NA HOMOLCE HOSPITAL

2012 ANNUAL REPORT

ACCREDITED BY JCI

ABOUT US

OUR ACTIVITIES

QUALITY AND SAFETY IN 2012

ECONOMIC STABILITY

We provide healthcare in all areas of medicine

We specialize in disorders of the cardiovascular and nervous systems

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

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

Our specialists are professionals in their fields

INTRODUCTION

2012 was a significant, but also challenging year for the Na Homolce Hospital. It has brought many positive changes that will quite definitely improve the quality and safety of patient care.

I started my work as director of the Na Homolce Hospital in March 2012: my chief aim was to introduce transparent processes that would guarantee efficient use of public funds.

By the end of 2012, the new management already successfully implemented some changes in the purchasing of technology, medical material and services. It also adopted internal organization measures which improved the hospital's financial management. All these steps were naturally in line with the effective Czech laws and regulations.

The establishment of the aforementioned transparent mechanisms in the Na Homolce Hospital is still in progress and these mechanisms are strictly observed under my management.

Na Homolce Hospital is a renowned European healthcare establishment, traditionally specializing in the diagnostics and treatment of cardiovascular, neurological and neurosurgical diseases and conditions. Also, it has long been and still is among those state-owned Czech hospitals that manage to make a profit. In 2012 the registered profit was CZK 58 million.

The management would like to maintain this trend in the years to come. Our priorities include providing adequate financial reward to quality staff, investing in new technologies via multi-source funding, and ensuring efficient use of our own resources. The ultimate end of our efforts is a patient who has received safe, high-quality treatment and leaves our hospital fully satisfied.

Dear friends, let me use this opportunity to thank the employees of the Na Homolce Hospital for their hard work in 2012. I wish us all enough energy and stamina to fulfill our mission equally well in the following years.

Michal Šetlík, M.D.
Director, Na Homolce Hospital

HOSPITAL MANAGEMENT AND BODIES

Director

MUDr. Vladimír Dbalý, MBA (until 18. 3. 2012)
MUDr. Michal Šetlík (from 19. 3. 2012)

Deputy Directors for Treatment and Preventive Care

MUDr. Michal Toběrný, MBA

Deputy Director of Nursing Staff

Mgr. Eva Holá (until 31. 3. 2012)

Head Nurse

Eva Kuříková (from 1. 4. 2012)

Economic Administration

Ing. Emile Bialešová

Deputy for Operations and Technical Works

Ing Jiří Veigert (until 31. 3. 2012)

Deputy for Economic Planning and Operations

Ing. Jiří Havel (from 28. 3. 2012)

Head of Safety and Quality Department

Mgr. Barbora Vaculíková

From left: Jiří Havel, Eva Kuříková, Michal Toběrný, Barbora Vaculíková, Michal Šetlík

ORGANISATION CHART

Managing Director

Division of Managing Director

Secretariat of Managing Director

Hospital Pharmacy

Division of Human Resources

Legal Services

PR and Communication Department

Quality Control Department

Department of Internal Audit

Head Nurse

Department of Healthcare Economics

Department of Contractual Relations and Inspections

- Health and Safety at Work
- Fire Prevention and Emergency

Treatment and Preventive Care Division

- Deputy Director

Department of Medical Physics

Staff Doctor

CARDIOVASCULAR CENTRE

- Cardiology
- Cardiosurgery
- Cardioanesthesiology

CELEBROVASCULAR CENTRE

- Neurosurgery
- Neurology
- Stereotactic and Radiation Neurosurgery

Wards of specialist departments which are not part of the centres

- Vascular Surgery
- General Surgery
- Gynaecology
- Internal Medicine
- ENT
- ARO

Centres

- Centre for Alergology and Clinical Immunology
- Transplant Centre
- Centre of Robotic Surgery

Outpatient's section of specialised departments that are not parts of centres

- Vascular Surgery
- General Surgery
- Gynaecology
- Internal Medicine
- ENT
- Opthalmology
- Children and Adolescents
- Stomatology
- Dermatology
- Psychiatry
- Clinical Psychology
- Clinical Oncology

Division of Economic Planning and Operation

- Deputy Director

Division of Spa Care

Department of Biomedical Engineering

Department

- Economic Administration
- Materials and Technical Supplies and Stores
- Catering
- Car Fleet
- Automated Transport System Maintenance
- Leases
- IT
- Secretariat, Filing Office
- Waste Management and Environment
- Investments

Common Examination and Therapeutic Units

- Clinical Biochemistry,
- Haematology and Immunology
- Clinical Microbiology and Antibiotic Station
- Radiodiagnostic Department
- Nuclear Medicine/PET
- Centre
- Pathology
- Rehabilitation and Physical Medicine
- Hospital Hygiene
- Clinical Pharmacy

Head Nurse

Department of Commercial Services and Documentation

- Commercial Services
- Central and Childrens' Records
- Central Admission of Patients
- Information
- Archive

Central Sterilisation

- Medical Library
- Congress Hall
- Head of NELZP
- Assistant for Protection of Public Health
- Emergency Service – Hospital Orderlies

Economic Administration of the Hospital

- Bialešová s.r.o.

Departments

- Budget Administrator
- Financial Accountancy
- Operative Files
- Controlling
- Managerial Accountancy

Medical Legal Services

- JUDr. MUDr. Roman Žďárek, Ph.D., MBA

PROFILE NA HOMOLCE HOSPITAL

A specialised healthcare centre providing nationwide cardiovascular and neurosurgical treatment

The Neurological-Neurosurgical Programme

This programme provides comprehensive care for patients who suffer from central and peripheral nervous system diseases or injuries and to those with spinal injuries. Three independent units offer a full range of care from diagnostic services and conservative therapies to complex neurosurgical operations including radiosurgery and stereotactic surgery to the latest methods of neuroradiological intervention. An essential part of the care is the post-treatment rehabilitation and the continuing healthcare support given to the patients.

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

The Cardiovascular Programme

This programme provides comprehensive care for patients who suffer from diseases of the cardiovascular system, i.e. heart and blood vessels. Three independent units are specialised in complex diagnostics and conservative methods as well as the surgical and radiological treatment of cardiac and vascular diseases. An essential part of the care is rehabilitation for patients with diseases of circulatory system and the continuing healthcare provided for those groups of patients for whom it is necessary.

- **Department of Cardiology**
- **Department of Vascular Surgery**
- **Department of Cardiac Surgery**
- **Department of Cardio-Anaesthesiology**

The General Medical Programme

This provides a comprehensive range of general healthcare through its extensive outpatient services and follow-up inpatient wards. Four independent hospital wards within this programme offer the patients a range of modern diagnostic and therapeutic methods in internal medicine and surgery with an emphasis on minimally invasive surgery. They collaborate closely with the extensive outpatient services of individual departments.

- **Department of Internal Medicine**
- **Department of Surgery**
- **Department of Gynaecology and Minimal Invasive Surgery**
- **Department of ENT/Head and Neck Surgery**

PROFILE NA HOMOLCE HOSPITAL

Basic data

	Year 2012
Number of Employees	1,786
Number of beds	357
Number of admissions	20,100
Number of Interventions	14,079
Number of outpatient examinations	1,175,164

Mortality 2012

Department	Mortality in %
Vascular surgery	1.6%
Cardiac surgery	1.1%
Cardiology	0.9%
Neurosurgery	0.5%
SRN	0.0%
Neurology	1.4%
General surgery	0.2%
Gynecology	0.0%
ENT	0.0%
Internal medicine	2.9%
Anesthesiology/ Res.	26.0%
NHH in total	**1.1%**

Average length of stay

Department	Days
Vascular surgery	7.63
Cardiac surgery	12.11
Cardiology	2.95
Neurosurgery	7.91
SRN	1.32
Neurology	4.70
General surgery	3.79
Gynecology	2.59
ENT	2.34
Internal medicine	7.65
Anesthesiology/ Res.	12.70
NHH in total	**5.19**

Number of examination days

Department	Days
Vascular surgery	17,339
Cardiac surgery	11,165
Cardiology	14,209
Neurosurgery	19,015
SRN	1,112
Neurology	7,599
General surgery	9,495
Gynecology	5,206
ENT	3,115
Internal medicine	9,397
Anesthesiology/ Res.	2,438
NHH in total	**100,090**

Bed occupancy rate in %

Department	% bed occupancy rate
Vascular surgery	81.51%
Cardiac surgery	90.46%
Cardiology	76.27%
Neurosurgery	89.46%
SRN	65.72%
Neurology	71.15%
General surgery	88.16%
Gynecology	62.04%
ENT	79.10%
Internal medicine	91.26%
Anesthesiology/ Res.	85.60%
NHH in total	**81.96%**

HIGHLIGHTS OF 2012

JANUARY

- Na Homolce Hospital won third place in the nationwide competition, "Safe Hospital", which is traditionally organised by the Vysočina region of the country. The project, "Establishment and Activities of the Department of Clinical Pharmacy", in which the hospital was successful, is designed to greatly increase safe practice in the use medicinal drugs in hospitals. The Department of Clinical Pharmacy was established in the hospital in 2010.
- Vascular surgeons in Na Homolce Hospital were the first in the world to perform robotic surgery on intrathoracic (mammary) artery.

APRIL

- Na Homolce Hospital was again ranked among the hundred most admired Czech companies. The hospital took fourth place in the category "personal, public and social services" in the 14th annual survey of the 100 most respected Czech companies that is organised by the Association CZECH TOP 100.
- Cardiologists in Na Homolce Hospital carried out a world premiere intervention to reduce poorly treatable high blood pressure (hypertension). Using ultrasound waves, they interrupted the nerve fibres that run along the kidney arteries and which contribute to the development and maintenance of hypertension.

MAY

- The Head of Vascular Surgery in Na Homolce Hospital, Assoc. Prof. Petr Štádler, MD, Ph.D., successfully carried out the first three robotic vascular surgeries in India (Sir Ganga Ram Hospital, Delhi).

JUNE

- The cardiologists in Na Homolce Hospital implanted, for the first time in clinical practice in the Czech Republic, a special pacemaker to control the damaged heart muscle of a patient with severe cardiac failure.
- The Department of Cardiosurgery in Na Homolce Hospital celebrated its 10th anniversary. It is one of the five largest cardiosurgery centres in the Czech Republic and is an essential part of the Comprehensive Cardiovascular Centre in Na Homolce Hospital.

SEPTEMBER

- Na Homolce Hospital received the prestigious ČEKIA Stability Award for 2012. It is one of the hundred most stable Czech companies according to the evaluation criteria. It became the only Prague healthcare facility to hold a certificate with the classification category of AA– excellent.

OCTOBER

- The Leksell Gamma Knife in Na Homolce Hospital celebrated its 20th anniversary. The first Leksell Gamma Knife operation was carried out on 26th October 1992. So far, 13,300 radiotherapies with malignant and benign brain tumours, brain vascular malformation or functional brain diseases have been carried out in the department.

DECEMBER

- Na Homolce Hospital cardiologists, together with American physicians, were the first in the world to implant a wireless cardiac pacemaker directly into the heart. Czech patients became the first in the world to receive this advanced technology for disorders of heart rhythm.

PERSONNEL AND SOCIAL POLICY

In 2012 there were no significant changes in Na Homolce Hospital in the system of remuneration.

Minimum salaries for non-doctor – healthcare staff were stipulated in the contract of employment for an indefinite period in December 2011. By taking these measures into account in 2012 the hospital succeeded in minimising the differences in the salary scale for non-doctor – healthcare staff.

All employee positions in every category were fully staffed in 2012. All the departments of the hospital were well balanced.

Na Homolce Hospital employed 1,786.47 employees (recalculated status) and spent 886 million Czk on salaries in 2012 and the average salary was 41,326 Czk.

Salary and personnel data by individual categories

	Average recalculated number of employees	Salaries paid in total (Czk)	Average salary
Doctors	268.5	288,185,663	89,443 CZK
Pharmacists	12.62	8,663,533	57,208 CZK
General nurses	756.99	323,533,441	35,616 CZK
Healthcare staff excluding doctors § 7–21	111.76	49,675,255	37,040 CZK
Healthcare staff excluding doctors § 22–28	53.43	26,313,913	41,041 CZK
Healthcare staff excluding doctors § 29–42	204.68	57,861,634	23,558 CZK
Healthcare staff excluding doctors	3.07	1,608,531	43,663 CZK
Administration employees THP	214.62	89,701,599	34,830 CZK
Workers	160.8	40,391,633	20,933 CZK
Total	**1,786.47**	**885,935,202**	**41,326 CZK**

OUR ACTIVITIES

NEUROLOGICAL-NEUROSURGICAL PROGRAMME (NEUROPROGRAMME)

DEPARTMENT OF NEUROLOGY

Head of the Department Miroslav Kalina, MD

The department focuses on diagnostics and non-surgical treatment of diseases of brain, spinal chord, peripheral nerves and muscular apparatus including special electrophysiologial and ultrasonic diagnostic methods. It provides comprehensive outpatient and inpatient care for these areas.

An essential part of the department is the **Epilepsy Centre** with specialised outpatient and inpatient care for patients who suffer from epilepsy. It includes two epilepsy counselling and epilepsy monitoring units (EMU), which apart from other long-term monitoring and selection of patients for epilepsy surgery also provides consultancy to other neurological departments in the Czech Republic. In 2012 the EMU admitted 206 patients, 13 of which were monitored by surgical implantation of electrodes and 42 patients were indicated for epileptosurgical treatment – open surgery or implantation of a vagal stimulator. Stereotactic thermolesion methodology wasn't used in 2012 due to a failure in the supply of electrodes. Care for patients with epilepsy is characterised by a close interdisciplinary collaboration across the neurosciences in the hospital including the Departments of Neurology, Neurosurgery, Stereotactic and Radiation Neurosurgery, Radiodiagnostics, and Nuclear Medicine / PET Centre. Na Homolce Hospital is one of the three biggest epilepsy and epileptosurgical centres in the Czech Republic with the highest number of surgical patients.

The **Specialised Intensive Care Unit** for treatment of acute and very critical neurological cases also serves as a postgraduate training centre for neurological intensive care. In 2012 22 mechanical removals of endovascular thrombi and intra-arterial thrombolyses, and 44 intravenous thrombolyses were carried out in the intensive care unit.

In addition to outpatient care for the treatment of general neurological disorders, there is also the Neurovascular Outpatients and Spinal Counselling Unit that is also involved in surgical interventions of the spinal canal and also extrapyramidal counselling and counselling for neuroimmunological CNS diseases. The diagnostics section consists of the evoked potentials laboratory, EEG laboratory, electromyographic laboratory and transcranial Doppler ultrasound unit.

Basic data

Number of beds	33
■ Standard	21
■ Intensive	6
■ Intermediate EMU	4
■ Sleep laboratory	2
Number of doctors	14
Number of general nursing staff	61
Number of outpatient examinations	18,017
Number of admissions	1,599
Bed occupancy rate (as a %) – standard	76.7
Bed occupancy rate (as a %) – beds	92.3
Average length of stay (in days)	5.1
■ Standard	4.1
■ Intensive	10.5

The Centre for Sleep Disorders, including a sleep laboratory, has been continuing its activities and, with a capacity of two monitored beds, which enables sleep to be monitored by polygraphy. We admitted 221 patients to the Centre for Sleep Disorders in 2012.

The **Department of Neurosurgery** is an essential part of the **Comprehensive Cerebrovascular Centre**, the statues for which were received by Na Homolce Hospital in April 2010. The head of neurosurgery is also the chief of this centre.

In 2012 the doctors of the Department of Neurosurgery were involved in undergraduate training for the Third Faculty of Medicine, Charles University and in postgraduate studies within the IPVZ (Institute of Postgraduate Studies in Health Care) in the following areas: acute and critical care in neurology, epileptology, electroencephalography and electromyography.

DEPARTMENT OF NEUROSURGERY

Head of Department Michal Šetlík, MD (until 19. 3. 2012)
Head of Department Luděk Prokop, MD (from 20. 3. 2012 to 30. 9. 2012)
Head of Department Jan Klener, MD (from 1. 10. 2012)

In 2012 the Department of Neurosurgery continued focusing on its complex diagnostics, surgery treatment and follow-up care for patients suffering from diseases of the central and peripheral nervous system in order to provide comprehensive and safe treatment and to improve the quality of life of its patients.

The main activities involve the neurosurgical treatment of patients with diseases of the brain, base of the skull, spinal cord, backbone and the peripheral nervous system, and are complemented by education, preoperative diagnostics, our own surgical treatment and postoperative neurointensive and follow-up care.

The care of patients was traditionally carried out within the four key areas which are **neuro-oncological, neurovascular, functional neurosurgery and spondylosurgery (spinal)** programmes. A total of 2, 524 operations were performed in 2012 and 2, 839 patients were hospitalised and 13, 013 were treated as outpatients. The Department of Neurosurgery in Na Homolce Hospital is a countrywide, and even an international, centre for the treatment of a number of diagnoses. Morbidity rate with the planned operations corresponds with both national and international indicators and it usually considers patients with severe diseases that can only be dealt with in a few facilities in the Czech Republic.

In 2012 surgical treatment was performed in a multifunctional complex of operating theatres equipped with the latest technology – intra-operative

Basic data

Number of beds	65
■ Standard	45
■ Intensive	8
■ Intermediate	12
Number of doctors	19
Number of general nursing staff	88
Number of outpatient examinations	13,013
Number of admissions	2,839
Bed occupancy rate (as a %)	89
Average length of stay (in days)	7.9

magnetic resonance imaging and navigation operating systems, operating microscopes and intra-operative electrophysiological monitoring. Integration of operating theatre technologies enables us to provide patients undergoing operations of the brain, spinal cord or spine, a higher standard of precisely targeted, highly efficient and safe treatment.

The Neuro-oncological programme carries out comprehensive operations on brain tumours including both intracranial and extracranial brain tumours as well as tumours of the base of the skull. There is an emphasis in our surgical treatment on the so called minimally invasive approach, which reduces the burden on the patients, and in suitable cases give preference to the so-called „keyhole" approach into the cranium and employing t so called „non-retraction neurosurgery" which minimises any trauma to the brain. The Neurosurgery Department in Na Homolce Hospital is one of the pioneers in the use of this technique and is a leading facility in the Czech Republic. The surgical standard employs microsurgery techniques using neuronavigation and intraoperative imaging aided by intraoperative MR. The safety and accuracy of surgical operations are increased by using functional neuronavigation, perioperative electrophysiology monitoring and it is even possible to use intraoperative fluorescent visualisation of tumours.

Neuroendoscopic treatment is being developed with selected cases of hypophyseal adenoma and ventricular tumours. In 2012 the Department of Neurosurgery organised regular interdisciplinary neurooncology seminars focussed on suitable follow-up oncological treatments, which were attended by a multidisciplinary team of specialists from Na Homolce Hospital together with oncologists from Motol Teaching Hospital and the Bulovka Proton Centre (fractionated radiotherapy, chemotherapy, radiosurgery treatment especially on Leksell Gamka Knife or proton treatment).

Within the **Neurovascular programme** the Department of Neurosurgery forms an integral part of the **Comprehensive Cerebrovascular Centre** whose status Na Homolce Hospital gained in April 2010. The main task here is a comprehensive care for patients with subarachnoid haemorrhage that include both the treatment of the most frequent sources – perforated cerebral aneurisms – as well as neurointensive and other care. Many microsurgery and endovascular techniques are available as treatments. In 2012 the wide range of microsurgical methods available for the treatment of our patients included – plain clipping, clip reconstruction, temporary clipping and remodelling, trapping and indirect methods by using vascular occlusion and revascularisation techniques for bypasses. Neurosurgeons also applied the principal of the minimum surgical approach and cerebral retraction and used electrophysiology imagining, the method of modern intraoperative videoangiography and the useful method of velocimetry. Interventional radiologists have also at their disposal available methods

Distribution of interventions

Cerebral tumours	249
Vascular diseases	161
Function interventions	40
Spinal diseases including tumours	1,453
Craniocerebral injuries	151
Others	470
Total	**2,524**

Number of surgical interventions

2000	1,744
2001	1,837
2002	1,930
2003	1,974
2004	2,203
2005	2,107
2006	2,115
2007	2,226
2008	2,152
2009	2,495
2010	2,437
2011	2,556
2012	2,524

of endovascular treatment of aneurysms. Microsurgery and endovascular treatments are available on a 24hr basis.

The year 2012 saw increased numbers of operations on unruptured aneurysms, arteriovenous malformations and cavernomas and there were numerous operations on spontaneous intracerebral haemorrhage. Where appropriate indications were present, decompression (lightening) craniectomy for some types of ischemic cerebral strokes together with bypasses between extra and intracranial blood flow were carried out in collaboration with the Neurology Department.

The **Programme of Functional Neurosurgery** mainly includes epileptosurgery and neurosurgery aimed at reducing pain. Epileptosurgery in the Department of Neurosurgery in Na Homolce Hospital is one of the biggest centres within the Czech Republic. Together with the Department of Neurology, the Leksell Gamma Knife, the Department of Radiodiagnostics and the PET Centre have a steady number of 30 to 40 indicated and operated patients annually and the total number of patients undergoing surgery for drug resistant epilepsy has reached about 300. Resection operations were carried out both by a standard navigation technique and also by stimulation treatment (application of vagal stimulators). During the course of the procedure patients are examined by intraoperative magnetic resonance imaging that provides instant feedback on the extent of resection. This increases the safety and effectiveness of the surgery. The main procedures aimed at alleviating pain are the so-called microvascular decompression and the partial sensory rhizotomy with intractable pain of the trigeminal nerve. The treatment of pain by neurostimulation and remodulation has been developed in collaboration with the department of ARO.

The Department of Neurosurgery in Na Homolce Hospital is ranked among the leading centres in the Czech Republic for its spinal surgery programme. These operations are performed on the whole length of the spine using all access routes to treat degenerative diseases as well as trauma and oncological patients. Preference is given to the microsurgical approach and use of safe mini-invasive techniques using electrophysiological monitoring where appropriate. Surgical operations on the spine have a comprehensive spectrum of spinal implants including arthroplastic systems and percutaneously administered stabilizers. In 2012 there was an increase in the number of osteoporotic spine fractures that were resolved in collaboration with intervention radiology by mini-invasive percutaneous vertebroplasty or kyphoplasty.

The Department of Neurosurgery in Na Homolce Hospital is The Centre of Excellence in navigation neurosurgery and neurosurgery for the dynamic stabilisation of cervical spine (Bryan, Prestige, Prospace, and Discover) for the Czech Republic and the Eastern European region.

In 2012 neurosurgeons in Na Homolce Hospital were involved in postgraduate training for the Institute for Postgraduate Studies in Health Care and organised research fellowships in neurosurgery for Czech and foreign doctors.

In 2012 the Neurosurgery Department dealt with 2 grant projects, 4 world-wide multi-centre randomized studies, ABC x CSLP Study, Zimmer DTO Study, EF 14–TTF, ACTIV and 3 clinical studies, Prodisc C Nova study and L-Active FDA Study.

DEPARTMENT OF STEREOTACTIC AND RADIATION NEUROSURGERY

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

The clinical activity of the department is focused on non-invasive radiosurgical treatment, primarily of certain types of cerebral tumours, cerebral vascular malformations or functional cerebral diseases, using the Leksell Gamma Knife as well as stereotactic and functional neurosurgery. The outpatients' clinic provides consultation and follow-up care for neurosurgery patients and specialised ophthalmological, neurophysiological and neurological care. Since 2009 Na Homolce Hospital has the latest model of Leksell Gamma Knife, Perfexion, and this has expanded the range of medical conditions that can be treated and has enabled radiosurgery to be performed in the head and neck area, which is of great importance for the treatment of metastatic cancer. It brings considerably higher safety and accuracy and is more comfortable for the patient during the radiation treatment. An essential part is the system Extend that extends the use of the gamma knife by a fractionated radiotherapy without using stereotactic frame, i.e. non-invasive method. Na Homolce Hospital was the first hospital in the world to introduce fractioned radiotherapy with the Leksell Gamma Knife. The Leksell Gamma Knife, Perfexion, is clearly the most sophisticated radiosurgical equipment currently in use in the world.

In 2012, 841 patients were treated in the department. The total number of surgical interventions reached 1,153 (1,011 interventions on the Leksell Gamma Knife and 142 other surgical interventions). Foreign patients made up 12% of the total number of patients irradiated on the gamma knife. Implantation and reimplantation of neurostimulators to treat movement disorders were carried out on 25 patients.

The Department of Stereotactic and Radiation Neurosurgery is the only centre of its kind in the Czech Republic. The quality of activities and the range of experience are being considered by the professional public as the foremost centre of its kind in the world.

Doctors in the department were involved in organising postgraduate training for the Institute of Postgraduate Studies in Healthcare.

Basic data

Number of beds – care centre	8
Number of doctors	6
Number of general nursing staff	12
Number of radiological technicians	1
Number of other staff	7
Inpatient ward	
Number of admissions	841
Number of operations by Leksell Gamma Knife	1,011
Number of other stereotactic operations	142
Average length of stay (in days)	1.32
Outpatients	
Number of consultations	3,259
Follow-up examinations	2,179
Number of neurostimulators implanted	25

Number of patients treated by Leksell Gamma Knife

2000	566
2001	735
2002	781
2003	803
2004	856
2005	798
2006	802
2007	819
2008	832
2009	856
2010	960
2011	1,019
2012	1,011

CARDIOVASCULAR PROGRAMME

DEPARTMENT OF CARDIOLOGY

Head of Department Prof. Petr Neužil, MD, PhD, FESC

The clinical activities of the department cover a wide range of preventative, diagnostic and therapeutic care for patients with diseases of the heart and blood vessels or with a higher risk of these diseases. In 2012 the department comprehensively covered the following individual specialised areas:

Acute cardiology together with the coronary unit provides comprehensive cardiological intensive care to patients who suffer from acute heart diseases over the whole range of this specialisation. The department has been equipped with the necessary equipment to monitor, support and substitute essential vital functions.

Intervention cardiology includes the catheterization laboratory that deals with the diagnostics of diseases of the coronary arteries, including therapeutic interventions, and the multifunctional catheterization centre. At the beginning of 2012 the department restarted operations in a newly reconstructed and equipped area. The number of interventions in 2012 were comparable with 2011; the increase was achieved by coronary interventions. There was further developed the programme of structural cardiac interventions such as patent foramen ovale closures, atrial septal defect, stenoses, pulmonary arteries, and closures of paravalvular leaks. Activity on the development of percutaneous coronary intervention with different types of circulatory support has also been continuing. The department prepared or actively participated in a number of specialised programmes and presentations at specialised conferences and congresses in the Czech Republic. The department, together with other centres, also organised a professional programme to present intervention cardiology to the most prestigious American and European Congresss (TCT 2012, EuroPCRT 2012).

Multifunctional transcatheter department is specialised in cardiac electrophysiology especially the diagnosis and treatment of heart rhythm disorders. Na Homolce Hospital has been for a long time one of the largest European centres for the implantation of pacemakers and defibrillators (ICD). Within the Czech Republic the hospital became again the centre with the highest number, 1,209, for implant procedures in 2012. The specialisation of the multifunctional catheterization department is mainly the implantation of defibrillators and cardiac resynchronization therapy. As the largest centre it has

Basic data

Number of beds	52
■ Standard	30
■ Intermediate	4
■ Intensive	18
Number of doctors	34
Number of general nursing staff	123
Number of outpatient examinations	41,984
Number of admissions	4,816
Number of examination days	14,209
■ Standard	8,935
■ Intensive	5,274
Bed occupancy rate (as a %)	76.27
■ Standard	74.03
■ Intensive	81.05
Average length of stay (in days)	2.95

Intervention Cardiology – specialised interventions procedures

Diagnostic catheterisation	2,958
Ventriculography	659
Bilateral cardiac catheterisation	189
Percutaneous Coronary Interventions (PCI)	1,049
Primary PCI	278
Stents:	
■ Number of patients	927
■ Number of stents	1,347
Fraction flow reserve	216
Intravascular ultrasound	125
Occlusion DSS/PFO	43
Immediate complications after PCI:	
Emergency bypass surgery (CABG)	0
Mortality associated with PCI	0

had experience with the new type of defibrillators called subcutaneous ICDs (s-ICD) and implanted 12 in 2012. A clear advantage of these devices is that, instead of requiring the use of X-rays and implantation in the left ventricle, only a subcutaneously implanted electrode is needed. There are other procedures with implants that require the stimulating or defibrillating electrodes to be extracted. There were a total of 59 of these procedures carried out safely in 2012. The Cardiology Department is a unique centre within the Czech Republic for dealing with cases by using percutaneous left atrial appendage closure as an alternative form of anticoagulant therapy. There were 25 procedures carried out in 2012.

Number of catheter ablations performed in 2012 on the multifunctional catheterization site significantly increased to 877 in 2012 compared with 729 in 2011. The department achieved the highest number of ablations carried out within the Czech Republic. There is a clear move towards comprehensive ablations which make up over half of all electrophysiological procedures. It mainly concerns ablation of atrial fibrillation and ventricular tachycardia. Two different methods of remote navigation (Stereotaxis, Hansen Medical) were routinely used in 2012. The magnetic navigation system was a great help in treating arrhythmia in patients with a congenital heart defect.

The first implantation of a wireless cardiostimulator (Nanostim) was an absolute novelty and a world première at the end of 2012. The cardiostimulator system is built into a 4cm long device in the shape of AAA battery that is implanted under fluoroscopic guidance and secured in the cusp of the right ventricle. The main advantages are the simplicity of implantation, a reduction in classic implantation complications, a minimisation of infection and last, but not least, the cosmetic effect.

A joint **experimental laboratory** project was developed with the Department of Physiology, 1st Medical Faculty, Charles University in 2012, which is the training centre for robotic navigation (Hansen Medical) for Middle and Eastern Europe. Experiments with various types of cardiac support and new ablation technology are carried out here.

Non-invasive cardiology has, in the recent past, offered patients a wide range of diagnostic tests for cardiovascular diseases. The tests include ultrasound, electrocardiographic and echocardiography stress tests, long-term monitoring of cardiac rhythm, blood pressure and others. In 2012 saw an increase in the number of oesophageal echocardiography examinations. Three-dimensional echocardiography has become a routine method in indicated cases; its strong point has been mainly shown when used in conjunction with invasive cardiology and cardiosurgery. Accreditation in echocardiography, which was awarded by EAE (European Association of Echocardiography) to the Department of Cardiology in Na Homolce Hospital in 2011, has been extended to 2016.

Coronary Unit

Outpatients electrical cardioversion	391
Acute coronary syndrome	415
Acute heart failure	113
Pulmonary embolism	16
Total mortality	**5.25%**

Antiarrhythmic Unit

Electrical cardioversion	131

Multifunctional Catheterisation Unit

Total ICD	400
Primary implantations	287
■ of which biventricular	120
Replacements	113
Subcutaneous ICD	12
Total catheter ablation	877
Atrial fibrillation, atrial tachycardia	407
AVNRT	148
WPW syndrome	42
Atrial flutter	176
Ventricular tachycardia	94
■ Structural	53
■ Idiopathic	41
Ablation of renal arteries	39
Closure tabs LS	25
Total pacemakers	706
Primary implantation of KS	392
Replacement of KS	314
Neurostimulation	10
Implantation / explantation of Reveal	93
Nanostim	14
Complete extraction of electrodes	59

The number examinations performed on patients attending the Outpatients' Department for Cardiac Care reached 15,400 in 2012. The outpatients' department that specialises in the care of patients who are on long-term anti-coagulant medication, which was established in 2010, carried out nearly 3,500 additional examinations.

The specialised Outpatients' Department for Heart Failure, which focuses on monitoring patients with heart failure and caring for patients at less advanced stages of the illness, and the Outpatients' Department for the Treatment of Hypertension examined 2,326 patients in 2012.

There was increase in number of examinations of arteries to 650 and of veins to 1,250 in the Angiology Outpatients' Department.

The programme for Multidisciplinary Care of Patients with Heart Failure was developed over the past year during which time all the departments and outpatients with different professional specialisation were involved.

In 2012 the doctors from the Department of Cardiology were involved in organising undergraduate training for 1st, 2nd and 3rd year students at the Medical Faculty of Charles University and postgraduate studies within the Institute of Postgraduate Studies in Healthcare.

The international clinical studies, Nectar HF, CABANA and DEFEAT HF were carried out in the Department of Cardiology and its doctors were involved in the conduct of an additional 25 clinical studies in 2012.

Non-invasive cardiology

General outpatients	15,470
Angiology	3,519
Arrhythmology	6,888
Transthoracic echocardiography	6,768
Esophageal echocardiography	927
Dobutamine stress test	4
Holter EKG + Recollect + Loop monitor + Omron EKG	1,908
EKG stress test	895
Monitor TK	1,160
Tilt test	57
Anticoagulation outpatient	3,486

DEPARTMENT OF VASCULAR SURGERY

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

The department deals with surgical and angioradiological invasive diagnostics and the treatment of diseases of the vascular system, primarily the narrowing or complete occlusion of blood vessels as a consequence of damage due to atherosclerosis, and also injuries of the arterial and vascular system apart from the coronary arteries, ascending aorta and the aortic arch. It is the only centre with nationwide coverage specialising in the comprehensive treatment of vasculo-surgical problems from radical replacement of the thoracoabdominal aorta to palliative interventions such as radiofrequency sympathectomy. The surgery is focused on minimising invasive approaches by using endovascular and robot-assisted methods. The department provides 24-hour emergency surgical care for all unexpected vasculo-surgical conditions.

In 2011 the range of surgical interventions included operations on branches of the aortic arch, thoracic and abdominal aorta including aneurysms, reconstruction

Basic data

Number of doctors	17
Number of nursing staff	113
Total number of outpatient examinations	11,214
Number of beds	61
■ Standard	36
■ Intermediate	13
■ Intensive	12
Number of admissions	2,269
Number of hospitalised patients	1,691
Bed occupancy rate (as a %)	75.03
Average length of stay (in days)	6.86
Total number of treatment days	16,851
Mortality (%)	1.63

of arteries supplying abdominal and retroperitoneal organs, arteries supplying the limbs as well as varicose veins and a unique transplantation of vascular grafts to deal with the infection of vascular prostheses. In 2011 the department was the centre with the highest number of operations on thoracic and thoracoabdominal aorta in the Czech Republic, and this remains the case, even for 2012. Patients with ischemic disease of the lower limbs and with narrowing of the arteries supplying blood to the brain made up one of largest groups of patients in 2011. From among the modern mini-invasive approaches the department has carried out thorascopic thoracic or laparoscopic lumber sympathectomies, endoscopic operations of varicose veins and the abdominal aorta by way of reduced surgical approaches, the so called mini-laparotomies, and particularly by robot assisted vascular surgery.

The Department of Vascular Surgery achieved yet another world success in 2012 in the area of **robot-assisted vascular surgery** and confirmed its leading position nationally in surgery of the thoracoabdominal aorta.

There was a world première of robot-assisted operation of a mammary artery aneurysm in January 2012. International workshops on robot-assisted vascular surgery took place in March and July 2012 and were attended by doctors from Australia, India, Russia, USA and Great Britain and who received them favourably.

Two hundred and forty three robot-assisted vascular operations had been performed by the end of 2011, which makes it an absolute world top in this area. Some types of robot assisted operations were world premières and experience gained in Na Homolce Hospital is being passed on not only at home but also to international centres in the USA and Asia. The Department of Vascular Surgery in Na Homolce Hospital is an international training centre for robot-assisted vascular surgery.

Endovascular surgery, which specialises on implantations of stentgrafts during the treatment of abdominal aneurysms or the thoracic aorta, represents another important area of the department's activities. Implantation of stentgrafts, intraoperative angioplasties, are routinely carried out in the collaboration with the Department of Radio-diagnostics in Na Homolce Hospital. A specialised team of doctors has been established for these interventions.

Successful workshops on **radiofrequency operations of varicose veins in the lower extremities** were also organised in 2012 for doctors from the Czech Republic and Slovakia.

The Department of Vascular Surgery also performs demanding interventions to treat infections of vascular prostheses by the transplantation of vascular allografts. Na Homolce Hospital, together with IKEM, VFN Praha and the Tissue Bank at FN Hradec Králové became joint founder of a programme for the cryopreservation of blood vessel grafts. A number of centres in the Czech

Total number of interventions

2001	1,349
2002	1,552
2003	1,573
2004	1,625
2005	1,410
2006	1,585
2007	936
2008	906
2009	906
2010	1,390
2011	1,548
2012	1,618

Breakdown of surgical interventions

Thoracic aneurysm	22
Abdominal aneurysm	110
Aneurysm of pelvic arteries	2
Aneurysm of popliteal artery	21
Aortofemoral reconstructions	81
Pelvic reconstruction	38
Extra-anatomic reconstruction in aortoiliac area	44
Solution of infection of vascular prosthesis	13
Operations on branches of aortic arch	207
Femoropopliteal proximal reconstruction	66
Reconstruction of arteries in groin	118
Total varicose reconstructions	141
Operations on varicose veins	203
Minimally invasive interventions:	
Robotic operations	40
Laparoscopic operations	10
Thoracic sympathectomy by thoracoscopic method	10
Lumbar sympathectomy by laparoscopic method	1
Endoscopic sampling of VSM to reconstruction	0

Republic take advantage of the Department of Vascular Surgery in Na Homolce Hospital as a consultancy centre for the treatment of a range of serious vascular problems.

The Department of Vascular Surgery in Na Homolce Hospital organised undergraduate training for the 1st Faculty of Medicine of Charles University in vascular surgery, postgraduate studies in vascular surgery for the Institute of Postgraduate Studies in Healthcare and studies in robot-assisted surgery for the European Institute of Telesurgery in Strasbourg.

It also plays a role as a super-consultancy centre for serious and complicated angiosurgical cases.

DEPARTMENT OF CARDIAC SURGERY

Head of Department Štěpán Černý, MD, PhD, MBA

The Department of Cardiac Surgery in Na Homolce Hospital is one of the biggest cardiac surgery centres in the Czech Republic. It deals with complex surgical treatment of heart and major endothoracic vessels. An essential part of its activities is outpatient monitoring of selected groups of patients before and after cardiac surgery. In total, 839 cardiac surgeries carried were carried out in 2012.

There has been a clear trend towards **valvular surgeries** that accounted for 60% of operations and was confirmed in 2012. The department continued developing its programme for the surgical maintenance of mitral valves and reconstruction of the left ventricle, and as a consequence the average number of mitral valvuloplasties amounted to over 70% of all mitral interventions. In the same way, the department continued in its **programme of mini-invasive operations of cardiac valves**, in which 170 patients have undergone surgery since 2008.

In the assessed period the department, together with the Department of Cardiology, continued developing the programme of **intraoperative cryoablations** for patients with chronic fibrillation of auricles (MAZE) in which 170 patients were treated by this method in 2012. Within the Czech Republic, Na Homolce Hospital remains the centre where the highest number of these interventions have been carried out. In 2012 the hospital further developed the programme to perform these interventions with isolated fibrillation of auricles by a minimally invasive approach.

In 2012, the department, together with the Department of Vascular Surgery and the Department of Radio-diagnostics, worked on the **interdisciplinary care of patients with comprehensive disorders of the aortic arch**, mainly focussing

Basic data

Number of doctors	18
Number of general nursing staff	100
Total number of outpatient visits	5,887
Number of beds	34
■ Standard	14
■ Intermediate	10
■ Intensive	10
Number of hospitalised patients	922
Bed occupancy (%)	90.46
Average length of stay (in days)	12.11
Total number of treatment days	11,165
Mortality (%)	1.2

Surgical interventions

Isolated aortocoronary reconstructions	262
Combined aortocoronary reconstructions (EACI, MAZE etc)	29
Cardiac valve replacement/plastic surgery	503
Isolated operations on ascending aorta and arch	14
Other (myxoma, pericardectomy, PM extraction)	28
Epicardial stimulator electrode implants	3
Total	839
MAZE operations (combined with ACB and valvular surgery)	170
Total thoracic aorta operations (combined with other interventions)	93
Robot-assisted interventions	0
Acute and emergency operations	126
Planned operations	713

on the endovascular treatment of these patients. Na Homolce Hospital is the centre with the highest number of interventions on the thoracic aorta in the Czech Republic.

In 2012, the **programme of care for adult patients with congenital heart defects** was systematically developed. The programme consists of a specialised outpatients' department for adult congenital heart defects and for operative and post-operative care, all of which is provided by the Department of Cardiac Surgery in Na Homolce Hospital and by the Paediatric Cardiocentre at Motol Teaching Hospital. In 2012, 630 such patients were treated in Na Homolce Hospital.

DEPARTMENT OF CARDIOANESTHESIOLOGY

Head of Department Pavel Jehlička, MD

The Department of Cardio-anaesthesiology is an essential part of the Cardiocentre in Na Homolce Hospital and covers two basic areas – **anaesthesiological care for cardiosurgery and cardiology and also intensive care for the cardiology unit of postoperative and resuscitation care.**

It provides anaesthesia care for patients who are undergoing either cardiosurgical operations, with or without extracorporeal circulation, or cardiosurgical robot-assisted operations with minimal-invasive approach. For cardiological patients it ensures anaesthesia for complicated heart mapping in arrhythmology, anaesthesia for the extraction of stimulation systems and anaesthesia for electrical cardioversions.

The department ensures the intensive care function of the Cardiosurgical Unit for post-operative care and resuscitation and also liaises with the Cardiosurgery Unit for intermediate care. Within the Cardiocentre it supports other units of intensive cardiology care. It is involved in the programme of extracorporeal support of circulation with patients in carcinogenic shock together with the Cardiology Department and the Department of Biomedical Engineering.

As the only department in the Czech Republic the Department of Cardioanesthesiology in Na Homolce Hospital performs anaesthesia in robot-assisted cardiosurgical operations and the anaesthesia for operations on adult patients with congenial heart defects.

Basic data

Number of doctors	8
Number of general nursing staff	7

Total number of anaesthetics administered

Cardiosurgical interventions	908
Cardiological interventions	539
Operations lasting longer than 2 hours	884
Patients over 65 years old	619

PROGRAMME OF GENERAL MEDICAL CARE

DEPARTMENT OF INTERNAL MEDICINE

Head of Department Milan Čech, MD

The department provides preventive, diagnostic and conservative treatment for diseases of an internal nature and has a markedly above-regional subspecialisation in **gastroenterology and pneumology**.

One of the traditional job descriptions of the department includes care for patients with short bowel syndrome and ensuring their **long-term parental nutrition**, which includes treatment of the complications (sepsis, thromboses) that are inevitably connected with this therapy. The department routinely carries out bedside sonography and interventions under ultrasound control (central cannulation, dg/evacuation puncture etc.). Apart from general internal medicine, the department also provides outpatient services for diabetology, endocrinology, consultancy for domestic parenteral nutrition, obesitology, lipid consultancy, outpatients' for quitting smoking, internal pre-operation consultancy, and acute internal clinics for the treatment of acute internal patients, the administration of infusions, including planned hemosubstitutions, and outpatient diagnostic and therapeutic interventions. In 2012, the department continued to provide essential clinical back-up to the key areas of the Cardiovascular Programme and Neuro-programme in Na Homolce Hospital.

The Unit of Intensive Care focused on internally polymorbid and mainly patients with complicated infections.

Gastroenterology Unit is the centre for the biological treatment of unspecified intestinal inflammations and for colorectal carcinoma screening.

The Centre for Pulmonary Endoscopy offers comprehensive bronchologic diagnostics including autofluorescent bronchoscopy, NBI (Narrow Band Imaging) and endobronchial ultrasonography. The combination of new diagnostic methods with the existing ones such as PET/CT in the Department of Nuclear Medicine provides an exceptional opportunity for early diagnosis and staging of bronchogenic carcinoma. In 2012, the centre continued performing bronchial thermoplasty on patients with severe or difficult-to-treat asthma.

In 2012, doctors in the Internal Department were involved in the undergraduate studies for 1st, 2nd, 3rd Faculties of Medicine of Charles University and also postgraduate studies within the Institute of Postgraduate Studies in Healthcare. The department also fulfilled its function in 2012 as a training centre in the specialised field of „Artificial Nutrition and Metabolic Care".

Basic data

Number of beds	29
■ Standard	21
■ Intensive	8
Number of doctors	25
Number of general nursing staff	57
Number of outpatient examinations	43,137
Gastroscopy examinations	8,509
Flexible and autofluorescent bronchoscopy	1,037
Functional examination of lungs	2,764
Number of admissions	1,228
Total number of days of treatments	9,397
Number of days treated in JIP	2,563
Bed occupancy (%)	
■ Standard	89.85
■ Intensive	95.24
Average length of stay (in days)	
■ Standard	5.90
■ Intensive	6.38

Endoscopic interventions

Gastroscopy	2,366
Colonoscopy	2,361
Endoscopic sonography	634
ERCP	488
Endoscopic papilosphincterotomy	261
PEG	23

DEPARTMENT OF ONCOLOGY

Vedoucí lékař MUDr. Martin Šafanda

The Department of Oncology specialises in **the treatment of adult patients with malignant tumours**. The oncology treatment is divided into 4 key areas: the **gastroenterological, mammological, urogynaecological, and the pneumo-oncological programme**.

With the exception of irradiation therapy, the department performs antitumor therapies in all indications – adjuvant, neoadjuvant and palliative. Diagnostic procedures with the most frequent malignant tumours are multidisciplinary and within each working group there are specialists from radiodiagnostics, surgery, internal medicine, gynaecology and pathology. The radiotherapy is carried out together with the Motol Teaching Hospital.

The Department of Oncology in Na Homolce Hospital liaises with the Comprehensive Oncology Centre of the Motol Teaching Hospital.

Basic data

Number of doctors	4
Number of general nursing staff	5
Number of newly admitted patients	590
Number of outpatient examinations	12,250
Number of performed chemotherapies	8,290

DEPARTMENT OF GENERAL SURGERY

Head of Department Michal Toběrný, MD, MBA

The services cover a wide range of services covering diagnostics and surgical treatment in general surgery, orthopaedics and urology. The outpatients' clinic not only includes counselling centres for abdominal, gastroenterological and lung surgery and oncosurgery but counselling for mammology, phlebology and bariatrics as well. There are also outpatients' clinics for orthopaedics, urology and minor surgical interventions. The intensive care unit provides post-operative care for complicated and life-threatening conditions.

In the area of general surgery, as in previous years, abdominal and thoracic surgery was performed using minimally-invasive methods in all areas of laparoscopic surgery with an emphasis on one-day surgery.

Lung surgery was intensively developed in collaboration with the hospital in Liberec. An essential part of the care provided by the department continues to be oncological surgery of the digestive tract, mammology and bariatric surgery for morbid obesity. In 2012, the surgical team routinely carried out a number of interventions mainly using intra-operative radiofrequency ablation to treat liver metastasis in colorectal carcinoma as well as laparoscopic reconstructions of inguinal and frontal

Basic data

Number of beds	31
■ Standard	16
■ Intensive	9
■ Intermediate	6
Number of doctors	22
Number of general nursing staff	61
Number of outpatient examinations	42,706
Number of hospitalisations	2,501
Number of surgical interventions	2,904
Number of days of treatment	9,495
Bed occupancy (%)	88.16
Average length of stay (in days)	3.79
Mortality	6

hernias, laparoscopic bariatric surgery, operations of anal prolapse and haemorrhoids using the Long method, and laparoscopic interventions of oesophagus reflux disease. The development of laparoscopic surgery has continued over the recent past, and specifically in the most demanding laparoscopic procedures on colorectal and gastrointestinal tract using the harmonic scalpel. Over the last year, the health insurance organisations only allowed robot-assisted procedures for urological interventions.

Orthopaedic operations performed last year included arthroscopic interventions, complete replacement of joints including shoulder and ankle, as well as reimplantation of joints, and modern procedures for osteotomy in foot surgery. The system of orthopaedic navigation is routinely used for surgery on large joints.

Urological operations carried out included open and endoscopic surgery of the urinary system including urological oncosurgery using minimally-invasive laparoscopic, cystoscopic and ureterorenoscopic surgical methods just as in previous years. In 2012, procedures using the da Vinci robotic operation system were routinely carried out in particular for radical prostatectomy, pyeloplasty and kidney resection.

In 2012, doctors of the Department of Surgery were involved in undergraduate training for 1st, 2nd and 3rd Faculty of Medicine and postgraduate training for the Institute for Postgraduate Studies in Healthcare.

Number of outpatient examinations

Surgery	16,554
Orthopaedics	13,839
Urology	12,313
Total	**42,706**

Number of admissions by diagnosis

Neoplasms	463
Diseases of digestive system	914
Orthopaedic diseases	589
Urological diseases	174
Benign tumours	78
Morbid obesity	16
Other diseases	211

Number of surgical operations

Surgery	1,267
Urology	563
Orthopaedics	567
Robotic operations	104
Small outpatient interventions	403
Total	**2,904**

DEPARTMENT OF GYNECOLOGY AND MINIMALLY INVASIVE SURGERY

Head of Department Petr Popelka, MD

The activities of the department cover diagnostics and surgical treatment of gynaecological diseases with an emphasis on minimally invasive procedures. In 2012, the four main programmes in the area of pelvic and gynaecological surgery were; onco-gynaecological surgery, uro-gynaecological surgery, complex diagnostics and endometriosis surgery, and general gynaecologic surgery.

Oncological and oncolaparoscopic surgery includes classic, laparoscopic and laparoscopically assisted and laparovaginal surgery for tumours of the vulva, cervix, endometrium and ovaries and follow-up post-operative care in a special clinic for patients receiving oncological treatment. The department

has the use of modern operation approaches and technologies that give greater accuracy and shorten the time needed to complete oncolaparoscopic interventions. An essential part of the department is a unique programme of comprehensive laparoscopic solutions of cervical cancer.

Urogynaecologic surgery covers both diagnostic and surgical and conservative treatment of incontinence and pelvic floor disorders with emphasis on laparoscopic solutions for the given problems. Surgical procedures include the latest trends using special reticulate implants and put emphasis on comprehensive solutions to the given problems while observing the rules of minimally invasive interventions. In total 430 patients with the above problems were operated on in the department.

The Programme for complex diagnostics and endometriosis surgery offers comprehensive treatment to patients from the Czech Republic which include radical laparoscopic surgery, predictive histological diagnosis of growth factors and follow-up hormonal therapy with final verification of success. The Department of Gynaecology is one of the most experienced centres in the Czech Republic to perform radical operations of retroperitoneal endometriosis. In 2012, the department carried out 22 interventions for retroperitoneal endometriosis.

General gynaecological surgery deals with the surgical treatment of infertility, myomatosis, adnexal tumours and cysts. It also treats problems with postoperative adhesions, chronic pelvic pain, inflammation and congenital developmental disorders of the uterus. Hysteroscopy operations include diagnostic and surgical endoscopy of the uterine cavity.

The total number of surgical interventions came to 1,974 operations in 2012, of which 90% were performed by minimally invasive methods including oncological interventions.

The Department of Gynaecology and Minimally Invasive Surgery is one of fourteen centres in the Czech Republic and is the headquarters of the Secretariat of the Czech Association of Gynaecological Endoscopy and Pelvic Surgery (CSGE).

Basic data

Number of beds	26
■ Standard	20
■ Intensive	6
Number of doctors	9
Number of general nursing staff	22
Number of outpatient examinations	16,580
Number of admissions	2,008
Number of surgical interventions	1,974
Number of days of treatment	5,206
Bed occupancy (%)	62.04
Average length of stay (in days)	2.59

DEPARTMENT OF ENT / HEAD AND NECK SURGERY

Head of Department Jan Paska MD (until 31. 12. 2011)
Head of Department Prof. Jaromír Astl, MD, PhD (from 1. 1. 2012)

The department specialises in diagnostics and the conservative and surgical treatment of the ear, nose and throat. The surgical procedures carried out in 2012 included; complete surgery of the head and neck concentrating on the nose and paranasal cavities including endoscopic interventions, complex surgery of the thyroid and parathyroid glands, cophosurgical interventions, microsurgery of the larynx and also corrective operations in the area of head and neck, operations on the soft tissues of the head and neck, surgery for injuries of facial bones and comprehensive ENT oncology. Surgery to the base of the skull was developed in collaboration with the Department of Neurosurgery.

The **Programme of lower jaw treatment** continued in 2012 with regular operation of articular outpatients. The treatment of diseases of jaw joints mainly included conservative and minimally invasive treatment (arthrocentesis under local anaesthesia and arthroscopic surgery.

In the field of **thyroid surgery** the department keeps up with the world trend and uses minimally invasive surgery to remove thyroid tissue by the MIVAT method. They carry out the whole range of operations, starting from partial up to extensive interventions including removal of the entire gland and ensure comprehensive postoperative care. An essential part of its activities is surgical treatment of tumour relapse and treatment of complications in collaboration with the Department of Neurosurgery, especially the treatment of damaged reversible nerves.

In 2012 the outpatients' clinic provided a comprehensive service including specialised counselling in **oncology, otoneurology, cophosurgery and otoprosthetics, outpatients' for rhinopathy, thyroid and parathyroid, corrective surgery of nose, foniatry, and care for salivary glands and joints**. An important part of the care is provided by the **outpatients' clinic for sleeping and snoring disorders** mainly in collaboration with the Department of Neurology and the Laboratory for Sleep Disorders. The department also has a **paediatric practice** the department continued developing an **aesthetic programme** that primarily includes procedures on external ears and nose and laser operations.

Basic data

Number of beds	11
■ Standard	8
■ Intensive	3
Number of doctors	10
Number of general nursing staff	22
Number of outpatient examinations	29,385
Number of consultations	1,926
Number of admissions	2,047
Number of surgical interventions	1,280
Number of days of treatment	3,115
■ Standard	2,864
■ Intensive	1,074
Bed occupancy (%)	79.10
■ Standard	88.59
■ Intensive	24.64
Average length of stay (in days)	
■ Standard	1.73
■ Intensive	1.00

Number of surgical interventions

Operations under local anesthesia	295
Operations under general anesthesia	992
FESS operations	133
Operations of thyroid gland	338
MLS	123
Oncological dg.	124

In 2012, the department introduced the NBI method (Narrow Band Imaging) as routine during the examination of the larynx and the entire ENT, which led to a significant improvement in diagnostics, starting with serious vocal cord diseases.

Doctors from the Department of ENT / Head and Neck Surgery were involved in undergraduate teaching for the 3rd Faculty of Medicine and the Faculty of Education of Charles University.

DEPARTMENT OF ANESTHESIOLOGY AND RESUSCITATION (ARO)

Head of Department Michael Stern, MD (until 30. 9. 2012)
Head of Department Zbyněk Fuksa, MD (from 1. 10. 2012)

The Department of Anaesthesiology and Resuscitation provides **comprehensive care for patients prior to, during and after their surgery, and administers not only general anaesthesia but also more demanding types of local anaesthesia**.

The Resuscitation Unit performs comprehensive diagnostics and treatment of patients whose general state of health is affected by life-threatening disorders of their basic vital functions and who require the highest level of medical care. The majority of patients suffer from loss of consciousness, blood circulation and breathing. The department is equipped with a hyperbaric chamber for artificial pulmonary ventilation and other special methods of resuscitation care.

The department has a specialised team for **the treatment of acute pain** which systematically monitors and treats acute pain in patients admitted to the hospital.

Basic data

Number of doctors	28
Number of general nursing staff	61
Number of beds	8
Bed occupancy (%)	82.8
Average length of stay (days)	12.6

Structure of units

1 resuscitation ward (8 beds)
2 postoperative wards of vascular surgery (12 beds)
5 central operating theatres
3 surgical operating theatres
2 gynaecology operating theatres
1 operating theatre for robotic surgery
8 other operating theatres and wards (ENT, stereotaxis, X-Ray, stomatology, ophthalmology, ONM – PET, GASTRO, bronchology)
1 hyperbaric chamber

Operational activities, hospitalisation and outpatients

Number of hospitalisations	192
Mortality (%)	25.5
Total number of anaesthesias administered	10,845
■ Patients over 65 years old	2,549
■ Interventions lasting longer than 2 hours	3,817
■ Local anaesthesia	1,046
Interventions in pain clinic	752

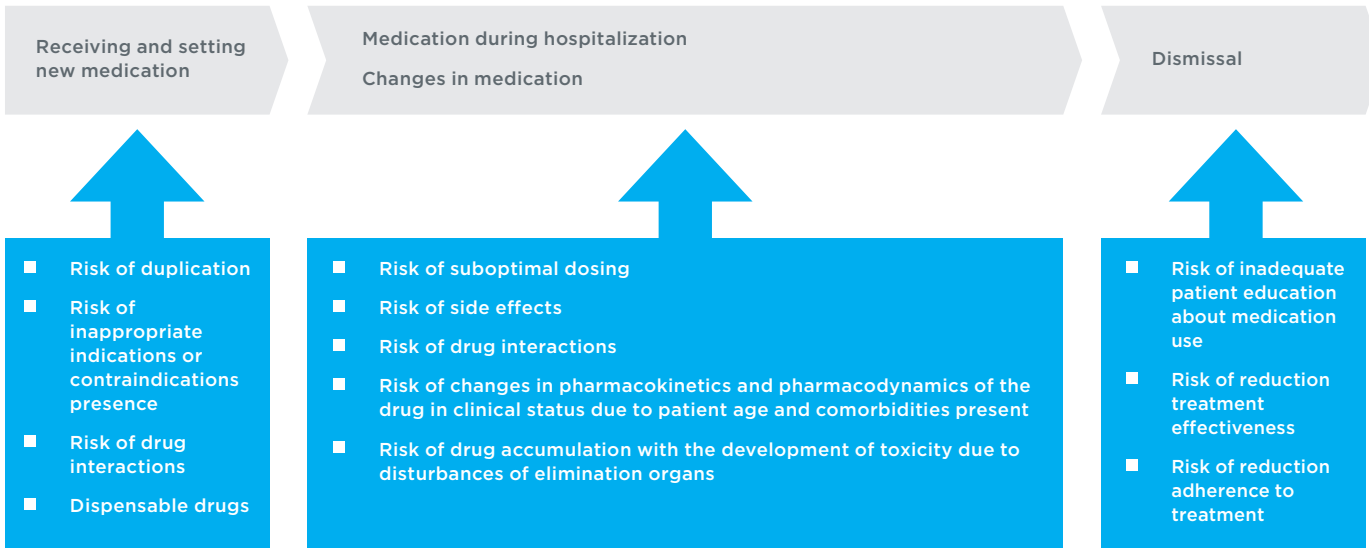
DEPARTMENT OF CLINICAL PHARMACY

Head of Department Pharm. D. Milada Halačová, Ph.D.

The Department of Clinical Pharmacy was established in Na Homolce Hospital in August 2010 with the intention of ensuring the safety of pharmacotherapy which is one of the major priorities of the hospital management. The departmental team consists of pharmacists with a specialisation in clinical pharmacy, or who will be included in training for this specialisation. The work of clinical pharmacists is governed by the needs of Na Homolce Hospital, JCI safety standards and staff availability within the department, and these requirements and restraints define the role of clinical pharmacists in the hospital. The activities, in which a clinical pharmacist takes part, are divided into several areas (Table 1). The first and major area is **the assessment of a newly admitted patient's medical history**. It is only a so-called signal check, i.e. a gross assessment of medication with respect to indications, contraindications, dosages and chosen route of administration. It identifies any duplication of medication, assesses the existence and associated risk of drug and food interactions and evaluates the clinical importance and risks of any such interaction. In such a way it identifies problematic medications for the patient in the future or identifies any high-risk pharmatherapeutic regimes and keeps a constant check them. The key activity of the clinical pharmacist is to work in the clinical department to which they have been assigned and to work closely with the attending doctors and nurses. The clinical pharmacist monitors patient medication in detail and assesses the causal relationship between specific patient problems and changes during illnesses, laboratory examinations or current medication, and adjusts drug dosages, especially of antibiotics for patients with various degrees of renal or hepatic damage and dialysis patients. They works with nurses on drug incompatibilities and the crushing of drugs for nasogastric and jejunal probes. The clinical pharmacist provides ‚on-demand' consulting services within the hospital, takes part in the development of ‚best practice', reports undesirable effects to SÚKL (The State Institute for Drug Control) and is responsible for writing protocols for dealing with exceptional events in the hospital related to medication.

Safety in Pharmacotherapy

Analysis of operating processes related to activities of the Department of clinical Pharmacy



Collaboration with the Department of Quality Management

Na Homolce Hospital, together with the Department of Quality Management, has recognised the importance of the role that clinical pharmacy should play and has succeeded in establishing this position and integrating its activities in to the hospital processes in a very short time. The clinical pharmacist has become an essential part of accreditation and together with doctors and nurses is another tool to ensure safe medication. In liaison with the Department of Quality Management and the head nurses of individual clinical departments, the Department of Clinical Pharmacy is working on a list of high-risk and LASA (look-alike sound-alike) drugs and is involved in preparing a so-called ‚proactive' procedure and a storage system to minimise the number of errors in handling these drugs and the impact such errors might have on the patient.

In 2012, Na Homolce Hospital became the outright winner of the ‚documentation of the clinical pharmacist' project in the 5th state-wide competition ‚Safe Hospital', which is sponsored by the elected governor of the Vysocina region.

In 2012, the Department of Clinical Pharmacy was involved in undergraduate teaching in Pharmacology in the Medical and Pharmaceutics Faculties of Charles University in Prague, and Masaryk University in Brno, and postgraduate teaching for the Institute of Postgraduate Studies in Healthcare. The Department Head is the Head of Division of Clinical Pharmacy IPVZ and a member of the Accreditation Committee of Ministry of Health in the Czech Republic.

OUTPATIENTS' DEPARTMENTS

DEPARTMENT OF OPTHAMOLOGY

Head of Department Petr Novák, MD

The Department of Ophthalmology provides a wide range of interventions – both basic and special outpatient ophthalmological examinations, all surgical interventions on the anterior eye segment, primarily cataract surgery and cornea transplantation. It also includes glaucoma surgery, surgical treatment after traumatic injury and surgery on the eyelids and surrounding area. The majority of these are performed on a day-surgery basis and cataract operations constitute more than 98% of the total. Modern methods of ophthalmologic microsurgery are used for these interventions.

Special examinations include computer perimetry, autorefractomery, ultrasound and contactless tonometry. These examinations are meant not only for outpatients and inpatient wards in Na Homolce Hospital but also for patients from other hospitals who are referred by ophthalmologists and neurologists.

In 2012, the Department offered commercial refractory interventions (replacement of lenses with monofocal or multifocal implants and implantation of toric and phatic lenses) and also, based on recently passed Czech legislation, the „economically more demanding" option of toric and multifocal implants.

Basic data

Number of doctors	6
Number of general nursing staff	6
Number of outpatient examinations	14,473
Total number of treated patients	6,100
Total number of operations	1,254
■ Operations of cataracts	1,053
■ Commercial refractive interventions	108
■ Transplantation of cornea	28
■ Surgical correction of astigmatisms	65

CENTRE OF ALLERGOLOGY AND CLINICAL IMMUNOLOGY

Head Doctor Assoc. Prof. Vít Petrů, MD, PhD

The Centre for Allergology and Clinical Immunology in Na Homolce Hospital provides **comprehensive therapeutic and preventative care to patients with asthma, allergy, immunity defects and other types of immunopathological disorders, together with a wide range of clinical and laboratory examinations**. The centre works closely with the Allergology and Clinical Immunology Laboratory which is a unit within the Department of Clinical Biochemistry, Haematology and Immunology.

The Centre for Allergology and Clinical Immunology provides a wide range of outpatient services:

Basic data

Number of doctors	4
Number of general nursing staff	6
Number of outpatient examinations	11,557
Total number of treated patients	6,089

- The **paediatric outpatients'** clinic cares for children who suffer with bronchial asthma, allergic rhinitis, and atopic eczema and repeated respiratory diseases.
- The **outpatients' for adults** treats patients with bronchial asthma and allergies as well as patients with primary and secondary immunodeficiency. The staff provide a consultancy service for inpatients of Na Homolce Hospital aimed particularly at patients in intensive care units and the ones with systemic autoimmune diseases.

Last year the **Patients with Allergies and Asthma Club** (AA Homolka Club) continued their activities. The club is a member of the Association for the Assistance of Chronically Ill Children and has more than 100 families as members. For thirteen years it has been bring together families with children with allergies, organising educational lectures, publishing its newsletter „Motýlek" (Butterfly), distributing the journal „Allergy, Asthma, Bronchitis" and generally contributing to the improvement of care for children with allergies and asthma by their activities.

In 2012, doctors from the centre were involved in organising undergraduate teaching for the 1st and 2nd Faculties of Medicine of Charles University. The centre is an integral part of the Division of Allergology and Clinical Immunology of the Institute for Postgraduate Studies and is also an accredited teaching centre for further education of doctors and other medical staff in Allergology and Clinical Immunology and organises postgraduate teaching. The specialists in the centre are also actively involved in published research.

Number of performed examinations

Year	Number of patients	Number of examinations	Dermatology 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
2012	6,089	11,557	39,203	7,883	843

PEDIATRIC DEPARTMENT

Head Doctor Zuzana Hejtmánková, MD

The department specialises in the diagnostics and treatment of childrens' diseases, care for newborns and infants and provides the services of a general practitioner for children and youths up to 19 years of age. Specialised outpatients' units offer paediatric endocrinology, gastroenterology, logopedics, nephrology, neurology, orthopaedics, pneumology and psychology.

In 2012, the Neurology and Orthopaedic Outpatients' continued with their well established programme of neuroorthopaedic screening where neurological and orthopaedic observations of the patients are made so that musculoskeletal disorders, such as gait coordination and postural and neurologically conditioned defects, can be detected, diagnosed and treated early on. The Endocrinology Centre, together with the paediatric units, is involved in the early detection of children with diagnosed intrauterine growth retardation and early diagnostics of juvenile thyreopathy. The clinical psychologist working in the Psychology Unit provides a diagnostics consultancy, crisis intervention and long-term monitoring of the particular child's development.

The Logopaedic Outpatients' Unit deals with the diagnostics and treatment of speech impediments. In 2012, the range of specialised services also included CRP ORION examination to diagnose inflammatory diseases quickly enabling pharmacotherapy of these conditions.

Basic data

Number of doctors	3
Number of consultants and specialists	13
Number of general nursing staff	5
Number of outpatient examinations	24,138

DEPARTMENT OF DERMATOLOGY

Head Doctor Richard Šuraň, MD

The department provides therapeutic and preventive care for outpatients in dermatology and venereology including diagnostics and long-term follow-up care for suspected tumour diseases.

Apart from basic professional examinations it also carries out phototherapy by SUP lamp, electrocauterization, cryotherapy, sclerotherapy for varices, dermatoscopic examination of pigment formations, Doppler and photopletysmographic examination of the vascular system of the limbs.

Basic data

Number of doctors	1
Number of nursing nursing staff	1
Number of outpatient examinations	5,698

DENTISTRY DEPARTMENT

Head Doctor Petr Kolčava, MD

Stomatological care covers a full range of outpatient dental care including preventive care, acute dental care and follow-up services for the hospital department. Dental hygiene is an integral part of these activities.

Basic data

Number of doctors	1
Number of general nursing staff	1
Number of dental hygienist	1
Number of outpatient examinations	6,861

DEPARTMENT OF PSYCHIATRY

Head Doctor Jaroslava Skopová, MD

The department specialises in diagnostic, therapeutic and preventive psychiatric care. It liaises with a number of outpatients and inpatients from other psychiatric facilities in Prague and appropriate patients are referred for committal.

Basic data

Number of doctors	1
Number of general nursing staff	1
Number of outpatient examinations	2,953

DEPARTMENT OF CLINICAL PSYCHOLOGY

Head doctor PhDr. Martin Kořán, PhD.

The department provides a wide range of **diagnostic, psychotherapeutic and consulting services** to inpatients and outpatients of Na Homolce Hospital. Specialised psychological care includes preoperative psychological preparation before complicated interventions, help in coping with the impact of their diseases, psychological diagnostics aimed at the identification of intellectual and mnestic abilities or assessment of personality psychopathology that would rule out some medical interventions.

In compliance with clinical profile of Na Homolce Hospital the department provides **specialised neuropsychological diagnostics and psychotherapeutic care to patients with neurological diseases, specialised psychological diagnostics and psychotherapy care to patients with cardiac and vascular diseases** within internal medicine it offers **psychotherapeutic care to bariatric patients including obesitology consultancy and psychodiagnostics care for oncological and other patients including consultancy for smoking addition treatment.**

Basic data

Number of psychologists	4

Number of admissions

Psychotherapy individual systematic 30 minutes	141
Specific psychological examinations 30 minutes	3,761
Targeted psychological examinations 60 minutes	522
Control psychological examinations 30 minutes	348
Crisis interventions 30 minutes	80

Additional services include **crisis intervention** in acute reactions to serious diagnoses, **psychodiagnostics and psychotherapy of children** with different psychosomatic, behavioural and study problems and psychological examinations of patients required by the rules and regulations of the Ministry of Health and the General Health Insurance Company. An essential part of the care is also **psychosomatic and pain treatment consultancy**.

In 2012, specialists from the department were involved in undergraduate teaching for the Faculty of Education of Charles University and the Philosophy Faculty of Charles University and for postgraduate teaching for the Institute of Postgraduate Studies in Healthcare, in clinical and transport psychology for the Philosophy Faculty of Palacky University in Olomouc and the Philosophy Faculty of Charles University.

Number of outpatient interventions

Psychotherapy individual systematic 30 minutes.	2,611
Targeted psychological examinations 60 minutes	1,058
Control psychological examinations 30 minutes	348
Specific psychological interventions 30 minutes	375
Crisis intervention 30 minutes	53
Conversations of clinical psychologist with family 30 minutes	20
Telephone consultations 10 minutes	16
Psychodiagnosis with challenging psychotherapy interventions 90 minutes	62
Group therapy 90 minutes	17

DEPARTMENT OF PHYSIOTHERAPY AND PHYSICAL MEDICINE

Head of Department Ivan Hadraba, MD

The department provides comprehensive diagnostic and therapeutic care to restore physical abilities of patients. Diagnostic and therapeutic services are an essential part of the clinical programmes in Na Homolce Hospital – Neuro-programme, Cardiovascular and General Medical Care programme. The care is carried out by a team of specialised doctors, physiotherapists, nurses and masseurs to both patients of the hospital and to those referred from other medical care facilities.

The range of services includes the **diagnosis and treatment of functional disorders of the locomotory system, post-traumatic care and operations on the locomotory system, preoperative and postoperative care in spinal surgery, care after vascular surgery, orthopaedic-prosthetic care, physiotherapy treatment for incontinence in men and women, diagnostics and treatment by computer kinesiology**. Traditional procedures include physiotherapy, hydrotherapy, electrotherapy, massage, lymphatic massage, peat wraps and gas injections.

The department has continued collaborating with the Department of Neurosurgery for the second year running on specialised **treatment programme for patients with vertebrogenic problems**, not indicated for acute surgical solution.

Basic data

Number of doctors	4
Number of physiotherapists	28
Number of general nursing staff	4
Number of outpatient examinations	25,235
Number of therapeutic procedures	217,415

SUMMAERY OF ACTIVITIES OF DEPARTMENTS PROVIDING COMPLEMENTARY SERVICES

DEPARTMENT OF RADIODIAGNOSTICS

Head of Department Prof. Josef Vymazal, MD, DSc.

In 2012, the activities of the department were based on providing activities both the hospital and other healthcare facilities including around the clock. The range of activities included diagnostic examinations, using modern radiodiagnostic technology to its fullest extent, with special emphasis on diseases of the nervous, locomotory and cardiovascular systems, as well as on vascular and non-vascular interventions.

The department continued performing **vascular methods** and last year, together with the vascular and cardiac surgery departments, implanted stents in aneurysms of the abdominal and thoracic aorta and pelvic vascular system. Na Homolce Hospital is still in the top position in the Czech Republic for the number of implants carried out. The department continued developing the programme of endovascular neuroradiological interventions, namely the treatment of brain aneurysms by removable coils and, where necessary, with use of stents to carry out remodelling techniques. The department has also started using new types of remodelling stents and with a thicker weave that make it easier to induce aneurysm thrombosis and remove it from the from circulation. New two-component adhesive has been introduced on a regular basis that enables possibilities of intracranial arteriovenous malformation treatment as well as in the area of the spinal canal. In addition to intra-arterial thrombolysis the revascularisation treatment of acute ischemic CMP based on occlusion of some from the main cerebral arteries was carried out by a method involving the mechanical removal of the thrombus with the help of extracting equipment of various types. Progress was also made in re-channelling methods where a special fully-retractable stent was used for cerebral arteries to enable the withdrawal of a thrombus from the vascular bed. Na Homolce Hospital is one of ten accredited comprehensive cerebrovascular centres with round-the-clock availability of CT, MR and endovascular interventions. Doctors in the Department of Radiodiagnostics have recently introduced a procedure, which is unique in the world, specifically for the treatment of CMP where occlusion of the deep venous system and sinuses is achieved by direct ultraselective catheterisation in the deep cerebral veins followed by local thrombolysis and re-canalisation of the deep veins and sinuses. The double-projection angiograph, Axiom Artis, specialised

Basic data

Number of doctors	25
Number of laboratory technicians	28
Number of general nursing staff	8

Specialised therapeutic interventions

PTA (with or without implantation of stent)	379
Endovascular treatment of cerebral aneurysms using GDC	26
Local thrombolysis and PTA/stent of intracranial arteries	32
Other endovascular interventions on cerebral arteries	31
CT guided interventions	2,353
■ of which targeted nerve root and joint facet injections	1,939
Vertebroplastic + kyfoplastic	151
Radiofrequency ablations	25
Breast nodus biopsies	154
CT guided biopsies and drainages	84

for neuroradiological examinations and with perfect post-processing and sophisticated navigational software, has expanded the therapeutic possibilities for vascular interventions of the head, spine and other parts of the body.

In 2012, for the number of percutaneous, vertebroplastic and kyfoplastic **non-vascular procedures** carried out for the treatment of compression fractures of vertebral osteoporosis or of other origin increased. Na Homolce Hospital is one of the leading Czech health facilities in intervention radiology. A newly introduced method is kyfoplastika with insertion of a stent into the vertebral body. The department has been using the latest duel-soure CT Siemens Somatom Flash since December 2010 which is ranked as one of the most modern technologies in the world today and has considerably improved the potential of diagnostic CT. In 2012 the device was retrofitted with the interactive reconstruction system (SAPHIRE), which enables the exposure to radiation during CT examinations to be reduced considerably. There was an increase in the number of CT examinations of the heart, including CT coronarography with much higher image quality and with considerably lower exposure of patients to radiation. CT perfusion examination of the whole brain has been carried out on a regular basis in acute ictuses.

The programme of **intraoperative magnetic resonance imaging (iMRI)** has been used on a regular basis using the machine installed in the operating theatre for Neurosurgery. The number of perioperative magnetic resonance imaging examinations continued to grow in 2012. The device is also used for regular magnetic resonance imaging when it is not fully used by the operating theatres, which reduced the waiting time for examinations and so increased the number carried out. In the assessed period the department carried out MRI spectroscopic examinations, by both SVS and CSI, on the brain and other parts of the body (the prostate in particular), diffusion imaging, including the technique of diffusion tensor imaging for tractography of white matter. Functional MRI Bold imagining for neuronavigation and deep brain stimulation has been development further.

The programme of MRI heart examination has been extended further with the added possibilities of imaging and quantifying blood flow, which is mainly important for valvular and short-circuit defects of the heart. Introduction of a new breast coil in 2010 enabled the launch of the MRI examination of breasts programme that was carried out on a regular basis in 2012. MRI angiography of renal arteries without the use of contrast medium, which was made possible by retrofitting the Magnetom Avanto MRI with more accurate technology (syngo NATIVE), was newly launched in the department in 2012.

Mammography clinic belongs to the network of accredited clinics and is equipped with a Planned Nuance Excel with direct digitalisation. In 2012 the Mammography clinic in Na Homolce Hospital was again ranked among the

Overview of selected radiodiagnostics examinations

Computer tomography	11,598
Magnetic resonance	11,617
Angiography	2,950
Ultrasound examinations	16,417
Mammography	14,262
■ of which screening	11,256
Total number of radiodiagnostic examinations	105,982

five best clinics out of the 60 centres from across the Czech Republic that were assessed for the quality of their mammography screening.

All radioscopic image documentation is digitally saved in the hospital's information system and is available to doctors around the entire hospital. The operation of the Department of Radiodiagnostics is fully digitalised, i.e. no films are used. The department has been using electronic request forms for all types of examinations on a regular basis. External request forms are also being transferred to electronic format.

In 2012, the Department of Radiodiagnostics was involved in one grant project.

DEPARTMENT OF NUCLEAR MEDICINE / PET CENTRE

Head of Department Assoc. Prof. Otakar Bělohlávek, MD, PhD.

The services of the centre include **scintigraphic functional imagining**, including the **PET/CT** method (a combination of positron emission and computer tomography), which is mainly used to diagnose oncological, neurological and cardiovascular diseases. The services also include **immunoalytical laboratory examination methods**, such as radiosaturation analysis (RSA) and chemiluminiscence.

In 2012, the Department of Nuclear Medicine / PET Centre continued to serve both the patients of Na Homolce Hospital as well as patients from other healthcare facilities in the Czech Republic (primarily PET/CT examinations). **The number of PET interventions/examinations** reached 7,075 in 2012, which represents a 0.7% increase compared to 2011. All the examinations were carried out in two hybrid PET/CT Siemens Biograph scanners. Throughout 2012 the department succeeded in maintaining a high standard of productivity compared with other European facilities. PET/CT examinations routinely use fluorocholine (FCh).

Scintigraphic diagnostics, including SPECT, continued their long global decline in scintigraphic examinations that are more and more being replaced by other imaging methods such as PET/CT. There was a temporary rise in scintigraphic examinations due to the closure of the Department of Nuclear Medicine in the Central Military Hospital in Prague. The greatest number of scintigraphic examinations carried out in 2012 were for myocardial perfusion.

The immunoanalytical laboratory has not reported any significant changes in the numbers of assays carried out. Assays for renin and aldosterone were launched recently. The results of regular inter-laboratory checks, together

Basic data

Number of doctors	9
Specialist in laboratory methods and in preparation of medical products	2
Radiological assistants	7
Pharmaceutical assistants	2
Number of general nursing staff	7
Laboratory technicians	4

Number of interventions/examinations

Scintigraphy	
■ Number of examinations	1,038
Positron emission tomography	
■ Number of examinations	7,075
Laboratory examination methods	
■ Number of interventions	144,834
■ Number of assays	111,502

with an accreditation that was awarded according to the ISO 15189 standard, speak volumes for the traditional good quality of the laboratory.

The Department of Nuclear Medicine /PET Centre is an ISO 9001:2008 certificate holder which was awarded based on a certification audit carried out by Det Norske Veritas auditors.

The doctors of the department carried out consultancy and expert activities for the IAEA, Vienna in 2012.

The department was involved in one grant project in 2012.

DEPARTMENT OF CLINICAL BIOCHEMISTRY, HEMATOLOGY AND IMMUNOLOGY

Head of Department Luděk Táborský, MD

Clinical Biochemistry provides routine biochemical services for inpatients and outpatients in Na Homolce Hospital concentrating principally on the treatment of critically ill patients admitted to the hospital. Bedside examinations (POCT – point of care testing) of pH balance, selected minerals and glycaemia are carried out for inpatients in a critical condition. Analyses of minerals, enzyme activities, substrate concentrations, cardiomarker levels, amino acids, selected prohormones, vitamins, the full range of lipids, drugs and their metabolites including pharmacokinetic analysis of concentrations measured are made for all patients.

In 2012, clinical biochemistry provided traditional services to general practitioners, paediatricians and other specialists in the field. The department continued in expanding services offered in order to increase and improve quality of services for the Clinical Department. In 2012, POCT instrumental devices were replaced by the new RAPIDPoint® 400/405 System.

Basic data

Number of doctors	9
Number of medical and non-medical staff/undergraduates /VŠ/	6
Number of nurses and paramedical staff	34

Overview of laboratory interventions

Year	Outpatient interventions	Inpatient interventions	Total
2008	1,324,446	613,223	1,937,669
2009	1,229,273	623,045	1,852,318
2010	1,173,356	722,681	1,896,037
2011	1,112,343	739,268	1,851,611
2012	1,073,258	746,175	1,819,433

An essential activity of the biochemistry centre is the **diagnosis of lipid metabolism disorders**. Last year, the **Club for parents and children with lipid disorders** continued providing metabolic counselling in rehabilitation, reconditioning and educational events to its members.

The Haematology Laboratory provides its services to the clinical units of the hospital on a regular basis and carries out basic and special coagulation tests including screening for thrombophilia, mainly for the departments in cardiovascular programme. In 2012, the laboratory launched the monitoring of a new anticoagulant drug Pradaxa/Dabigatran. The haematology laboratory is equipped with the haematology unit, Sysmex XE 5000, which carries out the examination of blood count, body fluids, specimen staining and haematological differential analysis.

The Transfusion Centre ensures blood supply and blood derivatives for the clinical departments.

The Immunology Laboratory carries out a wide range of examination methods for both humeral and cellular immunity, the autoimmune status of organs and systems, and for allergies. It is specialised in the diagnosis of septic state of patients in a critical condition. The Allergology and Clinical Immunology Outpatient's Clinic cares for patients with allergies, immunodeficiency and immunopathological conditions. The latest innovation in outpatient examinations is for patients who suffer from bronchial asthma. This examination is carried out using a non-invasive method where the patient's exhalatory function is tested for bronchial hyperactivity.

The Laboratory of Molecular Diagnostics uses molecular genetic techniques to diagnose hereditary diseases and predisposition to common and serious diseases. It mainly responds to the requirements of individual units within the hospital.

The Department of Clinical Biochemistry, Haematology and Immunology has been included in the System of External Quality Control in the Czech Republic (SEKK), in Germany (INSTAND), in Netherlands (SKZL) and Great Britain (NEQAS). In 2012 the department continued to be successfully accredited in accordance with the ČSN EN ISO 15189:2007 Standard.

Doctors of the department were involved in undergraduate teaching for the 2nd Faculty of Medicine of Charles University and postgraduate teaching within the Institute of Postgraduate Studies in Healthcare.

The Department of Clinical Biochemistry, Haematology and Immunology took part in 2 grant projects in 2012.

DEPARTMENT OF CLINICAL MICROBIOLOGY AND ANTIBIOTIC STATION

Head of Department Vlastimil Jindrák, MD

The Department of Clinical Microbiology is involved in the **laboratory diagnosis of community and nosocomial infectious diseases and complications** in hospitalised patients and advises on their diagnosis, treatment and prevention.

The consultants of the department regularly take part in interdisciplinary work with a team of specialists to provide optimum care to inpatients and outpatients. The diagnostic laboratory service has been traditionally provided both to Na Homolce Hospital and to general practitioners and specialists at large.

The demand for **laboratory microbiology** examinations increased in 2012 compared with the previous year. The system of electronic transfer of results by external health facilities has been offered to clients who are interested in this service.

An essential part of the department's work is that of **Antibiotic Centre**, which is involved in developing the antibiotic policy for outpatient's practices in Na Homolce Hospital. The consumption of antibiotics and the occurrence of antibiotic resistance was comparable with the previous year without any significant changes. The number of consultations carried out has increased compared with 2011 and achieved an historic maximum. Radical epidemiologic changes in the resistance to the sources of infection have not been recorded.

The department participated in the project Well-Balanced Use of Antibiotics WHO – BCA (a two-sided project involving WHO EURO and the Ministry of Health of Czech Republic).

In the field of **prevention and infection control** the department of infection control plays an essential role. In 2012 there was a slight increase in the occurrence of nosocomial infections of the bloodstream in key groups of patients. The number of patients carrying or infected by MRSA was comparable with the previous year and similar to the number of infections caused by Clostridium difficile.

The Department of Clinical Microbiology became an essential part of newly established National Contact Point in the Czech Republic for infections connected to healthcare at the National Health Institute in 2012. The Head of department was appointed the head of this centre.

Basic data

Number of doctors	4
Number of medical and non-medical staff / undergraduates	1
Number of laboratory technicians	14

The Head of Department continued in **professional external activities** within ECDC (European Centre for Disease Prevention and Control) in the position of National Contact Point for the ICU component of the European surveillance of infections connected with healthcare in the Czech Republic in 2012.

The accreditation audit ČIA was successfully completed in January 2012 and the facility met all the requirements of DIN EN ISO 15189:2007 standard.

In 2012, the Department of Clinical Microbiology was involved in undergraduate teaching in collaboration with the 3rd Faculty of Medicine of Charles University, the Central Military Hospital, Prague, and, as traditionally, in postgraduate teaching within the Institute of Postgraduate Studies in Healthcare.

1) Clientele

a) Na Homolce Hospital

b) External clientele

Chart 1: Number of external health facilities and practices

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Number of facilities	187	185	217	177	163	141	132	107	101	103

2) Laboratory diagnostics

a) Examinations for Na Homolce Hospital

Chart 2: Orders from Na Homolce Hospital for microbiological examinations

Year	Bacteriology	Serology	Total
2003	45,952	15,194	61,146
2004	54,306	17,238	71,544
2005	51,582	15,506	67,088
2006	54,726	16,511	71,237
2007	65,033	18,485	83,518
2008	68,559	18,014	86,573
2009	58,770	10,884	69,654
2010	55,507	10,507	66,014
2011	55,648	11,835	67,483
2012	**68,246**	**13,973**	**82,219**

b) Examinations for external clientele

Chart 3: Orders from external clientele for microbiological examinations

Year	Bacteriology	Serology	Total	Number of practices
2003	47,969	9,989	57,958	187
2004	54,209	11,889	66,098	185
2005	49,001	10,290	59,291	217
2006	35,680	6,460	42,140	177
2007	36,687	6,631	43,318	163
2008	40,086	7,595	47,681	141
2009	33,564	4,705	38,269	132
2010	18,876	3,624	22,500	107
2011	17,804	3,409	21,213	101
2012	**25,144**	**3,381**	**28,525**	**103**

c) Total microbiological examinations

Chart 4: Total orders for microbiology examinations

Year	Bacteriology	Serology	Total
2003	93,921	25,183	119,104
2004	108,517	29,133	137,650
2005	100,583	25,796	126,379
2006	90,406	22,971	113,377
2007	101,722	25,122	126,844
2008	108,646	25,613	134,259
2009	92,341	15,591	107,932
2010	74,387	14,141	88,528
2011	73,453	15,257	88,710
2012	**93,396**	**17,373**	**110,769**

3) Antibiotic Station

a) Consultations given by doctors from the Antibiotic Station

Chart 5: Consultation for inpatient care in Na Homolce Hospital

Year	Number of consultations	Consulted patients (total number)
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
2012	**9,280**	**2,782**

DEPARTMENT OF PATHOLOGY

Head of Department Martin Syrůček, MD

The department carries out the entire range bioptical and cytological diagnoses within Na Homolce Hospital and, in cooperation with the laboratories of the hospital departments, provides a comprehensive service within the hospital and even to external doctors and healthcare facilities in Prague. In addition, the department is in charge of necrotic activities (post-mortems) including organisational services. The department organises clinical-pathology seminars with analysis of selected necroptic and bioptical cases for individual clinical departments in order to raise the quality of medical care provided.

Bioptical diagnostics is one of the most important activities of the department. Apart from general diagnostic biopsies, highly specialised bioptic diagnostics are carried out focused on tumour diseases of the central nervous system. The department carries out urgent intraoperative examinations and further procedures for the Department of Surgery and scope of operations are adjusted according to these results. Demanding intraoperative examinations are carried out including complex special methods mainly immunohistochemical examinations that help to increase the accuracy of bioptical diagnoses and to aid the detection of selected tumour markers.

Basic data

Number of doctors	5
Number of laboratory technicians	7
Quality Manager	1

Bioptical diagnostics

Year	Number of examinations	Number of specimen
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
2012	22,848	70,035

Cytological diagnostics are mainly employed for gynaecological problems. Non-gynaecological cytology is used in examinations of aspirates or smears from all tissues, including the brain.

Necroptic diagnostics mainly concerns autopsies and the histological processing of tissues of the deceased. The information acquired is important for identifying the immediate cause of death and helps to obtain more information about the nature and diagnosis of individual diseases.

The Department of Pathology is registered under the system of external quality control in the Czech Republic. In 2012, the department successfully passed a ČIA re-accreditation audit and met the requirements of standard DIN EN ISO 15189:2007.

Pathologists in Na Homolce Hospital were involved in organising postgraduate teaching for the Institute of Postgraduate Studies in Healthcare in 2012.

In 2012 the Department of Pathology was involved in two grant projects.

DEPARTMENT OF BIOMEDICAL ENGINEERING

Head of Department: Ing. Martin Mayer

The main task of the Department of Biomedical Engineering in Na Homolce Hospital is to ensure operation and service of medical equipment in the hospital including the Spa-resort Mánes in Karlovy Vary. Other activities include monitoring new trends in biomedicine. The department is divided into three sections and is fully comparable with leading facilities in biomedicine engineering in other countries.

The **Preventative Service section** carries out preventive checks on medical devices as stipulated by Act No 123/2000 Coll and the JCI standards, and performs specialised internal servicing and keeps documentation on all medical devices.

The **Clinical Engineering section** is in charge of the use and preparation of diagnostic, therapeutic and laboratory equipment, provides technical help when new medical equipment is being launched, monitors progress in medical equipment, helps to prepare public procurement and solutions for investment related to medical equipment and other methods of financing such as subsidies and gifts, cardiological electrophysiology, perfusiology, navigations systems in neurosurgery and other areas, autotranfusion for the

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
2012	2,205	4,932

Necroptic activity

Year	Number of deceased 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
2012	216	122

Department of Cardiology and the Department of Vascular Surgery and calibration of equipment for anaesthesia.

The **Metrology section** makes sure that the metrology standards in the hospital comply with current metrological legislation as it applies to Na Homolce Hospital and ensures activities of the laboratory of the Authorised metrological centre K92 fall within the regulations of the Office for Standards, Metrology and Testing, No 61/2000. In addition, the Department of Biomedical Engineering provides specialised assistance in the acquisition of new medical equipment, either in the **preparation of public tenders and investments related to medical equipment** or in other ways of financing such as subsidies and gifts.

The Department of Biomedical Engineering in Na Homolce Hospital is a centre accredited by the Czech Ministry of Health for postgraduate teaching for the Institute of Postgraduate Studies in Healthcare including a specialisation in biomedical subjects. The department has its own representative in the Accreditation Commission of the Ministry of Health in the Czech Republic. In 2012, the department was also involved in undergraduate teaching for Faculty of Electronics and Faculty of Biomedical Engineering at the Czech Technical University and the 1st Faculty of Medicine of Charles University.

MÁNES SPA-RESORT, Karlovy Vary

Manager of Spa-Resort Ing. Jan Řezáč

In April 2006, the Ministry of Health CR transferred the Mánes Spa-Resort in Karlovy Vary, together with all its associated state-owned assets, liabilities and receivables, to a state-funded organisation of Na Homolce Hospital with the entitlement to manage it until further notice. The Mánes Spa-Resort provides **complex and contributoryspa treatment for adults and children with diseases of the digestive tract, metabolic and glandular disorders** (diseases of the liver, gallbladder and biliary tract, stomach, intestinal diseases, diabetes and obesity). In 2012, the services also included residential programmes for relaxation and reconditioning as well as for specialised treatment. Complex and contributory care is not only offered to clients of health insurance organisations but also to domestic and foreign private patients.

PATIENT CLUBS

Club for Parents of Children who Suffer from Lipid Disorders

This club was established by the Metabolic Disorders Clinic in Na Homolce Hospital as far back as 1995. It brings together families whose children suffer from hereditary disorders of lipid metabolism, so called hypercholesterolemia. Patients with this disorder have an increased cholesterol level in the blood that gives rise to a high risk of cardiovascular diseases. The basic treatment for these children involves a controlled low-calorie diet and with the most serious cases treatment for hypertension. The club is integrated into the Association to help chronically ill children. The Club is entirely run by medical volunteers and parents. Parents, doctors and dietary nurses work closely together to develop appropriate eating habits in high-risk families, to provide information about healthy nutrition and suitable food products and also on new discoveries in the treatment of hypercholesterolemia. The Club's traditional and popular activities include publication of the club's Cholesterol magazine, organised water therapy exercises in Na Homolce Hospital's swimming pool, one day or weekend trips and primarily summer fitness camps focused on a low cholesterol diet and movement activities. In the summer of 2012 children with their parents spent one week in Monínci. The Club for Parents of Children who Suffer from Lipid Disorders plays an important role to prevent cardiovascular diseases by encouraging healthy nutrition, healthy habits and increased physical activities.

Contact details:

Club for Parents of Children who Suffer from Lipid Disorders
Clinic for Metabolic Disorders
Na Homolce Hospital
Roentgenova 2, 150 30 Praha 5
Tel.: 257 273 229
E-mail: jana.privarova@homolka.cz

AA Club Homolka

AA Club Homolka was established by the Department of Paediatric Allergology and Clinical Immunology in Na Homolce Hospital in 1998. It brings together families whose children suffer from allergies and asthma. The families who belong to this club not only include patients treated in Na Homolce Hospital but also other facilities both from within and outside Prague. The activities of the Club are diverse, ranging from gathering and spreading information about individual allergic diseases, organising specialist discussions for parents, publishing the club magazine Motýlek (Butterfly) with children's contributions and organising entertainment and educational activities for young patients. The most popular club event is an annual three-week trip to the seaside for children with allergies where they are accompanied by medical professionals. It is meant for school children who suffer with atopic eczema, bronchial asthma, allergic rhinitis, immune disorders or repeated respiratory infections. Last year the children spent their therapeutic holiday in Greece. AA Homoka Club is a member of the Association for the Assistance of Chronically Sick Children.

Contact details:

AA Club Homolka
Department of Paediatric Allergology and Immunology
Na Homolce Hospital
Roentgenova 2, 150 30 Praha 5
Tel.: 257 272 017
jaroslava.simonickova@homolka.cz

GRANTS UNDER WAY IN NA HOMOLCE HOSPITAL 2012

Grant from the National Institute of Health, USA

Name: International Multicentre 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 centres in the USA, 50 outside the USA

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

Program of Ministry of Education, Youth and Sports CONTACT II. – LH12054

Name: Validation studies to verify the effectiveness of the application of highly focused ultrasound (HIFU) to perform extracorporeal renal sympathetic denervation in patients with resistant arterial hypertension.

Period: 2012–2015

Researcher:
- Ass. Prof. Petr Neužil, MD, PhD, FESC, Head of Department of 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

Name: Diagnostic and therapeutic potential of fibroblast activation protein (FAP) in human astrocytic tumours.

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

Name: Multidisciplinary approach in the diagnosis of frontotemporal lobar degeneration and tauopathies: 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 Radiodiagnostics, Na Homolce Hospital

Grant GAČR 309/091145

Name: Mechanisms of deep brain stimulation: Role of the 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-researchers for Na Homolce Hospital:
- Dušan Urgošík, MD, PhD, Department of Stereotactic and Radiation Neurosurgery, Na Homolce Hospital

Grant NT 11328-4/2010

Name: Trigeminal Neuralgia in experimental MR imaging: effects of treatment for trigeminal neuralgia.

Period: 2010–2013

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

Co-researcher:
- Central Military Hospital

Grant NT 12331-5/2011

Name: Early evaluation of the effectiveness of neoadjuvant chemotherapy for cancer of the oesophagus and oesophageal junction with FDG-PET/CT examination.

Period: 2011–2015

Researcher:
- Tomáš Haruštiak, MD, UH Motol, Prague

Co-researchers for Na Homolce Hospital:
- Pavel Fencl, MD, PHD. Department of Nuclear Medicine/PET Center, Na Homolce Hospital

Grant FR – TI 1/399

Ministry of Industry and Trade

Name: Development of pharmacogenetical kit to determine the dose of Warfarin.

Period: 2009–2012

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

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

PUBLICATIONS IN 2012

Works on which the staff in Na Homolce Hospital were involved

Foreign

Chapters from books

ŠEDIVÝ, P. – KOŘISKOVÁ, Z. – EL SAMMAN, K. – BORŮVKA, V. – PŘINDIŠOVÁ, H. – ŠTÁDLER, P. Restenosis after open carotid endarterectomy and carotid stenting. In Proceedings of the 25th World Congress of the International Union of Angiology. Turin 2012: Edizioni Minerva Medica, 2012, pp. 165–167. ISBN 978-88-7711-616-1.

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AHMED, H. – NEUŽIL PETR, – ŠKODA, J. – PETRŮ, J. – ŠEDIVÁ, L. Renal sympathetic denervation using an irrigated radiofrequency ablation catheter for the management of drug-resistant hypertension. Journal of the American College of Cardiology – Cardiovascular Interventions, 2012, vol. 5, no. 7, pp. 758–765. ISSN 1936-8798.

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BRIEL, M. – VALE, N. – SCHWARTZ, G. G. – DE LEMOS, J. A. – COLIVICCHI, F. – DEN HARTOG, F. R. – OŠŤÁDAL, P. – MACIN, S. M. – LIEM, A. – MILLS, E. – BHATNAGAR, N. – BUCHER, H. H. – NORDMANN, A. J. Updated evidence on early statin therapy for acute coronary syndromes: Meta-analysis of 18 randomized trials involving over 14,000 patients. International Journal of Cardiology, 2012, vol. 158, no. 1, pp. 93–100. ISSN 0167-5273.

BÜCHLER, T. – ŠIMONOVÁ, K. – FENCL, P. – JARKOVSKÝ, J. – ABRAHÁMOVÁ, J. Clinical outcomes of patients with nonseminomatous germ cell tumours and negative postchemotherapy positron emission tomography. Cancer Investigation, 2012, vol. 30, no. 6, pp. 487–492. ISSN 1532-4192.

DUKKIPATI, S. – NEUŽIL PETR,– KAUTZNER, J. – PETRŮ, J. – ŠKODA, J. The durability of pulmonary vein isolation using the visually guided laser balloon catheter: multicenter results of pulmonary vein remapping studies. Heart Rhythm, 2012, vol. 9, no. 6, pp. 919–925. ISSN 1547-5271.

DUŠEK, P. – JECH, R. – SIEGER, T. – VYMAZAL JOSEF, P. – RŮŽIČKA, E. – WACKERMANN, J. – MUELLER, K. Abnormal activity in the precuneus during time perception in Parkinson's disease: and MRI study. PLOS ONE, 2012, vol. 7, no. 1, pp. 1–8. ISSN 1932-6203.

FENCL, P. – BĚLOHLÁVEK OTAKAR, D. – HARUŠTIAK, T. – ZEMANOVÁ, M. The analysis of factors affecting the threshold on repeated 18F-FDG-PET/CT investigations measured by the PERCIST protocol in patients with oesophageal carcinoma. Nuclear Medicine Communications, 2012, vol. 33, no. 11, pp. 1188–1194. ISSN 0143-3636.

KARÁSEK, J. – WIDIMSKÝ, P. – OŠŤÁDAL, P. – HRABÁKOVÁ, H. Acute heart failure registry from high-volume university hospital ED: comparing European and US data. American Journal of Emergency Medicine, 2012, vol. 30, no. 5, pp. 695–705. ISSN 0735-6757.

KORUTH, J. – DUKKIPATI, S. – MILLER, M. – NEUŽIL PETR, – AVILA, A. – REDDY, V. Bipolar irrigated radiofrequency ablation: A therapeutic option for refractory intramural atrial and ventricular tachycardia circuits. Heart Rhythm, 2012, vol. 9, no. 12, pp. 1932–1941. ISSN 1547-5271.

KUCK, K. – REDDY, V. – SCHMIDT, B. – NATALE, A. – NEUŽIL PETR, A novel radiofrequency ablation catheter using contact force sensing: Toccata study. Heart Rhythm, 2012, vol. 9, no. 1, pp. 18–23. ISSN 1547-5271.

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MALÍKOVÁ, H. – KRÁMSKÁ, L. – LIŠČÁK ROMAN, D. – VOJTĚCH, Z. – PROCHÁZKA, T. – MAREČKOVÁ, I. Stereotactic radiofrequency amygdalohippocampectomy for the treatment. Epilepsy Research, 2012, vol. 25, no. 102, pp. 34–44. ISSN 0920-1211.

NIRANJAN, A. – GOBBEL, G. – NOVOTNÝ, J. – BHATNAGAR, J. – FELLOWS, W. – LUNSFORD, D. Impact of decaying dose rate in gamma knife radiosurgery: in vitro study on 9L rat gliosarcoma cells. Journal of Radiosurgery and SBRT, 2012, vol. 1, no. 1, pp. 257–264. ISSN 2156-4639.

OŠŤÁDAL, P. – OŠŤÁDAL, B. Women and the management of acute coronary syndrome. Canadian Journal of Physiology and Pharmacology, 2012, vol. 90, no. 9, pp. 1151–1159. ISSN 0008-4212.

OŠŤÁDAL, P. – KRÜGER, A. – ZDRÁHALOVÁ, V. – JANOTKA, M. – VONDRÁKOVÁ, D. – NEUŽIL PETR, – PRŮCHA MIROSLAV, Blood levels of copeptin on admission predict outcomes in out-of-hospital cardiac arrest survivors treated with therapeutic hypothermia. Critical Care, 2012, vol. 16, no. 5, p. R187. ISSN 1364-8535.

OŠŤÁDAL, P. – MLČEK, M. – HOLÝ, F. – HORÁKOVÁ, S. – KRÁLOVEC, Š. – ŠKODA, J. – PETRŮ, J. – KRÜGER, A. – HRACHOVINA, V. – SVOBODA, T. – KITTNAR, O. – NEUŽIL PETR, Direct Comparison of Percutaneous Circulatory Support Systems in Specific Hemodynamic Conditions in a Porcine Model. Circulation. Arrhythmia and Electrophysiology, 2012, vol. 5, no. 6, pp. 1202–1206. ISSN 1941-3149.

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REDDY, V. – SHAH, D. – KAUTZNER, J. – SCHMIDT, B. – SAOUDI, N. – HERRERA, C. – NEUŽIL PETR, The relationship between contact force and clinical outcome during radiofrequency catheter ablation of atrial fibrillation in the TOCCATA study. Heart Rhythm, 2012, vol. 9, no. 11, pp. 1789–1795. ISSN 1547-5271.

RULSEH, A. – KELLER, J. – KLENER, J. – ŠROUBEK, J. – DBALÝ, V. – SYRŮČEK, M. – TOVARYŠ, F. – VYMAZAL JOSEF, P. Long-term survival of patients suffering from glioblastoma multiforme treated with tumour-treating fields. World Journal of Surgical Oncology, 2012, vol. 10, no. 220, pp. 1–6. ISSN 1477-7819.

SANTACROCE, A. – WALIER, M. – RÉGIS, J. – LIŠČÁK, ROMAN, D. – MOTTI, E. – LINDQUIST, C. – KEMENY, A. – KITZ, K. – LIPPITZ, B. – ÁLVARES, R. M. – PEDERSEN, P. – YOMO, S. – LUPIDI, F. – DOMINIKUS, K. – BLACKBURN, P. – MINDERMANN, T. – BUNDSCHUH, O. – VAN ECK, A. – FIMMERS, R. – HORSTMANN, G. Long term tumour control of benign intracranial meningiomas after radiosurgery in a series of 4,565 patients. Neurosurgery, 2012, vol. 70, no. 1, pp. 32–39. ISSN 0148-396X.

SEIDL, Z. – VYMAZAL, JOSEF, P. – MECHL, M. Does Higher Gadolinium Concentration Play a Role in the Morphologic Assessment of Brain Tumours? Results of a Multicenter Intraindividual Crossover Comparison of Gadobutrol versus Gadobenate Dimeglumine (the MERIT Study). American Journal of Neuroradiology, 2012, vol. 33, no. 6, pp. 1050–1058. ISSN 0195-6108.

ŠEDIVÝ, P. – ŠPAČEK, M. – EL SAMMAN, K. – BĚLOHLÁVEK, O. – MACH, T. – JINDRÁK, V. – ROHN, V. – ŠTÁDLER, P. Endovascular treatment of infected aortic aneurysms. Europ. Journal of Vascular and Endovascular Surgery, 2012, vol. 44, no. 4, pp. 385–394. ISSN 1078-5884.

ŠTÁDLER PETR, – DVOŘÁČEK, L. – VITÁSEK, P. – MATOUŠ, P. The Application of Robotic Surgery in Vascular Medicine. Innovations, 2012, vol. 7, no. 4, pp. 247–253. ISSN 1556-9845.

VILES-GONZALEZ, J. – REDDY, V. – NEUŽIL PETR, – PETRŮ, J. – MRÁZ, T. – KRÁLOVEC, Š. Incomplete occlusion of the left atrial appendage with the percutaneous left atrial appendage transcatheter occlusion device is not associated with increased risk of stroke. Journal of Interventional Cardiac Electrophysiology, 2012, vol. 33, no. 1, pp. 69–75. ISSN 1383-875X.

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Other articles

BRZOBOHATÁ, H. – PROKOP, J. – HORÁK, M. – JANDERČÁK, A. – VELEMÍNSKÁ, J. Accuracy and Benefits of 3D Bone Surface Modelling: A Comparison of Two Methods of Surface Data Acquisition Reconstructed by Laser Scanning and Computed Tomography Outputs. Collegium Antropologicum, 2012, vol. 36, no. 3, pp. 801–806. ISSN 0350-6134.

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Domestic

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MICHÁLEK, P. – STERN, M. – ŠTÁDLER PETR, Anaesthesia and postoperative care in vascular surgery. 1st issue Praha: Galén, 2012. p. 443 ISBN 978-80-7262-891-9.

PETRŮ VÍT, D. Children's allergies. 1st issue Praha: Aeskupal, Mladá fronta, 2012. p. 531 ISBN 978-80-204-2584-3.

PETRŮ VÍT, D. Children's allergies. 1st issue Praha: Mladá fronta, 2012. p. 531 ISBN 978-80-204-2584-3.

ŠROUBEK, J. Neurointensive care. 1st issue Praha: Mladá Fronta , 2012. p. 475 ISBN 978-80-204-2659-8.

Chapters from books

BALÁK, J. Imaging and endovascular intervention methods in vascular surgery, in Anaesthesia and Postoperative Care in Vascular Surgery, Praha: Galén, 2012, pp. 104–125. ISBN 978-80-7262-891-9.

DOLEČEK, L. Anaesthesia and sedation outside the operating room, in Anaesthesia and Postoperative Care in Vascular Surgery, Praha: Galén, 2012, pp. 349–351. ISBN 978-80-7262-891-9.

DOLEČEK, L. Renal dysfunction in vascular surgery patients, in Anaesthesia and Postoperative Care in Vascular Surgery, Praha: Galén, 2012, pp. 399–404. ISBN 978-80-7262-891-9.

KLENER, J. – REMEŠ, F. Subarachnoid haemorrhage, in Neurointensive care Praha: Mladá fronta, 2012, pp. 291–314. ISBN 978-80-204-2659-8.

KOŘÁN MARTIN, P. Current trends in European transport psychology, in Work and organisational psychology in CR: 20.–21. 9. 2012. Praha: Oeconomica, 2012, pp. 78–85. ISBN 978-80-245-1910-4.

KOZÁK, J. – VRBA, I. – MASOPUST, V. – FRICOVÁ, J. – ROKYTA, R. Neuromodulation in the therapy of chronic pain, in Pain Praha: Tigis, 2012, pp. 595–623. ISBN 978-80-87323-02-1.

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NERADILEK, F. – KOZÁK, J. – ROKYTA, R. – VRBA, I. History and present research and treatment of pain, in Pain, Praha: Tigis, 2012, pp. 20–26. ISBN 978-80-87323-02-1.

POPELOVÁ,JANA, – RUBÁČEK, M. – MATES MARTIN, – ŠKODA, J. – NEUŽIL PETR, – TÁBORSKÝ MILOŠ, congenital heart disease, in Clinical Cardiology, Hradec Králové: Nucleus HK, 2012, pp. 707–785. ISBN 978-80-87009-89-5.

ŠIMONÍČKOVÁ, J. The role of nurses in caring for people with allergies, in Children's allergology, Praha: Mladá Fronta, 2012, pp. 209–227. ISBN 978-80-204-2584-3.

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ŠTÁDLER, PETR, – MICHÁLEK, P. Anaesthesia for surgery thoracic outlet syndrome, in Anaesthesia and Postoperative Care, in Vascular Surgery, Praha: Galén, 2012, pp. 255–259. ISBN 978-80-7262-891-9.

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WOHL, R. – BENEŠ, P. General principles of preoperative nutritional assessment and intervention, in Anaesthesia and Postoperative Care in Vascular Surgery, Praha: Galén, 2012, pp. 418–420. ISBN 978-80-7262-891-9.

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KRÁMSKÁ, L. – PREISS, M. – HRADIL, J. Measurement of cognitive deficits in patients after treatment of cerebral aneurysms in Czech and Slovak Neurology and Neurosurgery , 2012, vol 2012, no 108, pp 185–191. ISSN 1210-7859.

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MLČEK, M. – OŠŤÁDAL, P. – BĚLOHLÁVEK, J. – HAVRÁNEK, Š. – HRACHOVINA, M. – HUPTYCH, M. – HÁLA, P. – HRACHOVINA, V. – NEUŽIL PETR, – KITTNAR, O. Hemodynamic and metabolic parameters during prolonged cardiac arrest and reperfusion by extracorporeal circulation. Physiological Research, 2012, vol 61, no Suppl 2, pp 57–65. ISSN 0862-8408.

ONE OF THE MAIN STABILITY GOALS OF NA HOMOLCE HOSPITAL IS THE LONG-TERM QUALITY OF THE SERVICES IT PROVIDES.

NA HOMOLCE HOSPITAL ACCREDITED BY JCI

International accreditation by the Joint Commission International (JCI)

The safety of patients, the high professional standards of the staff and the long-term quality of health care provided by Na Homolce Hospital are the main pillars of its stability. Endeavouring to provide quality health care in compliance with clearly defined standards, Na Homolce Hospital was encouraged to apply for Joint Commission International (JCI) accreditation, which is the global benchmark accreditation for healthcare organisations. In June 2005 Na Homolce Hospital successfully passed the accreditation audit for the first time and on JCI auditors' recommendation, it received the "global badge of quality" – the internationally recognised JCI accreditation, for three years. The second JCI audit was successfully passed in 2008 and the third took place in June 2011. The Hospital defended it yet again successfully with an outstanding result and thus became the hospital with the longest accreditation by international accreditation standards in the Czech Republic. In Europe there are 144 accredited hospitals in 2012.


NA HOMOLCE HOSPITAL
Prague, Czech Republic
has been
Accredited
by
JOINT COMMISSION INTERNATIONAL
QUALITY APPROVAL
JOINT COMMISSION INTERNATIONAL
which has evaluated this Hospital and found it to meet the international health care quality standards for patient care and organization management.
Effective 11 June 2011 through 10 June 2014
Jack Bailey, M.B.A.
Chair
Paula Wilson
President, Chief Executive Officer
Joint Commission International is a division of Joint Commission Resources Inc., an affiliate of The Joint Commission.

Joint Commission International is a worldwide organisation with a more than one hundred year tradition of accrediting healthcare facilities. The accredited hospital guarantees safety and quality of care to the patient by continuously monitoring, analyzing and improving quality indicators in all areas of hospital practice. The JCI accreditation system is based on a package of 331 accreditation standards that comply with all important activities of medical equipment and affect both the immediate care of patients (accessibility and continuity of care, patients and their families rights, diagnostic and therapeutic care, education of patients and their families, quality of care and safety of patients, prevention and checks on hospital infections) and also safety, effective and proper management of the hospital (management and leadership, ensuring safety of hospital environment, qualification and education and training of staff, information management and communication).

Each standard is further divided into individual indicators that describe what the hospital must do to accomplish the given standards. There are 331 JCI standards that contain 1,033 indicators in total. An International team of auditors assesses compliance with JCI standards and performance of its indicators during a weekly audit. Based on the information gained during this accreditation survey, which the audit team submit in a final report, the JCI Accreditation Committee headquarters in Chicago then gives a final judgement as to whether or not accreditation will be granted.

Accreditation of laboratories in accordance with international standards ISO 15189 and ISO 9001

ISO 15189:2007

Since 2011 the system of quality management in accordance with ISO 15189 by the Czech Institute for Accreditation (ČIA) has been given to the following laboratories, **OKBHI** (Department of Clinical Biochemistry, Haematology and Immunology), **IA** (Immunological Laboratory), Biotic Laboratory and Department of Pathology, **KMAS** (Clinical Microbiology and Antibiotic Station).

Standard ISO 15189, "Medical laboratories – special requirements for quality and competence", has been focusing on professional management of laboratories such as the passage of investigated samples, conditions for blood taking, collection of biological material, interpretation and provision of results and also the safety and ethics of laboratory work. The accreditation quality management system in laboratories in accordance with ISO 15189 implies an increased confidence in compliance with the required level of services provided.


OSVĚDČENÍ O AKREDITACI

č. 255 / 2011

Nemocnice Na Homolce
se sídlem Roentgenova 37/2, 150 30 Praha 5, IČ 00023884,
zřízen Zřizovací listinou Ministerstva zdravotnictví č.j. MZDR 2942/2007

pro zdravotnickou laboratoř č. 8126
Oddělení klinické biochemie, hematologie a imunologie (OKBHI)

Předmět akreditace:

Laboratorní diagnostika v odborných klinická biochemie, hematologie, klinická imunologie, imunochemiologie, molekulární genetika a odběr primárních vzorků v rozsahu uvedeném v příloze tohoto osvědčení.

Toto osvědčení o akreditaci vydal Český institut pro akreditaci, o.p.s. na základě posouzení splnění akreditačních požadavků podle

ČSN EN ISO 15189:2007

a po zjištění, že zdravotnická laboratoř je odborně způsobilá objektivně a nestranně vykonávat činnosti uvedené v rozsahu předmětu akreditace.

Toto osvědčení je platné do 10.06.2014

V Praze dne 01.07.2011

Ing. Jiří Růžička, MBA
ředitel
Českého institutu pro akreditaci, o.p.s.


OSVĚDČENÍ O AKREDITACI

č. 85 / 2011

Nemocnice Na Homolce
se sídlem Roentgenova 37/2, 150 00 Praha 5, IČ 00023884,
zřízen Zřizovací listinou Ministerstva zdravotnictví č.j. MZDR 2942/2007 a Přílohou č. 1

pro zdravotnickou laboratoř č. 8115
Laboratoř IA

Předmět akreditace:

Vyšetřování v oblasti nádorové medicíny imunoanalytickými metodami v rozsahu uvedeném v příloze tohoto osvědčení.

Toto osvědčení o akreditaci vydal Český institut pro akreditaci, o.p.s. na základě posouzení splnění akreditačních požadavků podle

ČSN EN ISO 15189:2007

a po zjištění, že zdravotnická laboratoř je odborně způsobilá objektivně a nestranně vykonávat činnosti uvedené v rozsahu předmětu akreditace.

Toto osvědčení je platné do 11.02.2014

V Praze dne 28.02.2011

Ing. Jiří Růžička, MBA
ředitel
Českého institutu pro akreditaci, o.p.s.


OSVĚDČENÍ O AKREDITACI

č. 233 / 2011

Nemocnice Na Homolce
se sídlem Roentgenova 37/2, 150 00 Praha 5, IČ 00023884,
zřízen Zřizovací listinou Ministerstva zdravotnictví č.j. MZDR 2942/2007

pro zdravotnickou laboratoř č. 8123
Hvězdická laboratoř Oddělení patologie

Předmět akreditace:

Vyšetření v oboru histopatologie a cytopatologie včetně imunohistochemických vyšetření a vyšetření perioperačních biopsií v rozsahu uvedeném v příloze tohoto osvědčení.

Toto osvědčení o akreditaci vydal Český institut pro akreditaci, o.p.s. na základě posouzení splnění akreditačních požadavků podle

ČSN EN ISO 15189:2007

a po zjištění, že zdravotnická laboratoř je odborně způsobilá objektivně a nestranně vykonávat činnosti uvedené v rozsahu předmětu akreditace.

Toto osvědčení je platné do 25.05.2014

V Praze dne 17.06.2011

Ing. Jiří Růžička, MBA
ředitel
Českého institutu pro akreditaci, o.p.s.


OSVĚDČENÍ O AKREDITACI

č. 105 / 2012

Nemocnice Na Homolce
se sídlem Roentgenova 2, 150 30 Praha 5, IČ 00023884,
zřízen Zřizovací listinou Ministerstva zdravotnictví, č.j. MZDR 2942/2007

pro zdravotnickou laboratoř č. 8160
Oddělení klinické mikrobiologie a antibiotická ambice (KMAS)

Předmět akreditace:

Laboratorní diagnostika infekčních nemocí v oboru lékařská mikrobiologie v rozsahu uvedeném v příloze tohoto osvědčení.

Toto osvědčení o akreditaci vydal Český institut pro akreditaci, o.p.s. na základě posouzení splnění akreditačních požadavků podle

ČSN EN ISO 15189:2007

a po zjištění, že zdravotnická laboratoř je odborně způsobilá objektivně a nestranně vykonávat činnosti uvedené v rozsahu předmětu akreditace.

Toto osvědčení je platné do 03.02.2015

V Praze dne 16.02.2012

Ing. Jiří Růžička, MBA
ředitel
Českého institutu pro akreditaci, o.p.s.

ISO 9001:2008

Since 2004 the system of quality management in accordance with ISO 9001: 2008 has been given to the Department of Nuclear Medicine by the company Det Norske Veritas for the following activities: provision of diagnostic services by laboratory methods of immunoanalysis and imaging methods such as scintigraphy, computing and positron emission tomography (CT, SPECT, PET/CT) including the preparation of radiopharmaceutical drugs. All services are provided according to an approved policy of quality. The standard is focused on the organisation of the work, process management, management of resources, monitoring and the assessment of efficiency of procedures. Standard ISO 9001 also briefly provides for auxiliary procedures that are set in compliance with the requirements of national legislation (handling and manipulation with waste, handling with dangerous chemical substances, formulations etc.)


DNV

DET NORSKE VERITAS
CERTIFIKÁT SYSTÉMU ŘÍZENÍ

Certifikát č. 80470-2010-AQ-CZS-RvA

Tímto se potvrzuje, že systém řízení ve společnosti

Nemocnice na Homolce
Oddělení nukleární medicíny

Roentgenova 2, 150 30 Praha, Česká republika

byl shledán shodným s požadavky normy dle:

ISO 9001:2008

Certifikát je platný pro následující rozsah činností a služeb:

Poskytování diagnostických služeb laboratorními metodami imunoanalýzy a zobrazovacími metodami - scintigrafie, výpočetní, jednofotonová a pozitronová emisní tomografie (CT, SPECT, PET/CT) včetně přípravy radiofarmak

Datum původní certifikace: 29. června 2004
Platnost certifikátu do: 29. června 2013
Místo a datum vystavení: Praha, 29. června 2010
Za akreditované místo: DNV CERTIFICATION B.V., THE NETHERLANDS

Audit byl proveden pod vedením kvalifikovaného auditora DNV

Petr Kozel
Vedoucí auditor

Tomáš Urban
Předsedající vedoucí

Nepřijetí certifikačních podmínek uvedených v příloze může vést k. zejména certifikátu.

Rating of patients and staff satisfaction in 2012

Na Homolce Hospital took part in a national survey of patients and staff satisfaction in 2012. It is called "2012 Hospitals of the Czech Republic" and is a complex rating of hospitals. The order is compiled by the Health Care Institute (HCI) based on results from four key areas:

1. **Satisfaction of hospitalised patients**, NNH reached ranking *****, that means more than 80% satisfaction.
2. **Satisfaction of outpatients**, NNH reached ranking *****, that means more than 80% satisfaction.
3. **Satisfaction of staff**, NNH reached ranking ****, 77,5% satisfaction.
4. **Financial health of hospitals.**

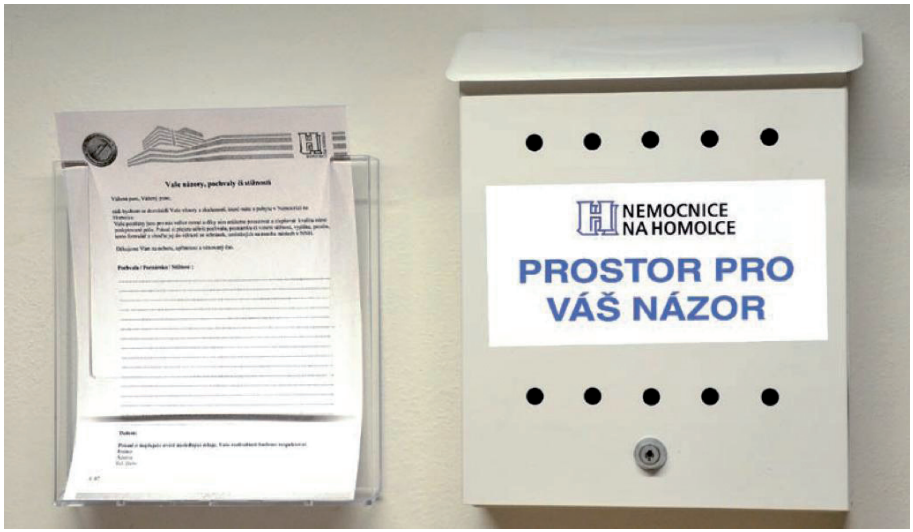
The project took place from 1st March 2012 to 30th September 2012.

From the point of complete satisfaction (the total of the first three categories) Na Homolce Hospital gained the forth place.

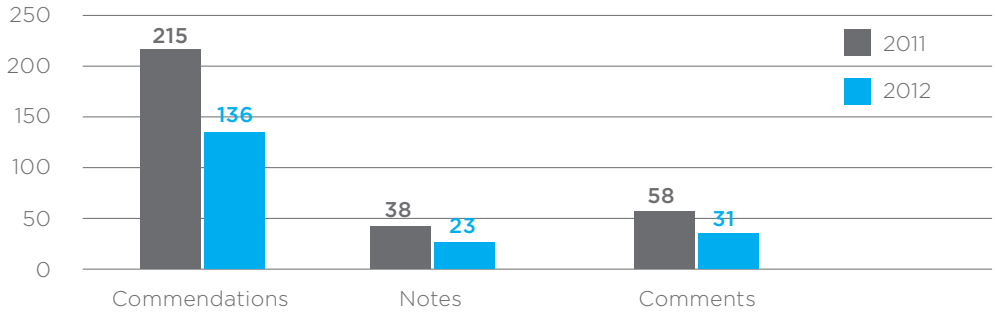
Monitoring of patients satisfaction through patients opinions

Motto: "Different people, different opinions. We deal with all of them though solution is sometimes difficult. "

Opinions of patients are very valuable to us and they are one of the information sources we use to improve the quality of the healthcare we provide. Patients can pass on their opinions, suggestions and comments using forms which they put in letterboxes placed around the hospital in 15 different locations: for example, near Medical Records on the fifth floor by the main entrance to the hospital as well as in all wards and outpatients' departments. You can also find these forms on the hospital web pages.



Comparison between 2011 and 2012



Total number of opinions dealt with in 2011: 311
Total number of opinions dealt with in 2012: 190

We have been monitoring patients' opinions for many years. We are glad that patients appreciate the quality of our care and they even show their satisfaction by praising us.

Examples:
"Na Homolce Hospital is a hospital that I took a liking to it. Several years ago I had a spine operation and I still remember quality and care of your services. When I come for check up, I am always delighted by approach of your staff. Thank you, credit to your hospital. Smile is the best medicine, simple said full of praise. "

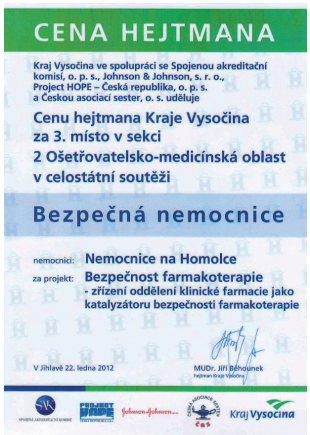
"Compared with other hospitals I can say the care is here exemplary. Care, willingness and devotion are up to standards. A patient is delighted by human approach and smile on doctors and medical staff faces. I am very happy.

Thank you for amazing care of doctors and nurses and thank you everybody for smiles and kindness. "

Projects to increase quality and safety of patients – "Safe Hospital"

Na Homolce Hospital gained **third place in the state wide competition**, "Safe Hospital", that is organised by the Vysočina regional district. The hospital was successful with the project **"Establishment and activities of the Department of Clinical Pharmacy"**, which helps to increase the safety of pharmacotherapy of hospitalised patients.

This competition has been taking place since 2008 and the main goal is to increase knowledge of safety in inpatient healthcare facilities and at the same time to recognise



those facilities that have taken the most important steps to increase safety. The main criteria for assessment are for example a contribution toward increased quality and safety in other facilities or financial efficiency related to an increase in quality and safety. The results of the fourth year of this competition were announced by the Minister of Health, Leoš Heger, and the County Representative of Vysočina District, Jiří Běhounek, on 23rd January 2012 in Jihlava Horácké Theatre. The panel assessed 17 projects in total.

The integration of clinical pharmacists into the procedures of safe medication is a one-off issue in Czech hospitals. The Department of Clinical Pharmacy was established in 2010 in connection with the requirements of international standards of quality and safety Joint Commission international. Clinical pharmacists are the co-workers of treating doctors and nurses in Na Homolce Hospital. Their job is to monitor and point out any medication problems related to pharmacotherapy from their perspective. They not only monitor the risk of the medication prescribed during hospitalisation but also the risks associated with any chronic medication the patient may already be taking before admittance. They assess drug interaction, undesirable side effects, the suitability of a given dosage, its formulation and other aspects. Clinical pharmacists take part in ward rounds, refer to a patient documentation, talk to ill patients and consult on pharmacotherapy problems with doctors and nurses. Thanks to their professional view they prevent a number of problems related to the quite often complicated medication regimes of patients and contribute to higher safety and effectiveness of the treatment.

Changes in legislation

A number of laws and decrees came into force in 2012 controlling rules of healthcare. It mainly concerns Act No. 372/2012 Coll. Health services and conditions of its provision that regulates the relationship between patients and providers. This mainly regulates the rights of patients, defines rights to information for patients and their close family and also obliges patients to follow medical procedures in health facilities. In Na Homolce Hospital the implementation of this law didn't bring any fundamental changes to the routine activities of the medical staff because, to a considerable extent, the wording of the law complies with the requirements of JCI international standards – "Rights and guidance of patients and their close family", which we already follow.

Other new laws and decrees concerning the operation of the hospital are:

- Act No. 373/2012 Coll., On specific health services.
- Decree No. 92/2012 Coll., On minimum requirements for technical and material equipment of health facilities and home care contact centres.
- Decree No. 98/2012 Coll., On medical records.
- Decree No. 99/2012 Coll., Ordinance on requirements for minimum staffing of health services.
- Decree No. 101/2012 Coll., On prescription of medical funds and conditions how to handle them.

- Decree No. 102/2012 Coll., On the quality and safety of patient health care.
- Decree No. 297/2012 Coll., List of inspection deceased.
- Decree No. 306/2012 Coll., Terms of prevention and spread of infectious diseases and health requirements for the operation of medical facilities and social care.
- Decree No. 307/2012 Coll., The location and time availability of health services.
- Decree No. 467/2012 Coll., A list of medical procedures with point system.

National system for reporting adverse events

In January 2012 Na Homolce Hospital participated in a national system for reporting adverse events.

The national system for reporting adverse events consists of an anonymous database which was created within the projects of quality of healthcare and safety of patients. The administrator of the database is the Third Faculty of Medicine of Charles University, in Prague.

The collection of data is ruled by a unified methodology. On a regular basis hospitals receive an assessment of their own results together with those of other healthcare facilities of a comparable size and spectrum of services.

Events monitored in the national system for reporting adverse events:

- Events or circumstances that could result, or have resulted, in physical harm to a patient that could have been avoided.
- Unexpected deterioriration in the clinical status of a patient, if it results in permanent damage or death. We even include the unexpected deterioration in the clinical status of a patient even when it is unknown whether it could have been avoided.

Self-monitoring of adverse events

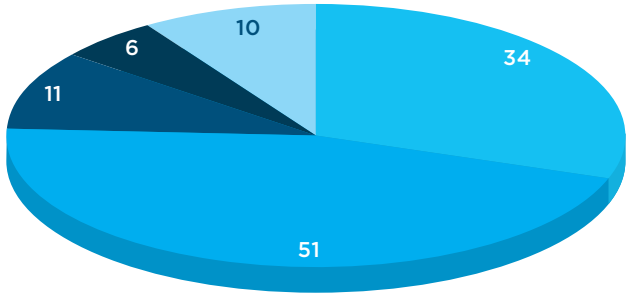
Na Homolce Hospital also monitors adverse events using its own methodology for the purposes of targeted management and safety. This provides a detailed analysis of each event, monitoring of trends in individual events, annual comparison of results and also individual clinical workplaces within the hospital.

Our self-monitored parameters that exceed the requirements of the national system for reporting adverse events include:

1. Extraordinary events in healing and nursing procedures.
2. Errors in the administration of medication.
3. Patient falls.
4. Nosocomial bloodstream infections.
5. Creation of bedsores and a number of others.

112 of extraordinary events were recorded in healing and nursing procedure in 2012.

Extraordinary Events in 2012



- **Type 1** Extraordinary events in diagnostic, healing or nursing process.
- **Type 2** Mistaken identity/performance.
- **Type 3** Error of medical devices or technology during the diagnostic or therapeutic process.
- **Type 4** Unpredictable reaction or change in patient's behaviour.
- **Type 5** Others.

A number of events in the category "Unpredictable reactions or changes in patient's behaviour" increased in 2012 compared with the previous years. There were 6 cases in total in 2012. Fortunately, incidences where a member of staff is physically attacked are rare, however they can occur. Contact is difficult between medical staff and a patient whose aggression is part of his personality. To help prevent incidences arising from the aggressive behaviour of patients we are working together with a psychologist and a brief document has been prepared to manage such situations.

NA HOMOLCE HOSPITAL AIMS TO MAXIMIZE COST EFFICIENCY WHILE ENSURING THE AVAILABILITY OF A WIDE RANGE OF HEALTH CARE

ECONOMIC DATA

Costs	2011	2012
Consumables	1,496,830,854	1,394,936,568
Energy	63,874,457	63,644,937
Sale of goods	113,473,196	113,803,309
Repairs, travel expenses, representation and services	248,301,010	208,643,095
Personnel costs	1,121,019,366	1,183,481,656
Depreciation of fixed assets	160,343,797	160,747,031
Financial and other costs	250,098,728	2,012
Total costs	**3,453,941,407**	**3,319,030,207**

Revenues	2011	2012
Revenues from own products and services	3,045,650,882	3,021,577,597
Revenues from sale of goods	137,333,287	145,602,898
Financial and other revenues	289,291,181	209,681,913
Total revenues	**3,472,275,350**	**3,376,862,409**
Profit (loss) for the current accounting period	18,333,943	57,832,202

Total costs and revenues

	2012	in million CZK
Revenues	3,376,862,409	3,377
Costs	3,319,030,207	3,319
Financial result	57,832,202	58
Material consumption	1,394,936,568	1,395
Personnel costs	1,183,481,656	1,183
Depreciations	160,747,031	161

Cost structure by type

Total	100%
Material	43%
Goods consumption	3%
Energy	2%
Personnel expenses	36%
Depreciations	5%
Other	11%

Total NH Hospital	3,319,030,207	100%
Healthcare sector	2,583,886,124	78%
Commercial sector	182,358,526	5%
Administrative and operational sector	551,183,615	17%

Cost structure by programmes

Total	100%
Cardiovascular programme	37%
Neuroprogramme	10%
General healthcare programme	14%
Complementary examination services	16%
Commercial healthcare	5%
Economy and management	3%
Technical operations	13%
Outpatients outside the main programme	2%

Revenues structure

Total	100%
VZP	58%
Other insurance companies	29%
Private patients	1%
Revenues from sale of goods	4%
Other revenues	7%

Number of points per physician	6,492,611
Number of outpatients' points per a physician	2,180,265

NA HOMOLCE HOSPITAL

2013

Na Homolce Hospital

Roentgenova 2, 150 30 Prague 5
tel.: 257 271 111, fax: 257 210 689, e-mail: hospital@homolka.cz
www.homolka.cz

ACCREDITED BY JCI