

H E P M P

HIGHER EDUCATION PAIN MEDICINE PROJECT

Comparative analysis
on education offer in pain
medicine in programme
and partner countries



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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 Comparative analysis on education offer in pain medicine in programme and partner countries

Analysing curricula of Integrated undergraduate and graduate university study Medicine in the city of Rijeka, we concluded that education in Pain Medicine is part of these subjects:

- Pharmacology – during the lectures, students get known with the non-opioid and opioid analgesics so as with the local anesthetics. These learning aspects include pharmacodynamics and pharmacokinetics of above-mentioned drugs, so as the indications, contraindications, side effects and toxicity for each of them.
- Physiology and pathophysiology – include introducing the pain physiology as well as neurophysiology to the students. This is important because the knowledge gained during this course is the basis for further understanding of the concept of pain and its treatment.
- Internal medicine - during this subject, students learn about the diseases and conditions that lead to pain. In the first meeting with the clinical practice, students can examine the patient, set up a working diagnosis, and present their treatment views that also includes pain management.
- Neurology - learning about peripheral nervous system diseases including the neuralgias of different nerves on the head and neck, and so as the headache. Neuralgia and headache are known as one of the leading diagnosis in the field of pain medicine and its treatment.
- Oncology – this course is based on learning about the patient with the malignant disease. Some of the malignancies lead to cancer pain which is chronic, and usually very strong so students get known with some basic management approaches to chronic pain using opioids and transdermal patches.
- Rehabilitation medicine – students get acquainted with the methods of physical therapy as a nonpharmacological approach to pain treatment.
- Family medicine – includes a holistic approach to the patient and learning about acute and chronic pain management in basic knowledge and clinical practice.

Based on the mentioned lectures as a part of curricula which include Pain Medicine management, we can say that we are side by side with some universities like the University of Kragujevac, University of Tuzla, and the University of Banja Luka, where the pain is also introduced in this learning lectures. This can be attributed to the Bologna process introduced among medical studies in Europe. The advantage of our faculty is more knowledge about the pain that is introduced to students through the clinical practice in emergency rooms and family medicine practices in the last year of the Integrated study of Medicine. Through this way of education, they gain a better foundation for further acquaintance in the field of Pain Medicine.

The post-graduate study in Pain Medicine at Faculty of Medicine in Rijeka is implemented as a part of a postgraduate specialist study for the residents of Anesthesiology, Reanimatology and Intensive Medicine, so as for the residents of Emergency Medicine. This post-graduate specialist study consists of three trimesters including mandatory and elective subjects which in total consists of 60 ECTS. The post-graduate study in Pain Medicine does not exist as a separate program study but the students can take lessons of Pain Medicine through the elective subject on the last trimester. The subject includes 14 hours of lectures and 8 hours of seminars. Except this elective subject directly related to the Pain Medicine, during third trimester there are mandatory modules that also include pain management and that are:

- Regional anesthesia and local anesthetics – consists of 20 hours of lectures, 9 hours of seminars, and 11 hours of the practical part;
- Anesthetics and analgesics, muscle relaxants and their antagonists – consists of 20 hours of lectures, and 2 hours of seminars.

Based on the regulations for specialist training in the field of Anesthesiology and Intensive Medicine for residents in Croatia, two months of Pain Medicine management is provided – one month for acute pain, and one month for chronic pain during the third year of specialization. Regional anesthesia is a part of the first-year specialization.

Comparing this knowledge with other post-graduate studies such as in Bosnia and Herzegovina, Serbia, and Montenegro we conclude that in comparison with University in Banja Luka we have longer education about pain medicine in specialist training; they have only one month of education. Comparing with the University of

Banja Luka and Tuzla we can say that we have better post-graduate study because our specialist study includes also mandatory and elective subjects which are part of Pain Medicine management. At the University of Podgorica, there are no classes organized in the field of Pain Medicine. Pain management is implemented only through palliative care in the graduate course of Family Medicine. Based on this information, we think that we have much more progress in Pain Medicine comparing with Montenegro. At last, comparing with Serbia, we can say that there is still much ahead of us. At our university, sub-specialization in Pain Medicine is not formed.

We propose to establish an independent post-graduate study in pain medicine at the Faculty of Medicine Rijeka. The study would last for three trimesters that would be consist of lectures seminars, workshops, and clinical practice. Included subjects will be the following:

- Acute pain management,
- chronic pain management,
- regional anesthesia,
- cancer pain management,
- obstetric pain management,
- alternative methods of pain management.

Comparing the post-graduate specialist study for Anesthesiology residents we can say that we have almost the same program as the post-graduate study at the University of Kragujevac.

In the field of Pain Medicine, there are different training events that are organized in Croatia. The most important one is a course named „Ultrasound-guided peripheral nerve blocks in regional anesthesia and pain management". This course presents the example of intervention pain treatment that is not held yet in countries like Serbia, Bosnia, and Herzegovina or Montenegro. We can say that we are leaders in regional anesthesia pain treatment, and we try to educate all participants through vivid lectures and practice to apply the best form of intervention pain treatment in everyday practice. Also, for the last four years at the Faculty of Medicine Osijek, it is held Croatian Congress of pain management with international participation. It represents the most important expert meeting of the Croatian Society for the Treatment of Pain-Croatian Medical Association. Congress is aimed at physicians

(those in family medicine), oncology, anesthesiology, neurology, and surgical professions. This congress combines theoretical and practical knowledge through the interactive workshops that are performed on cadavers. Comparing our education with education, in the first line with Serbia, and also with Bosnia and Herzegovina, and Montenegro, we can say that we have more training events that are based on the practical treatment of pain. We are based on ultrasound-guided techniques of pain management, such as different workshops on the cadavers. We think that intervention therapy is a field in which we can educate other colleagues from partner countries. In contrast, we need more education about pharmacological pain treatment, especially in the field of chronic pain management including palliative care. A good example is the Belgrade International Symposium on Pain that was held in May 2017.

We think that we have a lot to learn each from another, but that Croatia is on a good way to form a subspecialization in pain medicine, so we could have pain specialists who can treat properly patients who suffer from pain in different forms. Patients who suffer from pain are global health problem, which usually leads to the high consumption of medications, the higher disability rate, and increased medical cost treatments. Forming this sub-specialization we will try to prevent all these disadvantages for further health development.

Strengthening Capacities for Higher Education of Pain Medicine in Western Balkan
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