

H E P M P

HIGHER EDUCATION PAIN MEDICINE PROJECT

The analysis of
education offer
in pain medicine
in Croatia



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List of Abbreviations

CBHE	Capacity Building in Higher Education
D&E	dissemination and exploitation
EACEA	Education, Audiovisual and Culture Executive Agency
EC	European Commission
EU	European Union
GA	Grant Agreement
HCWs	Health Care Workers
HE	Higher Education
HEI	Higher Education Institution
HEPMP	Higher Education Pain Medicine Project
LLL	Life Long Learning
NEO	National Erasmus+ Office
PA	Project Adviser
PA	Partnership Agreement
PC	Project Coordinator
PCC	Partner Country Coordinator
PCs	Partner Countries
PCT	Partner Country Team
PgCC	Programme Country Coordinator
PgCs	Program Countries
PgCT	Programme Country Team
PM	Pain Medicine
PMB	Project Management Board
QCB	Quality Control Board
TL	Task Leader
TLs	Task Leaders
UB	Faculty of Medicine University of Belgrade, Belgrade, Serbia
UBBL	Faculty of Medicine University of Banja Luka, Bosnia and Herzegovina
UF	Faculty of Medicine University of Florence, Italy
UHDM	University Clinical Hospital Centre "Dr Dragisa Misovic-Dedinje" Belgrade, Serbia
UK	Faculty of Medical Sciences University of Kragujevac, Kragujevac, Serbia
ULj	Faculty of Medicine University of Ljubljana, Slovenia
UP	Faculty of Medicine University of Podgorica, Montenegro
UR	Faculty of Medicine University of Rijeka, Croatia
UT	Faculty of Medicine University of Tuzla, Bosnia and Herzegovina
WP	Workpackage

I About the HEPMP project

1.1 The HEPMP project summary

Funding: Erasmus+

Key Action: KA2 Capacity Building in Higher Education

Type of project: Joint Projects

Coordinating Institution: University of Belgrade

The main aim of HEMP project is to increase quality of education in pain medicine in order to contribute to the improvement of public health care services and PCs in line with the Health 2020. In Serbia, Montenegro and Bosnia and Herzegovina there is a significant problem of large percentage of the population who suffers from cancer, rheumatic and neurological diseases, while education in the field of pain medicine is insufficient. In fact, one of the priorities of the strategy Health 2020 improvement of the quality of medical services and continuously adapt to changing patterns of disease. Aim of this project is developing an interdisciplinary program in Pain Medicine at the under / postgraduate studies by applying new methodologies and specific learning outcomes in partner country universities. The introduction of the modernized study program of pain medicine is important for improvement of the quality of higher education that will contribute to improve the health care of the population. Moreover, one of the aims is establishment of academic network that would allow the exchange of knowledge of HCWs in Serbia, Montenegro and Bosnia and Herzegovina. The main tool of this network would be development of educational PAIN REGION WB Network which will enhance regional cooperation and education of pain medicine of all partner country universities.

Also, one of the HEPMP aims is delivering of trainings of pain medicine in order to increase skills and competences of health care workers (HCW) in PCs . Training would be for the two target groups: the first type of courses would be for HCWs who work in primary health care centres and daily dealing with the management of pain medicine, and other types of courses would organized in the form of highly specialized training for interventional treatment of pain for doctors who work in tertiary institutions. During the project will form the learning material in the form of brochures for courses and textbooks on pain.

1.2 The HEPMP project consortium

No	Institution	City	Country
1	University of Belgrade	Belgrade	Serbia
2	University of Kragujevac	Kragujevac	Serbia
3	University of Tuzla	Tuzla	Bosnia and Herzegovina
4	University of Banja Luka	Banja Luka	Bosnia and Herzegovina
5	University of Montenegro	Podgorica	Montenegro
6	University of Florence	Florence	Italy
7	University of Ljubljana	Ljubljana	Slovenia
8	University of Rijeka	Rijeka	Croatia
9	KBC Dr. Dragisa Misovic-Dedinje	Belgrade	Serbia

1.3 The HEPMP Managing Board

No	Name and Last Name	Institution
1	Prof. dr <i>Predrag Stevanović</i> ,	University of Belgrade, Project Coordinator
2	Prof. dr Jasna Jevđić	University of Kragujevac
3	Prof. dr Vladimir Đukić	KBC dr Dragiša Mišović
4	Prof. dr Danko Živković	University of Montenegro
5	Prof. dr Jasmina Smajić	University of Tuzla
6	Prof. dr Darko Golić	University of Banja Luka
7	Prof. dr Anđelo Rafele De Gaudio	University of Florence
8	Prof. dr Maja Šoštarić	University of Ljubljana
9	Prof. dr Željko Župan	University of Rijeka

II Report of analysis of education offer in pain medicine in Croatia

The Croatian Society for the Treatment of Pain is the largest multidisciplinary professional organization in the field of pain in Croatia. Membership covers physicians of various specialties who are actively involved in diagnosing and treating pain and in researching the pain for the benefit of patients. Every year, the number of members is increasing. Society was registered in 2000 as a professional society of the Croatian Medical Association. It is a multidisciplinary, most of which are physicians specializing in anesthesiology, neurology, oncology, physics, family medicine, surgery and orthopedics. Today, it has over 150 members. The aim of Society is to promote education, training, research and development in all areas of pain by raising professional and public awareness of the presence of pain. It is involved in all aspects of pain and its treatment through the work of the board of directors, special interest groups and working committees, so as through its publications, annual scientific meetings and educational seminars.

The Croatian Society for the Treatment of Pain is a member of two important associations. The first one is International Association for the Study of Pain (IASP). IASP is the leading professional forum for science, practice, and education in the field of pain. Their mission is to unite physicians to work together for pain relief throughout the world. The European Pain Federation, formerly the European Federation of IASP Chapters (EFIC), is a multidisciplinary professional organization in the field of pain and medicine that gathers 29 European members of the IASP. The Croatian Society for the Treatment of Pain is a member of EFIC.

During 2017, several courses and symposiums were held in Croatia in order to train new skills and get new findings about the pain and its treatment.

In February 2017, at the Clinical Hospital Center Osijek, in the organization of the Croatian Society for the Treatment of Pain and Croatian Medical Association, it was held the course named “Ultrasound guided peripheral blocks in regional anesthesia and pain treatment”. It lasted for three days. The aim of this course was to educate attendants how regional anesthesia techniques provide better postoperative analgesia leading to faster mobilization of patients after surgery with fewer

thromboembolic incidence, and ultimately reduced number of days patients spent in the hospital. Workshops and simulations that were held during the course are considered as crucial acquisitions of manual skills necessary for long term knowledge in this technique. Each attendant had a chance to independently exercise co-ordination “hands-probe-eyes-needle” on the phantom using ultrasound, as well as finding structures in certain anatomical areas on live models. All attendants acquired basic skills to perform the peripheral blocks of upper and lower limbs with the help of ultrasound with the aim of relieving patients’ pain during and after surgery.

In organization of the Croatian Society for the Treatment of Pain and Faculty of Medicine in Osijek, in April 2017 at Clinical Hospital Center Osijek, course named “Acute pain – new findings in pathophysiology and treatment” was held. The course was intended for all physicians, especially specialists of family medicine, anesthesiologist, surgeons, and all medical nurses and technicians. The course presented basic recommendations of EFIC to improve treatment of acute pain – priorities and changes, so as organizational models and treatment protocols. It was discussed about epidemiological data, frequency of acute pain in the hospital departments, metabolic and endocrine responses on pain, and impact on the outcome of treating acute pain. Pathophysiological mechanisms of pain based on research models were also presented. It was discussed about the advantages and disadvantages of oral and parenteral treatment of pain with an emphasis on tips for using medications wisely. Regional anesthesia techniques, including epidural and spinal anesthesia and analgesia, were also presented as one of main principals in treating acute pain. New findings about patient-controlled analgesia were also discussed. Part of the course were also basic principles and protocols in children pain treatment.

Every year, so as in 2017, at Clinical Hospital Centre Osijek, two-day course called “Acupuncture in the pain treatment” is held. After basic anatomy classes, mechanisms of acupuncture analgesia were presented. Indications, contraindications, and possible complications of acupuncture treatment were explained. After each theoretical part, exercises followed, and acupuncture analgesia of head and spine, so as in different types of neuralgias was discussed. Also, acupuncture in some conditions such as diabetic ketoacidosis, musculoskeletal pain, and herpes zoster was

also demonstrated. Examples of application of acupuncture in children were also demonstrated.

In organization of Croatian Society for Acupuncture, every year is held basic course of medical acupuncture. It begins at the end of September, and it is maintained in monthly weekend cycles through 122 theoretical and practical workshops, deployed over a one year. It is planned for 20 attendants. Plan and program of this course includes the basics of acupuncture with a view on historical development, so as on acupuncture points and meridians, also on Zang - fu organs. Program also includes theoretical and practical knowledge from acupuncture in different fields of medicine such as in physical medicine and sport, neurology, psychiatry, gynecology and obstetrics, so as in emergency medicine. The course ends with the exam for all attendants, and with the introduction to the advanced course. This is an example of course that is traditional, and it opens opportunities for further advancement in order to improve knowledge on the field of pain medicine.

The emerging trend has been towards the development of Pain Centers and Pain Clinics within which pain is the central focus. Pain medicine has, through the years, become academic discipline specialized in the management of pain associated with a variety of medical conditions, typically using a multidisciplinary approach. At the University of Rijeka, the development of sub-specialization in “Pain medicine” is still in the beginning. There are some courses and lectures within the Faculty, where this kind of medicine can become closer to the students, and on that way, create interest for further development and learning in this field of medicine.

In Faculty of Medicine, University of Rijeka, course titled “Pain-Causes, Diagnosis and Treatment” under course coordinator Ass. Prof. Kristina Pilipović, MD, PhD is held as elective course within Integrated undergraduate and graduate study program Medicine on third year. The main objective of this course is to establish the biological foundations of pain occurrence, methods of its recognition and validation with regards to types and intensity levels of the pain. Also, course objective is to provide to students information on the pharmacological and non-pharmacological methods of pain therapy. Following the completion of the course the students can expand already acquired knowledge on the physiology, pharmacology and the psychology of pain, be able to differentiate various types of acute, recurrent and

persistent (chronic) pain with regards to the mechanisms of occurrence, evaluation and therapy of the pain, understand the consequences of non-treatment of the pain and learn to recognize the individuals in which the risk of inadequate pain therapy is present, learn to use proper and reliable methods of pain assessment, learn the basics of pain pharmacotherapy, including the prevention and treatment of side effects emerging from the use of commonly used analgesics, acquire knowledge on the basic non-pharmacological methods of pain treatment, and obtain knowledge on the basics of the psychological approach according to the perception of the intensity and the quality of pain in the individuals. Evaluation of student's work is through course attendance (10%), seminar paper (20%), oral presentation (10%), written exam (30%), and continuous evaluation (30%). On the fifth year, within the Integrated undergraduate and graduate study program Medicine, Faculty of Medicine, University of Rijeka, course named "Anesthesiology, reanimatology, and intensive care medicine" is held. As the part of the course is lecture provided by Prof. Dr. Vlatka Sotošek Tokmadžić named "Treatment of acute and chronic pain". It includes basic knowledges about the pain and how to use scales intended for patients pain assessment. Students are introduced to the basics of opioid and non-opioid analgesics, so as the way they are used in pain treatment. They also learn about non-pharmacologic pain treatment, and also how to have multimodal approach to a patient with pain.

At the Faculty of Health Studies, University of Rijeka, course titled "The physiology of pain" under course coordinator Prof. Dr. Vlatka Sotošek Tokmadžić, MD, PhD, is held on the first year of Undergraduate Professional Study of Midwifery. This course is provided through 15 school hours of lectures, and the main aim is acquisition of basic knowledge about the physiology of pain. Course contents include definition of pain and basic mechanisms of pain occurrence, types of pain, receptors and pain signaling, methods of pain measurement, characteristics of pain during childbirth and their treatment. Students are required to attend classes regularly. The final exam is a written exam that consists of 40 questions of a single answer. The final grade is the result of a written exam success.

Summarizing all of the above-mentioned courses and study programs during last few years, including the year 2017, it can be seen that there is a great interest in the field of pain medicine in Croatia, and especially at University of Rijeka. Major importance of this courses is in a long term medical education with the development of skills throughout workshops. Comparing with countries like Serbia, we can conclude that major disadvantage is the lack of sub-specialization that is the most important way to develop pain medicine in Croatia. Sub-specialization is the best way to organize education in this field of medicine. There is a need for more projects, meetings, study programs on the undergraduate and graduate studies that can be implemented in the evolvent of pain medicine sub-specialization in Croatia. Cooperation with Ministry of Health is of main importance.

Strengthening Capacities for Higher Education of Pain Medicine in Western Balkan
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