



## THE HEALTHCARE SYSTEM IN THE CZECH REPUBLIC

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**T**he Czech Republic may not be the largest country in Europe (78,864 square kilometres) nor have the biggest population (10.2 million), but it still contains treasures in its rich history and beautiful scenery. Formed after the break up of the former Czechoslovakia in 1933, this country, located in the heart of the Europe, became a member of the European Union in 2004 together with nine other countries of central and eastern Europe.

Looking at the gross domestic product, which reached €84 billion in 2004, we see gradual economical growth. Public health uses resources in the amount of 7% of the GDP (compared to advanced European countries, such as France or The Netherlands, where it is about 10%).

### Insurance scheme

The current healthcare system in the Czech Republic was developed after the “Velvet Revolution” in the latter part of the 1980s. According to the constitution, health care must be available to every citizen. Public health insurance either partially or fully covers the costs of health care. There are nine insurance companies, the biggest of which is General Health Insurance Company, which covers 65% of all clients. Basically, all the insurance companies offer the same services; some employee insurance schemes provide slight advantages, such as covering non-standard medical care. There are both state-owned and private healthcare facilities, and almost all of them have contracts with most, if not all, the health insurance companies, thereby treating patients without requiring direct payment.

A sick patient usually turns to a primary care doctor of his or her choice. If a patient's condition requires specialised

care, he or she is recommended to an appropriate medical facility that has a contract with the patient's health insurance company. Nevertheless, the patient has the right to choose both the medical facility and physician. The specialist physician then informs the general practitioner of his or her findings and treatments. In the Czech Republic the patient may also visit a specialist without a recommendation from the primary care doctor. A patient is discharged after treatment in a hospital and receives any necessary medications for a three-day period. He or she also receives a report for the general practitioner describing the methods and results of treatment. This report also includes any recommendations for further treatment.

### Healthcare institutions

There are 195 hospitals, including hospices, in the Czech Republic with a total of 65,000 beds. More than 25% of these can be found in 11 teaching hospitals. Teaching hospitals are established by the Ministry of Health; their purpose is to educate medical students of seven faculties of medicine and pharmaceutical students of two pharmaceutical faculties.

The average length of a hospital stay is eight days. Ward care is also provided in a variety of other medical institutions, including psychiatric clinics, rehabilitation centres, mental institutions, tuberculosis and respiratory disease centres and convalescent homes. As of the end of 2004, there were 35,500 physicians in the Czech Republic. Fifty-three percent of all physicians were working in ambulatory care and 44% in ward facilities. Also as of the end of 2004, there were 5,500 pharmacists working in the country. Of these, 600 are hospital pharmacists.

### Medicaments

The average cost of medicaments per citizen is approximately €210 per year, and these costs are growing annually by about 7%. Treatment costs are relatively high, but more than 90% is covered by state resources. The patient pays about 9% of medication expenses, including medical devices. Pharmacies provide prescription and non-prescription medicaments and medical devices to patients. Medicines are issued to patients at either no charge (if it is fully covered by the health insurance company) or with an appropriate charge (if the health



⇒ The Vltava River and Charles Bridge in Prague

insurance company covers the price only partially or not at all).

As of the end of 2004, there were 2,400 pharmacies in the Czech Republic, 80 of them hospital pharmacies. Therefore, there are about 4,250 citizens per one pharmacy. Pharmacies are supplied with medicaments by distribution companies, which are intermediaries between the manufacturer and the pharmacy. Some international distribution companies have their own network of public pharmacies, as is the case in other European countries.

The authority supervising quality, safety and effectiveness of medicine and medical technology is the State Institute for Drug Control (SIDC), which also grants a marketing license for new medicines to be used in the country and provides its opinion on the medicine's clinical studies. It also provides information services for all health institutes.

The last several years have seen an increase in medicaments provided in unit dose form, but, for certain groups of patients, the hospital pharmacy prepares special unit-dose packages, such as those for newborns and for patients in intensive care. Hospital pharmacies also act as departments for the preparation of cytotoxic substances, generally to treat cancer patients – an area that requires the most stringent safety precautions. The model of clinical pharmacy common in Europe is performed rarely in the Czech Republic.

## Hospital pharmacists

By law, every working pharmacist must be a member of the Czech Pharmaceutical Chamber, which was founded in 1991. The Chamber is responsible for providing and improving the education of pharmacists and for promoting the profession to the general public. It also issues the magazine *Casopis českých lékárníků* (*Journal of Czech Pharmacists*).

The Czech Pharmaceutical Society (CPS), by contrast, is a long-standing organisation. Founded in 1875, the hospital pharmacy section was created in 2000. Because hos-

pital pharmacies provide services to outpatients as well as in-patients, they have some specific features in common with public pharmacies.

Hospital pharmacists in the CPS organise an annual congress that draws more than 300 pharmacists from all over the country to share professional news and practical experience. Because international cooperation and exchange of knowledge is so important, in 1998 CPS hospital pharmacists became a member of the European Association of Hospital Pharmacists (EAHP). Representatives from the Czech Republic regularly take part in EAHP activities, including the general assembly, the congress and its Scientific Committee (Dr Marcella Heislerova).

The latest effort of hospital pharmacies in the Czech Republic is to introduce a quality management system by satisfying the requirements of ISO 9001:2000 and gaining certification.

## Hospital pharmacies

The services of the Czech Republic's 80 hospital pharmacies are divided between private services directly to hospital staff and public services to outpatients. Hospital pharmacies also maintain a consultation centre. Patient records are stored, which enable pharmacists to answer patients' questions regarding correct taking of prescriptions, interactions with other prescription or non-prescription drugs, including dietary supplements, and advice on lifestyle changes to improve health. Consultations also allow patients to practice (with placebos) using inhalers, sprays, pumps or injections before doing it on their own at home. These activities of consultation centres increase patients' knowledge of correct therapy and thereby improve compliance.

Larger hospital pharmacies prepare medications and admixtures that cannot be prepared in public pharmacies because of required equipment and proficiency level. This includes sterile preparations, such as infusions, all-in-one parenteral nutrition or eye drops. These pharmacies also provide

preparations for dermatological indications, such as ointments, gels and creams for hospital and public pharmacies.

New areas for the preparation of cytostatics have been developed in hospital pharmacies in the last few years. Previously, parenteral admixtures of cytostatics were prepared by nurses directly in oncological departments in inadequate conditions. In order to improve safety standards and quality, this activity has been moved into pharmacies where better qualified professionals take care of the preparation. The required standards are further secured by using bio safety cabinets or isolators in a specially designated environment. This also limits the need for training other medical personnel in cytostatic preparation.

Charles University and Phoenix - the largest drug distributor in the country, both operate medicine information centres, which answer questions from both specialists and the public. They use databases and information sources such as Thomson Micromedex and the Martindale Center and provide answers to questions concerning risks of interactions.

The hospital pharmacy's main task is, of course, to supply the hospital with medications. In the Czech Republic, there are almost no unit-dose systems. Nurses prepare the necessary doses for hospitalised patients; the role of clinical pharmacy is not fully accepted in the Czech healthcare system at the moment, despite the evidence of economic and patient safety gains in other European countries. Nevertheless, hospital pharmacists contribute more and more in decision making regarding provision and delivery of medicaments at the patient's bedside and are becoming more part of the multi-disciplinary hospital medical team.

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