PSIHONEUROSTIINȚE ȘI RECUPERARE THEMES FOR THE PROMOTION EXAM FOR THE POSITION OF ASSOCIATE PROFESSOR Position 10

DISCIPLINES:

- Electrotherapy (Balneophysiotherapy and Recovery, 2nd year, lectures)
- Electrotherapy (Balneophysiotherapy and Recovery, 3rd year, practical training)
- Kinetotherapy (Balneophysiotherapy and Recovery, 2nd year, lectures)
- Kinetotherapy (Balneophysiotherapy and Recovery, 3rd year, practical training)

position 10 of the scheme of positions of the Psycho, Neurosciences and Recovery Department, University of Oradea

Electrotherapy

- 1. INTRODUCTION. The physiological basis of electrotherapy. Resting potential (membrane potential). Action potential. Characteristic elements of the electrical exciters witch conditions the reaching point of cell membrane. Electrotonus. The law of polar excitability. Accommodating. Frequency of stimuli. Excitability changes.
- 2. GALVANIC CURRENT. Biological actions of the galvanic current. Physiological effects of galvanic current. Methods of applying galvanization. Indications and contraindications of galvanotherapy.
- 3. LOW FREQUENCY CURRENTS. Notions about low frequency current therapy. Classification of low-frequency currents according to physical parameters and therapeutic effects. Methods of electrostimulation in low frequency range. Applications purposes analgesic low frequency currents. Methods analgesics "conventional" in the low speed range: diadynamic. Formulas prescribing effects and mode of action, implementing measures, indications and contraindications.
- 4. LOW CURRENT CURRENTS. Methods analgesics "conventional" in the low speed range: Trabert current. "Conventional" analgesic methods in the field of low frequencies: TENS, Stochastic currents. Prescription formulas. Stimulating normally innervated skeletal muscle contraction: mode of action, forms, methodology and application technique, indications, contraindications. Stimulation of denervated skeletal muscle: forms of current use, mode of action. Electrodiagnosis, application methodology and technique, indications, contraindications. Electrostimulation of spastic muscles: principles of action, methodology of application, contraindications.

- 5. MEDIUM FREQUENCY CURRENTS. Biological actions of MF currents. The main physiological effects of MF currents. The possibilities of applying the currents of MF. Indications. Contraindications. Prescribing formulas.
- 6. HIGH FREQUENCY THERAPY. Definition. Classification. How to produce high frequency currents for therapeutic purposes. Short-wave devices. The physical properties of high-frequency currents. The physiological properties of the high frequency currents and their main biological and physiological actions. The technique and methodology of shortwave therapy. Method in the condenser field. Inductive field method, technique and methodology of shortwave therapy. Recommendations and rules to be taken into account in short wave applications. Indications Contraindications. Prescription formulas. High frequency pulsatile therapy: therapeutic action and effects, indications, advantages of application. Decimetric waves: biological and physiological action and effects, application technique, indications and contraindications.
- 7. ULTRASOUND THERAPY. Forms of ultrasound used in therapy. The biological actions of ultrasound and the physiological effects of ultrasound. Methodology of ultrasound applications. The technique of ultrasound applications; combination therapy, ultrasound with low frequency forms of electrotherapy. Indications. Contraindications. Prescribing formulas.
- 8. MAGNETOTHERAPY. The actions of magnetic fields; physiological bases and therapeutic effects. Methods of application of low frequency magnetic fields. Rules to be followed when applying magnetoflux treatment. indications and contraindications of magnetodiaflux applications.
- 9. PHOTOTHERAPY, infrared radiation, ultraviolet radiation. Physical properties in phototherapy. The biological and physiological effects of light. Therapeutic effects of phototherapy, depending on the type of radiation. Methodologies of application, mode of action, indications, contraindications in phototherapy.
- 10. NOTES OF LASER THERAPY

REFERENCES

- 1. Cevei Mariana Lidia, Mihailov Mariana Guide of electrotherapy, Publishing House of the University of Oradea, 2004, ISBN 973-613-703-1
- Cevei Mariana Lidia, Elements of practical electrotherapy, University of Oradea Publishing House, 2009, ISBN 978-973-759-753-3
- 3. Radulescu Andrei- Electrotherapy-Medical Publishing House Bucharest, 2002.
- 4. Vicas Lucia, Carmen Cseppento, Practical course of physiotherapy, 2006 ISBN 973-9268-47-1, Ed. Convex, Oradea 2006

Kinetotherapy

- 1. Introduction. Overview and terminology.
- 2. Principles, goals and objectives of kinetotherapy.

- 3. The general basis of the movement.
- 4. Medullary and supramedullary reflexes.
- 5. Assessment in kinetotherapy.
- 6. Techniques, exercises and methods of Kinesiology
 - 6.1 Definition, general notions.
 - 6.2 Techniques anakinetic immobilization, posts.
 - 6.3 Dynamic kinetic techniques:
 - 6.3.1. Classification, effects and conditions of achievement,
 - 6.3.2. Technical modalities of passive mobilization,
 - 6.3.3. Technical modalities of active mobilization,
 - 6.4 Static kinetic techniques.
 - 6.5 Physical exercise: procedural basis, posts in neurology.
- 7. Basic objectives in kinetology:
 - The relaxation
 - Corectarea posturii si aliniamentului
 - Increased mobility
 - Increasing strength
 - Increased resistance
 - Increasing coordination and balance

REFERENCES:

- 1. Kiss I., Physiotherapy and medical recovery. Medical Ed., București 20121
- **2.** Lazăr L., Marcu F., Special problems of recovery, course, electronic format, ISBN: 978-606-10-2031-7, Ed. University of Oradea, 2019
- **3.** Lazăr L., Balneophysiotherapy and Clinical Kinetology, Course, Ed. Treira, ISBN 973-8159-72-5, pg. 212, 2005
- **4.** Marcu F. Lazar L., Guide to medical recovery, vol. I, Ed. University of Oradea, 2012 ISBN 978-606-10-0955-8. p 124
- **5.** Marcu F. Lazar L., Guide to medical recovery, vol. II, Ed. University of Oradea 2014.
- 6. Onose G., Recovery, Physical medicine and balneoclimatology, Medical Ed., Bucuresti, 2008.
- 7. Sarah Nica A. Medical recovery -Ed. of University "Carol Davila"-2004

- 8. Sbenghe T.- Preventive kinesiology, therapeutic and recovery Medical Ed., Bucuresti 1987.
- 9. Sbenghe T. Theoretical and practical basis of Physiotherapy, Medical Ed., București, 1999
- 10. Sbenghe T., Kinesiology, the science of motion, Medical Ed., București 2008
- **11.** Stanca D., Căciulan E., Facilitation inhibition in kinetic therapy. Practical guide / București: Moroșan Ed., 2012.
- **12.** Randall L. Braddom: Physical Medicicne & Rehabilitation, Third Edition, Saunders Elsevier, 2007.

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Department Director,

Prof. univ.dr. Lazăr Liviu