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2011

Annual report



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About us

- WE PROVIDE HEALTHCARE IN ALL AREAS OF MEDICINE
- WE SPECIALISE 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

HN NA HOMOLCE
NEMOCNICE



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Hospital Management and Bodies



Vladimír Dbalý, MD, MBA
Managing Director



Michal Toběrný, MD, MBA
Director for Treatment And Preventive Care



Eva Holá, MSc, MBA
Director of Nursing Care



Stanislav Adam, MSc
Director of Hospital Operations
(1. 1. 2011 - 30. 11. 2011)

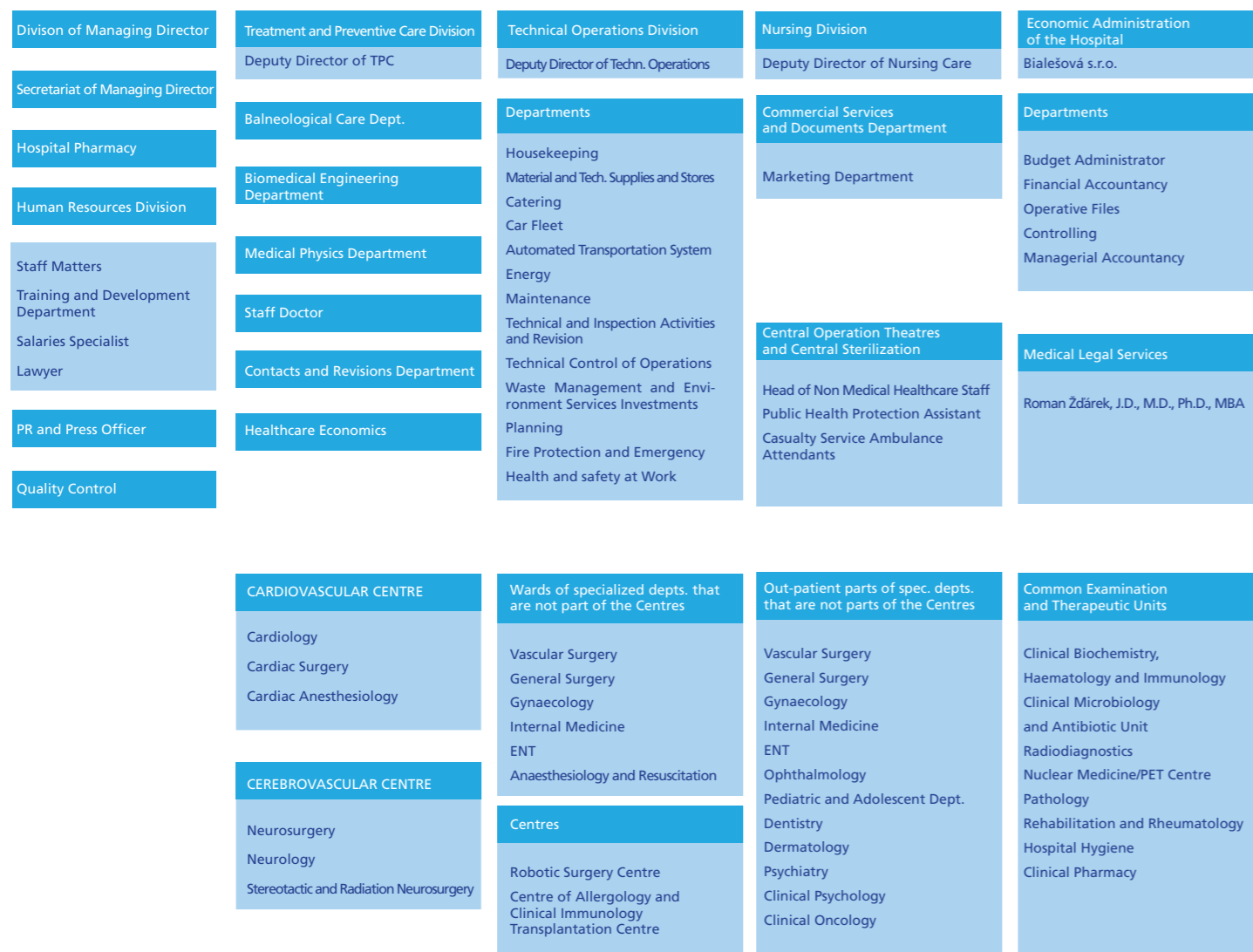


Barbora Vaculíková, MSc, MBA
Director of Dept. for Quality and Safety

Managing Director
Deputy Director of TPC
Director of Nursing Care
Economic Administration
Director of Hospital Operations
Investment-technical deputy
Director of Dept. for Quality and Safety

Vladimír Dbalý, MD, MBA
Michal Toběrný, MD, MBA
Eva Holá, MSc, MBA
Emilie Bialešová, MSc.
Stanislav Adam, MSc. (1. 1. 2011 – 30. 11. 2011)
Jiří Veigert, MSc.(1. 12. 2011 – 31. 12. 2011)
Barbora Vaculíková, MSc, MBA

Organizational Structure



NA HOMOLCE HOSPITAL

A specialized healthcare center providing cardiovascular and neurosurgical treatment nationwide

Neurological-neurosurgical program

Comprehensive care for patients suffering from diseases of, or injuries to, the central and peripheral nervous system, as well as diseases of, or injuries to, the spine. The three independent program units 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, i.e. 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
- Department of Cardioanaesthesiology

General medical care program

A comprehensive range of general healthcare treatment, supported by a large outpatient department and related wards. The four independent hospital wards within this program offer patients a complete range of modern diagnostic and therapeutic methods for diseases related to internal medicine and general surgery, with a focus on minimally invasive surgery. These are closely linked to the extensive outpatient services provided by individual departments.

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

PROFILE OF THE NA HOMOLCE HOSPITAL

Tables

BASIC INFORMATION	
Number of employees	1881
Number of beds	357
Number of hospital admissions	19 109
	13 408
Number of surgeries	1 116 735

MORTALITY	
Vascular Surgery	1,7%
Cardiac Surgery	1,4%
Cardiology	0,8%
Neurosurgery	0,6%
Stereotactic and Radiation Neurosurgery	0,0%
Neurology	1,8%
Surgeryry	0,2%
Gynaecology	0,0%
ENT	0,1%
Internal Medicine	3,8%
Anaesthesiology and Resuscitation	27,7%
NHH	1,2%

AVERAGE DURATION OF CARE	
Vascular Surgery	7,79
Cardiac Surgery	12,16
Cardiology	2,99
Neurosurgery	8,20
SRN	1,27
Neurology	4,90
Surgeryry	3,74
Gynaecology	2,77
ENT	2,46
Internal Medicine	8,29
Anaesthesiology and Resuscitation	14,82
NHH Total	5,35

PROFILE OF THE NA HOMOLCE HOSPITAL

Tables

NUMBER OF DAYS OF CARE	
Vascular Surgery	16 851
Cardiac Surgery	11 054
Cardiology	13 880
Neurosurgery	19 417
SRN	1 048
Neurology	7 429
Surgeryry	9 069
Gynaecology	5 296
ENT	2 720
Internal Medicine	9 267
Anaesthesiology and Resuscitation	2 460
NHH Total	98 491

BED CAPACITY UTILISATION IN %	
Vascular Surgery	80,40
Cardiac Surgery	89,74
Cardiology	74,58
Neurosurgery	89,29
SRN	63,63
Neurology	71,93
Surgeryry	84,66
Gynaecology	65,41
ENT	68,46
Internal Medicine	91,44
Anaesthesiology and Resuscitation	86,62
NHH Total	81,15

HIGHLIGHTS OF 2011

FEBRUARY

In the first half of February 2011 took place at the Hospital Na Homolce first public-control spending, paid for the project Comprehensive cardiovascular center. Control of the Ministry of Health Commission conducted and concluded it with the statement that the hospital is implementing a project without qualification and in full compliance with the terms of the grant.

MARCH

Department of Vascular Surgery Physicians Hospital Homolka performed on Monday 28 March 2011 in Wroclaw first robotic vascular surgery in Poland. This procedure was also their two hundredth anniversary performance of this type.

APRIL

President of the Czech Medical Chamber (CLK) MD. Milan Kubek 15th transmitted April 2011 Director of Na Homolce The hospital 21st certificate century. CLK hospital for so appreciated that it has plenty of qualified medical personnel.

JUNE

In order for the second JCI reaccreditation audit resulted in recommendations of the International Commission auditors to re-award the prestigious international accreditation JCI Hospital Na Homolce. We have become the longest hospital holding this certificate in the Czech Republic.

ATLANTA, 24 June 2011 - Leksell Gamma Knife Perfexion, manufactured by Elekta, which is operated by at the Hospital Na Homolce, won the Best in KLAS Awards as the best device for radiotherapy in diseases of the brain, head and neck.

NOVEMBER

Hospital Na Homolce became the absolute winner in the ranking evaluation of Czech hospitals Health Care Institute, 2011 from the perspective of patients, staff and financial health.

Hospital Na Homolce won awards the Czech 100 Best 2011 Subject category of Health - Education - Humanity. Was placed here based on respondents' voting polls as one of the best together with six other medical and educational institutions and foundations.

DEZEMBER

Cardiocentre Hospital Na Homolce began operation two new angiographic RTG machines, which replaced two previous already morally and physically worn out angiolink's.

PERSONNEL AND SOCIAL POLICY

The year 2011 was in the Hospital Na Homolce year of change in the remuneration of health workers.

From 1 March 2011 was under a Memorandum concluded between the Ministry of Health and LOK - Association of Czech physicians to an increase tariff components of salaries of physicians 13th in Grade for 6500 CZK and 14th of physicians in Grade for 8000 CZK. As of this date were set minimum wage rates for physicians without specialized competence.

With efficiency from 1 March 2011 have been agreed upon the contractual salaries for primary, senior physicians department without primary and deputy director. From 1 July 2011 contract was agreed upon salaries to all physicians from 13 grade.

In December 2011 to set minimum wages for healthcare paramedical staff with an employment contract for an indefinite period. By that measure the hospital have been partly straighten up the differences in the salaries, the of paramedical staff.

In terms of of staffing hospitals can be stated that Na Homolce has fulfilled systemized place and at any department does not solve the catastrophic lack of workers.

In 2011, the hospital it employed 1790.96 employees (FTE) and salaries was expended in total CZK 819 million. Average salary in Na Homolce Hospital in 2011 totaled 38 117 CZK.

Personnel and salary data by individual categories

	Physicians	Pharmacists	General nursing staff	Non-physician healthcare staff \$ 7 - 21	Non-physician healthcare staff \$ 22 - 28	Non-physician healthcare staff \$ 29 - 42	Other specialized staff non-physician	Technicians	Workers	Total
Total salaries paid (CZK)	260 716 100	6 590 041	301 353 357	46 257 197	22 562 418	53 205 157	2 999 594	87 460 800	37 937 811	819 082 475
Average number of employees (FTE)	265,91	11,13	759,79	109,96	49,37	199,91	5,19	232,43	156,88	1 790,57
Average salary	81 706	49 341	33 052	35 056	38 084	22 179	48 163	31 357	20 152	38 120



OUR ACTIVITIES

■ CLINICAL PROGRAMS – SUMMARY OF ACTIVITIES

NEUROLOGICAL-NEUROSURGICAL PROGRAM (NEUROPROGRAM)

It offers comprehensive care to patients with diseases of or injuries to the central and peripheral nervous system and with diseases of or injuries to the spine.

DEPARTMENT OF NEUROLOGY

Head of Department Miroslav Kalina, MD

The department focuses on diagnostics and non-surgical treatment of diseases of the brain, spinal cord, peripheral nerves and muscular apparatus, using special electrophysiological and ultrasonic diagnostic methods. It also provides complex outpatient and ward care in these specialized areas. 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 its other activities, conducts longterm monitoring and selection of patients for epileptosurgical treatment and provides consultancy for neurological centers throughout the Czech Republic. In 2011, 216 patients were admitted to the EMU, of whom 12 were monitored by surgical implantation of electrodes and 41 were indicated for epileptosurgical treatment – open surgery, implantation of vagus nerve stimulator or stereotactic thermolesion. The method of stereotactic thermolesion was used to treat 14 patients and the Na Homolce Hospital is the only center in the world that performs this treatment of temporal epilepsy in such a scope and with the results comparable with those of open epileptosurgery. Characteristic for the treatment of epileptic patients is a close interdisciplinary cooperation between the Hospital's neuroscience departments. Alongside the Department of Neurology, the following departments traditionally participated in their treatment: the Department of Neurosurgery, 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 on 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 2011, 16 intra-arterial thrombolyses and 22 intravenous thrombolyses were performed on intensive care patients.

In addition to the outpatient clinic for the treatment of general neurological disorders, the outpatient care includes the neurovascular clinic and the spinal counseling unit, which also

NEUROLOGICAL-NEUROSURGICAL PROGRAM (NEUROPROGRAM)

refers patients for surgical interventions to the spinal canal, and the counseling unit for extrapyramidal disorders and for neuroimmunological CNS diseases. The diagnostics section comprises the evoked potentials laboratory, the EEG laboratory, the electromyographic laboratory and the transcranial Doppler ultrasound unit. Developing its activities in the past period was also the Sleep Disorder Center which includes a sleep laboratory with two monitored beds enabling monitoring by sleep polygraphy. In 2011, 212 patients were admitted to the Center due to sleep disorders.

Basic data	
Number of beds	33
Standard	21
Intensive	6
EMU	4
Sleep laboratory	2
Number of physicians	13
Number of general nursing staff	61
Number of outpatient examinations	18 802
Number of admissions	1 292
Bed occupancy rate (as a %) - Standard	76,7
Bed occupancy rate (as a %) - Intensive	92,3
Average length of stay (in days)	5,1
Standard	4,1
Intensive	10,5

DEPARTMENT OF NEUROSURGERY

Head of Department Michal Šetlík, MD

In 2011, the Department of Neurosurgery focused on further developing its complex diagnostic, surgical and follow-up care for patients suffering from diseases of the central and peripheral nervous system in order to provide a comprehensive and safe treatment to improve the quality of life of its patients.

The four standard key areas of patient therapy, namely the neurooncological, neurovascular, epileptosurgical and spinal programs, were complemented by a new specialization in neurointensive care. The total number of operations performed during 2011 was 2,556. In total, 2,330 patients were admitted to the Department's wards and 12,268 patients were treated in the outpatient departments. Department of Neurosurgery is a center with a distinct above-regional coverage in the treatment of a number of diagnoses, both in national and international terms. Morbidity in the planned opera-

NEUROLOGICAL-NEUROSURGICAL PROGRAM (NEUROPROGRAM)

tions corresponds to both the national and international indicators and concerns as a rule patients with severe diseases that cannot be managed in other facilities in the Czech Republic.

In 2011, routine operations were performed in the reconstructed multifunctional complex of operating theaters equipped with intraoperative magnetic resonance imaging and intraoperative electrophysiological monitoring. Integration of operating theater technologies allows providing patients undergoing operations of the brain, spinal cord or spine with a high standard of a precisely targeted, most efficient and safe treatment.

In the Neurooncological program, in addition to a standard and usually combined treatment of patients, the cooperation within the TTF project (the treatment of malignant primary cerebral tumors by magnetic pole) further continued. Inter-sectoral neurooncological seminars attended by a multidisciplinary team of specialists from Na Homolce Hospital and oncologists from the Motol Teaching Hospital, who recommend suitable follow-up oncological treatment, were held regularly in the period under review.

Under the Neurovascular Program, the Department of Neurosurgery continued to centralize patients with diseases of the intracranial vessels at the Na Homolce Hospital during 2010, 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 24-hour care.

In cooperation with the Department of Neurology, criteria for indicating patients for decompression craniectomy were set for certain types of strokes due to ischemia and for bypass surgeries between extra- and intracranial blood vessels. A significant event for the Na Homolce Hospital in 2010 was gaining the status of a Comprehensive Cerebrovascular Center, where neurosurgery is a core department.

Within the Epileptosurgical Program, Department of Neurosurgery of the Na Homolce Hospital 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 on patients stabilized at between thirty and forty annually and the total number of patients with drug resistant epilepsy operated on here has already reached around 300. 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 in cooperation with the Anesthesiology and Resuscitation Department (neurostimulation of the spinal cord).

Within the framework of the Spinal Program, the Department of Neurosurgery has ranked

NEUROLOGICAL-NEUROSURGICAL PROGRAM (NEUROPROGRAM)

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. The preferred method is so called "minimally invasive" spondylosurgery, using navigational or transcutaneous techniques.

A significant contribution of the last year is routine use of screw augmentation allowing to perform fixation also in patients with osteoporosis where these procedures could not be used until then.

The Department of Neurosurgery of the Na Homolce Hospital is a Center of Excellence in navigated neurosurgery and neurosurgery for the dynamic stabilization of the cervical spine (Bryan, Prestige, Prospace, Discover) for the Czech Republic and countries in the East European region. In 2011, the team of the Department of Neurosurgery was involved in postgraduate teaching within the Institute for Postgraduate Studies. In 2011, the Department of Neurosurgery participated in 1 grant projects, 2 clinical studies, namely Prodisc C Nova study and L-Active FDA Study, and 3 world multicentric randomized studies, namely ABC x CSLP Study, Zimmer DTO Study, EF 14-TTF.

Basic data	
Number of beds	65
- Standard	45
- Intensive	8
- Intermediate	12
Number of physicians	18
Number of general nursing staff	88
Number of outpatient examinations	12 268
Number of admissions	2 368
Number of days of treatment	19 417
Bed occupancy rate (as a %)	89,29
Average length of stay (in days)	8,2
Mortalita hospitalizovaných (v %)	0,59
Mortalita operovaných (v %)	0,2

Breakdown of surgical interventions	
Cerebral tumors	250
Cerebro-vascular diseases	99
Function MVD	25
Spinal diseases including tumors	1426
Injuries	160
Epileptosurgery	29
Other	567
Total	2556

Number of surgical interventions											
2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
1 744	1 837	1 930	1 974	2 203	2 107	2 115	2 226	2 152	2 495	2 437	2 556

NEUROLOGICAL-NEUROSURGICAL PROGRAM (NEUROPROGRAM)

DEPARTMENT OF STEREOTACTIC AND RADIATION NEUROSURGERY

Head of Department Ass. Prof. Roman Liščák, MD, PhD

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

At the end of 2009, a new Leksell gamma knife Perfexion was put into operation and since the beginning of 2010 it has been in full use for the benefit of patients. The latest model of the Leksell gamma knife, Perfexion, extends the range of the treated indications and allows radiosurgical interventions in the region of the head and neck which is important particularly in the treatment of metastatic cancer. It provides patients with a much higher safety, accuracy and comfort of the treatment. Its part is the Extend system which complements the range of use of the gamma knife by a fractionated radiotherapy without the use of stereotactic frame, i.e. non-invasive method. The Na Homolce Hospital was the first in the world to introduce fractionated radiotherapy with the Leksell gamma knife. The Leksell gamma knife Perfexion equipped with the mentioned system is currently the most sophisticated radiosurgical device in the world. The number of patients treated in the department reached records of 1019 in 2011. The total number of surgical interventions performed in the department was 1,148 (including 1019 Leksell gamma knife irradiations and 129 other surgical interventions). Neurostimulators to treat movement disorders were implanted and re-implanted in 35 patients. As concerns the patient composition, the share of patients from abroad, from Poland in particular, significantly increased and accounted for the total of 18% of patients. **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 prominent centers of its type worldwide.**

In 2011, physicians of the Department were involved in undergraduate teaching for 1st and 3rd Faculties of Medicine of Charles University and in postgraduate teaching within the Institute for Postgraduate Studies.

NEUROLOGICAL-NEUROSURGICAL PROGRAM (NEUROPROGRAM)

Basic data

Number of beds	0
- 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 admissions	823
Number of surgeries by Leksell gamma knife	1019
Number of other stereotactic operations	129
Average length of stay (in days)	1,27
Outpatient clinic	
Number of outpatient consultations	2 041
Follow-up examinations	2 179
Neurostimulators implanted	35

Number of patients treated by Leksell gamma knife

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
566	735	781	803	856	798	802	819	832	856	960	1 019

CARDIOVASCULAR PROGRAM

It covers 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.

DEPARTMENT OF CARDIOLOGY

Head of Department Ass. Prof. Petr Neuzil, MD, PhD, FESC

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. Similarly as in previous years, the Department provided full coverage of several individual specialized areas in 2011.

Acute cardiology along with its coronary unit provides full cardiological intensive care to patients suffering from acute diseases of the heart in the whole range of this specialization. The Department has adequate equipment for monitoring, support or substitution of essential vital functions.

Intervention cardiology includes the catheterization laboratory that deals with diagnostics of diseases of the coronary arteries, including therapeutic interventions, and the multifunctional catheterization center. At the end of 2011, reconstruction of department was finished invasive cardiology including the replacement of two existing angiographic rtg devices entirely new. In spite of necessary operational restrictions the consequent from the performance numbers in 2011 comparable to 2010. Working collaboration with the Cardiac Surgery Department in 2011 were performed transcatheter aortic valve implantation in patients with significant aortic stenosis, which is a conventional cardiac surgery is contraindicated. In clinical practice, the implementation of left heart catheterization and coronary interventions completely dominated access via the radial artery. Was further developed program of structural cardiac interventions, such as closures foramen ovale, atrial septal defect, pulmonary stenosis, closures paravalvulárních leaks. Also continued the development of percutaneous coronary intervention with circulatory support different types of aid.

Department has prepared or participated actively in the preparation of a number of specialized programs and presentations at specialized conferences and congresses in the Czech Republic. Along with other centers prepared a professional program presenting the Czech

CARDIOVASCULAR PROGRAM

Republic the most prestigious American and European Congress of invasive cardiology (TCT 2011, EuroPCRT 2011)

Multifunctional transcatheter department is aimed on cardiac electrophysiology, particularly the diagnosis and treatment of heart rhythm disorders. The implantation of pacemakers and defibrillators (ICD) is Homolce Hospital has been one of the largest European centers. In the Czech Republic in 2011 was again a center performing the highest number of implant procedures (1184). Specializes in multi catheterization department are mainly implanted defibrillators and cardiac resynchronization therapy. As the largest center has experience with a new type of defibrillators, called subcutaneous (S-ICD), which was implanted in 2011, 14th A clear advantage of these devices is of implantation without the use of X-rays and the absence of entry into the bloodstream (electrode is introduced only into the subcutaneous tissue instead of the standard location of the right ventricle). With implants and related procedures, which require stimulation or defibrillation extract. These performances were in 2011 a total of safely 61st

Number of catheter ablations performed in 2011 on the multi-site catheterization is comparable with 2010 (729). In the Czech Republic, Na Homolce Hospital between two centers with the largest number of performances. It is evident clear shift to complex ablacím which consists of over two thirds of all procedures in electrophysiology. These are mainly ablation of atrial fibrillation and ventricular tachycardia, which in 2011 used a standard method, the remote navigation. At the end of 2011 the system was upgraded Stereotaxis magnetic navigation in order to further streamline the work and contribution to patient safety. In clinical studies, the newly implemented procedures and ablation of the renal arteries (renal denervation), which aims to influence blood pressure or heart failure symptoms.

In 2011, the Department of Cardiology and again more focused on the implantation of neuromodulation systems. Is involved in international clinical trials Defeat-HF, in which the benefits of neurostimulation to monitor heart failure in patients with ICD.

In the Czech Republic, the Department of Cardiology a unique center in dealing with cases of alternative anticoagulant therapy and percutaneous catheter by means of the left atrial appendage closures in 2011, a total of 38 performances.

Quite progressively at in 2011 to develop a joint project of experimental laboratory in the Institute of Physiology, 1st Medical Faculty of Charles University which is a training center for robotic

CARDIOVASCULAR PROGRAM

navigation (Hansen Medical) for Central and Eastern Europe. Experiments are performed here with different types of heart support.

Non-invasive cardiology offer patients the previous period, a wide range of diseases, including cardiovascular diagnostic ultrasound, electrocardiographic and echocardiographic stress tests, long-term monitoring of cardiac rhythm and blood pressure, etc.

In 2011 there was a further rise in of esophageal echocardiographic examination. Three-dimensional echocardiography has become a routine method in the indicated cases, its virtues are manifested mainly in cooperation with invasive cardiology and heart surgery.

In the period under review, echocardiography laboratory received the first in the Czech Republic accreditation in echocardiography, which awarded her EAE (European Association of Echocardiography). The volume of outpatient cardiac care in 2011 reached almost 13,000 examinations. Ambulance specializing in the treatment of patients chronically antikoagulovaných, founded in 2010, conducted in 2011, nearly 3,500 additional examination.

The specialized heart failure, focused on continuous monitoring of heart failure patients and care for patients in less advanced stages of the disease, and a specialized clinic for the treatment of hypertension investigate in 2011 a total of 2326 patients.

In angiology ambulance increase in the number examinations of 512 arteries and veins examination on 1146 patients. In the reporting period has been further developed multidisciplinary program of care for patients with heart failure, shared by all departments and ambulance with various vocational courses.

In 2011, the Department of Cardiology physicians assisted in pregraduate teaching for the 1st. Medical Faculty of Charles University and postgraduate teaching in the of IPVZ.

In 2011, the Department of Cardiology continued in an international multicenter study FRE-EDOM departments and physicians involved in the solution for 28 clinical studies.

CARDIOVASCULAR PROGRAM

Basic data	
Number of beds	52
- Standard	30
- Intermediate	4
- Intensive	18
Daycare clinic	5
Number of physicians	33
Number of general nursing staff	124
Number of outpatient examinations	42 970
Number of hospitalization	4 642
Number of days of treatment	13 880
- Standard	8 774
- intensive	5 106
Bed occupancy rate (as a %)	74,58
- Standard	72,49
- intensive	78,48
Average length of stay (in days)	2,99

Coronary Unit	
Total admissions	763
Clinically significant ventricular arrhythmias	300
Acute coronary syndrome	413
Acute heart failure	115
Infectious endocarditis	21
Hypothermia following cardiopulmonary reanimation	4,3
Pulmonary embolism	4,7

Non-invasive cardiology	
General outpatient clinic	15 362
Angiology	3 316
Arrhythmology	7 248
Transthoracic echocardiography	6 176
Transesophageal echocardiography	897
Dobutamine stress test	9
Holter ECG+Recollect	2 058
Exercise ECG/stress test	883
Blood pressure monitoring	1 346
Loop monitoring	1 205
Tilt test	46
Anticoagulation outpatient clinic	3 486

Angiography Unit – Specialized procedures	
Diagnostic catheterization	2 862
Ventriculography	583
Bilateral cardiac catheterization	253
Percutaneous Coronary Intervention (PCI)	1 028
Primary PCI (in AIM)	233
Stents:	
Number of patients	932
Number of stents	1 309
Fraction flow reserve (FFR)	93
Intravascular ultrasound	75
Alcohol septal ablation	7
DSS/PFO occlusion	38
Immediate complications after PCI:	
Emergency bypass surgery (CABG)	0
Mortality associated with PCI	0

Multifunctional Catheterization Unit	
Electrophysiology	
Total ablations	729
AVNRT	108
WPW	40
Atrial flutter	116
Atrial fibrillation	317
- Paroxysmal	233
- Persistent	64
Atrial tachycardia	33
Ventricular tachycardia	76
- Structural	44
- Idiopathic	32
Other	39
Left atrial appendage occlusion	38
Pacemaking	
Total	1 221
Primary pacemaker implantations	379
Pacemaker reimplantations	322
Primary ICD implantations (of which 1x Cameron)	332
ICD reimplantations	151
Total CRT 200 (primary + reimplantations)	14
Pacemaker and ICD lead extractions	23
Extrakce elektrod kompletní	55

CARDIOVASCULAR PROGRAM

DEPARTMENT OF VASCULAR SURGERY

Head of Department Ass. Prof. Petr Štádler, MD, PhD

The Department deals with surgical and angioradiological 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 surgery is focused on minimally invasive approaches using endovascular and robot-assisted methods. The department provides 24-hour emergency surgical care for all acute vasculo-surgical conditions.

In 2011, the range of surgical interventions covered operations on ranch arteries of the aortic arch, operations on the thoracic and abdominal aorta including aneurysms, reconstruction of arteries supplying abdominal and retroperitoneal organs, arteries serving the limbs, as well as surgery to treat varicose veins and unique transplantations of vascular grafts in the treatment of infection of vascular prostheses. A significant growth was recorded in 2011 in the number of operations on the thoracic and abdominal aorta where the surgical strategy of the treatment of thoracic and thoracoabdominal aneurysms was adjusted. One of the most numerous groups was traditionally the group of patients with ischemic disease of the lower limbs and the patients with narrowing of arteries supplying blood to the brain. Miniinvasive medical interventions performed in the Department included thoracic sympathectomies by thoracoscopic method, laparoscopic lumbar sympathectomies, endoscopic operations of the varicose veins, operations of abdominal aorta from reduced surgical approaches, so-called minilaparotomies, and particularly robot-assisted vascular surgery.

In 2011, the vascular surgery at the Na Homolce Hospital further fostered its worldwide leading position in the area of robot-assisted vascular surgery and national leadership in thoracoabdominal aortic surgery.

In February 2011, to great acclaim at the Hospital organized an international workshop on Homolce robotic vascular surgery and actively cooperate with Poland and England. In March 2011, vascular surgeons performed the Na Homolce first robot-assisted vascular reconstruction in Poland. In December 2011 he was elected Chairman of department head physician the Subcommittee for robotic vascular surgery at MIRA (Minimally Invasive Robotic Association), based in Los Angeles, USA. By the end of 2011, the Department performed 243 robotic vascular interventions which is an outstanding achievement in this field. A number of robotic operations performed in

CARDIOVASCULAR PROGRAM

the Department of Vascular Surgery of the Na Homolce Hospital had a world premiere here, and the Hospital's experience with robot-assisted vascular surgery has been well received by the professional public at home, as well as abroad, particularly in the USA and Asia. The Department of Vascular surgery of the Na Homolce Hospital is an international training center for robot-assisted vascular surgery.

Endovascular surgery represents another significant area of the Department's activities that focuses on implantations of stentgrafts in the treatment of abdominal aneurysms or thoracic aorta. Implantation of stentgrafts, intraoperative angiography or intraoperative angioplasties are performed as a standard in cooperation with the Department of Radiodiagnostics of the Na Homolce Hospital. A specialized team of physicians was established for this purpose. The Department of Vascular Surgery serves as a training center in vascular surgery for postgraduate studies at the Institute for Postgraduate Studies. It also functions as a specialized consultancy for serious and complicated angiosurgical cases. In 2011, physicians of the Department were involved in undergraduate teaching for 1st Faculty of Medicine of Charles University and in postgraduate teaching in the field of vascular surgery for the Institute for Postgraduate Studies and robot-assisted surgery for the European Institute of Telesurgery in Strassbourg.

Basic data

Number of physicians	18
Number of general nursing staff	113
Number of outpatient examinations	11 216
Number of beds	61
Standard	36
Intermediate	13
Intensive	12
Number of admissions	2 179
Bed occupancy rate (as a %)	75,68
Average length of stay (in days)	7,73
Number of days of treatment	16 851
Mortality (as a %)	1,5

Breakdown of vascular and general surgical Interventions

Thoracic aneurysm	25
Abdominal aneurysm	142
Aneurysms of pelvic arteries	2
Aneurysms of popliteal artery	14
Aortofemoral reconstructions	59
Penic reconstructions	38
Extraanatomic reconstruction in aortoiliac area	44
Solution of infection of vascular prothesis	13
Operations on branches of the aortic arch	239
Femoropopliteal proximal reconstruction	66
Total crural reconstructions	147
Operation on varicose veins	180
Minimal invasive surgery Robotic operations	41
Laparoscopic operations	5
Thoracic sympathectomy thoracoscopic method	25
Lumbar sympathectomy laparoscopic method	8
Endoscopic sampling of VSM for reconstruction	5

Total number of operations

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
1 349	1 552	1 573	1 625	1 410	1 585	936	906	906	1 390	1 548

CARDIOVASCULAR PROGRAM

DEPARTMENT OF CARDIAC SURGERY

Head of Department Štěpán Černý, MD, PhD, MBA

Department of Cardiac Surgery of the Na Homolce Hospital is among the largest centers of cardiac surgery in the Czech Republic. It deals with complex surgical treatment of diseases affecting the heart and the major endothoracic vessels. Its activities also cover outpatient monitoring of selected groups of patients before and after cardiac surgery. In the course of 2011, 827 cardiosurgical interventions were performed in the Department, which represents an 8% increase compared to 2010. Despite further shift towards more demanding types of operations, the Department succeeded in achieving excellent results. The average mortality in individual groups of diagnoses shows better values as compared to the national average.

In 2011, the range of cardiosurgical operations reflected a clear tendency of the Department to specialize in valvular surgery that accounted for 60.1% of the total number of operations. 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%. The Department continued to develop also the program of miniinvasive operations of valves within which 150 patients were operated on from 2008.

The number of operations for ischemic heart disease accounted for 31.5% of the total number of operations performed in the period under review. In the period under review, the Department worked in collaboration with the Department of Cardiology on the successful development of intraoperative cryoablations in patients with chronic atrial fibrillation (MAZE) program, when 178 patients were treated using this method. As a result, the Na Homolce Hospital remains the center performing the highest number of these interventions in the Czech Republic. In 2011, the Na Homolce Hospital was further developing the program of these interventions in isolated atrial fibrillation, using minimally invasive approach.

Working together with the Department of Vascular Surgery and the Department of Radiodiagnostics, the interdisciplinary program of care for patients with complex disorders of the aortic arch, primarily focusing on the endovascular treatment of these diseases, continued in 2011. Na Homolce Hospital is a center with the highest number of interventions performed on thoracic aorta in the Czech Republic. In 2011, the program of care for adult patients with congenital heart conditions was further systematically developed. The program consists of a specialized outpatient clinic for adult congenital heart conditions and of operative and post - operative care, which is provided in the Department of Cardiac Surgery of Na Homolce Hospital, in collaboration with the

CARDIOVASCULAR PROGRAM

pediatric Cardiac Center at Motol Teaching Hospital. In 2011, there were almost 500 of these patients operated on at the Na Homolce Hospital.

In 2011, the da Vinci robotic operating system continued to be used for cardiosurgical interventions. Certain procedures, for example the robot-assisted closure of the septum defect, became a routine intervention and the method of choice for the surgical treatment of diagnosed heart disorders. In the period under review, cardiac surgeons of the Na Homolce Hospital successfully developed program of a completely robotized mini MAZE cryoablation.

Basic data

Number of physicians	16
Number of general nursing staff	100
Number of outpatient examinations	5 130
Number of beds	34
- Standard	14
- Intermediate	10
- Intensive	10
Number of admissions	909
Bed occupancy rate (as a %)	89,7
Average length of stay (in days)	12,2
Number of days of treatment total	11 054

Surgical interventions

Isolated aortocoronary reconstructions	247
Combined aortocoronary reconstructions (EACI, MAZE etc.)	29
Coronary valve replacement/reconstructions	502
Isolated operations on the ascending aorta and the aortic arch	23
Other (myxoma, pericardectomy, PM extraction)	16
Epicardial stimulator electrode implants	10
Total	827
MAZE operations (combined with ACB and valvular surgery)	178
Total thoracic aorta operations (combined with other interventions)	83
Robot-assisted interventions	8
Acute and emergency operations	158
Planned operations	669

CARDIOVASCULAR PROGRAM

CARDIOVASCULAR PROGRAM

DEPARTMENT OF CARDIOANESTHESIOLOGY

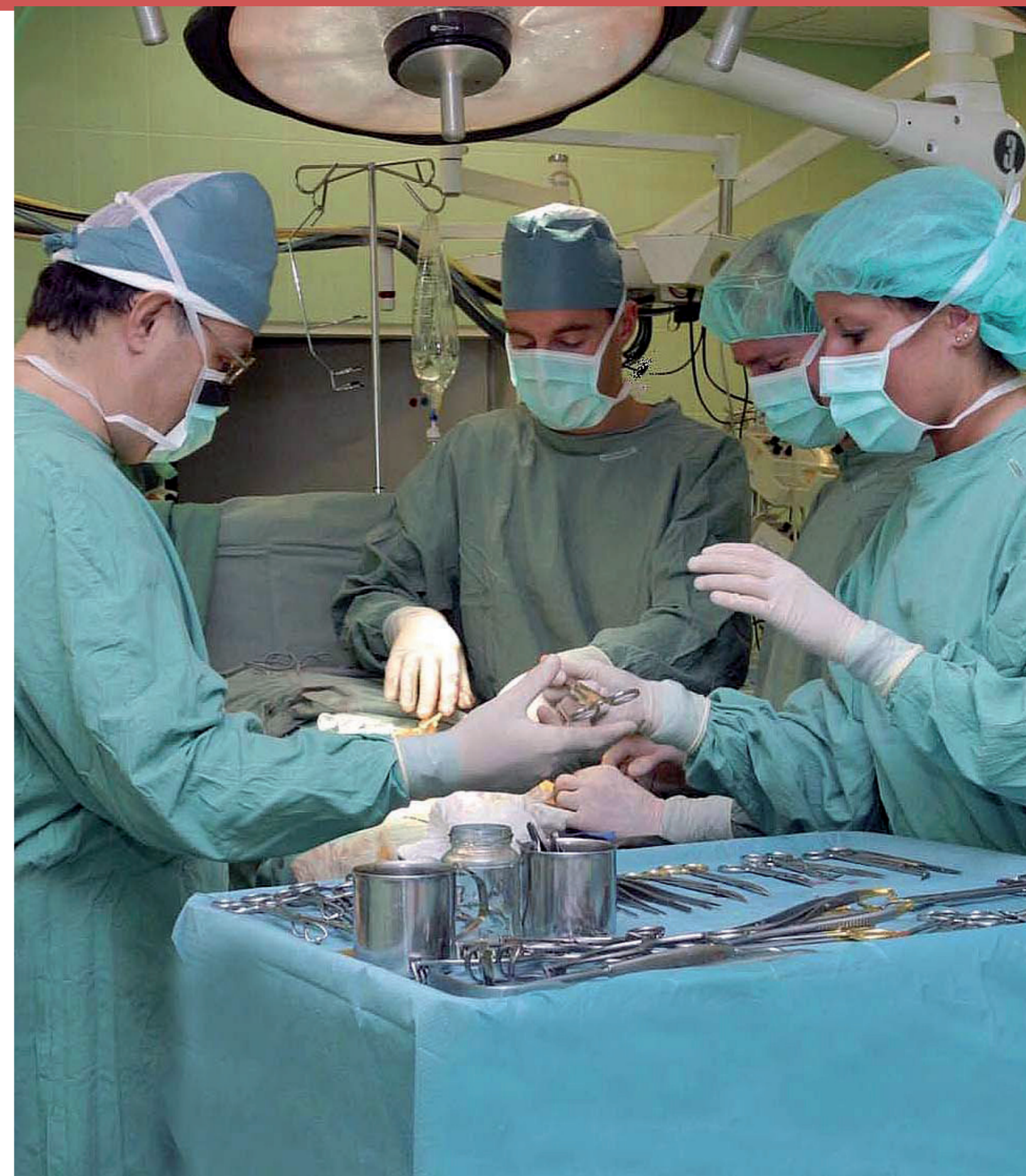
Head of Department Pavel Jehlička, MD

Department of Cardioanesthesiology was established as a separate unit in 2008 as part of the Cardiocenter of the Na Homolce Hospital. Its core activities include two basic fields, namely anesthesiologic care for the departments of cardiosurgery and cardiology and intensive care for the cardiosurgical Unit of postoperative and resuscitation care.

In the field of anesthesia, it provides care of patients who undergo cardiosurgical operations with or without extracorporeal support of circulation, cardiosurgical robot-assisted operations or cardiosurgical operations with minimally invasive approach. In cardiological patients, it ensures anesthesia in complicated mapping of the heart in arrhythmology, anesthesia in extraction of stimulation systems and anesthesia for electrical cardioversions.

In the field of intensive care it ensures operation of the cardiosurgical Unit of postoperative and resuscitation care, closely cooperates also with the cardiosurgical Unit of intermediate care. At the same time it provides consultancy within the Cardiocenter scope in other units of intensive cardiological care. Together with the Department of Cardiology and Department of Biomedical Engineering it is involved in the program of extracorporeal support of circulation in patients in cardiogenic shock.

As the only department in the Czech Republic, the Department of Cardioanesthesiology ensures anesthesia in robot-assisted operations within cardiosurgery and anesthesia in operations of adult patients with congenital heart conditions.



Basic data	
Number of physicians	8
Number of general nurses	7

Total number of anesthetics administered	
Cardiosurgery	887
Cardiology	659
Operations lasting more than 2 hours	1 220
Patients over 65 years	531



GENERAL MEDICAL CARE PROGRAM

THIS PROGRAM OFFER A COMPLETE RANGE OF MODERN DIAGNOSTIC AND THERAPEUTIC METHODS FOR DECEASES RELATED TO INTERNAL MEDICINE AND GENERAL SURGERY, WITH A FOCUS ON MINIMALLY INVASIVE SURGERY.

DEPARTMENT OF INTERNAL MEDICINE

Head of Department Robert Wohl, MD (1. 1. 2011 - 25. 9. 2011)

Head of Department Milan Čech, MD (26. 9. 2011 - 31. 12. 2011)

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.

One of the traditional activities of the Department includes care for patients with the short bowel syndrome and ensuring long-term parenteral nutrition, including treatment of complications (septic, thrombotic) inevitably associated with this therapy. The Department uses routinely bedside sonography and interventions under the ultrasound control (central cannulation, dg/evacuation puncture etc.).

In addition to the services of general internal medicine, the outpatient services also comprise diabetology, endocrinology, domestic parenteral nutrition consultancy, obesitology, lipid-focused consultancy, quit smoking consultancy and acute treatment clinics that serve for the treatment of outpatients requiring acute treatment, administration of infusions, including planned hemostat substitutions, and diagnostic and therapeutic interventions.

In 2010, 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 into routine practice 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 diseases of the digestive tract, and with an endosonograph with a surgical channel.

The Gastroenterologic Unit serves as a center for biological treatment of unspecified intestinal inflammations and for screening of colorectal carcinoma.

The Department of Internal Medicine includes the Pulmonary Endoscopy Center with a nationwide coverage. It offers comprehensive bronchologic diagnostics including autofluorescent bronchoscopy, NBI (narrow band imaging) and endobronchial ultrasonography unique

GENERAL MEDICAL CARE PROGRAM

in the Czech Republic. The range of Center's services also features rigid bronchoscopy under general anesthesia, 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. In 2010, the Center developed the program of bronchoscopic lung volume reduction in patients with severe emphysema by means of insertion of valves into bronchi. In 2010, physicians of the Department of Internal Medicine were involved in undergraduate teaching for 1st and 3rd Faculties of Medicine of Charles University as well as in postgraduate teaching. Also in 2010, the Department acted as a training center in the specialized field of "Artificial Nutrition and Metabolic Care".

INTERNÍ ODDĚLENÍ - Základní údaje

Number of beds	29
- Standard	21
- Intensive	8
Number of physicians	24
Number of general nursing staff	51
Number of outpatients examinations	28 505
- Internal medicine clinic	20 164
- Gastroenterological examinations	8 341
Flexible and autofluorescent bronchoscopy	1 337
Functional examination of lungs	3 174
Number of admissions	1 118
Number of days of treatment	9262
Bed occupancy rate (as a %)	
- Standard	89,79
- Intensive	96,10
Average length of stay (in days)	
- Standard	6,33
- Intensive	6,38

Specialized interventions

Gastroscopy	2 341
Colonoscopy	2 281
Endoscopic sonography	624
ERCP	393
Endoscopic papillosphincterotomy	225
PEG	17

GENERAL MEDICAL CARE PROGRAM

DEPARTMENT OF ONCOLOGY

Head physician Martin Šafanda, MD

The Department of Clinical Oncology specializes in the treatment of adult patients with malignant tumors. Oncological treatment is divided into 4 key areas: gastroenterological program, mammological program, urogynecological program and pneumooncological program.

With the exception of therapy by irradiation, antitumor therapies in all indications are performed in the Department – adjuvant, neoadjuvant and palliative. A team of specialists in the fields of radiodiagnostics, surgery, internal medicine, gynecology and pathology participate in the diagnostic process of the most frequent malignant tumors. The radiotherapy is performed in collaboration with Motol Teaching Hospital.

Na Homolce's Department of Oncology closely cooperates with the Comprehensive Oncological Center of the Motol Teaching Hospital.

Basic data	
Number of physicians	4
Number of general nursing staff	5
Number of outpatient examinations	10 208
Number of cycles of chemotherapy	6 070

GENERAL MEDICAL CARE PROGRAM

DEPARTMENT OF GENERAL SURGERY

Head of Department Michal Toběrný, MD, MBA

The Department provides a wide range of services covering diagnostics and surgical treatment in the areas of general surgery, orthopedics and urology, while the outpatient clinic also includes counseling centers for abdominal, gastroenterological and lung surgery and oncosurgery, as well as a counseling center for mammology, phlebology and bariatrics, 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 conditions.

In the field of general surgery, similarly as in previous years, abdominal and thoracic surgery was performed using minimally invasive methods in all areas of laparoscopic surgery, with emphasis on one-day surgery. Intensive cooperation was developed with the hospital in Liberec mainly in the field of lung surgery. Care continued to be provided in oncological surgery of the digestive tract, mammology and bariatric surgery (for morbid obesity). In 2011, the surgical team performed the standard range of interventions, primarily using the intraoperative 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 gastroesophageal reflux disease. During the period under review, further development was achieved in the most demanding laparoscopic procedures on the colon, rectum and gastrointestinal tract using the harmonic scalpel. Robot-assisted interventions were permitted by health insurance companies only for urological operations.

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 2011 comprised the total replacement of joints, including shoulder and ankle joints, as well as reimplantation of joints and osteotomies in foot surgery. The orthopedic navigational system was routinely used for surgery on large joints. Na Homolce Hospital's Department of Surgery is a reference center for the Orthopilot navigation system used in total joint replacement.

Urological operations included, similarly as in previous years, open and endoscopic surgery on the urinary system, including urological oncosurgery, using minimally invasive laparoscopic, cystoscopic and ureterorenoscopic surgical techniques. In 2011, da Vinci robotic operation system

GENERAL MEDICAL CARE PROGRAM

was routinely used during urologic surgical procedures (in particular for radical prostatectomies, pyeloplasty and kidney resections).

In 2011, physicians of the Department of Surgery were involved in undergraduate teaching for 3rd Faculty of Medicine as well as in postgraduate teaching within the Institute for Postgraduate Studies.

Basic data	
Number of beds	31
- Standard	16
- Intensive	15
Number of physicians	22
Number of general nursing staff	58
Number of outpatient examinations	40 271
Number of admissions	2 421
Number of surgical interventions	2 582
Number of small outpatient interventions	1 428
Number of days of treatment	9 307
Bed occupancy rate (as a %)	89,15
Average length of stay (in days)	3,85
Mortality (number of patients)	8

Number of outpatient examinations	
Surgery	16 881
Orthopedics	11 829
Urology	11 561
Total	40 271

Number of admissions by diagnosis	
Neoplasms	382
Deceases of the digestive system	881
Orthopedic disorders	652
Urological disorders	122
Benign tumors	88
Morbid obesity	40
Other deceases	256
Total	2 421

Number of surgical interventions	
Surgery	1 389
Urology	210
Orthopedics	625
Robotic operations surgery	101
Robotic operations urology	2 621

GENERAL MEDICAL CARE PROGRAM

DEPARTMENT OF GYNECOLOGY AND MINIMALLY INVASIVE SURGERY

Head of Department Petr Popelka, MD

The Department's activities cover diagnosis and surgical treatment of gynecological diseases with a focus on minimally invasive operations. The complete spectrum of pelvic and gynecological surgery was concentrated in four clinical programs in 2011: oncogynecological surgery, urogynecological surgery, complex diagnostics and endometriosis surgery 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 and a follow-up care for patients operated on and receiving oncological treatment in specialized centers. 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. For the fifth year in 2011, part of activities of the Department in the Czech Republic, a unique program of comprehensive solutions laparoscopic cervical cancer. Urogynecologic surgery covers both diagnostics and surgical and conservative treatment of incontinence and pelvic floor disorders, where emphasis is placed on laparoscopic solution to these problems. Surgical procedures include the latest trends in the use of special reticulate implants and put emphasis on comprehensive solution of the given problems while observing the rules of minimally invasive interventions. In total 392 patients with the above mentioned problems were operated on in the Department.

Complex diagnostics and endometriosis surgery program offers patients from the whole 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 to verify its success. Na Homolce Hospital's Department of Gynecology is one of the most experienced centers in the Czech Republic to perform radical operations of retroperitoneal endometriosis. In 2010, the Department performed 26 interventions.

General gynecological surgery offers surgical treatment of infertility, myomatosis, adnexal tumors and cysts; it deals with postoperative adhesions, chronic pelvic pain, inflammation and congenital development disorders of the uterus, particularly syndromes of uterine and vaginal aplasia. Hysteroscopic surgery includes diagnostic and surgical endoscopies of the uterine cavity.

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Overall, the number of surgical interventions totaled 1, 880 operations in 2010, of this 94%, including oncological interventions, were performed by minimally invasive methods. The Department of Gynecology and Minimally Invasive Surgery is one of the fourteen centers in the Czech Republic and the seat of the Secretariat and Board of Trustees of the Czech Association of Gynecological Endoscopy and Pelvic Surgery (CSGE).

Basic data	
Number of beds	26
- Standard	20
- Intensive	6
Number of physicians	8
Number of general nursing staff	23
Number of outpatient examinations	16 010
Number of admissions	1 914
Number of surgical interventions	1 880
Number of days of treatment	5 296
Bed occupancy rate (as a %)	65,41
Average length of stay (in days)	2,77

DEPARTMENT OF ENT / HEAD AND NECK SURGERY

Head of Department Jan Paska, MD

The Department specializes in diagnostics, and conservative and surgical treatment of diseases of the ears, nose and throat. Surgical interventions in 2011 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 2011 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

GENERAL MEDICAL CARE PROGRAM

anesthesia, initial arthroscopic surgery) to traditional surgery of the jaw (temporomandibular) joint including its total replacement.

In the field of thyroid surgery the Department follows the world trend and uses a miniinvasive form of removal of thyroid by the MIVAT method. The Department's outpatient clinic again provided a comprehensive range of services throughout 2011, including specialized counseling in the fields of oncology, otoneurology, cophosurgery, otoprosthesis, a rhinopathy clinic, a clinic for thyroid disorders, a clinic for corrective nose surgery, a foniatic outpatient clinic, clinic of care for salivary glands 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. Part of the care is also aesthetic program which includes primarily interventions on external ears, external nose and laser operations.

In 2011, the Department of ENT/ Head and Neck Surgery organized a traditional specialized international workshop on diseases of thyroid. In 2011, physicians of the Department of NET /Head and Neck Surgery were involved in undergraduate teaching for 3rd Faculty of Medicine and College of Education of Charles University.

Basic data	
Number of beds	11
- Standard	8
- Intensive	3
Number of physicians	10
Number of general nursing staff	21
Number of consultations	1 632
Number of admissions	1 106
Number of surgical interventions	1 280
Number of days of treatment	2 720
- standard	2 019
- Intensive	701
Bed occupancy rate (as a %)	68,46
- Standard	69,72
- Intensive	65,09
Average length of stay (in days)	2,46
- Standard	1,34
- Intensive	1,65

Number of surgical interventions	
Operations under local anesthesia	327
Operations under general anesthesia	760
Operations FESS	146
Operations of thyroid gland	170
Ears operations	63

GENERAL MEDICAL CARE PROGRAM

DEPARTMENT OF ANESTHESIOLOGY AND RESUSCITATION (AR)

Head of Department Michael Stern, MD

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 Department has also a specialized team for treatment of acute pain, that deals with systematic study and treatment of acute pain in inpatients. The pain management clinic deals with problems experienced by patients in chronic pain.

Basic data	
Number of physicians	29
Number of general nursing staff	56
Number of beds	8
Bed occupancy rate (as a %)	86,6
Average length of stay (in days)	15

Structure of units
1 resuscitation unit (8 beds)
2 postoperative unit of vascular surgery (20 beds)
5 central operating theatres
3 operating theatres for general surgery
2 operating theatres for gynecology
1 operating theatre for robotic surgery
8 other operating theatres and unites (ENT, stereotaxis, x-ray, dentistry, eye clinic, NM-PET, gastro, bronchology)
1 hyperbaric chamber

Operating activity, hospitalization and out-patient clinic	
Number of hospitalizations	173
Mortality (as a %)	26,76
Total number of anesthetics administered	8 949
- Patients over 65 years	1 662
- Interventions longer than 2 hours	2 978
- Regional anesthesia	939
Interventions in the pain clinic	625

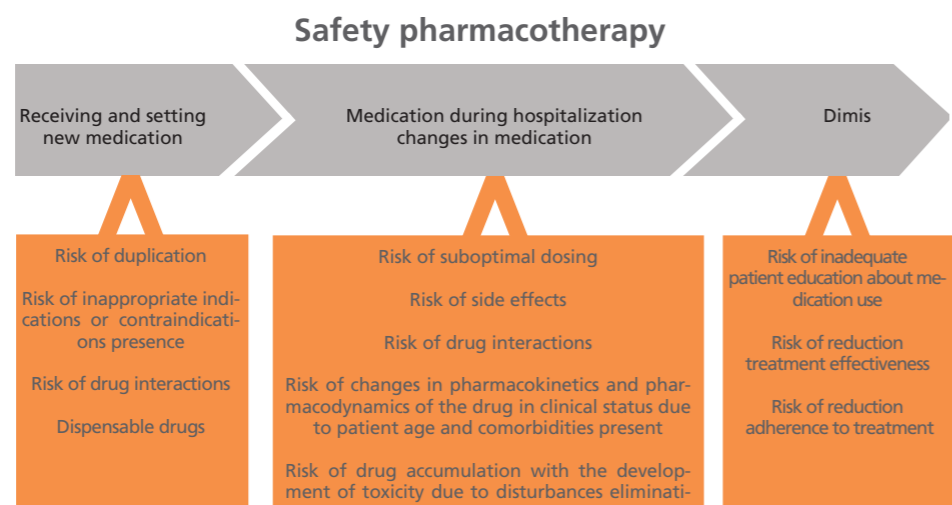
GENERAL MEDICAL CARE PROGRAM

DEPARTMENT OF CLINICAL PHARMACY

Department Head PharmDr. Milada Halačová, Ph.D.

Department of Clinical Pharmacy was established in Na Homolce Hospital in August 2010 with the intention to ensure the safety of pharmacotherapy, which is one of the major priorities of the hospital management. The working team department consists of pharmacists specializing in the field of clinical pharmacy, or inclusion in this specialized training. The concept of clinical pharmacists work in Hospital On Homolka based on their needs, safety standards and staff availability JCI department. This concept defines the application of clinical pharmacist in a hospital. Activities in which the clinical pharmacist participates, can be divided into several areas (Table 1). The first is a large area (1) assessment of drug history on admission the patient. This is only a revision of the so-called signal, ie gross assessment of medication in terms of indications, contraindications, and dosages chosen route of administration. Identifies duplicate medication assesses the existence or risk of drug and food interactions and evaluate the clinical significance of the interaction and identify risk, to future problematic drug for the patient or risk capture pharmacotherapeutic regimens continue to work with them. The key activities of the clinical pharmacist is (2) daily work on the assigned clinical departments and work closely with physicians and nurses. Clinical pharmacists monitor patient medication in a broad context and examine the causal relationship between specific patient problems or changes in the course of the disease, laboratory tests and current medications, the benefits of drugs, particularly antibiotics, in patients with varying degrees of renal or hepatic damage and dialysis patients. With nurses working in the field of drug incompatibilities and crushing formulations to nasogastrických and jejunal probes. The clinical pharmacist provides in hospital (3) consulting services on demand doctor participates in (4) development of best practices, reports of adverse effects on the SIDC and is responsible for drafting the protocol expertise in dealing with emergencies in the hospital-related medications.

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Tab. 1: Analysis of operating processes related to activities of the Department of Clinical Pharmacy

Evidence of work and their own agenda Department of Clinical Pharmacy

Possibility of direct entries in documentation of a patient form the pharmacotherapeutic RECOMMENDATIONS (Fig. 1) allows for tracking work clinical pharmacist and assemble your own agenda. This electronic system is a consulting clinical pharmacist to work is crucial. Allows easy statistical output processing work, allowing you to go back in time to the individual cases to re-direct access to dekurs (i already discharged patients). Evidence pharmacotherapeutic recommendations made during repeated hospitalizations, the patient to monitor the patient's medication in the next few years.

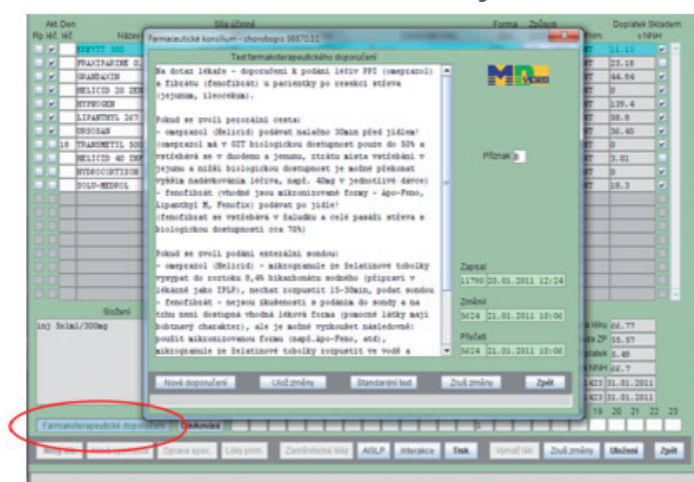


Fig.1. Minutes clinical pharmacist to documentation of a patient

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Cooperation with the Department of Quality Management

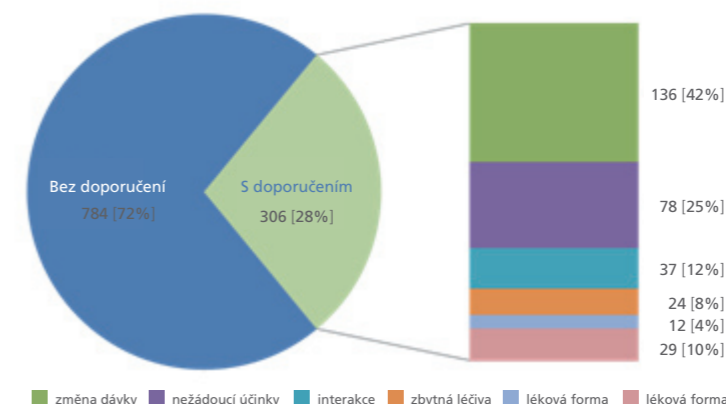
In cooperation with the Department of Quality Management Na Homolce Hospital Hospital succeeded in a very short time frame uniquely identify a clinical pharmacist position and its integration into the processes Hospital. The clinical pharmacist at the hospital became an integral part of the accreditation process, and together with the doctor and nurse another link to safe medication. Cooperation with the Department of Quality Management and head nurses of each clinical department participates in the Department of Clinical Pharmacy in the creation of the list of high-risk and LASA (look-alike court alike) drugs and contributes to the development of proactive processes and storage systems, which minimizes the number of errors in handling with these drugs and the impact of these errors on the patient.

Suitability and performance of the set of processes was confirmed in 2011, successful international audit quality and safety of JCI.

Department of Clinical Pharmacy in 2011 participated in undergraduate teaching in the field of pharmacology in the medical and pharmaceutical faculties of Charles University in Prague and Masaryk University in Brno and in postgraduate teaching in the Postgraduate Medical School. Department Head is the leading Division of Clinical Pharmacy Postgraduate Medical School and a member of the accreditation board Ministry of Health Czech republic.

Figure 1: Sample analysis consulting activities department for selected period

Number of patients (n = 1090) controlled for the KF 5.1 - 31 5th 2,011



GENERAL MEDICAL CARE PROGRAM

Other outpatients departments

EYE DEPARTMENT

Head physician Petr Novák, MD

The eye department provides a wide range of interventions, both basic and special outpatient ophthalmologic examinations, all surgical interventions on the anterior eye segment, primarily cataract surgery and cornea transplantation. The range of the care includes also glaucoma surgery, surgical treatment of post-injury conditions and operations of eyelids and the surrounding region. Most operations are performed in the outpatient section, in case of cataract surgery more than 98% interventions. Surgical procedures are based on the advanced methods of eye microsurgery.

Special examinations include computer perimetry, autorefractometry, ultrasound examination and contactless tonometry. Special examinations are provided to outpatients and inpatients of the Na Homolce Hospital, as well as to patients from other hospitals, based on recommendations of ophthalmologists and neurologists. In 2011, the Department's offer included also **commercial refractory interventions** – extraction of the lens with replacement by monofocal or multifocal implant and implantation of toric and recently also phakic lenses.

Basic data	
Number of physicians	6
Number of general nursing staff	6
Number of outpatient examinations	14 520
Total number of patients treated	7 952
Total number surgeries	1 236
Cataract surgery	1 053
Commercial refraction interventions	93
Cornea transplantation	39
Surgical correction of astigmatism	54

CENTER OF ALLERGOLOGY AND CLINICAL IMMUNOLOGY

Head physician Ass. Prof. Vít Petrů, MD, PhD

Center of Allergology and Clinical Immunology of the Na Homolce Hospital provides **complex therapeutic and preventive care to patients with asthma, allergy, immunity defects and other types of immunopathological disorders, including a wide range of clinical and laboratory examinations.** Closely cooperating with the Department is the laboratory of al-

GENERAL MEDICAL CARE PROGRAM

Other outpatients departments

lergology and clinical immunology which is an organizational unit of Department of Clinical Biochemistry, Hematology and Immunology.

Center of Allergology and Clinical Immunology provides complex outpatient services:

- **Pediatric outpatient section focuses primarily on children suffering from bronchial asthma, allergic rhinitis, atopic eczema and repeated respiratory diseases.**
- **Adult outpatient section treats in addition to patients with bronchial asthma and allergies, also patients with primary and secondary immunodeficiencies. Physicians of this section provide consultancy also to other wards of the Na Homolce Hospital, with a focus on patients in intensive care units and patients with systemic autoimmune diseases.**

Club of Patients with Allergy and Asthma (AA Homolka Club) continued to carry out its activities also in 2011. The Club is a member of the Association for the Assistance of Chronically Ill Children and has more than 100 members (families). For thirteen years now, it has been associating families of allergic children, organizing educational lectures, publishing the bulletin "Motýlek" (Butterfly), distributing the journal "Allergy, asthma, bronchitis". Through its activities, the Club conduces to improvement of the quality of care for children suffering from allergy and asthma. As part of the Sub-department of Allergology and Clinical Immunology of the Institute for Postgraduate Studies, the Center of Allergology and Clinical Immunology is also an accredited educational center for in-service training of physicians and other medical staff in the field of allergology and clinical immunology and is involved in undergraduate and postgraduate education. Specialists of the Center are also involved in research and development and publication activities.

Basic data	
Number of physicians	4
Number of general nursing staff	5
Number of outpatient examinations	11 255
Total number of patients treated	6 002

Number of examinations					
Year	Number of patients	Number of examinations	Dermatological tests	Spirometry	Allergen. vaccines
2005	2 733	10 086	24 991	3 925	534
2006	3 011	10 689	27 953	4 166	631
2007	3 208	11 753	26 573	4 268	738
2008	3 198	12 465	31 133	4 148	757
2009	3 455	12 153	31 018	4 908	530
2010	7 544	19 211	39 299	7 807	695
2011	6 002	11 255	39 910	8 208	856

GENERAL MEDICAL CARE PROGRAM

Other outpatients departments

PEDIATRIC DEPARTMENT

Head physician Zuzana Hejtmánková, MD

The Department focuses on diagnostics and treatment of children's diseases, postnatal care and provides services of a general practitioner for children and adolescents up to the age of 19 years. Specialized outpatient units offer pediatric endocrinology, gastroenterology, logopedics, nephrology, neurology, orthopaedics, pneumology and psychology.

In 2011, the neurological and orthopaedic outpatient unit further developed the already established program of neuroorthopaedic screening focused on neurological and orthopaedic observance of patients, primarily on early detection, diagnostics and treatment of musculoskeletal disorders – disorders of gait coordination, postural and neurologically conditioned defects. In cooperation with other pediatric units, the endocrinology center deals with early detection of children with the diagnosis of intrauterine growth retardation and early diagnostics of juvenile thyreopathy. The psychological unit provided diagnostics consultancy of a clinical psychologist, crisis intervention and a long-term follow-up of the respective child. The logopedics unit deals with diagnostics and treatment of speech disorders. The range of specialized services includes also activities of the Pediatric gastroenterological center.

Basic data	
Number of physicians	3
Consultants and specialists	13
Number of general nursing staff	5
Number of outpatient examinations	24 609

DEPARTMENT OF DERMATOLOGY

Head physician Richard Šuraň, MD

The Department provides therapeutic and preventive care in the field of dermatovenerology, including diagnostics and long-term follow-up of suspected tumor diseases. In addition to the basic examination scope, the range of examinations includes also phototherapy by a SUP lamp, electrocauterization, cryotherapy, sclerotherapy for varices, dermatoscopic examination of pigment formations, Doppler and photoplethysmographic examination of the vascular system of the limbs.

GENERAL MEDICAL CARE PROGRAM

Other outpatients departments

Basic data	
Number of physicians	1
Number of general nursing staff	1
Number of outpatient examinations	6 196

DEPARTMENT OF DENTISTRY

Head physician Petr Kolčava, MD

Stomatological care covers a full range of outpatient dental care, including prevention, treatment of acute cases and providing consultancy to other Hospital departments.

Basic data	
Number of physicians	1
Number of general nurses	1
Number of outpatient examinations	6 677

DEPARTMENT OF PSYCHIATRY

Head physician Jaroslava Skopová, MD

Department of Psychiatry is a specialized outpatient unit that is focused on diagnostics and therapeutic and preventive psychiatric care. It closely cooperates with a number of both outpatient and inpatient departments of psychiatry in Prague, indicated patients are referred to hospitalization.

Basic data	
Number of physicians	1
Number of general nursing staff	1
Number of outpatient examinations	2 609

GENERAL MEDICAL CARE PROGRAM

Other outpatients departments

DEPARTMENT OF CLINICAL PSYCHOLOGY

Head physician Martin Kořán, MA, PhD

The Department provides a wide range of diagnostic, psychotherapeutic and consulting services to inpatients and outpatients of the Na Homolce Hospital. Specialized psychological care includes preoperative psychological preparation of patients before complicated interventions, help in coping with psychological impact of the patients' diseases, psychological diagnostics focused on identification of intellect and mnemonic abilities or identification of personality psychopathology that rules out certain medical interventions. In compliance with the clinical profile of the Na Homolce Hospital, the Department provides specialized neuropsychological diagnostics and psychotherapeutic care to patients with neurological diseases, specialized psychological diagnostics and psychotherapeutic care to patients with cardiac and vascular diseases and within internal medicine, it offers psychotherapeutic care to bariatric patients, including obesity consultancy and psychosomatic care, psychotherapeutic care to oncological and other patients, including quit smoking consultancy. Additional services include crisis intervention in acute reactions to unfavorable diagnosis, psychodiagnostics and psychotherapy of children with different psychosomatic, behavioural and study problems or psychological examination of patients required by various directives and regulations of the Ministry of Health and the General Health Insurance Company. Part of the care is also psychosomatic and pain treatment consultancy. In 2010, the Specialists of the Department were involved in undergraduate teaching at the College of Education and the Philosophical Faculty of Charles University and postgraduate teaching for the Institute for Postgraduate Studies in the field of clinical psychology and in field of study traffic psychology of Palacky University in Olomouc.

Basic data

Number of psychologists	4
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Number of outpatient examinations

Psychotherapy individual systematic by 30 minutes	2 089
Target psychological examination by 60 minutes	1 084
Control psychological examination by 30 minutes	368
Specific psychological intervention by 30 minutes	409
Crisis intervention by 30 minutes	8
Conversation with family by 30 minutes	51
Telephonic consultation by 10 minutes	40
Psychodiagnosis include challenging psychotherapeutic intervention by 90 minutes	30
Group therapy by 90 minutes	64

GENERAL MEDICAL CARE PROGRAM

Other outpatients departments

Number of admissions

Psychotherapy individual systematic by 30 minutes	194
Target psychological examination by 60 minutes	620
Control psychological examination by 30 minutes	289
Specific psychological intervention by 30 minutes	4 045

DEPARTMENT OF PHYSIOTHERAPY AND PHYSICAL MEDICINE

Head of Department Ivan Hadraba, MD

The Department provides a comprehensive diagnostic and therapeutic care to restore the physical abilities of patients. Diagnostic-therapeutic services are part of the clinical programs of the Na Homolce Hospital – the Neuroprogram, the Cardiovascular program and the General medical care program. The team of the Department comprises specialized physicians, physiotherapists, nurses and masseurs offering care to both the patients of the Hospital and other patients referred from other medical care facilities.

The range of services provided by the Department includes diagnostics and treatment of functional disorders of the musculoskeletal apparatus, care after injuries and operations of the musculoskeletal apparatus, preoperative and postoperative care in spinal surgery, care after vascular surgery, orthopaedic-prosthetic care, physiotherapy in the treatment of incontinence in women and men, diagnostics and treatment by computer kinesiology.

Traditional procedures include physiotherapy, hydrotherapy, electrotherapy, massages, lymphatic massages, peat wraps and gas injections.

Has been newly introduced in 2011 in collaboration with the neurosurgical department of special treatment program for patients with vertebrogenic problems, not indicated for acute operative solution.

Basic data

Number of physicians	4
Number of physiotherapists	27
Number of general nursing staff	5
Number of outpatient examinations	23 167
Number of therapeutic procedures	265 505



SUMMARY OF ACTIVITIES OF DEPARTMENTS PROVIDING COMPLEMENTARY SERVICES

RADIODIAGNOSTICKÉ ODDĚLENÍ

Head of Department Professor Josef Vymazal, MD, DSc

During 2011, the Department continued to provide services to the Na Homolce Hospital, as well as to other healthcare 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, musculoskeletal 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. The Na Homolce Hospital is thus ranked first in the Czech Republic for the number of implants performed. The Department also further developed the program of endovascular neuroradiological interventions, namely the treatment of brain aneurysms by means of removable coils, where necessary, with the use of remodelling technique by means of stents. The Department started to use new types of remodelling stents and stents with a denser weave that helps the blood to clot and to seal off the aneurysm. Also routinely used was a new two-component adhesive which offers more possibilities in the treatment of intracranial arteriovenous malformations as well as malformations in the region of the spinal canal.

The revascularization treatment for acute ischemic cerebrovascular diseases, based on acute occlusion of one of the main cerebral arteries, was extended by adding the technique involving mechanical removal of the thrombus with the help of MERCI equipment and a new type of extraction device Penumbra, to the intraarterial thrombolysis. The two instrumentation sets are the only ones that acquired the FDA approval for clinical use. Another progress in rechanneling methods is the use of a special fully retractable stent for cerebral arteries allowing capturing of the blood clot and its removal in the stent. During the year under review, the team of the Department of Radiodiagnostics introduced a procedure unique in the world, namely treatment of cerebrovascular diseases, based on acute occlusion of the deep venous system and sinuses by superselective catheterization directly in the deep cerebral veins with a subsequent local thrombolysis, ensuring patency of deep veins and sinuses. A double-projection angiograph Axiom Artis serving, thanks to superior postprocessing and sophisticated road-mapping, especially for neuroradiological 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 number further grew of performed percutaneous ver-

SUMMARY OF ACTIVITIES OF DEPARTMENTS PROVIDING COMPLEMENTARY SERVICES

tebroplasty and kyphoplasty procedures in the treatment of compression fractures of the vertebrae due to osteoporosis or from other causes, in 2011. In this segment of interventional radiology, Na Homolce Hospital is the leading Czech medical facility. A new method was introduced, namely kyphoplasty with insertion of a stent into the vertebra.

The most significant investment in 2010 was replacement of the more obsolete of the two CT devices. Since December 2010 the Department has used the latest dual-source CT Siemens Somatom Flash that is one of the most advanced technologies in the world and that has significantly improved CT diagnostics. This device allows introducing into routine operation CT examination of the heart, including CT coronarography, in a much better quality and with a significantly reduced radiation exposure for patients. In acute cerebrovascular diseases, the Department now performs as a standard a CT perfusion examination of the whole brain.

In the area of **magnetic resonance imaging**, the Department launched in 2009 the program of intraoperative MR imaging using a device newly installed in the complex of operating theaters for neurosurgery. In 2011, the number of MRI examinations kept growing. The use of the device also for routine examinations during periods when it is not used in the operating theaters reduced the waiting times for examinations and increased their number.

In the period under review, the Department applied routinely MRI spectroscopic examinations by means of both SVS and CSI in the region of the brain as well as in other parts of the body (prostate, in particular), diffusion imaging and the technique of diffusion tensor and tractography of white matter. At the same time it extended the program of cardiac MRI examination where the newly implemented phase-contrast sequences allow imaging and quantification of the blood flow which is important mainly in examinations of valvular and cardiac shunt defects. During the year it further developed the BOLD functional MR imaging for neuronavigation and deep brain stimulation. The newly Acquired breast coil allowed launching a breast MRI examination program in 2010, which is a routine technique in 2011.

Mammography clinic is part of the network of accredited clinics and is equipped with a mammography apparatus Planmed Nuance Excel with direct digitalization. The new system offers a much higher quality of imaging, reduces the general dose of radiation and is cost efficient. In the nationwide evaluation of indicators of the quality of mammography screening the mammography clinic of the Na Homolce Hospital ranked in 2011 again among the 5 best clinics of the 60 evaluated centers in the Czech Republic.

All radiography and radioscopy images are filed in digital form in the Hospital information

SUMMARY OF ACTIVITIES OF DEPARTMENTS PROVIDING COMPLEMENTARY SERVICES

system, where they are immediately available to physicians from the entire Hospital. Thus, starting from 2009, the operation of the Radiodiagnostic Department is fully digitalized, i.e. no films are used. Since 2010, the Department has used electronic requests for all types of examinations. External requests for examinations are converted into electronic form. In 2011, the Department of Radiodiagnostics participated in three grant projects.

Basic data

Number of physicians	22
Number of laboratory technicians	28
Number of general nursing staff	8

Specialized therapeutic interventions in 2011

PTA (with or without implantation of stent)	386
Endovascular treatment of cerebral aneurysms using GDC	20
Local thrombolysis and PTA/stent in the intra-cranial area	36
Other endovascular interventions on cerebral arteries	16
CT-guided interventions	2 009
- of this CT-guided nerve root/joint facet injections	1 600
- Vertebroplasty + Kyphoplasty	137+2
- Radiofrequency ablations	30
Breast node biopsies	150
CT-guided biopsies and drainages	90

Selected radiodiagnostic examinations in 2011

Computer tomography	10 765
Magnetic resonance	11 774
Angiography	7 319
Ultrasound examinations	17 771
Mammography	13 700
- of this screening	10 900
Total number of radiodiagnostic examination	108 644

SUMMARY OF ACTIVITIES OF DEPARTMENTS PROVIDING COMPLEMENTARY SERVICES

DEPARTMENT OF NUCLEAR MEDICINE / PET CENTER

Head of Department Ass. Prof. Otakar Bělohávek, MD, PhD

The services provided by the center include **scintigraphic functional imaging**, which includes **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 2011, the Department of Nuclear Medicine / PET Center continued to serve patients in the Na Homolce Hospital as well as those from other healthcare facilities throughout the Czech Republic (primarily PET/CT examinations). In 2011, the number of PET interventions and examinations reached 7,027 which is a 6,8% increase as compared to 2010. All the examinations were performed using two hybrid PET/CT Siemens Biograph scanners. Throughout the year, the Department succeeded in maintaining a high standard of productivity of labor in the PET diagnostics, comparable with other European clinics. It also introduced into routine practice procedures for high-resolution scanning in diagnostics of head and neck tumors and a special procedure for scanning of lung tumors.

Scintigraphic diagnostics including SPECT continued to experience the long-term trend of a global decline of interest in scintigraphic examinations that are increasingly replaced by other imaging methods, including PET/CT. Examination of bones and myocardium accounted for the biggest share in scintigraphic examinations, other methods were used only in specific cases.

The immunoanalytic laboratory reported a slight increase in the number of assays performed in all the groups, except for the congenital development disorders markers. Throughout the year, the laboratory intensively prepared for accreditation according to the standard ISO 15189.

The Department of Nuclear Medicine/PET Center has been awarded ISO 9001:2008 certification on the basis of a certification audit carried out by the Det Norske Veritas firm of auditors. In order to support quality management during the year was put into operation software system QuaMan.

In 2011, the physicians of the Department were involved in postgraduate teaching within the Institute for Postgraduate Studies and carried out expert activities for the IAEA, Vienna.

SUMMARY OF ACTIVITIES OF DEPARTMENTS PROVIDING COMPLEMENTARY SERVICES

In 2011, the Department participated in three grant projects.

Basic data	
Number of physicians	8
Specialist in laboratory methods and in preparation of medical products	2
Radiological assistant	7
Pharmaceutical assistant	2
Number of general nursing staff	5
Laboratory technician	4

Number of interventions/examinations in 2011	
Radiography number of examinations	909
Positron emission tomography number of examinations	7 027
Laboratory tests number of interventions	145 686
number of assays	112 338

DEPARTMENT OF CLINICAL BIOCHEMISTRY, HEMATOLOGY AND IMMUNOLOGY

Head of Department Luděk Táborský, MD

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, tests of acidobasic balance, selected mineral levels and glycaemia are 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 2011, 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 a wider range of examinations offered and introduction of certain new parameters.

The analysis of lipid metabolism diagnosis is an important part of the work carried out by the bio-

SUMMARY OF ACTIVITIES OF DEPARTMENTS PROVIDING COMPLEMENTARY SERVICES

chemical 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 both basic and specialized coagulation tests, including screening for thrombophilia, particularly for departments involved in the Cardiovascular program. The hematology laboratory is equipped with the Sysmex XE 5000 hematological line for analysis of the blood count, body fluids, specimen staining and hematological differential analysis.

The Transfusion Center ensures a supply of blood and blood derivatives.

The Immunology Laboratory performs a wide range of examinations of both humoral and cellular immunity, autoimmunity conditions of systems and organs and allergies. Specialized activity of the laboratory is focused on diagnostics of septic conditions in critically ill patients. The outpatient department of allergology and clinical immunology provides care to patients with allergies, immunodeficiencies and immunopathological conditions. In patients suffering from the bronchial asthma, it uses the latest outpatient examination diagnostics by non-invasive examination of the exhaled air, using and functional tests of bronchial hyperreactivity.

The DNA Diagnostic Laboratory carries out molecular genetic diagnostics of hereditary diseases and genetic predispositions for diseases frequently occurring in the population and serious diseases. **Within the hospital, the Laboratory focuses primarily on specific cases depending on the needs of individual units. In 2010, the laboratory added to the range of examination methods the examination for thromboembolic disorders and colorectal carcinoma.**

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). **V roce 2011 započalo oddělení úspěšně akreditaci dle ČSN EN ISO 15189:2007. Lékaři oddělení se v roce 2011 podíleli na pregraduální výuce pro 2. LF UK a postgraduální výuce v rámci IPVZ.**

In 2011, the Department of Clinical Biochemistry, Hematology and Immunology participated in 3 grant projects.

Basic data	
Number of physicians	9
Number of college graduates/other medical staff	6
Number of nursing and paramedical staff	34
Number of examinations total	2 271 857

SUMMARY OF ACTIVITIES OF DEPARTMENTS PROVIDING COMPLEMENTARY SERVICES

DEPARTMENT OF CLINICAL MICROBIOLOGY AND ANTIBIOTIC CENTER

Head of Department Vlastimil Jindrák, MD

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 inpatients and outpatients. The laboratory diagnostic services have traditionally been provided both to the Na Homolce Hospital, as well as to primary care general practitioners and specialists working in the field.

In 2011, the demand for laboratory microbiological examinations recorded a relative decline both from the Na Homolce Hospital and the external clientele. The Department put into practice a new system for diagnostics of ventilator-associated pneumonia and developed diagnostics of fungal infections, including quantitative examination of sensitivity. A system of electronic delivery of examination results to external healthcare facilities is routinely used in clients interested in this service.

An important part of the department's activities comprises the work of the Antibiotic Center, which deals with antibiotic practices in the Na Homolce Hospital, as well as in primary outpatient care. Parameters of consumption of antibiotics as well as incidence of antibiotic resistance were comparable with the figures from the previous period, without any significant changes. The number of consultations was about the same as in 2010. An audit was performed of antibiotic prophylaxis in surgical specializations, the results of which serve as a basis for innovation of recommended procedures and for gradual improvement of practice. No substantial increase in antibiotic resistance was recorded in key pathogens.

In the area of prevention and control of infection, the Department includes an infection control unit. In 2011, the incidence of nosocomial bloodstream infections is consistent with 2010. We managed to significantly reduce the numbers of patients who were infected by MRSA or Shigella at hospitals in the Na Homolce Hospital.

In the field of expert external activities, Head of the Department as also in 2010 involved in the activities carried out within ECDC (European Center for Disease Prevention and Control – antibiotic resistance and nosocomial infections agenda). Head of the Department was appointed a member of the Central coordination group of the National contact point National Antibiotic Program. At the turn of 2011 and 2012 were successful accreditation audit by CAI and department meets requirements of standard DIN EN ISO 15189:2007. In 2011, the Department of Clinical Microbiology participated in undergraduate teaching in cooperation with 3.st Faculty of Medicine Charles University and the Central Military Hospital Prague traditionally postgraduate teaching in the Postgraduate Medical School.

SUMMARY OF ACTIVITIES OF DEPARTMENTS PROVIDING COMPLEMENTARY SERVICES

Basic data

Number of physicians	4
Number of college graduated/other medical staff	1
Number of laboratory technicians	13

Consultation activity of Antibiotic centre

Year	Number of consultations	Number of patients consulted (total)
2000	4 287	905
2001	5 069	1 024
2002	6 076	1 266
2003	6 960	1 559
2004	7 291	1 622
2005	8 493	1 833
2006	7 922	1 870
2007	8 122	1 964
2008	7 847	2 006
2009	8 026	1 936
2010	8 049	2 051
2011	8 837	2 266

DEPARTMENT OF PATHOLOGY

Head of Department Martin Syrůček, MD

The Department covers the entire scope of bioptical and cytological diagnostics within the Na Homolce Hospital, and in cooperation with the laboratories of the hospital departments providing complementary services, also part of the bioptical and cytological diagnostics for external physicians and healthcare facilities in Prague. In addition, it is responsible within the Hospital, for examination of necroptic materials (autopsies) including the organizational service. Within improvement of the quality of the provided medical care, the Department organizes clinical-pathology seminars for individual departments focused on analysis of selected necroptic and bioptical cases. Bioptical diagnostics constitutes the core of the Department's activities. In addition to routine diagnostic biopsies, it comprises also highly specialized bioptical diagnostics focused on tumors of the central nervous system. For departments of surgery of the Na Homolce Hospital, the Department carries out urgent intraoperative examinations and based on their result, further procedure and scope of the operation is modified. The Department makes demanding intraoperative bioptical examinations, including the entire range of special methods, mainly immunohistochemical examinations that increase the accuracy of bioptical diagnostics and detection of selected tumor markers.

In 2010, the Department of Pathology of the Na Homolce Hospital processed about 23 256 bi-optical cases. Cytological diagnostics is focused primarily on gynecology issues. Non-gynecology cytology deals with examination of aspirates or samples from other locations, including the brain. Annually the Department of Pathology of the Na Homolce Hospital processes about 2 500 thou-

SUMMARY OF ACTIVITIES OF DEPARTMENTS PROVIDING COMPLEMENTARY SERVICES

sand cytological examinations. Necroptic diagnostics deals mainly with autopsies and histological processing of tissues of the deceased patients. The information acquired is important to detect the immediate cause of the death and helps obtain more information about the nature and diagnostics of individual diseases. Annually the Department of Pathology of the Na Homolce Hospital performs about 150 autopsies. In 2011, pathologists of the Na Homolce Hospital were involved in postgraduate teaching within the Institute for Postgraduate Studies.

Bioptical diagnostics		
Year	Number of examinations	Number of specimens
2005	19 546	49 290
2006	19 730	47 866
2007	21 769	51 846
2008	22 269	56 390
2009	21 831	58 429
2010	23 256	63 915
2011	22 670	61 631

Cytological diagnostics		
Year	Number of examinations	Number of specimens
2005	5 349	11 744
2006	5 495	11 643
2007	6 813	14 082
2008	2 525	5 590
2009	2 738	6 214
2010	2 178	4 731
2011	2 153	5 092

Necroptic activity		
Rok	Number of patients who died in the hospital	Number of autopsies
2005	286	248
2006	261	199
2007	273	193
2008	240	131
2009	270	154
2010	241	143
2011	226	136

DEPARTMENT OF BIOMEDICAL ENGINEERING

Head of Department Martin Mayer, MSc

The Department of Biomedical Engineering of the Na Homolce Hospital is in charge of the operation and servicing of medical apparatuses in the Hospital, including the Health-resort Mánes in Karlovy Vary. Other activities of the Department include also monitoring of the new trends in biomedicine. Division of the Department into three sections is fully compatible with the prominent centers of biomedical engineering in other countries.

Preventive service section carries out preventive checks of medical apparatuses and technology stipulated by Act no. 123/2000 Coll., and the JCI standards, performs specialized internal servicing, where ne-

SUMMARY OF ACTIVITIES OF DEPARTMENTS PROVIDING COMPLEMENTARY SERVICES

cessary, ensures outsourcing of the services and keeps the respective documentation on the medical apparatuses. Clinical engineering section is in charge of the use and preparation for use of the diagnostic, therapeutic and laboratory apparatuses, expert assistance in introduction of new medical technology, monitoring of the progress in medical technology, preparation of public procurement, investments in apparatuses, other ways of funding – subsidies and gifts, cardiological electrophysiology, perfusiology, navigation systems in neurosurgery and other disciplines, autotransfusion for the Department of Cardiac Surgery and the Department of Vascular Surgery and calibration of apparatuses for anesthesia. Metrology section is responsible for keeping the metrology standards in the Hospital in compliance with the valid metrological legislation in the scope of internal regulations of the Na Homolce Hospital and for ensuring the activity of the laboratory of the Authorized metrological center K 92 in the scope of the decision of the Office for Standards, Metrology and Testing no. 61/2000. In addition to the above mentioned activities, the Department of Biomedical Engineering provides specialized assistance in acquisition of new medical devices in the form of preparation and organization of public tenders and investments related to new technologies and other ways of financing, including subsidies and gifts. Department of Biomedical Engineering of the Na Homolce Hospital is an accredited center of the Ministry of Health CR for postgraduate teaching within the Institute for Postgraduate Studies, including specializations in biomedical disciplines in the Czech Republic. The Department has its representative in the Accreditation Commission of the Ministry of Health CR. In 2011, the Department was involved in undergraduate teaching for Faculty of Electronics and Faculty of Biomedical Engineering of the Czech Technical University and 1st Faculty of Medicine of Charles University.

HEALTH-RESORT MÁNES, Karlovy Vary

Manager of the health-resort care section Miroslav Wimmer, PhD

Health-resort Mánes Karlovy Vary and all the related state-owned assets that it was entrusted to manage, was in April 2006 transferred by the Ministry of Health CR to a state contributory organization of the Na Homolce Hospital, including all liabilities and receivables. Health-resort Mánes provides complex and contributory health-resort care for adults and children with diseases of the digestive tract, and metabolic diseases (diseases of liver, gallbladder, and biliary tract, stomach, intestinal diseases, diabetes, obesity). In 2011, the services included relaxation and reconditioning stays, overweight reduction programs and family stays where control over and programs for the children on treatment stays is provided for free. Comprehensive and contributory care is offered both to clients under health insurance programs and to domestic and foreign self-payers.

PATIENT CLUBS

CLUB FOR PATIENTS AND CHILDREN SUFFERING FROM LIPID DISORDERS

The Club was established by the Metabolic Disorders Clinic in the Na Homolce Hospital as early as in 1995. Its membership is represented by families with children suffering from inherited disorders related to the metabolism of lipids, called hypercholesterolaemia. Patients with this disorder have an 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 proper eating habits in families at risk, to provide information on healthy nutrition and suitable types of food products, as well as on new discoveries concerning the treatment of hypercholesterolaemia. The Club's traditional and popular activities include the publication of the club magazine Cholesterol, organised 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 2011, the children and their parents met at the 13th one-week therapeutic camp with a low-calorie diet this time in Krušné hory. The Club for Parents and Children Suffering from Lipid Disorders plays an important part in preventing cardiovascular diseases by encouraging healthy nutrition and eating habits, as well as increased physical activity.

Contact details: Club for Parents and Children Suffering from Lipid Disorders Clinic for Metabolic Disorders
Na Homolce Hospital
Roentgenova 2, 150 30 Prague 5
Tel.: +420 257 273 229
E-mail: jana.privarova@homolka.cz

PATIENT CLUBS

CLUB AA HOMOLKA

AA Homolka Club was established by the Department of Paediatric Allergology and Clinical Immunology in the Na Homolce Hospital 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 organisation of discussion with experts for the parents, to the publication of the club magazine, Motýlek (Butterfly), which includes contributions from the children themselves, or organising 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, where 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 Greece. AAA Homolka Club is a member of the Association for the Assistance of Chronically Ill Children.

Contact details: AA Homolka Club
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GRANTS & PUBLICATIONS

- GRANTS UNDER WAY IN 2011
- WORKS AUTHORED OR CO - AUTHORED BY NA HOMOLCE HOSPITAL'S PHYSICIANS INTERNATIONAL

GRANTS UNDER WAY IN 2011

Grant from the National Institute of Health, USA

Name: International Multicentric Study - Freedom (Future Revascularisation Patients with Diabetes mellitus: Optimal Management of Multivessel Disease).

Period: 2007 - 2015

Researchers: Mount Sinai School of Medicine, New York, USA 120 medical centers in the USA, 50 outside of the USA

Co-researchers for Na Homolce Hospital: Ass. Prof. Petr Neužil, MD, PhD, FESC, Head of Department of Cardiology, Na Homolce Hospital

Petr Kmoníček, MD, Department of Cardiology, Na Homolce Hospital

Grant NT12153-5/2011

Name: Involvement of oxidative stress-controlled endovascular therapeutic hypothermia in patients after cardiac arrest.

Period: 2011 - 2015

Researcher: Doc. Petr Ošťádal, MD, PhD, Department of Cardiology, Na Homolce Hospital

Grant NT12237-5/2011

Název: Diagnostic and therapeutic potential of fibroblast activation protein (FAP) in human astrocytoma tumors

Period 2011 – 2015

Researcher: Prof. Aleksi Šedo, MD, DSc., 1. LF UK, Prague

Co-researchers for Na Homolce Hospital: Robert Tomáš, MD, Ph.D., Department of Neurosurgery, Na Homolce Hospital

Grant NT 12094-5/2011

Název: Multidisciplinary approach in the diagnosis of frontotemporal lobar degeneration and tauopathic: a comprehensive view of the pathogenetic mechanisms

Period: 2011 - 2015

Researcher: Radoslav Matěj, MD, Ph.D., FTN Prague

Co-researchers for Na Homolce Hospital: prof. Josef Vymazal, MD, DSc., Department of Radiodiagnos-
tics, Na Homolce Hospital

GRANTS UNDER WAY IN 2011

Grant NS 9654-4

Name: Quantitative magnetic resonance imaging in the diagnosis and differential diagnosis of cerebral tumors

Period: 2008 - 2011

Researcher: Monika Dezortová, MSc, IKEM – Institute of Clinical and Experimental Medicine, Prague

Co-researcher for Na Homolce Hospital: Prof. Josef Vymazal, MD, DSc, Department of Radiodiagnos-
tics, Na Homolce Hospital

Grant NS 10587-3

Name: Diagnostics of vascular prosthesis infection using 18F-FDG PET/CT

Period: 2009 – 2011

Researcher: Miroslav Špaček, MD, General University Hospital, Prague

Co-researcher for Na Homolce Hospital: Jana Votrubová, MD, PhD, Department of Radiodiagnos-
tics, Na Homolce Hospital

Grant GAČR 309/091145

Name: Mechanisms of deep cerebral stimulation: the task of subthalamus in motor, visual and affective processes

Period: 2009 - 2012

Researcher: Ass. Prof. Robert Jech, MD, PhD, First Faculty of Medicine of Charles University

Co-researcher for Na Homolce Hospital: Dušan Urgošík, MD, PhD, Department of Stereotactic
and Radiation

Grant NT11328-4/2010

Name: Trigeminal neuralgia in experimental MR imaging: effect of treatment modalities on trigeminal nerve atrophy

Period: 2010 - 2013

Researcher: Dušan Urgošík, MD, PhD, Department of Stereotactic and Radiation Neurosurgery,
Na Homolce Hospital

Co-researcher: Central Military Hospital

GRANTS UNDER WAY IN 2011

Grant NT 12331-5/2011

Name: Early evaluation of the effectiveness of neoadjuvant chemotherapy for esophageal cancer and esophageal-gastric function using FDG-PET/CT examination.

Period: 2011 – 2015

Researcher: Tomáš Haruštiak, MD, UH Motol, Praha

Co-researcher for Na Homolce Hospital: Pavel Fencel, MD, PHD, Department of Nuclear Medicine/ PET Center, Na Homolce Hospital

Research Center established by the Ministry of Education, Youth and Sports: 1M0517

Name: Center of Neuropsychiatric Studies - neurobiology in clinical practice. Na Homolce Hospital's part of the project: Using positron emission tomography to study neuropsychiatric disorders

Period: 2005 – 2011

Researcher: Prof. Cyril Höschl, MD, DSc, Psychiatric Center Prague

Co-researcher for Na Homolce Hospital: Ass. Prof. Otakar Bělohávek, MD, PhD, Department of Nuclear Medicine/ PET Center, Na Homolce Hospital

Grant IGA MZ ČR NS 10420-3

Name: Positron emission tomography for diagnosis and follow-up of testicular terminal tumors

Period: 2009 – 2011

Researcher: Tomáš Büchler, MD, Thomayer University Hospital, Prague

Co-researcher for Na Homolce Hospital: Kateřina Šimonová, MD, Department of Nuclear Medicine/ PET Center, Na Homolce Hospital

Grant FR – TI 1/399 Ministry of Industry and Trade

Name: Development of pharmacogenetic diagnostic kit for determination of the Warfarin dose

Period: 2009 - 2012

Researcher: RNDr. Radek Horváth, PhD - GeneProof, a.s.

Co-researcher for Na Homolce Hospital: Václav Maťoška, MD, Department of Clinical Biochemistry, Hematology and Immunology, Na Homolce Hospital

GRANTS UNDER WAY IN 2011

Grant NS9651-4/2008

Name: Role of internal tandem duplication of the FLT3 gene in deregulated signaling pathways in acute myeloid leukemia pathogenesis

Period: 2008 - 2011

Researcher: Soňa Peková, MD, Department of Clinical Biochemistry, Hematology and Immunology, Na Homolce Hospital

Grant NS9652-4/2008

Name: Identification of new molecular signaling pathways in the process of allelic exclusion; chronic lymphocytic leukemia as a model system

Period: 2008 - 2011

Researcher: Peková Soňa, MD, Department of Clinical Biochemistry, Hematology and Immunology, Na Homolce Hospital

Grant GAČR 202/09/H086

Name: Use of ionizing radiation in dosimetry and radiological physics

Period: 2009 – 2011

Researcher: Prof. Ing. Tomáš Čechák, PhD, Czech Technical University, Prague

Co-researcher for Na Homolce Hospital: Ass. Prof. Ing. Josef Novotný, PhD, Medical Physics Department, Na Homolce Hospital

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QUALITY AND SAFETY

- **QUALITY OF THE SERVICES PROVIDED BY THE NA HOMOLCE HOSPITAL IS ONE OF THE BASIC PILLARS OF THE HOSPITAL'S LONG-TERM STABILITY**

QUALITY AND SAFETY IN 2011

QUALITY CONTROL DEPARTMENT

Barbora Vaculíková, MSc., MBA
Head of Department

Quality and safety of the services provided by the Na Homolce Hospital is one of the basic pillars of the Hospital's long-term stability. Endeavoring to provide top-quality healthcare in compliance with clearly defined standards, the Na Homolce Hospital was encouraged to apply for the Joint Commission International (JCI) accreditation, which is the global benchmark accreditation for healthcare organizations. In June 2005, the Na Homolce Hospital successfully passed the first accreditation audit and, on JCI auditors' recommendation, it received the "global badge of quality" – the globally recognized JCI accreditation. The first recertification audit JCI was successful in 2008 and in June 2011 was conducted at the Hospital Na Homolce second recertification audit JCI. Hospital certificate was again with excellent result and thus became the longest hospital accredited by international accreditation standards in the Czech Republic. In the world outside the U.S. is now, according to international standards JCI accredited 326 hospitals.

Joint Commission International is a worldwide organization with more than one hundred years, which accredits health care facilities. Accredited hospitals guarantee patient safety and quality of care by continuously monitoring, analyzing and improving the quality indicators in all areas of hospital operation. JCI accreditation system is based on a set of 331 accreditation standards, which comply with all important activities of medical equipment and affect both the immediate area of patient care (accessibility and continuity of care, rights of patients and their families, diagnostic care, therapeutic care, education of patients and their families, quality of care and patient safety,



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prevention and control of hospital infections), and the area safe, effective and proper management of the hospital (management and leadership, ensuring the safety of the hospital environment, qualification and training of personnel, information management and communication).

Each standard is further divided into individual indicators which describe what hospitals must do to fulfill that standard. In 331 JCI standards is contained in total 1033 indicators. During the weekly audit assesses compliance with international audit team JCI standards and performance of their indicators. Based on the information identified during the accreditation survey and submitted the final report audit team then yields a definite judgment about whether or not international accreditation JCI Accreditation Committee headquarters in Chicago.

Conduct of the audit of the Hospital Na Homolce

The auditors visited during the week dozens of sites, such as standard wards, intensive care and semiintenzivní, operating rooms, catheterization workplace, robotic surgery center, pharmacy, laboratory, pathology, emergency intake, ambulatory surgery, rehabilitation department, PET Center, working with the Leksell gamma knife or ARO. In each workplace inspectors have noticed especially how patient safety is ensured that medical personnel are adequately trained and continuously educated, whether they respect the patient's privacy as is prescribed and administered medication, as medical records or whether they comply with hygiene regulations and control of infection.

Have dealt in detail by ensuring proper patient identification, security, performance, and prevent confusion by his performance, completeness of documentation and accurate capture of the responsibility of all healthcare professionals involved in the patient's treatment during his stay in the hospital, especially in the area of drug delivery, as well as handling and storage of drugs risk drugs. The function of these screening processes chosen randomly chosen patients and followed in documenting their journey from hospital income through various tests, treatments or surgery to release (the so-called method Tracker).

Devoted not only medical and nursing care, but is also interested in the technical operation of the hospital. For example, focus on the quality of food storage, respect the time of their durability, clean the kitchen, washing dishes. They also wanted to know if the system works properly preparing dietary meals. Also examined the use of hospital linen, waste, there was also traffic and road cleaning. Controlled medical technology and devices, verify their regular inspection and also engaged in the operation of hospital IT procedures in emergency situati-

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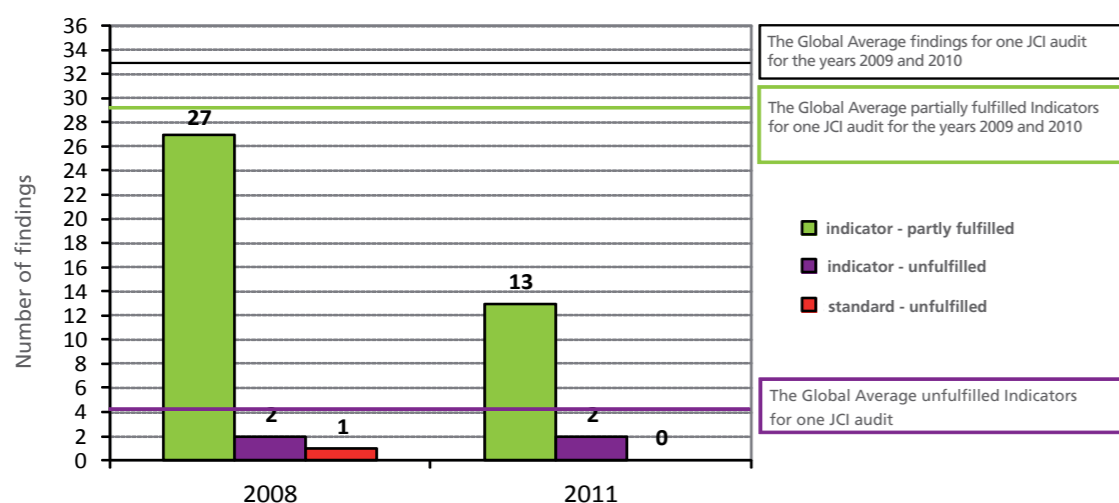
ons and fire security. Not have overlooked or personnel matters - very thoroughly examined qualifications of staff, particularly health professionals to carry out their activities.

The results of the audit and the final report

The final audit report contains unmet or partially met standards indicators. In the Hospital Na Homolce inspectors found only 13 partially fulfilled indicators and two indicators unfulfilled (Table 1). In comparison with the global average number of unsatisfied and partially fulfilled indicators is less than half of one audit findings (see Figure 1). The result can be described as excellent and clearly indicates that the care provided in the Hospital Na Homolce is in the area of quality and safety at the global level.

Chart 1

The results of an accreditation surveys



Accreditation of laboratories according to international standard ISO 15189

The process of accreditation according to ISO 15189 successfully completed in 2011, three out of four expert laboratories Na Homolce: OKBHI (Department of Clinical Biochemistry, Hematology and Immunology), IA (Immunological Laboratory) and Department of Pathology Biopsy Lab. Preparation for certification was difficult and took approximately one year. Department KMAS (Clinical microbiology and antibiotic station) is ready to terminate accreditation procedures by the end of January 2012.

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Table 1

IPSG International safety goals	without finding
ACC Availability and continuity of care	1 indicator unfulfilled
PFR Patients and their families rights	without finding
AOP Diagnostic care	1 indicator partially fulfilled
COP Therapeutic care	3 indicators partially fulfilled
ASC Anesthesiology and Surgical Care	1 indicator partially fulfilled
MMU Storage, prescribing and administration of drugs	2 indicators partially fulfilled
PFE Education of patients and their families	without finding
QPS Quality of care and patient safety	without finding
PCI Prevention and control of infections	2 indicators partially fulfilled
GLD Management and leadership	1 indicator partially fulfilled
FMS Ensuring the safety of the hospital environment	1 indicator partially fulfilled
SQE Staff Qualification and training	1 indicator unfulfilled, 1 indicator partially fulfilled
MCI Management of communication and information	1 indicator partially fulfilled

In the laboratories OKBHI (Department of Clinical Biochemistry, Hematology and Immunology), IA (Immunological Laboratory) and KMAS (Clinical microbiology and antibiotic station) was established in 2004 and certified quality management system according to ISO 9001. This type of certification focuses on the organization of work, process management, resource management, and monitoring and evaluation process efficiency. The ISO 9001 standard also treats auxiliary processes across the board, the setting and compliance requirements resulting from national legislation (waste handling and management, handling of dangerous chemical substances and preparations, etc.).

Certification according to the ISO 9001 health insurance until 2010 accepted as sufficient proof of demonstrating the technical competence of laboratories. Insurance companies, however, have modified their requirements and required one of the following ways to demonstrate competence: certification according to ISO 15189 and its accreditation by the Czech Accreditation Institute (CAI) or the assessment of established quality management system according to ISO 15189 audits and NAKL. Standard ISO 15189 „Medical laboratories - Particular quality requirements and competence“ are much more focused on technical considerations laboratory control, such as the passage of the investigated samples laboratory conditions for implementing the sampling, collection of biological material, interpretation and delivery of results and safety and laboratory work ethic. The accreditation quality management system in the laboratory according to ISO 15189 implies increasing confidence in compliance with the required level of quality of service.

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Satisfaction of patients and staff in 2011

Na Homolce Hospital in 2011 participated in the two nationwide surveys of satisfaction. HealthCare Institute (HCI)

Rating patient satisfaction and staff compiles Association HealthCare Institute (HCI), and is a comprehensive evaluation of hospitals nationwide, the "Hospital of the Czech Republic in 2011". The objective of the project is to regularly compile ranking Czech hospitals by results of a questionnaire survey of satisfaction among patients and staff Czech medical facilities. The project took place from 1 March 2011 to 31 October 2011. Hospitals were evaluated in terms of three key aspects:

Patient satisfaction: NHH was ranked 5. place

Hospital staff satisfaction: NHH was ranked 3. place

Financial health: NHH was ranked na 1. místě.

In sum categories became Na Homolce Hospital absolute winner in the ranking of all health facilities in the CR.

Quality through the patients' eyes

The Na Homolce Hospital participates on a regular basis in the Ministry of Health project "Quality through the patients' eyes". The project measures quality of healthcare by means of experience / satisfaction of patients in healthcare facilities directly managed by the Ministry of Health. In the form of a questionnaire, patients evaluate eight fields of the quality of inpatient healthcare:

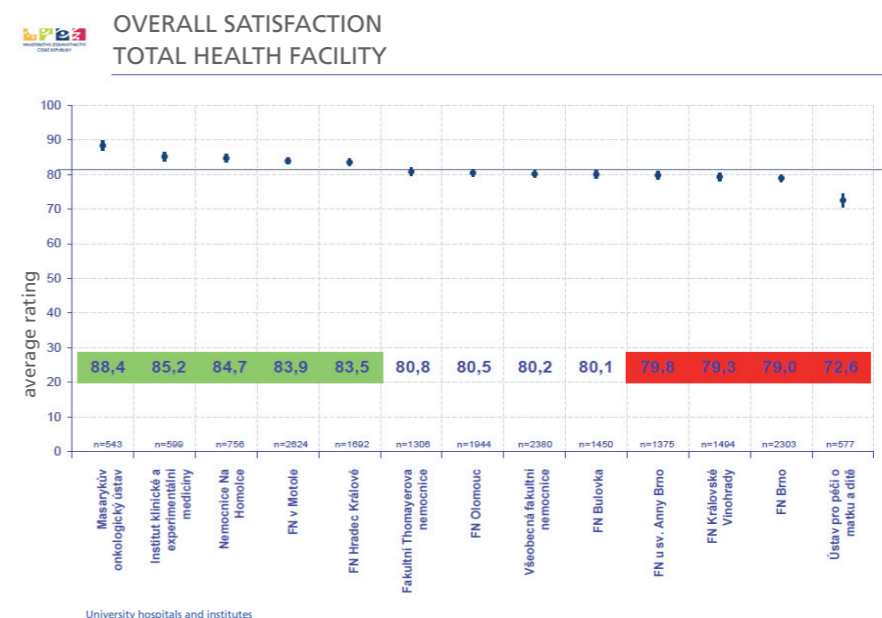
1. Admission to the Hospital
2. Respect and consideration for patients
3. Coordination and integration of care for patients
4. Standard of providing information to and communication with patients

QUALITY AND SAFETY IN 2011

5. Patients' physical comfort
6. Patients' emotional support
7. Involvement of the family in the patient's treatment
8. Discharge from the Hospital
9. Satisfaction with nurses
10. Satisfaction with physicians
11. Satisfaction with general hospital services

The survey results received NHH in 2011. Showed that the quality of care at the Hospital Na Homolce has long been a high level: Average satisfaction with nurses was 81.2%, satisfaction with physicians 82% and satisfaction with general services 73.8% (see Chart 2). NHH was ranked in third place overall. Overall satisfaction with care was 84.87%.

Chart 2



Safety objectives set by the Ministry of Health CR in the field of quality and safety of healthcare services

In 2011, the Na Homolce Hospital focused also on implementation of the safety objectives set by the Ministry of Health CR that are binding upon organizations directly managed by the Ministry and aim at reduction of the most frequent risks associated with providing healthcare.

Safety objectives set by the Ministry of Health CR:

1. Safe identification of patients
2. Safety in handling of high-alert medications

QUALITY AND SAFETY IN 2011

3. Compliance with the procedure to ensure the correct patient, procedure, site and side
4. Patient fall prevention
5. Introduction of optimal procedures of hand hygiene during providing healthcare
6. Safe communication
7. Safe transmission patients

In 2011, we paid special attention to the Goals 3 and 5, and we have achieved a high level of compliance with the procedures for the safe care of the personnel.

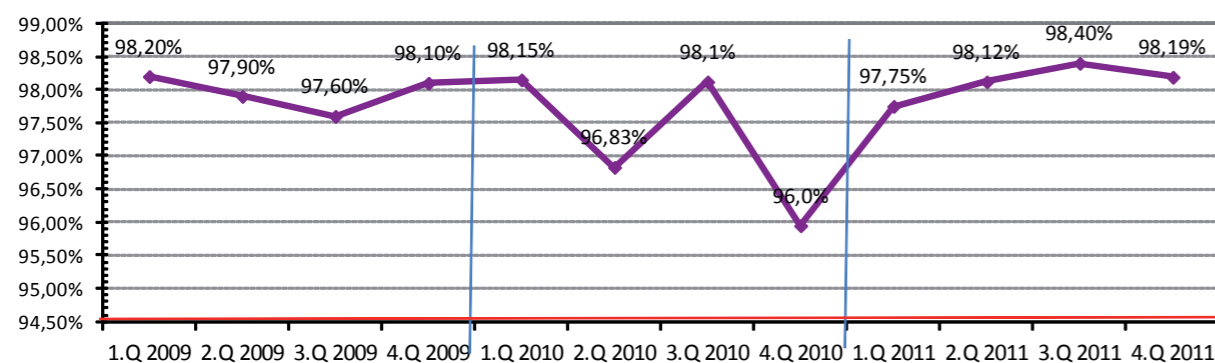
Results of regular checks of of medical documentation

Proficiently health records and documentation is one of the basic assumptions of safe care. It serves healthcare professionals involved in the care, to obtain complete information about the patient and ensures continuity of care within the hospital. By checking the correctness and completeness of medical records are authorized representatives of all the wards NHH. Checked according to a standardized checklist of 2% of the medical records of hospitalized patients per quarter.

The percentage of correctness (completeness) medical documentation has long been above the target value of 95% (see Chart 3). For the year 2011, the total of 531 medical records checked.

In comparison with 2010, in 2011, to further reduce the number of formal deficiencies in all evaluated parameters. In terms of quality and safety is the most important decline of formal errors in the offices of drugs by almost half compared to the year 2010 (see Chart 4).

Chart 3 Percentage of completeness concluded by documentation 2009 - 2011



QUALITY AND SAFETY IN 2011

Chart 4 Comparison of the areas with the highest occurrence of errors 2009 - 2011

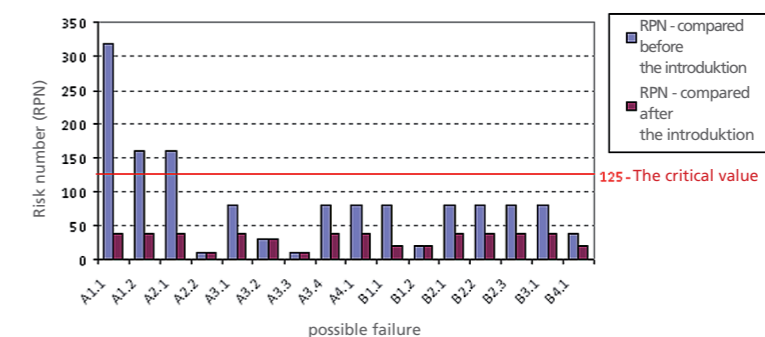


The new system of risk management - Analysis FMEA (Failure Mode and Effect Analysis) = analysis of possible errors and their consequences

Our objective is to reduce risks in patients and staff. One of the most risky process, which may cause damage to the patient, the preparation and administration of drugs. Therefore, we focus in 2011 to measure the level of risk of this process and its reduction. Department staff conducted an analysis of the quality control process FMEA „Preparation and administration of drugs orally.“ Application of FMEA managed to uncover risks and errors that may occur during the preparation and administration of drugs. Based on the findings, preventive measures (eg regular checks as head nurse for the preparation and administration of drugs, a procedure nursing care - Principles of safe medication administration, education of nurses), thanks to which we reduce the risks and increase the safety and quality of care. In Chart 5 is a comparison of risk numbers (RPN = meaning x occurrence x detectability errors) potential errors before and after the introduction of preventive measures.

Chart 5

RPN compared before and after the introduction of preventive measures



QUALITY AND SAFETY IN 2011



QUALITY AND SAFETY IN 2011





ECONOMIC STABILITY

- NA HOMOLCE HOSPITAL AIMS TO MAXIMIZE THE COST-EFFECTIVENESS OF ENSURING WIDE AVAILABILITY OF HEALTH CARE



ECONOMIC DATA

PROFIT AND LOSS ACCOUNT (IN THOUSANDS OF CZK)

Costs	2010	2011
Raw material	1 476 751 293	1 496 830 854
Energy used	62 170 523	63 874 457
Goods sold	108 967 596	113 473 196
Account.adjust., travel exp., services	306 732 951	248 301 010
Personnel expenses	1 073 104 412	1 121 019 366
Depreciations of fixed assets	174 906 515	160 343 797
Other and financial expenses	173 871 140	250 098 728
Total costs	3 376 504 431	3 453 941 407

Revenues	2010	2011
Revenues from own products and services	3 023 870 000	3 045 650 882
Revenues from goods	130 176 600	137 333 287
Other and financial revenues	250 935 855	289 291 181
Total revenues	3 404 982 455	3 472 275 350
Profit (loss) for the current accounting period	28 478 024	18 333 943

ECONOMIC DATA

Costs structure by type

Total	100%
Material	43%
Goods sold	3%
Energy used	2%
Personal expenses	32%
Accounting depreciations	5%
Other	14%

Costs structure by type (in Czk)

Total NH Hospital	3 453 941 407	100%
Healthcare sector	2 621 677 395	76%
Commercial sector	180 099 804	5%
administrative and operational sector	652 164 208	19%

Costs structure by type (in Czk)

Total	100%
Cardiovascular program	3%
Neuroprogram	10%
General healthcare program	19%
Exam. complementary services	14%
Commercial healthcare	5%
Economy and management	6%
Technical operations	13%
AMBULANCE outside the main programs	2%

ECONOMIC DATA

Revenues structure

Total	100%
VZP	59%
Others insurance	26%
Private patients	1%
Revenues from goods sold	4%
Others revenues	9%

Total costs and revenues (in Czk)

	2011	in CZK million
Revenues	3 472 275 350	3 472
Costs	3 453 941 407	3 454
Depreciation	18 333 943	18
Consumption of material	1 496 830 854	1 497
Personnel expenses	1 121 019 366	1 121

IDENTIFICATION DATA

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