

Clinical Pharmacy Education, Organization and Methodology in the Czech Republic

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Specialization / Education

The clinical pharmacy (CP) specialization in the Czech Republic is based both on a thorough postgraduate training focused on drug use in various fields of medicine which is guaranteed by actively working clinical pharmacists and on 5 years of clinical praxis.

List of mandatory courses (*not comprehensive*)

Clinical biochemistry

Hematology, cardiovascular diseases, antiplatelet and anticoagulant drugs

Pharmacotherapy of nervous system diseases

Liver failure, pharmacotherapy of lipid and glucose disturbances

Renal impairment, extracorporeal elimination methods

Rational use of antibiotics

Drug interactions, special patient populations (elderly, children, pregnancy, breastfeeding), intoxications

Safety of pharmacotherapy

Methodology of clinical pharmacy practice

Organization

The Czech Professional Society of Clinical Pharmacy *founded in 2010*

- Methodology of clinical pharmaceutical care
- Strategy for clinical pharmacy promotion
- Negotiations with other professional organizations, Czech ministry of health and health insurance companies

The position of a clinical pharmacist starts to be fully independent on pharmacy itself as new departments of clinical pharmacy arise. Clinical pharmacists work at departments with various medical orientations which gives a background for further specialization.

Clinical pharmacists and CP departments (2018)

157 members of Czech Professional Society of CP

25 clinical pharmacy departments – part of pharmacy

15 pharmacy-independent clinical pharmacy departments
(*preferred model*)

Legislation in the Czech Republic

CP must be available for all inpatient facilities. Since 2016 three CP procedures are covered by health insurance companies:

CP procedures covered by health insurance

- risk stratification according to medical risk (on admission)
- proposing a plan for medication adjustments
- reviewing the efficacy of proposed changes (acceptance by physicians, effectiveness of intervention)

Methodology of Clinical Pharmaceutical Care

Wards with a complex systemic medical review:

- **Pro-active screening** of medical records and seeking potential drug related problems of **all admitted patients**
- **Collaboration with attending physicians**
- **Regular ward rounds**
- **Asking questions directly to patients**
- Patient **medication is classified according to risk factors** as low, medium or high risk
- When drug-related problem is identified a written **recommendation** is provided
- **Repeated pharmacist's controls** for medium and high risk patients
- **Patient education** (in case of need)

Wards without a complex systemic medical review:

- Direct counselling after a physician's request.

Results & Conclusions

A pilot study (6 months)²

- 1000-bed hospital with four clinical pharmacists
- 17 % of all admitted patients were screened (n = 3946)
- 42 % were evaluated as medium or high risk
- 884 drug therapy recommendations were made with
(*more than 90 % acceptance rate*)

Conclusions: Standardized, effective and controlled system of work in clinical pharmacy department was established.
More clinical pharmacists are needed.



The Czech Professional Society of Clinical Pharmacy
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