



Joint EU-MNE Programme for
Employment, Education and Social Welfare



CInMED

Institute for Medicines and
Medical Devices of Montenegro

REPORT ON DISSEMINATION ACTIVITIES

Monitoring the prescription of diclofenac
with the aim of optimisation
of its safe use

CFCU/MNE/128

November, 2022.



This project is co-funded by
the European Union



The project is implemented by



Joint EU-MNE Programme for
Employment, Education and Social Welfare



Program:	Collaborative grant scheme for innovative project ideas
Budget line:	IPA II – Multi-annual Programme for Montenegro on Employment, Education and Social Policies (2015-2017)
Reference:	EuropaAid/1624567/ID/ACT/ME
Grant contract:	CFCU/MNE/128
Project:	Monitoring the prescription of diclofenac with the aim of optimisation of its safe use
Project start date:	16.03.2020.
Project duration:	32 months
Deliverable Number:	DEV 6.2
Deliverable Leader:	Maja Stanković
Status:	Final
Submission Date:	16.11.2022.
Authors:	Maja Stanković, Project Manager and Denis Reković, Project Coordinator
Institution:	CInMED
Email:	maja.stankovic@cinmed.me ; denis.rekovic@cinmed.me



This project is co-funded by
the European Union



List of Abbreviations

C&VP	<i>Communication and Visibility Plan</i>
EU	<i>European Union</i>
PHC	<i>Primary Health Care</i>
IT	<i>Information Technology</i>
IIHS	<i>Integral Information Healthcare System</i>
HCP	<i>Healthcare Professionals</i>
HCI	<i>Healthcare Institutions</i>
CInMED	<i>Institute for Medicines and Medical Devices</i>
MoH	<i>Ministry of Health</i>
HIF	<i>Health Insurance Fund</i>
PHC	<i>Primary Health Care</i>
PHCIS	<i>Primary Health Care Information System</i>





Table of Contents

1. PROJECT DESCRIPTION.....	4
2. GENERAL DISSEMINATION STRATEGY	5
2.1 Overall and Specific dissemination objectives	5
2.2 Target Groups	5
3. DISSEMINATION ACTIVITIES.....	7
3.1 Project web site	7
3.2 Promotional materials (brochures, leaflets, flyers...).....	9
3.2.1. Brochure and flyer for first workshop with PHC professionals	9
3.2.2. Brochure and flyer for second workshop with PHC professionals	10
3.3 Project events	10
3.3.1. Workshops for CInMED employees	11
3.3.2. Hosting on TV Vijesti Morning Show programme	12
3.3.3. Presentation of project to the representatives of MoH and HIF.....	13
3.3.4. Publishing Brochure and flyer for first workshop.....	13
3.3.5. First workshop for the PHC professionals	13
3.3.6. Implementation of messages/warnings in PHCIS.....	14
3.3.7. Publishing Brochure and flyer for first workshop.....	16
3.3.8. Second workshop for the PHC professionals.....	16
3.4 Preparation for publishing of two scientific articles in relevant scientific journals.....	18





1. PROJECT DESCRIPTION

This project refers to monitoring the prescription of diclofenac and optimization of its safe use in PHC institutions, through innovative Information Technology (IT) solutions, with a scientific analysis, evaluation and publication of obtained data. By upgrading existing IT solutions into an Integral Information Healthcare System (IIHS) and creating new ones, scientific research in the field of rational use of medicines will be strengthened and thus contribute to improvement of health of people and society as a whole. In order to achieve defined goals and objectives, the activities covered by this project include activities related to implementation but also activities related to continuous support, in terms of project management and dissemination of project results to target groups and final beneficiaries. The Scientific community will also be involved through preparation of scientific articles for publishing in relevant scientific journals. For this reason, two work packages (WP) exclusively refers to overall project management activities and dissemination activities, while the remaining work packages refer to the implementation of different types of activities.

These implementation activities encompasses scientific analysis and comparison of data on the prescription of diclofenac before and after, by innovative IT solutions imposed restrictions in its use. These activities will be performing with the aim to achieve the expected results and finally the expected impact of the project.

The expected results of the project:

Result 1. Engagement of young and experienced researchers to scientific analyze the observed problem of nonrational use of diclofenac, which will improve scientific potential and visibility of CInMED in the domain of rational use of medicines.

Result 2. Development of innovative IT solutions, thanks to which the prescribing and use of diclofenac is going to be optimized.

Result 3. Improvement and better integration of Information System (IS) of CInMED and PHC.

Result 4. Optimising the prescription and consumption of diclofenac in PHC institutions in Montenegro.

Result 5. Harmonizing the prescription of diclofenac in PHC institutions with CInMED evidence based recommendations.

Impact - The strengthening of synergy between science and innovation, stimulating research and development of science, cooperation between the public and the private sector in improvement of human health and finally improvement of visibility and importance of CInMED in Montenegrin health and scientific community.





2. GENERAL DISSEMINATION STRATEGY

2.1 Overall and Specific dissemination objectives

Overall dissemination objective is to raise awareness among defined target groups and final beneficiaries (scientific and IT communities, patients, HCPs, creators of health policy) on rational use of medicines and importance of synergy between science and innovation (IT solutions) for that purpose.

Specific dissemination objectives includes:

- promotion of intermediate and final project results to key target group and final beneficiaries with focus on HCPs in PHC as prescribers of diclofenac
- publishing of obtained results in relevant scientific journals after thorough scientific analysis of obtained data on diclofenac prescribing
- delivering of key messages (recommendations) on diclofenac rational use through IS that HCPs use in they daily work.

2.2 Target Groups

In order to promote results of the project, a range of dissemination activities, focused on different target audience is going to be established. Priority target groups of the project are patients, HCPs and HCIs, CInMED (Coordinator on project) and MG Soft as project partner.

1. **Patients** and their health are the centre of every health system and society as a whole. The realization of the project and dissemination of its results is in the interest of all patients who are on the treatment with diclofenac and especially those patients who are due to comorbidities, medicines taken concomitantly with diclofenac, at high risk of serious adverse reactions; Prescribing of diclofenac in accordance with the latest scientific data will finally improve their health.
2. **HCPs and HCIs** in PHC owing to innovative IT solutions, will have key recommendations for safe and effective prescription of diclofenac in IT system they use in daily work; These IT solutions will decrease their workload and give more time to communicate with patients
3. **CInMED** will gain insight into reasons for nonrational consumption of diclofenac and be able to propose new measures to rationalize use of this medicine. CInMED will also strengthen its scientific potential in the domain of the rational use of medicines;
4. **MGSOFT** as leading national company in healthcare IT systems, will benefit with: (i) increased knowledge and expertise in developing DataWarehouse and





Business Intelligence tools; (ii) improvement of in house developed Healthcare IS for Montenegro; (iii) implemented innovative services/applications which significantly spread the experience and expertise within the company;

- 5. Governmental institutions (MoH, HIF) and society as a whole** are final beneficiaries of this project. MoH, institution that is responsible for determining measures for rational use of medicines may owing to results of this project introduce changes in national policies and regulations dealing with rational use of medicines. Development of IT system for monitoring of prescribing practice of diclofenac and in the future other medicines of public health interest, can contribute to their rational use thus leading to the more optimal use of limited financial resources at disposal of HIF.

- 6. Scientific research community (Montenegrin and global)**

CInMED is a scientific institution licenced for carrying out scientific and research activities in the fields of medical sciences and interdisciplinary research.

As fundamental activities in this project presume scientific analysis and comparison of data on the prescription of diclofenac before and after, by innovative solutions imposed restrictions in prescribing of diclofenac and preparational activities for publication of these data in relevant scientific journals, scientific research community, Montenegrin and global will be reached out.

This will contribute improved visibility and importance of CInMED in Montenegrin scientific community.





3. DISSEMINATION ACTIVITIES

In order to achieve the maximum impact of the project, all project dissemination activities has been realized according to the *Dissemination Strategy and Exploitation Plan* and consistent with special conditions stipulated in Grant Contract and its relevant Annex, taking into considerations guidelines from Manual – Communication and Visibility in EU-financed external actions (01/01/2018).

These activities include the following:

3.1 Project web site

In accordance with the dissemination strategy plan, project website is launched in June 2020. The project website can be accessed directly through [this link](#) or indirectly through the CInMED (project coordinator) website.



This project is intended to strengthen the scientific and research activity of CInMED in the field of rational use of medicines, on the example of diclofenac, by creating innovative IT solutions to monitor the prescription of diclofenac in the Primary Health Care (PHC) and reduce its prescribing to patients at risk of developing serious adverse reactions, with unfavorable outcomes for their health.

Institute for Medicines and Medical Devices (CInMED) together with its project partner MG SOFT is one of the 13 grant beneficiaries awarded under the EU pre-accession assistance program to Montenegro (IPA II) "Collaborative grant scheme for innovative project ideas". The project primarily addresses the following thematic priorities, defined by the call for proposals: Medicine and health of people and Information and communication technologies. As the realization of the project will include scientific analysis of data, their publication in relevant scientific journals as well as education of the expert public (health care professionals) the project also addresses the thematic priority Science, education and identity. More information is available on the website of the Ministry of science, under the following [link](#).

Project goals

1. Engagement of young and experienced researchers to scientific analyze the observed problem of nonrational use of diclofenac, which will improve scientific potential and visibility of CInMED in the domain of rational use of medicines,
2. Development of innovative IT solutions, thanks to which the prescribing and use of diclofenac is going to be optimized,
3. Improvement and better integration of Information System (IS) of CInMED and PHC,

Project website

In last quarter of 2022 CInMED has introduced the new web site, so the new position of the Project web site link on new CInMED's site is given below:



News

01.04.2021

Monitoring visit and support for
preparation of interim report and OTSC

Monitoring was conducted by MS. Ivana Staljetović from ICE (International Consulting Expertise) and Ms. Snežana Vukotić from Ministry of Education, Science and Culture of Montenegro. [Read more](#)

15.03.2021

Forth coordination meeting

Current realisation of project activities were considered and new project activities were discussed. [Read more](#)

05.02.2021



O CInMED-u

Home » O CInMED-u

01

Djelatnost

Institut za lijekove i medicinska sredstva je nezavisan regulatorni organ Crne Gore u oblasti lijekova i medicinskih sredstava

02

Misija i Vizija

Misija Instituta je obezbjeđivanje kvalitetnih, bezbjednih i efikasnih lijekova i medicinskih sredstava odgovarajućih performansi

03

Organizacija

Organi upravljanja Instituta su Upravni odbor i direktor

04

Dokumenta

Opšti akti i druga dokumenta od značaja za poslovanje Instituta

05

Sistem menadžmenta kvalitetom

Institut kontinuirano radi na implementaciji i unapređenju sistema kvaliteta

06

Stručna mišljenja i CPP

Institut izdaje stručna mišljenja iz svojih nadležnosti

07

Međunarodna saradnja

Institut se pozicionirao kao relevantan partner u regionu, Evropskoj uniji i međunarodnoj zajednici

08

Reklamacije

U slučaju bilo kakve neusaglasnosti ili greške možete podnijeti reklamaciju radi ispravke

Međunarodna saradnja

Home » O CInMED-u » Međunarodna saradnja



Projekti

Institut će učestvovati u svim projektima od značaja za unapređenje nacionalnog zakonodavstva, regulative i procedura, kao i u naučno-istraživačkim projektima u kojima ima mogućnost da da svoj pun doprinos i iskoristi sopstvene kapacitete kao inovativna i naučno-istraživačka organizacija.

[TWINNING projekat](#)

[MEDI-THEFT projekat](#)

[Praćenje propisivanja diklofenaka u cilju optimizacije njegove bezbjedne primjene](#)





This web site comply with the criteria for appropriate communication and visibility set out in *Communication and Visibility in EU-financed external actions Manual* and all visibility requirements are implemented according to the Grant contract and its Annex 2. The EU emblem accompanied by text acknowledging the Union's support is prominently featured. Project web site promote the project, its results and finally impact to expert (HCPs) and general audience (patients) as key target groups and to final beneficiaries as well. All relevant information about the project (objectives, information, news, event announcements, public reports, analysis...) are published on the project web site.

3.2 Promotional materials (brochures, leaflets, flyers...)

Different kind of promotional materials with the brief description of project results and generally project objectives has been designed and distributed to the representative of the target audience and final beneficiaries.

The promotional materials has been distributed at events – workshops and due to pandemic has been sent to PHC.

3.2.1. Brochure and flyer for first workshop with PHC professionals

During september 2021, the CInMED project team has been prepared the brochure (A5, 16 page) and flyer (A4, divided on three parts) for workshop that should be held to healthcare professionals in PHC regarding the project and messages/warnings that should be implemented in information system that will appear when prescribing Diclofenac. Both, brochure and flyer, has been approved from CFCU regarding visibility elements and both has been published in amount of 100 pieces and distributed to PHC centers as the second workshop has been organized on-line due to pandemic.



Brochure and Flyer, September 2021





3.2.2. Brochure and flyer for second workshop with PHC professionals

In October 2022, the CInMED project team has been prepared the (A5, 16 page) and flyer (A4, divided on three parts) for workshop that has been held to healthcare professionals in PHC regarding the results of the project regarding the messages/warnings implemented in information system that appear when prescribing Diclofenac. Both, brochure and flyer, has been published in amount of 100 pieces and distributed to PHC centers as the second workshop has been organized on-line due to pandemic.



Brochure and Flyer, October 2022

3.3 Project events

Two internal workshops has been held by MG Soft for CInMED employees.

First workshop was organized in order to train CInMED employees for usage of DW and BI tools, delivered in first phase of the project.

Second workshop has included training for usage of the module for setup of rules in CInMED IS on the basis of which doctors will receive appropriate messages and warnings in the process of prescribing Diklofenak.

In order to raise awareness about importance of rational prescribing of medicines, and the benefits it can bring to the HCPs, patients and the society as a whole, there were organized two events-workshops gathering representatives of target groups and final beneficiaries.

First workshop has been on occasion of presenting the results of the first phase of the project and the second one to present the final results of the project. Due to the

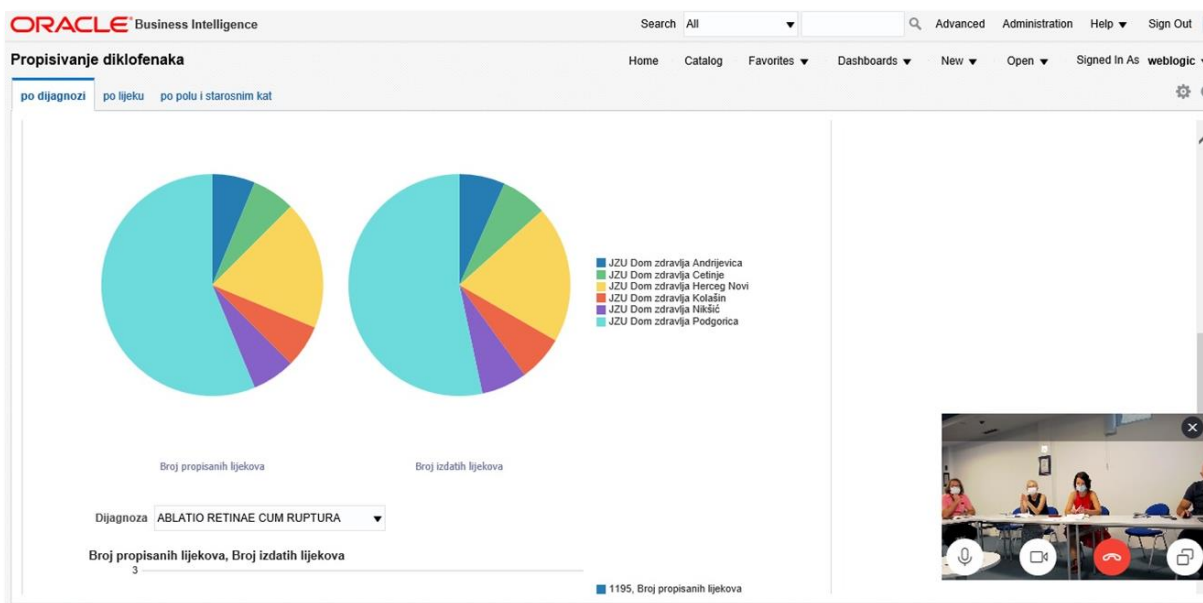




COVID19 pandemic the first workshop for the healthcare professionals has been delayed.

3.3.1. Workshops for CInMED employees

In August 2020, as planned, two workshops were held for CInMED researchers. The workshops were held by representatives of the project partners and related to the presentation of developed IT tools that will enable scientific analysis of data on prescribing diclofenac in Montenegro. Due to the complex epidemiological situation in Montenegro, the workshops were held through an *online* platform.



Online meeting with participation of CInMED and project partner project team





3.3.2. Hosting on TV Vijesti Morning Show programme

On 2nd October 2020 project goals and activities has been presented on the 10 minutes hosting on TV Vijesti Morning Show programme by Project manager Ms. Maja Stanković.

News was published on TV Vijesti web site on further link: <https://www.vijesti.me/tv/emisije/474139/gradjani-crne-gore-u-znacajnoj-mjeri-koriste-diklofenak-stankovic-alarmantne-vrijednosti> and also published on Youtube Link: <https://www.youtube.com/watch?v=yjhJ5vulctA>

Vijesti VIJESTI SVIJET SPORT ZABAVA LIFESTYLE TV VIJESTI

EMISIJE SERIJE

Građani Crne Gore u značajnoj mjeri koriste diklofenak, Stanković: Alarmantne vrijednosti

"Ako je vrijednost za dnevnu definisanu dozu na hiljadu stanovnika na dan, a to je ta osnovna statistička jedinica, u Crnoj Gori je preko 40. To znači da najmanje 40 stanovnika na 1.000 stanovnika u Crnoj Gori popije jedan diklofenak, dok u zemljama Evropske unije (EU) 10 do 15", rekla je farmaceutkinja Maja Stanković

8884 pregleda 1 komentar(a)

f t w v e

Stanković, Foto: Screenshot/TV Vijesti

News on web site of TV Vijesti





3.3.3. Presentation of project to the representatives of MoH and HIF

On 24th of June 2021 Project team CInMED has been held the presentation of project to the representatives of Ministry of Health (MoH, one representative) and Health Insurance Fund (HIF, four representatives).

Participants were introduced to the project from the aspect of organization, resources and the team that implements it as the project's basic assumptions and project goals. It was also pointed out the role of MoH and HIF in the further implementation of the project relates to the acceptance of the recommendations of the research team and the implementation of these recommendations in primary health care (PHC) information system through messages/warnings to physicians that will appear when prescribing Diclofenac.



*Presentation of project to the representatives of
Ministry of Health (MoH) and Health Insurance Fund (HIF)*

3.3.4. Publishing Brochure and flyer for first workshop

During september 2021, the CInMED project team has been prepared the brochure and flyer for first workshop for healthcare professionals in PHC regarding the project and messages/warnings that should be implemented in information system that will appear when prescribing Diclofenac.

3.3.5. First workshop for the PHC professionals

On 1st October 2021 has been held the first Workshop for Healthcare professionals in PHC where the primary health care professionals has been introduced with:

- Project in overall (Presentation of the Project " Monitoring the prescription of diclofenac with the aim of optimisation of its safe use");
- regarding data of prescribing of diclofenac and Project objectives; and finally





Joint EU-MNE Programme for
Employment, Education and Social Welfare

- the plan for the implementation of warning messages in IS of PHC as the tool for them to rationalise prescribing of diclofenac and improve public and individual health.



First workshop for the healthcare professionals in PHC

3.3.6. Implementation of messages/warnings in PHCIS

On 4th October 2021, the messages/warnings that appear when prescribing Diclofenac has been implemented in Primary Health Care Information System (PHCIS). This activity has been realized in cooperation of CinMED, MG-Soft and Health Insurance Fund that govern the PHCIS. Implementation has been approved by Ministry of Health.





RECEPTI

Šifra recepta	Vrsta	Tip	Br pon.	Datum	Dijagnoza	Lijek	Kol Spec.	Dat dok.	Br dok.	Ozn.	Os	Zam
	1	R	1	24.09.2021	E12.0	MDLAB05013	Diklofenak tabl. 30 x 50 mg	1			100	DA

Kontraindikacije!

Dijagnostikovana kongestivna srčana insuficijencija (NYHA II-IV), ishemijska bolest srca, periferna arterijska bolest ili cerebralovaskularna bolest su **kontraindikacije** za propisivanje diklofenaka.

Kod propisivanja oralnih formulacija diklofenaka:

RECEPTI

Šifra recepta	Vrsta	Tip	Br pon.	Datum	Dijagnoza	Lijek	Kol Spec.	Dat dok.	Br dok.	Ozn.	Os	Zam
	1	R	1	24.09.2021	E11.0	MDLAB05013	Diklofenak tabl. 30 x 50 mg	1			100	DA

Posebna upozorenja i mjere opreza!

Pacijenti sa kongestivnom srčanom insuficijencijom (NYHA klasa 1) i pacijenti koji imaju značajne faktore rizika za nastanak kardiovaskularnih događaja (npr. hipertenzija, hiperlipidemija, dijabetes melitus, pušenje) terapiju diklofenakom **treba da započnu tek nakon pažljive procjene**. Preporučena maksimalna dnevna doza je 150 mg. **Kod blažih slučajeva, kao i kod dugotrajne terapije, 75 da 100 mg dnevno je obično dovoljno**. Neželjena dejstva se mogu svesti na najmanju moguću mjeru korišćenjem najniže efektivne doze, u najkraćem vremenskom periodu, neophodnom za kontrolu simptoma.

Kod propisivanja rektalnih formulacija diklofenaka:

RECEPTI

Šifra recepta	Vrsta	Tip	Br pon.	Datum	Dijagnoza	Lijek	Kol Spec.	Dat dok.	Br dok.	Ozn.	Os	Zam
	1	R	1	24.09.2021	E11.0	MDLAB03020	Diklofenak supoz. 10 x 30 mg	1			100	DA

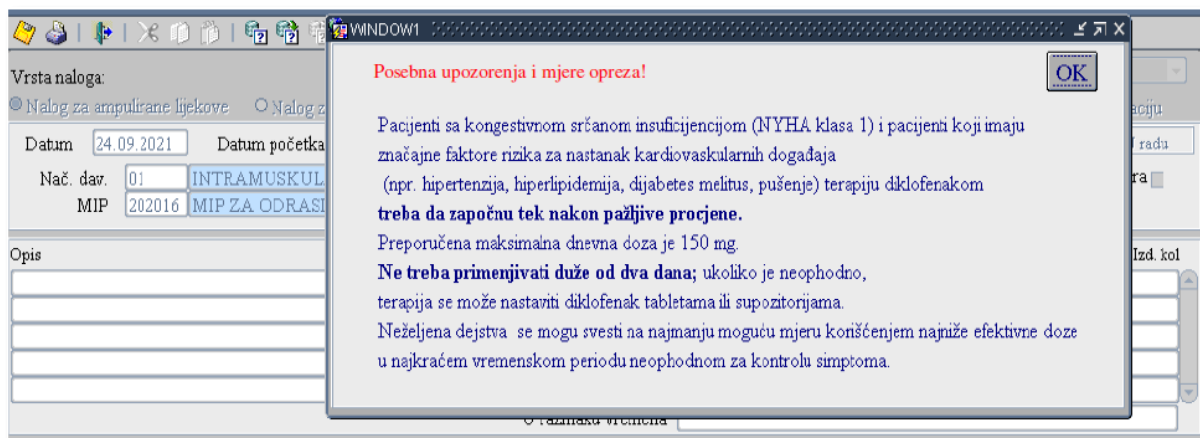
Posebna upozorenja i mjere opreza!

Pacijenti sa kongestivnom srčanom insuficijencijom (NYHA klasa 1) i pacijenti koji imaju značajne faktore rizika za nastanak kardiovaskularnih događaja (npr. hipertenzija, hiperlipidemija, dijabetes melitus, pušenje) terapiju diklofenakom **treba da započnu tek nakon pažljive procjene**. Preporučena maksimalna dnevna doza je 150 mg. Neželjena dejstva se mogu svesti na najmanju moguću mjeru korišćenjem najniže efektivne doze, u najkraćem vremenskom periodu, neophodnom za kontrolu simptoma.





Kod propisivanja parenteralnih formulacija diklofenaka:



Messages and warnings implemented in Primary Health Care Information System

All actions related to the notification of Primary Health Centers as well as individual doctors were taken over by the Health Insurance Fund, both through e-mail communication to the Primary Healthcare Centers and by sending the notification's trough the notification system that was developed in the primary health care information directly to the doctors.

3.3.7. Publishing Brochure and flyer for first workshop

In October 2022, the CInMED project team has been prepared the brochure and flyer for workshop that has been held to healthcare professionals in PHC regarding the project and the results of the messages/warnings implemented in information system that appear when prescribing Diclofenac. Both, brochure and flyer, has been published in amount of 100 pieces.

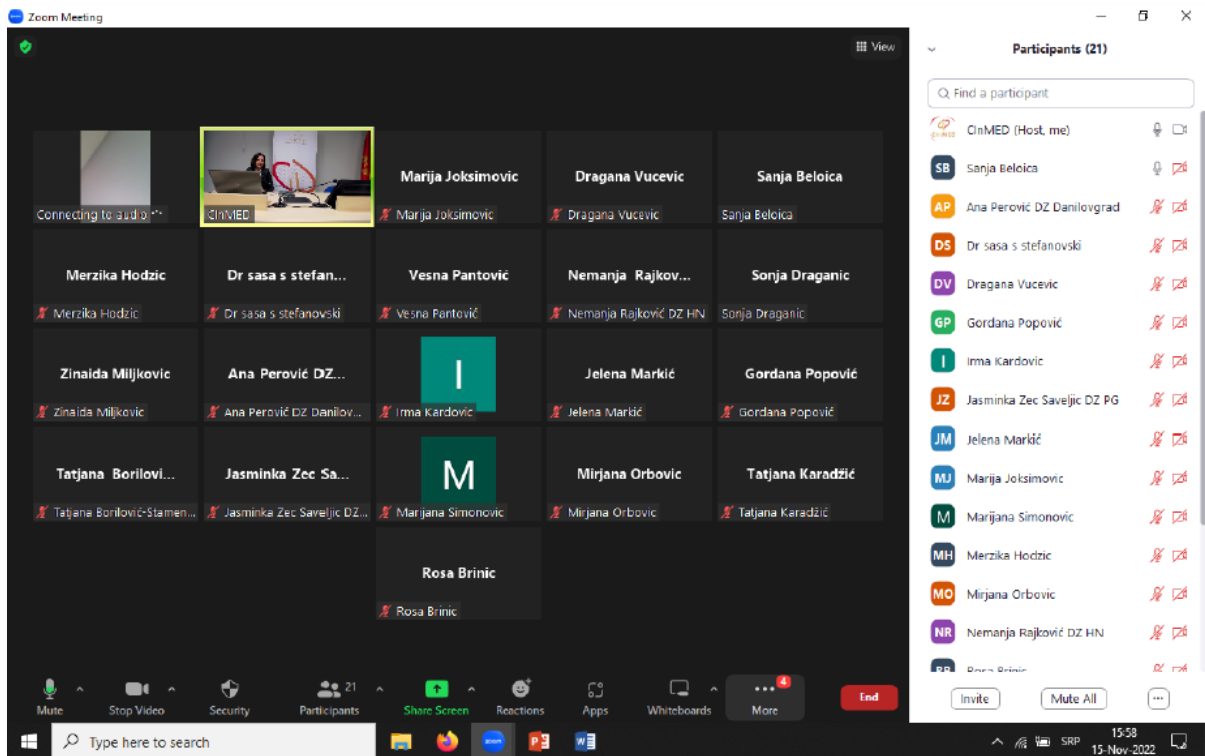
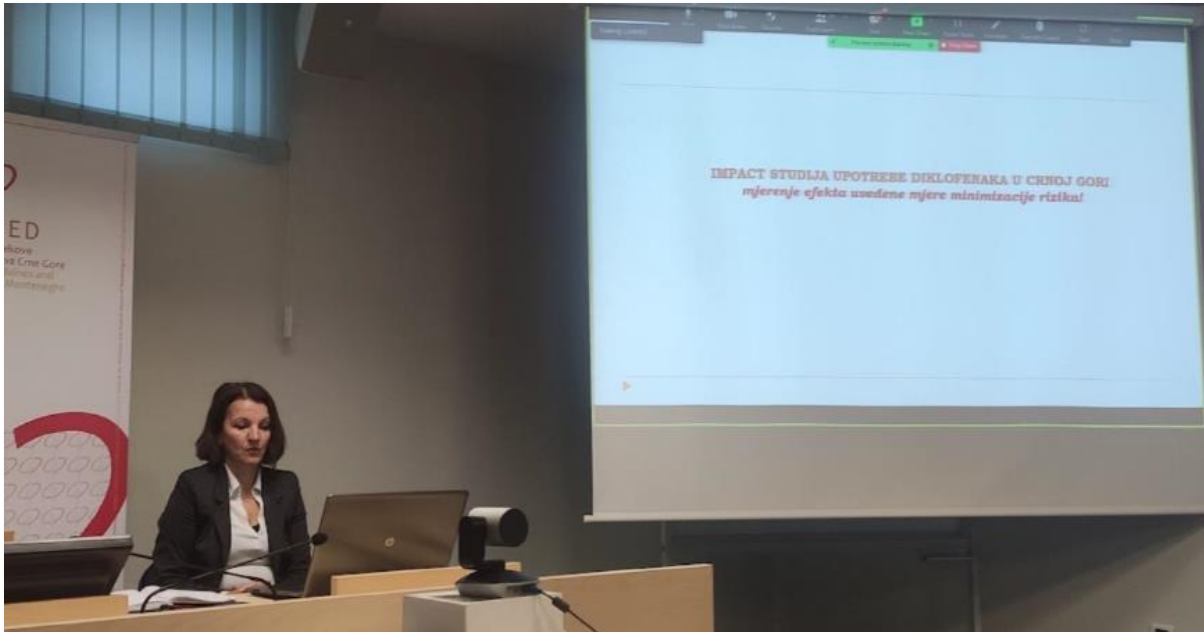
3.3.8. Second workshop for the PHC professionals

On 15th November 2022 has been realised the second Workshop for Healthcare professionals in PHC where the primary health care professionals has been introduced with Project results after one year after the implementation of the messages/warnings that appear when prescribing Diclofenac in Primary Health Care Information System (PHCIS).





Joint EU-MNE Programme for
Employment, Education and Social Welfare



Second workshop for the for the healthcare professionals in PHC

All relevant information about the project are published on the project web site.



This project is co-funded by
the European Union





Joint EU-MNE Programme for
Employment, Education and Social Welfare



3.4 Preparation for publishing of two scientific articles in relevant scientific journals

This project has a strong scientific - research component. One of the most important and expected result of the project is preparation for publishing of two scientific articles in relevant scientific journals in biomedicine, based scientific analysis of the data on prescription of diclofenac in PHC.

This project engaged the scientific potential in coordinator with strong support of external experts to provide a high level of excellence in the scientific part of the project, its visibility and promotion to the health, scientific and wider community.

Expertise in pharmacovigilance, pharmacoepidemiology, statistics, scientific evaluation of data on safety and efficacy of medicines, rational use of medicines and proposing of risk minimization measures, for both, internal and external experts were one of the main preconditions for successful implementation of the project.

The main role of coordinator researchers and experts in this project was to scientifically analyse and prepare for publishing data obtained from the PHC information system, before and after the implementation of developed innovative IT solution by the project partner.

Upon publishing of results of this project in scientific articles of relevance, the wider scientific community will be familiar with the activities that are the result of the synergy of science and innovation in order to rationalize the prescription of diclofenac in Montenegro.

One scientific article is in final phase of reviewing by scientific article (on SCI list) reviewers. After reviewing it is going to be published. The other scientific article is prepared, at the moment in the phase of internal review before its submission to other scientific journal on SCI list in field of biomedicine.



This project is co-funded by
the European Union