Postgraduate Diploma

Sleep Disorders in Adult Clinical Neurology

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Postgraduate Diploma
Sleep Disorders in Adult Clinical Neurology

- Modality: **online**
- Duration: **6 months**
- Certificate: **TECH Global University**
- Credits: **18 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-sleep-disorders-adult-clinical-neurology

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01

Introduction

Sleep-wake control is a critical function of the brain and there are a number of neurological disorders that interfere with this function, causing disruption of normal sleep and leading to significant negative consequences. Moreover, sleep disturbances can influence and condition the evolution of many of these disorders, worsening their evolution and prognosis, and in some cases contributing to their onset.

This program places special emphasis on the important question of the relationship between memory and sleep and the latest findings on this subject and clearly explains how we process sensory information during sleep and what is known about motor control during sleep.

The new scenarios in Sleep Medicine lead us to propose new up to date programs that meet the real needs of experienced professionals, so that they can incorporate current advances into their daily practice"

There is an increasing multidisciplinary interest in Sleep Medicine, a rapidly growing discipline. Whether approached from a global point of view or from "partial specialisation" depending on the original field of medicine or specific area of interest, it is always vital to have rigorous and up-to-date generic knowledge in all areas. This Postgraduate Diploma more than fulfills this objective from an eminently practical point of view. Its approach sets it apart from many other courses on this very transverse discipline, which are often criticised for being too "descriptive" and "theoretical", and therefore not entirely useful in resolving many situations that arise in clinical management.

With the clear objective of combining scientific evidence and practical utility, this Postgraduate Diploma in Sleep Disorders in Adult Clinical Neurology has a broad, up to date and unsurpassable program prepared by a varied team of professional experts (doctors, psychologists, biologists, engineers...), who contribute their proven experience in the form of explanations and practical examples that are both entertaining and clarifying, along with abundant graphic and audiovisual support, absolutely essential in the teaching of this thriving discipline.

In addition, this Postgraduate Diploma has the advantage of being developed in a 100% online format, so students will be in charge of deciding when and where to study, distributing their study hours autonomously, so that they can combine their preparation time with the rest of their daily obligations.

This **Postgraduate Diploma in Sleep Disorders in Adult Clinical Neurology** contains the most complete and up to date scientific program on the market. The most important features include:

- The development of practical cases presented by experts in Sleep Medicine.
- The graphic, schematic, and eminently practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional practice.
- Advances in Safety and Sleep Medicine
- Practical exercises where self-assessment can be used to improve learning.
- Emphasis on innovative methodologies in Sleep Medicine
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection

We offer you a comprehensive program for you to develop in the field of Sleep Disorders in Adult Clinical Neurology. Think no more and enrol with us”

This Postgraduate Diploma is the best investment you can make in selecting a refresher program to update your knowledge in Sleep Disorders in Adult Clinical Neurology"

We offer you an interactive video system that will make it easier for you to study this Postgraduate Diploma.

Our 100% online specialization and our innovative educational methodology will allow you to combine your studies with the rest of your daily life.

The program's teaching staff includes professionals from the sector who contribute their work experience to this program, in addition to renowned specialists from leading societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

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Objectives

The main objective of the programme is the development of theoretical and practical learning, so that the doctor is able to master the latest techniques in the field in a practical and rigorous manner.

Our main objective is to help our students to achieve academic and professional excellence"

General Objective

- To master and/or update the necessary skills and knowledge for adequate practice in the field of Sleep Medicine at a global level, from the clinical and instrumental points of view

Get up to date on the latest developments in Sleep Disorders"

Specific Objectives

Module 1. Insomnia in Adults. Sleep in Adult Psychiatry

- Gain a comprehensive overview of the problems of insomnia in the adult population, its different types, as well as understanding the importance and significance of the disorder and the need for its treatment, given its prevalence in the sleep clinic.
- Master the necessary knowledge to carry out a diagnosis that allows for the selection of the most appropriate treatment for each case, often mixed and multidisciplinary, from among the different options.
- Be able to understand in depth the different non-pharmaceutical treatments, and the different elements they are composed of; mainly the so-called cognitive-behavioural techniques. The student will learn to interpret the reports, learn about their different instruments, clarify their indications and utility, and lay the foundations for optimal collaboration between the different health professionals involved.
- Train students in the pharmacological approach to insomnia problems, bringing their knowledge up to date in order to improve prescription, and deepen their knowledge in the strategic and individualized planning of the guidelines to be followed according to each case.
- Gain an in-depth understanding of the scope of sleep problems, beyond insomnia, associated with different mental health problems, in order to facilitate their overall management, highlighting the important role of achieving adequate sleep in the satisfactory evolution of these pathologies.

Module 2. Hypersomnia in Adults Circadian rhythm disorders in adults

- Learn to differentiate between excessive daytime sleepiness and fatigue or anhedonia based on their clinical features and potential underlying causes. Understand what we consider to be pathological daytime sleepiness and what diagnostic methods can help to objectify and quantify it.
- Gain specific knowledge of the different hypersomnias of central origin and to learn to differentiate between them. The student will be trained and/or update their existing knowledge on the different therapeutic options available for these processes.
- Master the knowledge and understanding of the different disorders due to circadian alteration of the wake-sleep cycle, both due to internal alterations and those caused by external factors.
- Understand in depth the little known fundamental concepts on which the successful use of light therapy in the prevention and treatment of circadian disturbances is based, its possible modalities of use and its biological basis.
- Provide a rigorous update on the other therapeutic options currently available for the treatment of this type of disorder, including the increasingly popular and widely used melatonin. The student will learn about myths and truths in the treatment of melatonin and will be brought up-to-date in the handling of its different formulas, some of which are new.

Module 3. Behavioural and movement disorders during sleep in adults

- Know in depth the field of parasomnias or behavioral disorders and other behavioral situations during NREM sleep and during REM sleep, learning strategies in the necessary differential diagnosis between them and other entities, understanding what their meaning is and how they are managed.
- Acquire knowledge in understanding the concept of sleep-wake dissociation and learn to identify, locate and manage the complex and still little known entities integrated in the status dissociatus.
- Acquire competences in the understanding and management of restless legs syndrome, know the latest developments in its cause mechanisms and satisfactorily face the resolution of the most problematic aspects of the disease, especially its correct diagnosis and an adequate management that avoids evolutionary complications of inadequate treatment, a circumstance unfortunately all too frequent.
- Know how to identify other disorders and manifestations of movement during sleep of a very varied nature, some of them very frequent, know what is known about their meaning, and how to deal with them.
- Manage knowledge of the latest developments on the mechanisms by which memory is consolidated during sleep, as well as on the processing of information (sensory and motor),
- Deepen understanding of the concepts of neurobiology, neuroanatomy and neurophysiology of REM sleep behaviour disorder and its relationship with the different alpha-synucleopathies, as well as the relationship with different disease phenotypes and therapeutic implications. Know what other sleep disturbances can be found in these diseases and their management and prevention.
- Learn about the main sleep disorders in the different dementias, both in their significance, diagnosis and therapeutic management.
- Manage knowledge of other neurological disorders that either affect sleep or are characterized by manifesting themselves predominantly during sleep, how they do so and what can be done, such as certain forms of epilepsy, headaches and neurodegenerative autoimmune processes such as anti-IGLON 5 syndrome, among others).
- Know in depth what sleep disturbances occur and what they imply in specific groups of neurological processes, such as neuromuscular diseases, the most frequent neurological autoimmune diseases, cerebrovascular diseases and traumatic brain injury.

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Course Management

The program includes in its teaching staff leading experts in Sleep Medicine, who bring to this specialization the experience of their years in the profession. Additionally, other recognized experts participate in its design and preparation, completing the program in an interdisciplinary manner.

The leading professionals in the field have come together to offer you the most comprehensive knowledge in this field, so that you can develop with total guarantees of success"

International Guest Director

Dr. Craig Canapari is an eminent specialist in **Pediatric Pulmonology and Sleep Medicine**. He has been internationally recognized for his commitment to the study and treatment of sleep disorders in children, as well as his work in the field of **pulmonary diseases**. Throughout his extensive professional career, Dr. Canapari has had an outstanding praxis focused on treating pediatric patients with chronic and life-threatening respiratory diseases.

As director of the **Pediatric Sleep Medicine Program** at Yale-New Haven Children's Hospital, Dr. Canapari has been dedicated to the management of various disorders such as Sleep Apnea and Obstructive Sleep Apnea. He also treats those suffering from general pulmonary problems, including cough, shortness of breath and asthma, as well as those suffering from Muscular Dystrophy. In this field, he is noted for his interdisciplinary approach, combining **Pneumology, Neurology** and **Psychiatry** in the research and treatment of these complex disorders.

In addition to his clinical expertise, Dr. Canapari is a celebrated researcher who has collaborated with other **Harvard** professionals to develop innovative tools, such as a smart phone application to assist parents in sleep training. His tireless efforts have also focused on how the use of CPAP machines can help children with **Obstructive Sleep Apnea** improve their quality of life. His in-depth knowledge in this area has led him to publish the book **It's Never Too Late to Sleep Train: The Low-Stress Way to High-Quality Sleep for Babies, Kids, and Parents.**

To this must be added his exceptional work as an Assistant Professor of **Pediatrics**, specializing in **Respiratory Medicine**, at the **Yale School of Medicine**. There he contributes to both clinical care and the training of future **pediatric** and **pediatric pulmonology professionals**.

Dr. Canapari, Craig

- Director of the Pediatric Sleep Medicine Postgraduate Certificate Program at Yale-New Haven Children's Hospital
- Attending Physician in Pediatric Pulmonology and Sleep Medicine at Yale-New Haven Children's Hospital
- Assistant Professor of Pediatrics, Respiratory Medicine, Yale School of Medicine, Yale University School of Medicine
- Doctor of Medicine, University of Connecticut School of Medicine
- Specialist in Pediatric Pulmonology and Sleep Medicine

Thanks to TECH you will be able to learn with the best professionals in the world"

Management

Dr. Larrosa Gonzalo, Óscar

- Specialist in Clinical Neurophysiology, San Rafael Hospital
- Expert in Sleep Medicine (CEAMS accredited, first national exam, 2013)
- Coordinator and founder of the Sleep Medicine Unit of MIPsalud, Madrid. Specialist and clinical consultant in sleep medicine at the Center of Neurological Diseases in Madrid and at the Multidisciplinary Unit for Sleep Disorders in San Rafael Hospital in Madrid, Spain
- Member of the Spanish Sleep Society (SES), founding member and former coordinator of its working group on Sleep Behaviour and Behavioural Disorders
- Member of the Spanish Society of the Neurophysiology Clinic (SENFC), founding member and former coordinator of its working group on sleep disorders
- Honorary Member, medical advisor and recommended specialist of the Spanish Restless Legs Syndrome Association (AESPI)
- Director of the Online Course "RESTLESS LEGS SYNDROME (WILLIS-EKBOM DISEASE)", (AESPI/Information without borders) for healthcare professionals, July 2016 - July 2017

Professors

Gismera Neuberger, Silvia

- Degree in Psychology. Doctorate in Biological and Health Psychology, Universidad Autónoma de Madrid.
- CEO of www.dormirmejor.es
- Professor of the Evaluation Committees of the Master's Degree in Healthcare Management and the Master's Degree in Patient Safety, Universidad Internacional de la Rioja (UNIR).
- Honorary Professor of the Autonomous University of Madrid (Teaching in the Doctoral Program and tutor of professional internships).
- Expert in Healthy Business Management (Institute of Health and Wellness, ISLB)
- Member of the Spanish Society of Sleep (SES).

Dr. Martínez Martínez, María Ángeles

- Associate Doctor in Clinical Neurophysiology via MIR, University Hospital Marqués de Valdecilla, Santander, Spain. Expert in Sleep Medicine (CEAMS accreditation, 2013)
- Associate Doctor of the Clinical Neurophysiology Service and co-coordinator of the Multidisciplinary Unit of Sleep Disorders and Ventilation of the Marqués de Valdecilla University Hospital.
- Master's Degree in "Sleep: Physiology and Medicine", University Pablo de Olavide-College of America, 2007.
- Member of the Spanish Sleep Society (SES), founding member and former coordinator of its working group on movement and behavioural disorders during sleep
- Member of the Spanish Society of Clinical Neurophysiology (SENFC).
- Member of the Spanish Sleep Network
- Co-chair of the XXV Annual Meeting of the Spanish Sleep Society, Santander, 2017.
- Associate investigator in 4 research projects in Sleep Medicine in the last 5 years.

Dr. Milán Tomás, Ángela

- Doctor specializing in Neurology
- Expert in Sleep Medicine, (CEAMS accreditation)
- Clinical Collaborator in Neurology, Monographic Consultations in Dementias and Sleep Disorders, University Clinic of Navarra, Madrid, Spain.
- Associate Professor at University of Navarra.
- Clinical-research Fellow at Sunnybrook Health Sciences Centre, Toronto (Canada), in cognitive neurology and movement disorders. (2016-2018)
- Research Fellow at University of Toronto (Canada) in Sleep Medicine (2014-2016).
- Expert in Sleep Medicine accredited by ESRS and CEAMS/FESMES
- Member of the Spanish Sleep Society (SES) and the Spanish Society of Clinical Neurophysiology (SENFC).

Dr. Sánchez Barros, Cristian

- Specialist in Clinical Neurophysiology and Head of the Sleep Unit at the Juaneda Miramar Hospital of the Juaneda Healthcare Network Hospital Group, Palma de Mallorca (Balearic Islands, Spain).
- Specialist in Clinical Neurophysiology via MIR, University Hospital Clinic San Carlos, Madrid, Spain.
- Doctor of Medicine (PhD) Cum Laude, University Complutense of Madrid
- Active member of the Spanish Sleep Society (SES), the Colombian Association of Sleep Medicine (ACMES) and the Spanish Society of Clinical Neurophysiology (SENFC).
- Active member of the SES Working Group on Movement and Behavioral Disorders during Sleep.
- International Advisor in a research project on Huntington's Disease led by the Caribbean Neurosciences Group of the University Simon Bolivar (Barranquilla-Colombia).

Dr. Rocío Martín, Esmeralda

- Specialist in Clinical Neurophysiology, University Hospital La Princesa, Madrid.
- Medical Specialist in Clinical Neurophysiology, Clínica Santa Elena, Madrid
- Medical Specialist via M.I.R. in Clinical Neurophysiology, (Hospital Clínico San Carlos, Madrid, Spain).
- Specialist in sleep medicine. Accredited by the Spanish Federation of Sleep Medicine Societies, 2020.
- Master in "Sleep: Physiology and Medicine", University of Murcia, 2019
- Member of the Spanish Society of Clinical Neurophysiology. Member of the Spanish Sleep Society (and its Insomnia working group).
- Member of the Research Foundation of the University Hospital La Princesa. Member of the American Society of Clinical Neurophysiology.

Dr. Wix Ramos, Rybel

- Specialist in the Sleep Unit of the Clinical Neurophysiology Service, University Hospital of La Princesa (Madrid, Spain), in the Sleep Unit of the Neurology Service, Hospital HM Sanchinarro (Madrid) and in the Sleep Unit of the Neurology Service, Hospital HM Puerta del Sur (Alcorcón, Madrid).
- Doctor of Medicine, CEU San Pablo University (School of Medicine).
- MIR Specialist in Clinical Neurophysiology, Hospital Clínico San Carlos, Madrid, Spain.
- Expert in Sleep Medicine, accredited by CEAMS (2015), the World Sleep Society (2017), and the European Sleep Research Society (2018).
- Master's Degree in Sleep: Physiology and Medicine. Accredited, University Pablo de Olavide (Seville, Spain), 2010
- Member of the Spanish Society of Clinical Neurophysiology.
- Member of the Spanish Sleep Society (and its Insomnia working group).

Martín Villa, Iván

- Founding Partner Psicología360
- Founding Partner Psicología y terapias EDS SL
- Clinical Psychologist at MIPsalud, Madrid (psychotherapy of sleep disorders and general health psychology).
- Clinical Psychologist collaborating with Fundación Adecco (Attention to people with disabilities). Clinical Psychologist in La Poveda Training and Development SL
- Degree in Psychology UNED of Madrid, Clinical Specialty. Legal Psychological Examiner
- Expert in Conduct Disorder, Addictions and Adolescent Disorder

Dr. Gutiérrez Muñoz, Carmen

- Current activity at the Institute of Neurological Specialties (IENSA) and Hospital QuirónSalud, Córdoba, Spain.
- Specialty in Clinical Neurophysiology via MIR, University Hospital Virgen Macarena of Seville.
- European Certification as a Specialist in Sleep Medicine by ESRS
- Master' s Degree in Sleep: Physiology and Medicine from the University of Murcia.
- Sleep Medicine courses of the American Sleep Society (AASM), 2016-2018.
- Member of the Spanish Sleep Society (SES), American Sleep Society (AASM), Spanish and Andalusian Societies of Clinical Neurophysiology (SENFC, SANFC).

Florido Gómez, Miguel

- Commercial Director at LEDMOTIVE , Barcelona, Spain
- Telecommunications Engineering
- Training in lamps, LED, technology & lighting

Dr. Albares Tendero, Javier

- Director of the Sleep Unit at Centro Médico Teknon. Sleep Medicine, Dr. Albares, Barcelona (Spain)
- Specialist in Clinical Neurophysiology, University Hospital La Paz, Madrid. European Specialist in Sleep Medicine. Qualified by the European Sleep Reseach Society
- Member of the Advisory Council for the Hourly Reform of the Government of Catalonia. Member of the Spanish Sleep Society (SES).

Dr. Rodríguez Morilla, Beatriz

- Circadian Rhythms Analysis at Kronohealth SL and Cronolab
- PhD in Psychology
- Degree in Psychology
- Master´s Degree in Neuroscience
- Member of the Spanish Sleep Society (SES) and the *World Association of Sleep Medicine.*

Dr. Iznaola Muñoz, María del Carmen

- Associate physician at the Virgen de las Nieves Hospital in Granada, Spain.
- Specialist in Clinical Neurophysiology
- Doctor of Medicine and Surgery. FESMES-accredited expert in Sleep Medicine
- Active member of the Spanish Sleep Society (SES), Spanish and Andalusian Societies of Clinical Neurophysiology (SENFC, SANFC).

Dr. Ruiz García, Josefina

- Associate Doctor in the Sleep Disorders Unit of the Clinical Neurophysiology Service, University Hospital Virgen de las Nieves, Granada, Spain.
- Specialist in Clinical Neurophysiology. Accredited as an Expert in Sleep Medicine by the Spanish Committee for Accreditation in Sleep Medicine (CEAMS).

Dr. Díaz Román, Mónica

- Specialist in Clinical Neurophysiology Service, Hospital Lluis Alcanyis, Xativa (Valencia), Spain.
- Specialist in Clinical Neurophysiology via MIR, Hospital La Fe de Valencia, Spain.
- Expert in Sleep Medicine by the Spanish Committee for Accreditation in Sleep Medicine (CEAMS, now FESMES).
- Master's Degree in Sleep. Physiology and Medicine, University of Murcia.
- Active member of the SES, the Spanish Society of Clinical Neurophysiology (SENFC) and the Spanish Society of Neurology (SEN)

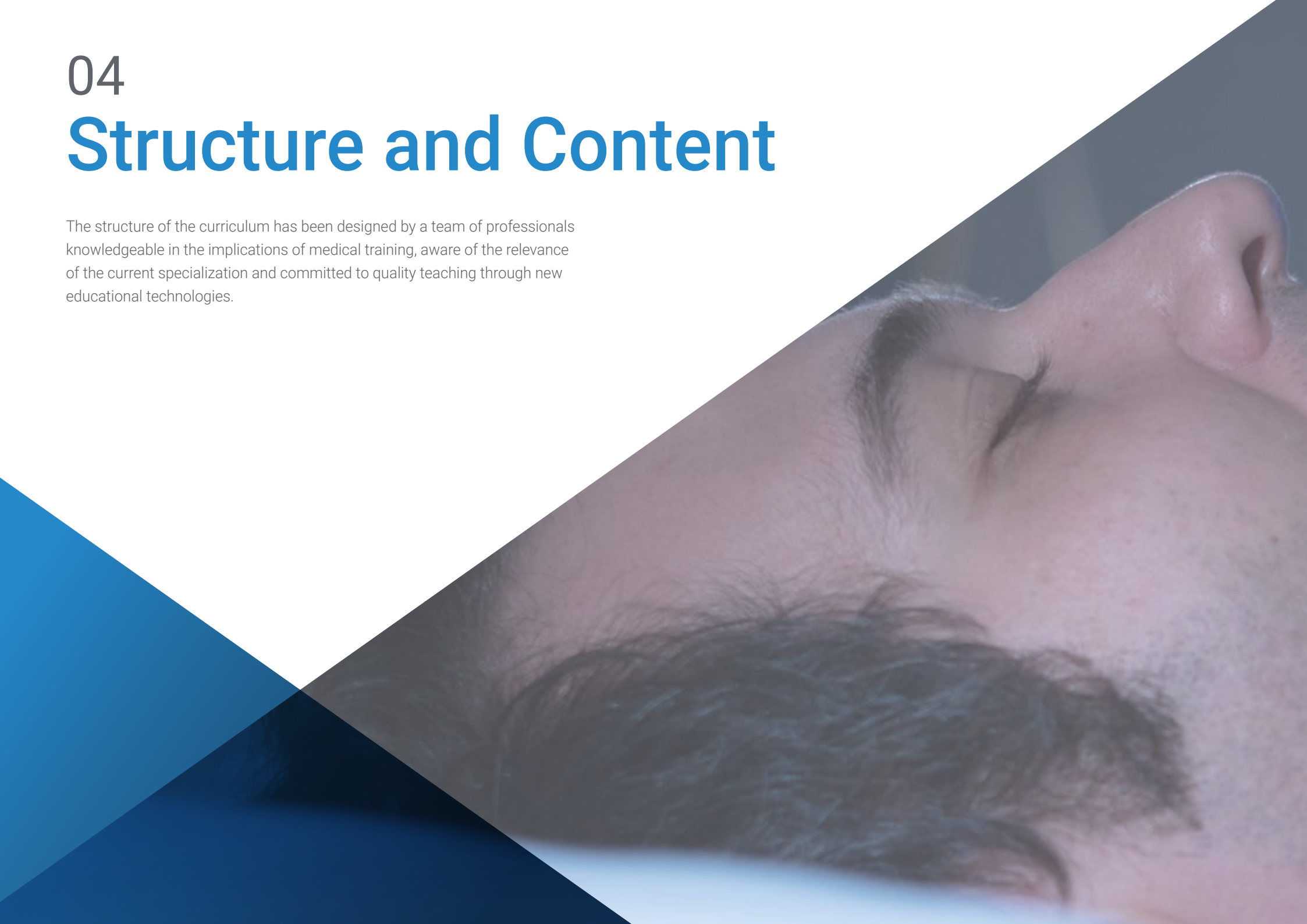
Dr. Teresí Copoví, Irene

- Specialist in the Clinical Neurophysiology Service, University Hospital La Fe, Valencia, Spain, with several years of experience in its Multidisciplinary Sleep Disorders Unit Active member of the Spanish Society of Clinical Neurophysiology (SENFC).
- Specialist in Clinical Neurophysiology, University Hospital and Polytechnic La Fe of Valencia.

04

Structure and Content

The structure of the curriculum has been designed by a team of professionals knowledgeable in the implications of medical training, aware of the relevance of the current specialization and committed to quality teaching through new educational technologies.



A comprehensive teaching program, structured in well-developed teaching units, oriented towards efficient and swift learning"

Module 1. Insomnia in Adults. Sleep in Adult Psychiatry

1.1 Insomnia: Definitions, Types, Epidemiology, and Socioeconomic Impact
1.2 Etiopathogenesis, Evaluation and Differential Diagnosis of Chronic Insomnia
  1.2.1. Non-pharmacological management of chronic insomnia(I): Problem Localization and Orientation
1.3 Basis and Importance of the Non-pharmacological Approach to Insomnia
  1.3.1. Cognitive-behavioral Treatment of Insomnia. Conceptual Framework
  1.3.2. Components of Cognitive-behavioral Treatment.
    1.3.2.1. Stimulus Control Techniques
    1.3.2.2. Techniques to Reduce Time in Bed.
    1.3.2.3. Sleep Hygiene Rules: Environmental and Behavioral Changes
    1.3.2.4. Effective Relaxation Techniques for Insomnia
    1.3.2.5. Cognitive Techniques Applied to the Management of Insomnia.
1.4 Other Possible Non-Pharmacological Approaches:
  1.4.1. Aromatherapy for Sleep Problems: Myths and Truths
  1.4.2. Music Therapy for Insomnia
  1.4.3. Acupuncture in Insomnia
  1.4.4. Non-Pharmacological Treatment of Chronic Insomnia(II): Behavioral Techniques
    1.4.4.1. Step-by-Step Relaxation Technique
      1.4.4.1.1. Relaxation and Diaphragm Respiration Techniques
      1.4.4.1.2. Progressive Muscular Relaxation Training
      1.4.4.1.3. Other Techniques: Biofeedback and Mindfulness
    1.4.4.2. Procedure for Applying the Cognitive Techniques
      1.4.4.2.1. Negative Thoughts and their Impact on Sleep
      1.4.4.2.2. Cognitive Distortions
      1.4.4.2.3. Cognitive Reconstruction: Discussion Technique
      1.4.4.2.4. Thought Stop
      1.4.4.2.5. Paradoxical Intention
    1.4.4.3. Individual Versus Group Therapy
    1.4.4.4. Health Education for the Prevention of Insomnia
    1.4.4.5. Neurofeedback and Insomnia: Basic and Applied Research
1.5 Pharmalogical Treatment for Insomnia: Options and Latest Findings.
  1.5.1. Benzodiazepines (BZD)
  1.5.2. Non-Benzodiazepine Hypnotics ("Z-drugs")
  1.5.3. Antidepressive Sedatives
  1.5.4. Melatonin and Melatonin Receptor Agonists
  1.5.5. Dual Orexin Receptor Antagonists (DORAs): What Does the Future Hold?
  1.5.6. Other Drugs Useful in the Treatment of Insomnia
  1.5.7. Supplements and Phytotherapy: Myths and Scientific Evidence
1.6 Pharmacological Treatment Planning for Insomnia Special Situations

Module 2. Hypersomnia in Adults Circadian Rhythm Disorders in Adults

2.1 Initial Management of Hypersomnias of Central Origin
  2.1.1. Concepts, Definitions and Types
  2.1.2. Insufficient Sleep Syndrome
  2.1.3. Isolated Symptoms and Variants of Normality: Long sleeper
2.2 Narcolepsy (part I)
2.3 Narcolepsy (part II)
2.4 Idiopathic Hypersomnia
2.5 Recurrent Hypersomnia.
  2.5.1. Kleine Levin Syndrome
  2.5.2. Menstrual-Related Hypersomnia
2.6 Other Causes of Hypersomnia

Module 3. Behavioral and Movement Disorders during Sleep in Adults

3.1 Parasomnias during Adult NREM Sleep
  3.1.1. Circadian Rhythm Disorders in Adults
  3.1.2. Nocturnal Eating Disorder
  3.1.3. Sexomnia
3.2 REM Sleep Behavior Disorder (RBD)
3.3 Other Sleep Disorders or Behavioral Situations
  3.3.1. Other REM Parasomnias
    3.3.1.1. Nightmare Disorder
    3.3.1.2. Isolated Sleep Paralysis

3.3.2. Somniloquia
3.3.3. Exploding Head Syndrome
3.4 Wake-sleep Dissociation
3.4.1. The Concept of Waking-Sleep Dissociation
3.4.2. Status Dissociatus
3.5 Restless Leg Syndrome (Willis-Ekbom's disease): Initial Considerations and Causal Mechanisms
3.5.1. Definition and Myths about the Disease: Clarifying Concepts
3.5.2. Epidemiology
3.5.3. Living with the Disease
3.5.4. Pathophysiology.
3.6 Restless Leg Syndrome: Etiopathogenic Types and Clinical Aspects
3.6.1. Primary" and " Secondary" Disease: Current Concepts
3.6.2. Clinical Symptoms
3.6.3. Physical, Psychological and Social Consequences
3.7 Restless Legs Syndrome: Diagnostic Methods and Differential Diagnosis
3.7.1. Clinical Diagnostic Criteria
3.7.2. Complementary Diagnostic Support Methods
3.7.3. Differential Diagnosis
3.8 Treatment of Restless Legs Syndrome
3.8.1. Non-pharmacological Measures
3.8.2. Treatment with Iron. Other Deficits to Consider
3.8.3. Pharmacological Treatment of Symptoms
3.8.3.1. General Considerations
3.8.3.2. Dopaminergic Drugs
3.8.3.3. Non-dopaminergic Drugs
3.8.4. Other Treatments 3.9. Other Sleep-Related Motor Disorders: Limb and/or Bodily Activities

3.9.1. Periodic Limb Movement Syndrome during sleep
3.9.2. Rhythmic Movements during Sleep
3.9.3. Muscle Cramps in the Legs During Sleep
3.9.4. Hypnogenic Foot Tremor
3.9.5. Alternating Muscle Activation of the Legs
3.9.6. Hypnagogic Myoclonias
3.9.7. Isolated Head and Neck Myoclonias during Sleep
3.9.8. Proospinal Myoclonias
3.10 Other Sleep-Related Motor Disorders: Orofacial Phenomena
3.10.1. Bruxism During Sleep
3.10.2. Faciomandibular Myoclonias

Module 4. Sleep-related Neurological Disorders in Adults

4.1 Sleep, Learning and Memory.
4.1.1. Short-term and Long-term Memory, Consolidation during Sleep
4.1.2. Synaptic Homeostasis
4.1.3. Hypnotoxins and the Glymphatic System During Sleep
4.1.4. Aging, Memory and Sleep
4.2 Information Processing and Sleep
4.2.1. Sensory Processing
4.2.2. Motor Control during Sleep
4.3 Neurodegeneration and Sleep (I): Alzheimer's Disease (AD)
4.3.1. Pathophysiology of AD and the Glymphatic System
4.3.2. Circadian Disorders in AD
4.3.3. Therapeutic Management of Sleep Disorders in AE
4.4 Neurodegeneration and Sleep (II): REM Sleep Behavior Disorder and Alpha-Synucleopathies
4.5 Neurodegeneration and Sleep (III): Other Degenerative Diseases
4.5.1. Sleep Disorders in Frontotemporal Dementia
4.5.2. Sleep Disturbances in Huntington's Disease
4.5.3. Sleep Disorders in Other Neurodegenerative Processes.

4.6 Autoimmune Neurological Diseases and Sleep Disorders
- 4.6.1. Multiple Sclerosis: Sleep and Fatigue
- 4.6.2. Other Demyelinating Diseases and Sleep Disorders
- 4.6.3. Autoimmune Encephalitis and Sleep
- 4.6.4. Anti-IGLON 5 Disease

4.7 Neuromuscular Diseases and Sleep
- 4.7.1. Amyotrophic Lateral Sclerosis and Other Motor Neuron Diseases
- 4.7.2. Myopathies and Sleep Disorders

4.8 Headache and Sleep
- 4.8.1. Relationship Between Sleep and Headache
- 4.8.2. Hypnic Headache
- 4.8.3. Migraine and Sleep

4.9 Epilepsy and Sleep (Author: Dr. Asier Gómez Ibañez)

4.10 Other Neurological Diseases and their Relation to Sleep
- 4.10.1. Cerebrovascular Disease and Sleep
- 4.10.2. Traumatic Brain Injury, Concussion and Sleep
- 4.10.3. Diseases of the Peripheral Nervous System and Sleep

A unique, key, and decisive training experience to boost your professional development"

05

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.

According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in the physician's professional practice.

Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method"

The effectiveness of the method is justified by four fundamental achievements:

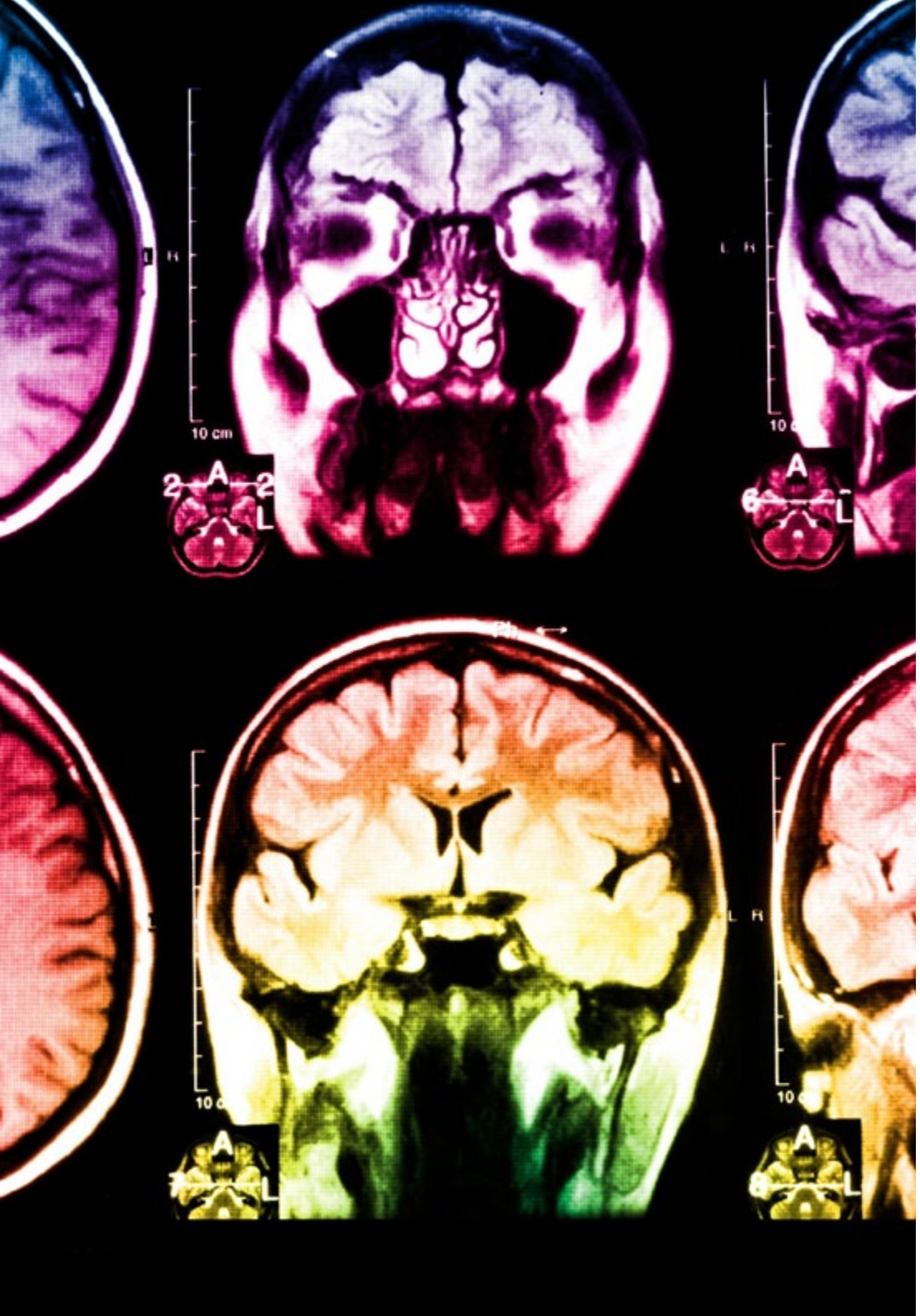
1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.

Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.

This program offers the best educational material, prepared with professionals in mind:

Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.

Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.

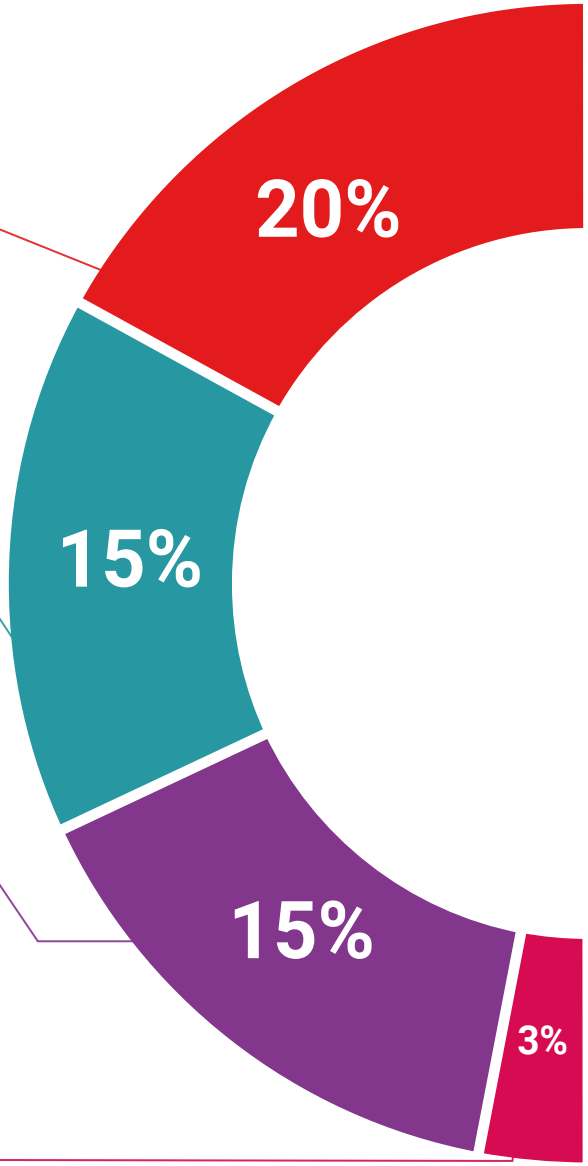
Interactive Summaries

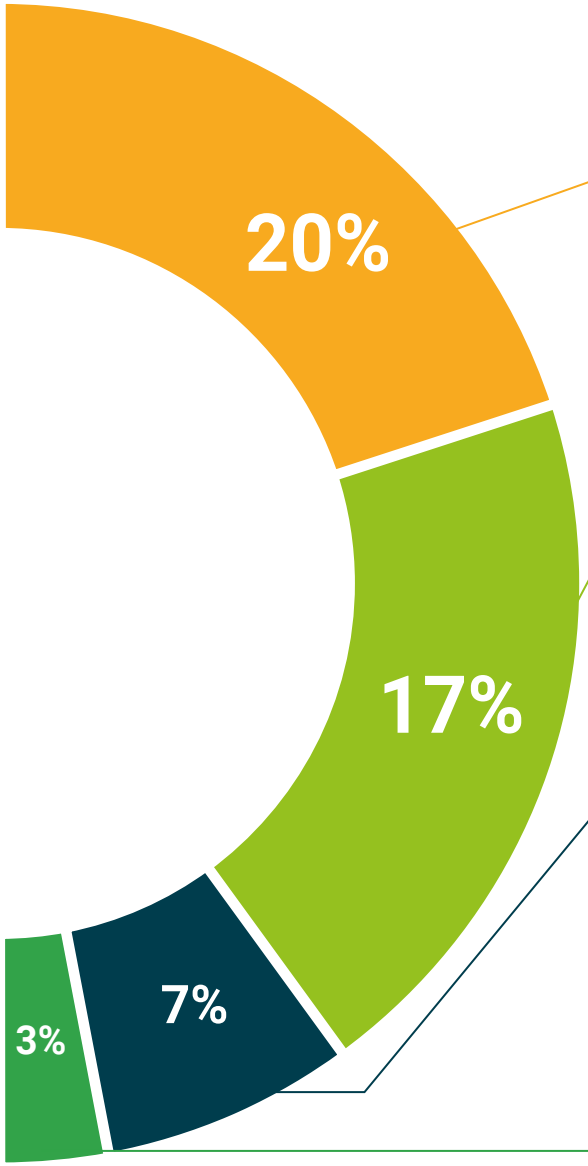
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".

Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.

Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.

Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.

06

Certificate

The Postgraduate Diploma in Sleep Disorders in Adult Clinical Neurology guarantees, in addition to the most rigorous and up to date training, access to a Postgraduate Diploma issued by TECH Global University.

Successfully complete this program and receive your certificate without travel or cumbersome paperwork"

This program will allow you to obtain your **Postgraduate Diploma in Sleep Disorders in Adult Clinical Neurology** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra (***official bulletin***). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Sleep Disorders in Adult Clinical Neurology**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**


tech global university

Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

Postgraduate Diploma in Sleep Disorders in Adult Clinical Neurology

This is a program of 450 hours of duration equivalent to 18 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Rector

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. Unique TECH Code: AFWORD23S techtitute.com/certificates

*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.

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Postgraduate Diploma

Sleep Disorders in Adult Clinical Neurology

- Modality: **online**
- Duration: **6 months**
- Certificate: **TECH Global University**
- Credits: **18 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Postgraduate Diploma

Sleep Disorders in Adult Clinical Neurology

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