

# MEDICAL UNIVERSITY "PROF. DR. PARASKEV STOYANOV" - VARNA

FACULTY OF DENTAL MEDICINE

Approved with a Protocol of № 25/24.06.2020

Approved:

DEAN of Faculty of Dental Med

/ Prof. Stefan Peev, MD, PhD

### **EDUCATIONAL PROGRAMME**

OF

### "PHISICAL THERAPY (GENERAL AND SPECIFIC)"

Specialty "DENTAL MEDICINE" Educational-qualification degree "MASTER" Professional qualification "PHYSICIAN IN DENTAL MEDICINE"

	Semester	Horarium weekly	Total horarium
Lectures	VIII	1	16
Exercises	VIII	1	14
Total		2	30
Monitoring and evaluation forms	Current control		Exam – VIII semester
Credits (ECTS)	No.		2
Extracurricular employment			30

Lecturer: Dr. Maya Doychinova, DMD, PhD

Dr. Denitsa Grozdeva

Varna, 2020

#### ANNOTATION:

THE TRAINING COURSE IN DENTAL PHYSICAL THERAPY ALLOWS FOR GETTING THEORETICAL AND PRACTIAL SKILLS IN PHYSICAL MEDICINE, INCLUDING PRINCIPLES OF ACTION AND THERAPEUTIC EFFECTS OF PHYSICAL FACTORS, INDICATIONS AND CONTRAINDICATIONS FOR THEIR APPLICATION; DOSAGE; APPARATUSES AND METHODS IN DENTAL MEDICINE.

PLAN OF TOPICS OF LEECTURES AND PRACTICAL CLASSES
Lectures VIII semester

№	Topie	Hours	
1.	Introduction. Hystorical aspects and current guidelines.Parts		
	of dental physical therapy. Principles of action of physical		
	factors. Ultrasound therapy - physical characteristic of	2	
	ultrasound. Techniques, appliances, methods and dosage.	2	
	Biophysical and therapeutic effects of ultrasound;		
	indications and contraindications. Phonophoresis.		
2.	Electrotherapy. Low intensity currents - constant direct		
	(galvanic) cuurent; direct pulsed (diadynamic) current;		
	low-frequenced variable currents.	2	
	Techniques, appliances, metohods and dosage. Indications	2	
	and contraindiactions. Physical methods of diagnosis in		
	dental medicine.		
3.	Electrophoresis/iontophoresis - Principles, concentration		
	and dosage of drug delivery by iontophoresis. Techniques,		
	appliances, methods and dosage.	2	
	High frequency currents – ultra high frequency ;	: <u>Z</u>	
	shotwave/microwave currents.Techniques, apliances;		
	methods and dosage. Biophysical and therapeutic effects.		

	Total	15
7.	Physical methods for treatment of dental soft tissue diseases. Physical methods for treatment in surgery.	3
6.	Teeth whitening using physical factors.  Physical methods for treatment of pulp and periodontal diseases.	2
5.	Physical methods for treatment and prophylaxis of dental hard tissue diseases. Remineralisation and fluoridation by electro/iontophoresis.  Electroanalgesia.	2
4.	Indications and contraindications  Phototherapy. Physical characteristic of light. Infrared and ultraviolet Iradiation sources. Methods of application and dosage. Bilolgical and therapeutic effects. Indications and contraindications.  LASER therapy. Physical characteristic of LASER radiation. Apparatuses and appliances. Methods, dosage, therapeutic effect, indiacions and contraindications.	2

### **Practical classes VIII semester**

№	Topic	Hours
1.	Dental physical therapy training course – purpose and	2
	tasks.	
	Pulp vitality testing using electrical and thermal stimulation.	
	Techniques and methods; interpretation of the values.	
2.	Electrotherapy. Low intensity currents - constant direct	2
	(galvanic) cuurent; direct pulsed (diadynamic) currents;	
	low-frequenced variable currents Electrophoresis.	
	Techniques, appliances, metohods and dosage. Indications	
	and contraindiactions.	

3.	High frequency currents - ultra highfrequency;	2
	shotwave/microwave currents. Techniques, apliances;	
	methods and dosage. Biophysical and therapeutic effects.	
	Indications and contraindications.	
4.	Phototherapy. Physical characteristic of light. Infrared and	2
	ultraviolet Iradiation sources. Methods of application and	
	dosage.	
	LASER therapy. Physical characteristic of LASER	
	radiation. Techniques appliances and methods.	
5.	Ultrasound therapy – physical characteristic of ultrasound.	2
	Techniques, appliances, methods and dosage.	
6.	Practice. Patient visits	3
8.	Practical examination	2
	Total	15

### **MONITORING AND EVALUATION FORMS:**

Routine assessment, seminar participation, tests, preliminary oral examination, practical examination, oral examination.

#### **QUESTIONNARIES:**

#### **VERSION 1**

# 1. FOR THE TREATMENT OF PAIN, CAUSED BY PERIAPICAL HAEMATOMA AND ROOT CANAL OVERFILLING, CAN BE USED:

- a) ultrashort waves
- b) microwaves
- c) red laser
- d) a + b + c

#### 2. THE METHOD OF ELECTROELIMINATION IS BASED ON:

- a) electrolysis
- b) electro osmosis
- c) electrophoresis

## 3. CONTRAINDICATONS FOR PHYSICAL THERAPY OF INFECTED ROOT CANALS ARE:

- a) impassable root canals
- b) root canal broken instrument
- c) periodontitis, resistant to medical treatment
- d) pulp perforation and uncompleted root maturation

### 4. INDICATIONS FOR ANODE GALVANIZATION ARE:/

- a) purulent periodontitis
- b) chronic periodontitis
- c) exacerbations of chronic periodontitis
- d) pulp perforation

#### 5. THE EFFECT OF 10% KJ ELECTROPHORESIS IS DUE TO:

- a) J ions
- b) O ions
- c) H ions
- D) NONE

## 1. AS A RESULT OT CATHODE ELECTROPHORESIS, ONE ACTION CAN NOT BE OBSERVED IN ROOT CANALS:

- a) bactericidal effect
- b) alcalinization of root canal system
- c)stimulation of periapical alcaline phosphatase
- d) tooth bleaching

### 2. ELECTROPHORESIS OF ANTIBIOTICS IS MOST EFFECTIVE WHEN IT IS USED:

- a) separately
- b) both with peroral use of antibiotics
- c) combined with preceeding microwave procedure and peroral intake of antibiotics

## 3. THE USE OF ULTRASHORT WAVES AND MICROWAVES IS APPROPRIATE FOR THE TREATMENT OF:

- a) acute periodontitis
- b) excarebatons of chronic periodontitis
- c) chronic periodontitis
- d) all listed

# 4. OPTIMAL DOSIS OF MICROWAVES USING CONTACT APPLICATOR IS:

- a) 5 W
- b) 10 W
- c) 15 W

#### 5. ANTIINFLAMMATORY POWER OF RED LASER IS:

- a) 50-100 mW/ cm<sup>2</sup>
- b)100-200 mW/cm<sup>2</sup>
- c) 200- 250 mW/ cm<sup>2</sup>
- D) 250-300 MW/C

### Department's council protocol № 67/ 18.06.2020

### Faculty's council protocol № 25/ 24.06.2020

PREPARED:

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**HEAD OF DEPARTMENT:** 

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