

HOSPITAL PHARMACY IN THE CZECH REPUBLIC: TODAY AND IN THE FUTURE



Martin Simicek, PharmDr

In this paper I will describe the range of activities of pharmacists in a typical Czech Republic university hospital and also trends of pharmaceutical care in hospitals. St Ann's is one of two university hospitals located in the city of Brno, which is the second largest city in the country with a population of 450,000. The hospital was founded in the 18th century and today has 960 beds (with a high percentage of intensive care beds). There were 30,127 hospitalised patients in 2005 in its 33 departments, which employ 2,463 people.

In the Pharmacy Department are 20 pharmacists, 30 pharmaceutical assistants, six officers and 11 members of support staff. Because hospital pharmacies provide services to outpatients in the Czech Republic, you'll find a larger staff than in many other countries. Hospital pharmacists here spend most of their time dispensing prescriptions from non-hospital physicians. At St Ann's, we fill more than 3,000 prescriptions per day in our three outpatient departments. This naturally includes a substantial amount of administrative work, including invoicing the prescriptions to health insurance companies.

Preparing orders of medications is also part of our daily routine. There are four main distributors of drugs in the Czech Republic. To take advantage of lower prices, we also order medications directly from pharmaceutical companies. Cost of medications is one of the most significant factors in the economic health of the hospital.

During the last three years we have improved the consultation services for our patients. We now have separate rooms open every day for consulting about using drugs, adverse reactions and interactions. We are able to measure blood pressure, and many

patients take advantage of this service regularly. We help patients with obesity problems with diet and nutrition counselling, and patients with asthma can practice with sample inhalers. Many patients come to the consultation centre for advice on how to stop smoking.

St Ann's pharmacy is also equipped with a drug information centre, which employs two pharmacists responsible for providing current and accurate medicines information to customers, who can be physicians, nurses, patients or other pharmacists. The centre, which is funded by the hospital, provides information in all medicine and pharmaceutical disciplines about interactions of drugs, adverse reactions, toxicity, incompatibilities, problems of therapy in gravidity and lactation, and so forth.

For hospital inpatients, St Ann's utilises computerised medical prescribing from our clinics and wards. The programme tracks what was distributed to the ward and offers each user a form with a list of medicines to check off. It then automatically compares the order with the hospital formulary. The formulary is approved and regularly updated by the hospital's drug committee, which includes two pharmacists. If the prescribed medicine is not in the formulary, the doctor has to fill in the name of the patient, the diagnosis and the reason why this drug is prescribed. The system also includes prices of all drugs, calculates the total price of a complete order and monitors the budget of the clinic or ward for a specific period.

Prescribing and use of antibiotics is under the authorisation of the antibiotic centre. The physician has to fill in the identified microbe and its sensitivity to antibiotics next to the patient's name and diagnosis. If the microbe is still unknown, the doctor has

to specify in writing the reason for prescribing antibiotics. The order is then sent to the antibiotic centre at the microbiologic clinic for approval, which then sends it on to the pharmacy.

We have a designated area for cytotoxic drug admixture under aseptic conditions equipped with two negative pressure isolators (Envair). We prepare individualised chemotherapy doses for patients with cancer. The ordering programme is able to calculate body surface and dosing of drugs according to different specific regimes. The pharmacist checks the doses and prepares instructions for the pharmaceutical assistant, who actually prepares the cytostatic dose. We also prepare about 15 standard formulations of parenteral nutrition (all-in-one) in our pharmacy.

An important part of the pharmacist's daily work is to teach and train the students of the Pharmaceutical Faculty. Although a few pharmacists provide clinical pharmacy in the wards, there is not a long tradition of this practice in the Czech Republic, and courses at the university are not oriented this way.

In my opinion, there are two main targets for hospital pharmacy work in our country. The first is to improve and broaden even further consultation services for outpatients. The second is the better integration of pharmacists into the clinical team in hospitals. We must work to persuade doctors of the usefulness of transferring part of their work and responsibility to pharmacists.

Author

Martin Simicek, PharmDr
Pharmacy, St Ann's University Hospital
53, Pekarska
CZ-65691 Brno, Czech Republic
martin.simicek@fnusa.cz