

## EVENT REPORT FORM

Project title	Strengthening Capacities for Higher Education of Pain Medicine in Western Balkan countries
Project acronym	HEPMP
Project reference number	585927-EPP-1-2017-1-RS-EPPKA2-CBHE-JP
Coordinator	University of Belgrade
Project start date	October 15, 2017
Project duration	36 months

Event	Acute pain, importance and treatment, part I
Type of event	WP3 (Development of LLL courses and interventional pain medicine courses) 3.4. Delivering of LLL courses of pain medicine in primary health care centers of PCs
Venue	Faculty of Medicine, University of Banjaluka
Date	05 <sup>th</sup> July, 2019
Organizer	Faculty of Medicine University of Banjaluka
Reporting date	12 <sup>th</sup> August, 2019.

Report author(s)	Darko Golic
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Project number: 585927-EPP-1-2017-1-RS-EPPKA2-CBHE-JP (2017 – 3109 / 001 – 001)

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## EVENT DESCRIPTION

### with special reference to goals and outcomes

<b>Number of participants at the event</b>	104
<b>Participants (organisations)</b>	UCC Republic of Srpska, PCs Banjaluka, GH Gradiska, GH Prijedor, Institute for the Physical Medicine and rehabilitation “ Dr Miroslav Zotovic” Banjaluka
<b>Event description:</b>	

The main objective was to develop LLL course about acute pain management and deliver it to health care professionals in Primary and Higher levels of health care centers in Banjaluka and Republic of Srpska. After the development of the training material, selection of trainees, and accreditation of the course by The Ministry of Health and Social Welfare , the course was held for the purpose to give basic education regarding acute pain management considering that undergraduate studies do not include modules of pain medicine.

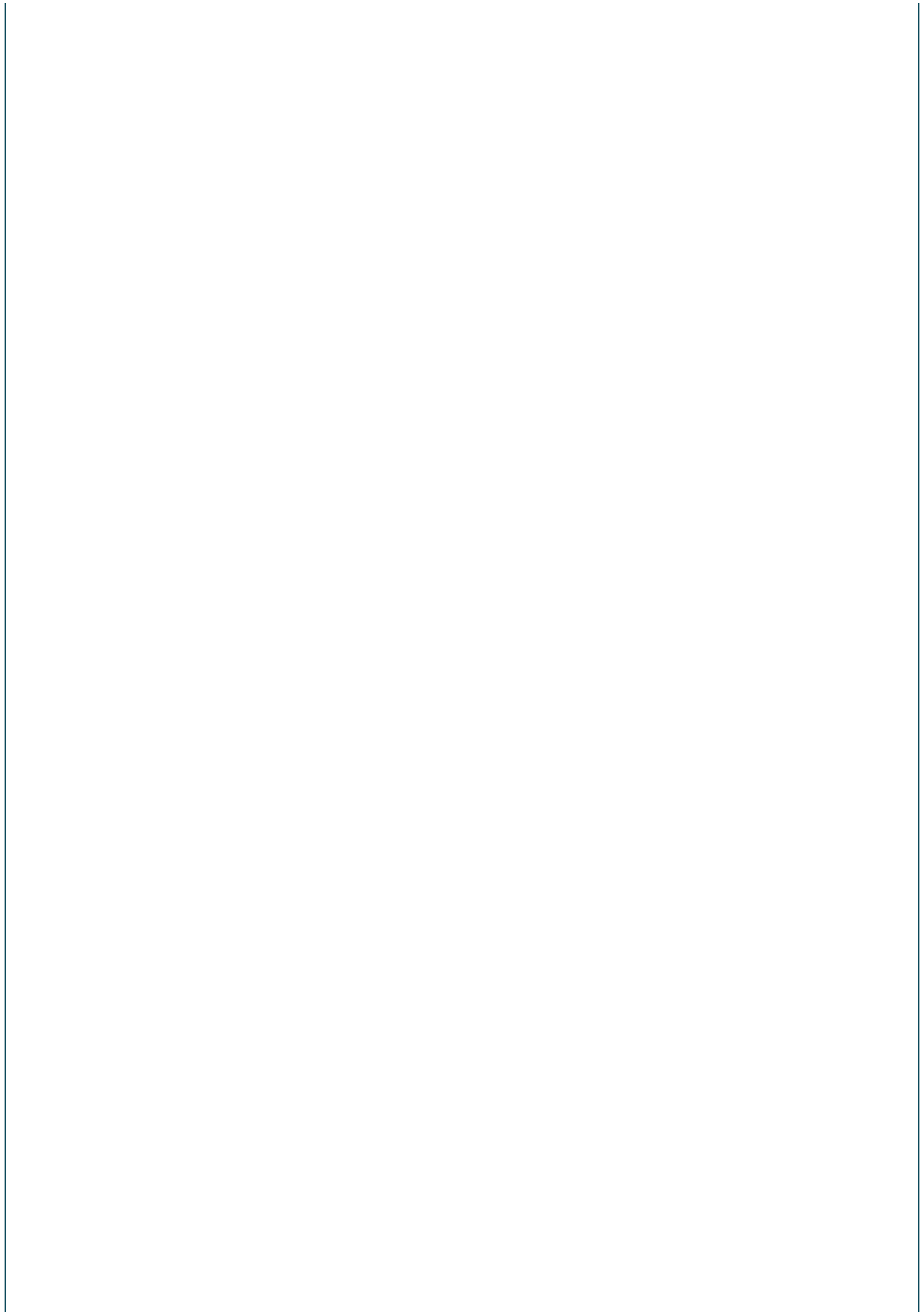
**Objectives of the course:**

- Pathophysiology of pain
- Teach participants to explain the difference between acute and chronic pain
- Teach participants to explain the difference between nociceptive and neuropathic pain
- Point out the importance of pain as the fifth vital sign and the pain intensity estimation
- Pain intensity estimation methods
- Learn about the importance of acute pain treatment and prevention of chronic pain syndrome
- Learn how to divide the most commonly used analgesics
- Learn the indications, counter-indications and unwanted effects of the most commonly used analgesics

**Description of activities -**

After drawing up a draft of educational material, nine lecturers were selected who, each in the area for which they were delegated, wrote the material and made a presentation. The overall educational material is systematized, prepared in a demanding format and sent for the printing of the handbook received by all participants. Educational event was accredited as a first category seminar with the highest number of CME points. The accreditation notice is posed by mail, the pdf version of which is enclosed with this document. A flyer was prepared in which a

program of events was presented, as well as a decision on accreditation. Leaflet is digitally edited on the official site of the Faculty of Medicine of Banjaluka, the University of Banjaluka and the Newsletter of the University Clinical Center of Republic of Srpska. In addition, the leaflet was sent in the form of a call to potential participants.



coordinator of the University of Banjaluka , professor Golic, welcomed the audience and announced the Dean of the Faculty of Medicine of the University of Banjaluka, who greeted the lecturers and the participants. He highlighted the importance of the participation of the Faculty of Medicine in Banjaluka in this project, as well as the importance of the topic being dealt with. Then a project coordinator, Prof. Stevanovic, said that he welcomed all the people present and stressed the importance of the project and the implementation of health care education activities on the issue of pain, which is very significant but often insufficiently understood. Then there was an introductory lecture through which the participants were introduced to the HEPMP project, its goals and tasks. After that professor Stevanovic gave an first lecture about of pathophysiology of pain. He emphasized the importance of knowlwdgw of the pathophysiology of for understanding pin medicine and its treatment. The second topic was postoperative pain and it was immediately pointed out that numerous studies showed poor pain control after acute trauma. Inadequately treated post-traumatic pain can lead to serious complications and exacerbate the general condition of the patient, and is not always proportionate to the degree of tissue damage. By contrast, timely and adequate analgesia accelerates the process of healing injuries, reduces stress response, decreases morbidity and mortality, reduces the length and cost of hospital treatment. It has been emphasized that inadequately treated posttraumatic pain results in the occurrence of chronic pain syndrome with the incidence shown after certain types of injury. Therefore, it is necessary immediately to initiate resuscitation (ABCDE principle) and stabilization of vital parameters to include appropriate analgesia, except for unstable patients. In this lecture are also presented methods of pain estimation and methods for pain management: psychological and physical treatment, and pharmacological pain therapy. Various analgesics groups that are used to treat post-traumatic pain as well as their possible adverse effects are shown. The importance of multimodal analgesia was emphasized, with analgesics combined with different mechanism of action. There was a presentation on postoperative pain, and at the very beginning the difference between acute and chronic pain and the postoperative pain after the major surgery were presented. Then the factors that affect the intensity of the postoperative cause and the reasons why it is necessary to prevent and treat postoperative pain are explained. Postoperative pain must be treated adequately for ethical and human reasons because providing effective pain control is professional responsibility, and inadequate pain management is a bad medical practice. Postoperative pain control is also necessary for preventing a range of physiological and psychological disorders that can be caused by pain. One of the physiological disorders is chronic post-surgical pain syndrome which is more difficult to cure than acute pain, and occurs with an incidence of up to 80% after some surgery. It has been pointed out that due to the quality of postoperative treatment, TA, HR, temperature and consciousness need to be

monitored and the pain that is therefore defined as the fifth vital sign. Since pain is always subjective in assessing pain intensity, one should always ask the patient: make pain visible.

Some of the scales for assessing pain intensity are shown. It has been emphasized



that treatment with postoperative pain should begin already in the preoperative period, whereby anaesthesiological and surgical team collaboration is indispensable. Preemptive and preventive analgesia concepts have been clarified. In the further discussion, the significance of analgesic treatment during the intraoperative period is shown in order to reduce stress response intensity to surgical trauma as well as intraoperative administration of some drugs that prevent and reduce postoperative pain intensity. Then, certain groups of drugs that can be used to treat postoperative pain, the mode of administration and the dosage, as well as individual analgesic combinations, are depicted depending on the type of operation. It is also shown in which types of operative interventions it is expected that the intensity of postoperative pain, and hence a certain combination of combinations. A short break has allowed the educators and the participants to cheer, but also to discuss the presented topics in informal circumstances. During the fourth lecture, the participants had the opportunity to listen to acute headaches. Headache is one of the most common symptoms in medicine in general (as leading or one of the symptoms of the disease). One of the most common reasons for a patient's arrival at a family doctor. There is a breakdown of acute headaches, and then highlighted the most important of each type of headache. The risk factors, the clinical picture as well as the ways of treatment with possible complications are shown. The lecturer completed his presentation with Makijaveli's statement At the beginning of the disease, it is difficult to set dg, but treatment is easier. With the flow of time, diagnosis is easier, but treatment is getting harder. In the next lecture, the lecturer presented to the participants acute lumbar syndrome defining it as a sudden and severe pain in the area of the lower part of the spinal column, followed by reduced mobility. It can be reported as acute pain (lifting the cargo or following direct trauma of the lumbar spinal cord segment) or chronic (after lifting the cargo, long walking, work in a forcible position, an inconvenient movement). Acute lumbar pain syndrome is the most common reason for visiting a family medicine practitioner, and the most common reason for surgical treatment. The leading cause of disability is less than 45 years. In the further presentation, the lecturer explained the type of pain in ALBS. The pain of lumbodorous radiculopathy is a radical pain - "tearing, snapping, twisting", the path of pain spread is clearly defined and the patient can show it with his fingers. The pain is strengthened for longer periods of time or for certain body positions as well as at certain times of the day. In coughing, sneezing, and defect - worsening of pain. The patient occupies an antalgic position, saving the

sick leg. After rest and rest there is a reduction in pain. Lumbar syndrome episodes in 90% of cases pass spontaneously, do not need to rush into additional laboratory or radiological treatment except in unclear cases and when general symptoms, weakness, or certain neurological symptoms point to acute events are present. Recommendations for the treatment of acute back pain: analgesics and nonsteroidal antireumatics alone, muscle relaxation alone, combination 1 and 2

(proved more effective and much more popular). The conclusion is that ALBS

should be understood by serious and proper diagnosis to identify those for urgent neurosurgical treatment, treating symptomatic, leading the symptom of pain. When using analgesics and NSAIDs, consideration should be given to the onset of these medications (most of them are 1-2 days). The following presentation was devoted to complex regional pain syndrome. Participants are enrolled with definite and shared KRBS, methods of diagnosis and treatment. KRBS is a painful condition where pain is disproportionate to the initial event in time and degree, with distal predominance and the existence of sensory, motor, co-motional, vasomotor and / or trophic changes and the inability to explain pathology to some other condition. The cause is multifactorial: immune, autonomic dysregulation, neuronal plasticity, psychological factors, genetics. Treatment is multimodal: pharmacotherapy, physical therapy, botulinum toxin A, intrathecal application of baclofen, sympathetic nerve block, spinal cord stimulation, spinal dorsal ganglion stimulation. Then there was a lecture on acute pain chronology. In the introductory part, the lecturer highlighted the advantages of good acute pain treatment: early release of patients from intensive care units with shorter total duration of treatment, less serious complications that significantly extend treatment time, fewer days of physical disability (work), significantly reduced treatment costs a healthier system, greater patient satisfaction, reduced frequency of chronic pain development, more efficient use of health care staff, more efficient and rational use of expensive hospital equipment. The lecturer stressed that the causes are bad acute pain treatment: clinicians are undereducated about the need to treat acute pain, and the consequences of untreated, in most hospitals, the intensity estimation pain is not performed, more than 50% of all hospitals in Europe do not have pain management protocols, in more than 50% of the hospital's pain is treated only at the patient's request, there is a tendency not to recognize the pain intensity, which states the patient, there is no general consensus on optimal choice of analgesic medicine and techniques for individual clinical conditions, there is no interdisciplinary co-operation of a clinician in treating pain and the responsibility for bad treatment. In the following lecture, the participants have been implicated with results of poor acute pain treatment, which arises because untreated acute pain is the most powerful stress response trigger that triggers a vitally cascading metabolic and inflammatory response cascade. One of the consequences of badly treated acute pain is the occurrence of chronic pain syndrome. The lecturer presented chronic postoperative pain syndrome as a consequence of specific neurobiological changes in the central

nervous system (CNS) caused by prolonged inflammatory nociception and osteoarthritis (neuropathy), lasting longer than 3-6 months. He pointed out that HPPS is becoming a silent epidemic, an unrecognized and underestimated professional and public health problem that requires additional attention and training of specialists involved in the patient's surgical treatment. After this presentation came another coffee break during which, along with the

refreshment, participants talked about the complex problem of pain. Lectures on

therapeutic pain methods followed. The first was a lecture on the use of opiates in acute pain therapy. In the introductory presentation, the opiate division as well as the mechanism of action through the opioid receptors is presented. The World Health Organization's recommendation for analgesics is recommended in the following exposition, suggesting that mild pain is recommended for neophyte drugs, for mild to moderate pain unbiotic in combination with mild opiates, and for the treatment of severe pain they recommend opiates in combination with anxiolytics, antiemetics and muscle relaxants. It is emphasized that opioids are the only analgesic group in which dosage titration must be carefully performed. In the following exposition, the characteristics of certain opioids, as well as the use of opioids in the treatment of chronic pain, are presented. A lecture on the application of central nerve blocks in the treatment of acute postoperative pain was followed. The beginning of the lecture showed the division of regional anesthesia, and then the characteristics of epidural analgesia. In the course of the lecture, the drugs used in epidural analgesia, doses, ways of administration, as well as possible unwanted effects are shown in detail. There are also combinations of certain drugs used for epidural analgesia. The rest of the lecture was devoted to spinal analgesia and the use of opioids for this purpose. Fentanyl and morphine, as lipophilic and hydrophilic opioids for spinal analgesia were compared, and the doses to which they are applied. The last lecture was devoted to multimodal analgesia in acute pain therapy. The lecture began with the definition of pain, as an individual, subjective experience associated with actual or potential tissue damage, whose manifestation is the result of a complex interplay of physiological and neurochemical effects with psychosocial factors. The pathophysiological characteristics of acute pain, as well as the changes occurring in the organism, are shown if the pain is not treated adequately. The significance of the pain intensity estimation is highlighted and several scales that can be used for this purpose are shown. In the further discussion, multimodal analgesia is defined as the use of two or more analgesics with a different mechanism of analgesic activity, with analgesics being applied in the same or different way. According to ASA recommendations, whenever possible multimodal technique should be used, consideration should be given to the use of central neuroblasts / local anesthetic in combination with NSAIDs, COXIBs or acetaminophen. In the course of the lecture, some analgesics can be used that can be used for multimodal analgesia, their doses, the modes of administration, the time interval they are to be administered, as well as individual combinations of analgesics. The conclusion of

this presentation is that there should be a protocol for analgesia, and the choice and dose of analgesics to adapt to the patient, operative procedure, presence of other diseases or pain syndromes.

Analgesia should be early, prompt, safe and effective and should not be delayed by expecting a diagnosis. Opioid ignorance and opioid phobia can not be an obstacle to the treatment of acute opioid pain when their use is indicated by the pain of pain. Balanced, multimodal analgesia implies the use of more therapeutic agents and methods that provide, by means of adjuvant and potent synergism, with lower total doses, the superior elimination of pain with less undesirable effects, as well as a reduced response to stress in traumatized or operative. Anxiolysis and sedation, previous analgesia, have an important place in reducing pain response. The significance of regional analgesia and nonpharmacological treatment in acute pain management is increasingly emphasized.

After each lesson the participants had questions, mini discussions were launched, and participants were encouraged to communicate during the break with the HEPMP lecturers in informal circumstances with the Strengthening Capacities for Higher Education of Pain Medicine in Western Balkan Countries. After the presented themes, discussion was opened and the lecturers responded to the participants on all questions related to acute pain and its treatment. Also, the participants were given the recommendation that HEPMP can download educational material in the form of presentations in pdf format. The seminar was completed by solving the knowledge transfer, completing the evaluation questionnaire and awarding the certificates to the trainees. Participants were also presented with acute pain handouts containing all the lectures presented at the seminar, which are in pdf version attached to this document.

At the end of the seminar, the host thanked all participants for their interest and



attendance at the lecture.

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An outbound test of knowledge has been analyzed which provides a

comprehensive insight into the knowledge of the participants after their lectures. By evaluating the course by the educators, it was estimated that the expected outcomes were achieved:

- health professionals (doctors, nurses ...) from HC gained skills in acute pain assessment
- Pharmacists have acquired the skill of rational application of algorithms for pharmacological treatment of acute pain.

An evaluation questionnaire was also analyzed, and the results are given in the annex of this document. The interest in the course was extremely high, as well as a large number of listeners – 104. The participants highly rated the choice of educational topics, the content of the education program, the method used, the duration and organization of the education.

The participants were very presentative topics and discussed with the lecturers the practical examples below. They rated 4.67 as the overall program rating (ou of 5).

The lectures were announced on the website of the Faculty of Medicine of the University of Banja Luka, and the report on the symposium was received at the Radio and Television of Republika Srpska.

<http://www.med.unibl.org/index.php/sr/template/oglasne-table/zdravstvena-njega/content/4-novosti>

## Attachments

<b>Agenda (pdf)</b>	Leaflet Acute pain- Significance and treatment (pdf)
<b>Attendance sheet (pdf)</b>	Annex 4 - HEPMP-attendance list Banjaluka (pdf)
<b>Photos (jpg)</b>	3 (jpg)
<b>Quality control (pdf)</b>	Accreditation by The by The Ministry of Health and Social Welfare ; Annex 6- HEPMP-Event evaluation list; Output test
<b>Deliverable (pdf)</b>	Website of the Faculty of Medicine of the University of Banja Luka <a href="http://www.med.unibl.org/index.php/sr/template/oglasne-table/zdravstvena-njega/content/4-novosti">http://www.med.unibl.org/index.php/sr/template/oglasne-table/zdravstvena-njega/content/4-novosti</a>
<b>Presentations (pdf)</b>	01 Pathophysiology of pain , Stevanovic.pdf 02 Posttraumatic pain, Jevdjic pdf 03 Postoperative pain, Smajic.pdf 04 Acute headache, Vukojevic.pdf 05 Acute lumbar pain syndrome, Hodzic.pdf 06 Complex regional pain syndrome, Bucma.pdf 07 Acute pain chronicity, Husic.pdf 08 Opiates in acute pain therapy, Golic, pdf 09 The application of central nerve blocks in the treatment of acute postoperative pain, Ladjevic.pdf 10 Multimodal analgesia, Zornic .pdf
<b>Other personal remarks</b>	

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## Organisation details

<b>Invitation sent to</b>	Health centers in Banjaluka and the surrounding area
<b>Date of event material release</b>	June 15 <sup>th</sup> , 2019
<b>Date of participants list's finalisation</b>	June 25 <sup>th</sup> , 2019
<b>Date of agenda finalisation</b>	June 28 <sup>th</sup> , 2019
<b>Number of participants (according to the participants list)</b>	104
<b>Comments</b>	

## Problems encountered during the event preparation phase

Please add your comments, if any:

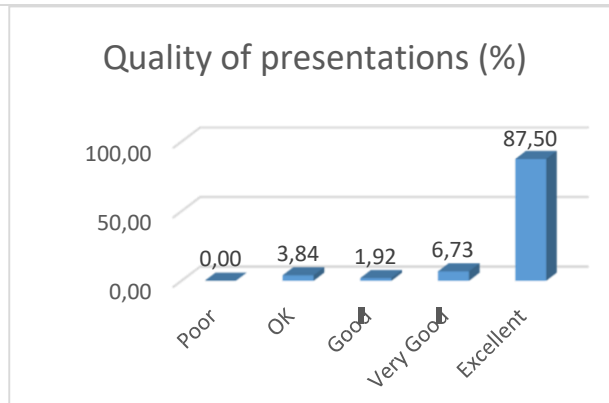
**Strengths and limitations of the event** (please include comments received)

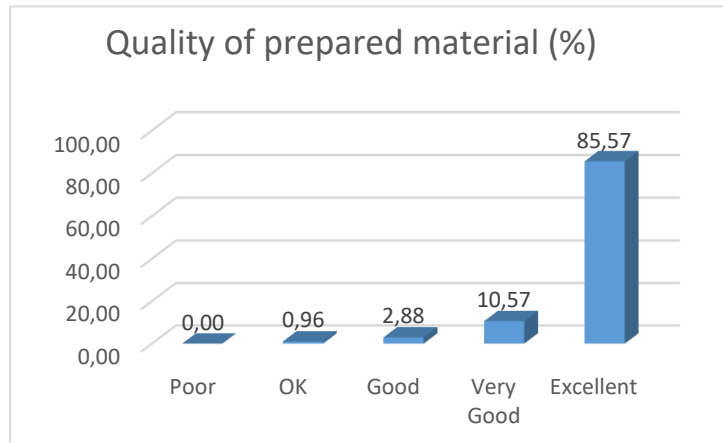
<p><b>Strengths of the event and contributions or activities by participants</b></p>	<p>Participants of the seminar have learned the methods of acute pain assessment as well as different modes of treatment with an emphasis on multimodal approach to treatment. It is recognized that inadequate and inadequate acute pain treatment can lead to a chronic treatment that is difficult to cure.</p>
<p><b>Suggestions for the improvement</b></p>	<p>Given the percentage of participants who pleaded not to participate actively, in the forthcoming seminars pay attention to the more active participation of the participants.</p>
<p><b>Any further comments</b></p>	

## Evaluation details

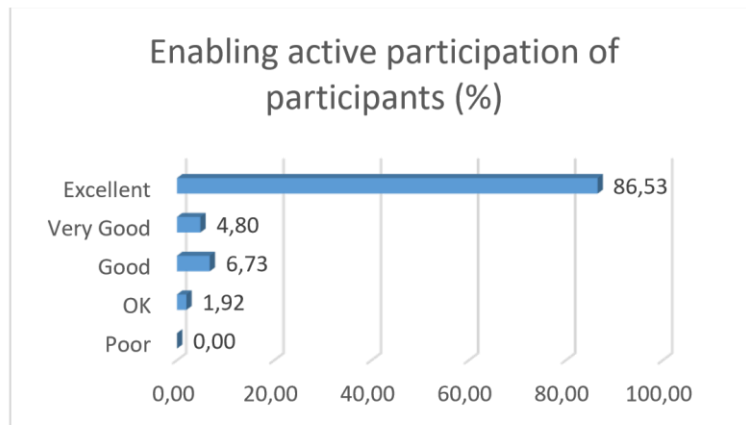
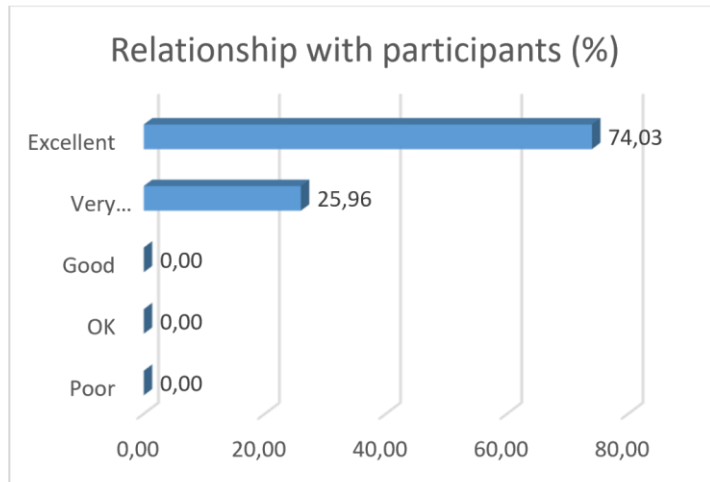
### Results of evaluation of the general organisation of the event

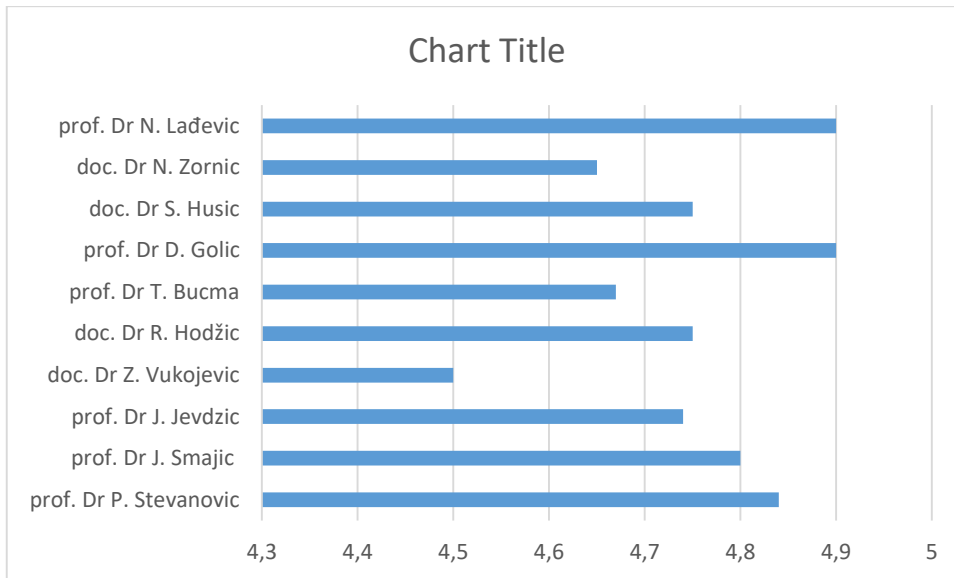
Description	
<p>The participants highly rated the choice of educational topics, the content of the education program, the method used, the duration and organization of the education.</p>	
Table(s)/Figure(s)	











**Results of evaluation of overall success of the event**

Description													
<p>The participants rated the overall impression of the held seminar with an average score of 4.75 (out of 5).</p>													
Table(s)/Figure(s)													
	<p><b>Quality of the training organization (%)</b></p> <table border="1"> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Poor</td> <td>0%</td> </tr> <tr> <td>OK</td> <td>3%</td> </tr> <tr> <td>Good</td> <td>11%</td> </tr> <tr> <td>Very Good</td> <td>16%</td> </tr> <tr> <td>Excellent</td> <td>70%</td> </tr> </tbody> </table>	Category	Percentage	Poor	0%	OK	3%	Good	11%	Very Good	16%	Excellent	70%
Category	Percentage												
Poor	0%												
OK	3%												
Good	11%												
Very Good	16%												
Excellent	70%												

Please indicate your suggestions for further event's improvement:

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Location, date

Banjaluka ,12<sup>th</sup> August , 2019

Signature

