program	37%
Neuroprogram	10%
General medical care program	16%
Examination complementary services	15%
Commercial health care	8%
Economy and Management	10%
Technical and operations	4%

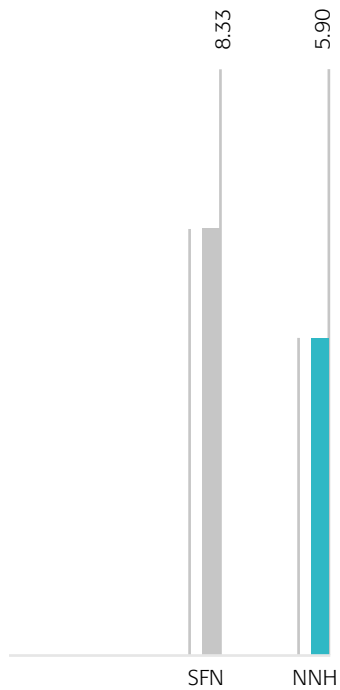


Na Homolce Hospital Benchmarking within the Association of Teaching Hospitals

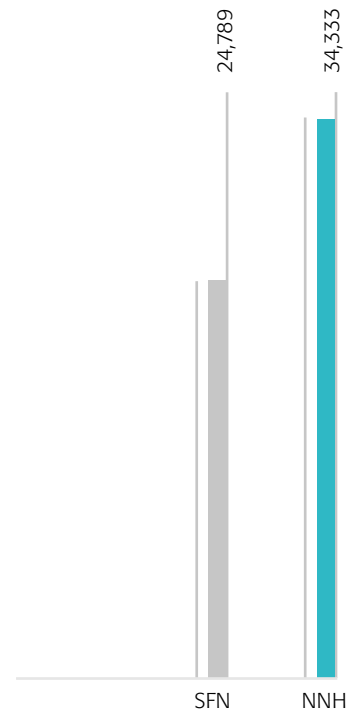
Bed occupancy rate (as a %)



Average length of treatment (in days)

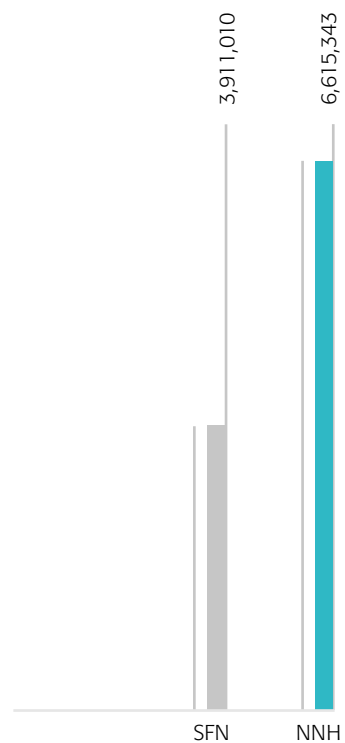


Average monthly salary (in CZK)

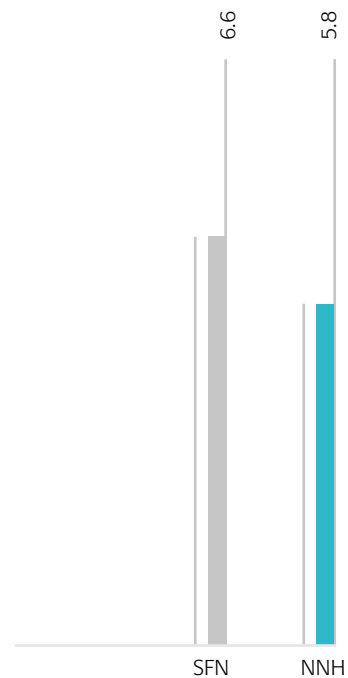


Na Homolce Hospital Benchmarking within the Association of Teaching Hospitals

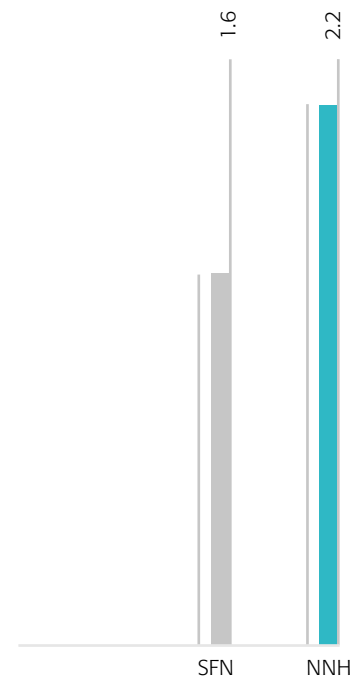
Number of "points" per physician



Overdue receivables to total costs (as a %)



Overdue payables to total costs (as a %)



Cost and revenues (in CZK million)

	2004	2005	2006	2007
Revenues	2 456	2 794	3 069	3 164
Costs	2 395	2 735	3 014	3 162
Profit/loss	61	59	55	2
Consumption of materials	1 104	1 306	1 358	1 484
Personel expenses	707	758	887	917
Depreciation	129	130	146	146

The subsidiaries that were formerly referred to in the chapter on Economic Structure have ceased some of their activities and have launched a long-term gradual reorganization. The original data would be therefore distorted and is not therefore included in the 2007 Annual Report.

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