



## E-LEARNING IN PROJECTS ADVANCING THE MEDICAL TRAINING OF PHYSICIANS AND HEALTHCARE PROFESSIONALS



Mgr. Vendula Bílková

Chief Project Coordinator - E-learning (IPVZ)

### Abstract

Two projects “Advancing the Medical Training of Physicians and Healthcare Professionals” are currently being implemented by the Ministry of Health as part of the Operational Programme “Human Resources and Employment”, which is funded by the European Social Fund and Czech state budget. Both projects provide free education for physicians and healthcare professionals in various fields, both in the form of attendance at conferences, seminars and workshops, as well as electronically in the form of e-learning.

**Key words:** e-learning, specialised preparation for physicians and healthcare professionals

### Introduction

19 e-courses have been prepared as part of the Advancing the Medical Training of Physicians project and 12 e-courses as part of the Advancing the Medical Training of Healthcare Professionals project since 2010. All 31 e-courses will be opened for study in the 1<sup>st</sup> and 2<sup>nd</sup> quarter of 2012.

In 2010, the Institute of Postgraduate Education in Healthcare (IPVZ) in Prague became the principal supplier for the projects Advancing the Medical Training of Physicians and Advancing the Medical Training of Healthcare Professionals, which will be concluded and evaluated in 2013.

### Advancing the Medical Training of Physicians

As part of the Advancing the Medical Training of Physicians project, interesting conferences, seminars and workshops for 3,280 physicians and pharmacists with expert or specialised qualifications have already commenced, together with courses and placements for 3,700 dentists with expert or specialised qualifications.

Thanks to this project, 120 Czech physicians from medical teams providing emergency and resuscitative care and treatment for seriously injured patients in hospital emergency wards can take part in foreign, licensed and certified courses in Advanced Trauma Life Support (ATLS) for the first time in 2012, and subsequently become trainers of these courses themselves.

Physicians with specialised qualifications in various fields have been studying certified courses at accredited centres according to training programmes for fields requiring special expert qualifications pursuant to Decree No. 185/2009 Coll. and Act No. 95/2004 Coll. since January 2011.

Physicians and healthcare professionals can now also study the problem of MKN 10 coding free of charge and in 2012, a course will be opened for managers of predominantly directly controlled organisations focusing on issues relating to the economics of healthcare and healthcare facilities and the management of healthcare facilities.



## E-learning for Physicians with Various Specialisations

In the 3 years of the project, a total of 19 e-courses will be prepared for physicians. Doctors interested in study will be able to register for the first 9 e-courses in the 1<sup>st</sup> quarter of 2012. General practitioners will be able to refresh and revise their knowledge prior to certification by completing e-courses focusing on ophthalmologic and dermatological issues. Gastroenterologists will be able to assess their level of knowledge of problems relating to the gastrointestinal tract in 6 e-courses prior to certification: Barrett's Syndrome, GIT Bleeding, Endoscopic Treatment of Early Gastric Neoplasia, Colorectal Carcinoma, Oesophageal Achalasia and Pancreatic Cancer. For epidemiologists, primary care physicians, infectious disease specialists and others interested in travel medicine, an e-course on the Basics of Tropical and Travel Medicine for Physicians is being currently prepared.

Another 10 e-courses will be opened for study in the 2<sup>nd</sup> quarter of 2012. For general practitioners, there will be an e-course on Sudden Abdominal Incidents; for gastroenterologists, there will be an e-course dealing with the issue of Hepatitis C and an e-course on M. Crohn and Ulcerative Colitis – Biological Treatment. Plastic surgeons will be another target group of e-courses in the project, and with the help of e-learning will be able to extend their knowledge of Congenital Anomalies of External Male Genitalia, Post-Traumatic Plastic Surgery for Children, and last, but not least, Hand Surgery. Epidemiologists, as well as physicians with other specialisations following the completion of a basic course, will be able to advance their knowledge in e-courses on: Basics of Clinical Epidemiology, EBM from the Perspective of Clinical Epidemiology, Basics of Hospital Hygiene and Epidemiology. The final planned e-course will be a specialisation course for general practitioners and the final target group of e-learning in the project will be physicians classified in the extension field of Occupational Medicine.

## Advancing the Medical Training of Healthcare Professionals

Healthcare professionals, i.e. graduates of study programmes required to pursue their relevant profession pursuant to Act No. 96/2004 Coll., have been studying accredited qualification courses in 12 fields at accredited centres since the end of 2010 as part of the project Advancing the Medical Training of Healthcare Professionals.

Healthcare professionals with qualifications to pursue healthcare or other expert professions pursuant to Act No. 96/2004 Coll., can also study certified courses to enable them to acquire special qualifications for narrowly defined activities in the field of concretely specified healthcare professions pursuant to Act No. 96/2004 Coll.

As in the project Advancing the Medical Training of Physicians, educational activities in the form of conferences and seminars for healthcare professionals and educational activities, placements, courses, conferences and seminars for healthcare professionals working in dental care have been taking place since 2011 as part of the project Advancing the Medical Training of Healthcare Professionals.

As well as typical attendance courses, no less interesting studies are also being planned for physicians and healthcare professionals in both projects free of charge, for the duration of these projects, in the form of e-learning.



## E-learning for Healthcare Professionals

11 e-courses for nurses – patient educators for patients with various types of complaints will commence at the beginning of 2012 as part of the project Advancing the Medical Training of Healthcare Professionals. Educators will be acquainted with the topic of patient education in general, legislation, the issue of quality management and patient safety, the principles of communicating with patients, ethical standards of conduct, as well as learning how to educate, for example, patients with diabetes mellitus, renal or neurological disorders. As well as these e-courses, there will also be an e-course on Tropical and Travel Medicine for Healthcare Professionals designed for pharmacists working independently in pharmacies, nurses at doctor's surgeries and other healthcare professionals.

## IS ZEUS and the E-learning Platform

The ZEUS information system for IPVZ provides complete records of individual educational courses. For those interested in study, the system offers a complete overview of open courses with a specification of required qualifications and training instructions. Healthcare professionals can register for individual course dates, follow the course of their application and also have a personal overview of certificates acquired from completed training courses. The ZEUS system also includes e-learning functionality through the integrated LMS iTrivio module, which enables students to complete e-learning courses, including final tests and discussion forums.



## Example of e-course on GIT Bleeding

Krvácení do gastrointestinálního traktu

**VZDĚLÁVÁNÍ ZDRAVOTNÍKŮ**  
PROFESIONÁLNÍ A ZPŮSOBNĚ UČEBNĚ OBOŘOVÝCH ZNALOSTÍ

Informace o e-kurzu  
Ikony použité v textu  
Informační zdroje

- ▼ Blok I. – Krvácení do horní části trávicího
  - 1. Krvácení do HČTT etiologie a patc
    - 1.1 patogeneze vzniku krvácení do hc
  - ▼ 2. Nevariceální krvácení do HČTT
    - ▼ 2.1 Etiologie nevariceálního krvácení
      - 2.1.1 Eroze žaludku
        - 2.1.2 Peptické ulcerace žaludku**
        - 2.1.3 NSAID gastropatie
        - 2.1.4 Ulcus dieulafoy
        - 2.1.5 Angiodysplázie, angiektazie
        - 2.1.6 Refluxní ezofagitida
        - 2.1.7 Mallory- Weissův syndrom
        - 2.1.8 Nádorová onemocnění
        - 2.1.9 Stromální tumory GIST
      - ▶ 2.2 Vstupní multioborová péče o paci
      - ▶ 2.3 Terapie nevariceálního krvácení
        - 2.4 Souhrnný terapeutický postup u
    - ▶ 3. Variceální krvácení
      - Závěr I. bloku
  - ▶ Blok II. – Krvácení do dolní části trávicího
    - Závěr bloku II.
    - Závěr
    - Závěr kurzu

### 2.1.2 PEPTICKÉ ULCERACE ŽALUDKU A DUODENA

Jak jste se dozvěděli v úvodu kapitoly vředová choroba gastroduodena představuje statisticky nejvýznamnější zdroj krvácení do horní části trávicího traktu. Ulcerace na rozdíl od eroze již přesahují muscularis mucosae.




Hlavním etiopatogenetickým činitelem je infekce *Helicobacterem pylori* a **abusus nesteroidních antiflogistik**.

Mezi další příčiny ulcerací může být porucha mikrocirkulace u kriticky nemocných pacientů a Zollinger Ellisonův syndrom, který se projevuje mnohočetnými floridními ulceracemi v postbulbárním duodenu.

Krvácení z ulcerace může být různého charakteru a intenzity.

Tiže krvácení se klasifikuje podle **Forrestovy klasifikace**, kterou názorně ukazuje následující tabulka s procentuálním vyjádřením mortality a možné recidivy krvácení. V příložené klasifikaci vidíme i jednotlivé typy krvácejících lézí.

Forrestova klasifikace

Stage	Popis	Mortalita	Rebleeding	Obrázek
F Ia	Krev stříká	11%	55%	
F Ib	Krev roní	11%	55%	
				

## Conclusion

On conclusion of the projects in April 2013, all e-courses will remain open to those interested in study as part of the learning management system (LMS), i.e. the learning environment in which study takes place, though they will be provided for a fee.

## More information on the projects

[www.vzdelavani-zdravotniku.cz](http://www.vzdelavani-zdravotniku.cz)