



## **Clinical Pharmacy in Clinical Practice: Development and Implementation in the Czech Healthcare System in the Light of US Standards**

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### **Background**

In the Czech Republic, Clinical Pharmacy has been developing in clinical practice recently. In the past, even if the Clinical Pharmacy Postgraduate Specialization Program allowed pharmacy graduates become Clinical Pharmacy Specialists, there were not any appropriate positions available in the Czech healthcare system, which specialists could apply for.

In 2010 the first requests for Clinical Pharmacy Specialists arose in several hospitals, based on American commissions for the accreditation of hospitals. As an indicator of the quality of care these commissions require a routine therapeutic evaluation of the medication given to incoming patients from the time of admission until discharge, which has to be provided by qualified specialists. Consequently the first systematic positions of clinical pharmacist were created in several hospitals in the Czech Republic.

I started working as a clinical pharmacist under the supervision of my tutor Jana Gregorova, M.Sc. in 2010 at the Department of Surgery at the Na Bulovce Hospital in Prague. In the beginning this was an optional activity as an employee of the Hospital Pharmacy, and later on in 2010, when the Department of Clinical Pharmacy was officially established at the hospital, I continued working as a clinical pharmacist at the surgical Intensive Care Unit (ICU) and in the Inpatient Department of Surgery for full-time job.

I was one of the first practitioners of Clinical Pharmacy in the Czech Republic. Together with my colleagues we decided to demonstrate the utility and necessity of the work of Clinical Pharmacists in the Czech healthcare system apart from the accreditation of hospitals. In 2010 we established the Czech Society of Clinical Pharmacy through which we were successful in enforcing clinical-pharmaceutical care, as a new quality of care, in state legislation.

As a member of the Board of the Czech Society of Clinical Pharmacy I have a direct responsibility for the coordinated development of Clinical Pharmacy in the Czech healthcare system, for the setting and maintenance of methodology of Clinical Pharmacist's work and for the effectiveness of the education of Clinical Pharmacy Specialists.

To my knowledge there are no Clinical Pharmacists experienced enough in clinical practice at Intensive Care Unit in the Czech Republic, neither there exist any special course of training focused on the area of Intensive Care pharmacotherapy in the Czech system of education of Clinical Pharmacists. In my view the US system of Clinical Pharmacy practice is the best established system in the world. The American Clinical Pharmacists work in many different health

care environments, including the area of Intensive Care. Therefore I have decided seek an opportunity to learn more directly from American colleagues.

On September 2012 I was able to attend Clinical Pharmacy Week in Vienna for the first time. It is a unique event in Europe where American Clinical Pharmacists give lessons in the area of Clinical Pharmacy and Pharmacotherapy. There, I was lucky enough to meet one of the lecturers Rebecca Attridge, Pharm.D. She works as an assistant professor at the Department of Pharmacy Practice at the University of The Incarnate Word in Texas and as a Pharmacotherapy Specialist in the Intensive Care Unit at the Division of Pulmonary Diseases and Critical Care Medicine at the University of Texas Health Science Center in San Antonio. I described the situation in the field of Clinical Pharmacy in the Czech Republic to her and I told her about my idea of gaining experience in the US system of Clinical pharmacy practice. We agreed to find a way how I could gain this experience at her University and Hospital.

### **American Partners**

Internship: University Health System - the University Hospital, nationally recognized academic medical center, San Antonio, Texas

Executive Training: The University of the Incarnate Word, Feik School of Pharmacy, San Antonio Texas.

### **Objectives**

The overall objectives of my program are:

- ⤴ to gain direct experience with Clinical Pharmacist's work in an Intensive Care Unit: to observe methods of identification and resolution of drug related problems, the creation and upgrade of therapeutic guidelines
- ⤴ to understand the role of the Clinical Pharmacist within the healthcare system: especially focusing on job description, competency, responsibility and the role of the Clinical Pharmacist in multidisciplinary teams
- ⤴ to use the acquired knowledge for the development of the methodology of Clinical Pharmacist's work in the Czech republic, especially focusing on the area of Intensive Care; and for establishment of the position and competency of Clinical Pharmacists in the Czech healthcare system
- ⤴ to gain an insight into the education of American Clinical Pharmacy Specialists

### **Detailed Description**

During my two months internship I will shadow clinical pharmacists in the Intensive Care Unit (ICU). My internship will start at the Medical Intensive Care Unit at the University Hospital in San Antonio under the supervision of Rebecca Attridge, Pharm.D. Then I will have a chance to observe some of her colleagues in other ICUs, so I can learn the specific approach of clinical pharmacists working at different areas of intensive care medicine, such as surgical/trauma ICU, neuro-surgical ICU and emergency medicine.

At the University of the Incarnate Word, the Feik School of Pharmacy, I will attend a training course focused on infectious diseases. I was also invited to participate in faculty meetings and faculty development. It will give me other ideas about the organization and structure of the educational system.

I plan to go to the annual American College of Clinical Pharmacy meeting in Albuquerque, New Mexico. This meeting is designed for health professionals involved with clinical pharmacy. There, I can obtain a lot of new and high-quality information that will be both challenging and applicable in my clinical practice.

I will have an opportunity to participate in local meetings of the Texas Chapter of the Society of Critical Care Medicine. As a member of the Board of the Czech Society of Clinical Pharmacy, I will be interested in gaining an insight into the functioning of the US medical society.

### **Organization and Time Schedule**

My project will last two months, from the beginning of September until the end of October 2013.

#### **September:**

- ⤴ 3-4 weeks internship at the Intensive Care Unit at the University Hospital under the supervision of Rebecca Attridge, Pharm.D..
- ⤴ The rest of the internship in other ICUs (Conrad Gamboa surgical/trauma ICU; Colleen Barthol neurosurgical ICU; and Darrel Hughes emergency medicine).
- ⤴ Participation in local meetings of the Texas Chapter of the Society of Critical Care Medicine

#### **October:**

- ⤴ First week on clinical service; remaining time to be spent with Rebecca Attridge, Pharm. D. at the University of the Incarnate Word attending the infectious disease module.
- ⤴ Attending faculty meetings and faculty development
- ⤴ October 13-16 attending the annual American College of Clinical Pharmacy (ACCP) meeting, Albuquerque, New Mexico

## Program Cost

Item	Cost in US\$
Executive training seminars (registration fee and costs for ACCP meeting)	1,500
Internship	0
Administrative fees (visa, liability insurance, etc.)	1,000
International travel	1,800
Local transportation (including national flight at ACCP meeting)	750
Medical insurance	50
Monthly maintenance	4,000
Contingency	1,500
<b>Total</b>	<b>10,600</b>

## Program Benefits

- ⚡ **At my work position:** Thanks to this program I could implement experience obtained from my internship to my daily clinical practice. It would help me establish my position in a multidisciplinary team in the Department of Surgery, especially in the Intensive Care Unit. I could better define the area of my responsibility in providing patient care by optimizing medication therapy. My experience could be enriching also for my other colleagues in my department.
- ⚡ **In the field of clinical practice:** As a member of the Board of the Czech Society of Clinical Pharmacy I can directly apply my experience obtained in the US by working on the standardization and formation of the methodology of the work of Clinical Pharmacists. Also, The Board of the Czech Society of Clinical Pharmacy could use my experience from the US as an example of a working system helping to prove the utility of role of Clinical pharmacists in the Czech healthcare system when dealing with the state institutions such as the Ministry of Health. The project could also help us to define and establish the responsibility and competency of Clinical Pharmacists in the Czech legislative.
- ⚡ **In the system of education:** By gaining insight into the US system of education I could implement some of the ideas and methods to the Czech Clinical Pharmacy Postgraduate Specialization Program.

## Risks

I think the main risk to my project lies in the difference in organization and functioning of the US and the Czech healthcare systems. Therefore, it could be difficult to implement all my experiences directly into the clinical practice. Nevertheless, together with my colleagues I already have experience building up a system of work and education suitable for Czech conditions, so I believe I will be able to apply the knowledge gained in the US to the Czech healthcare system.