



# Professional Master's Degree

Odontology for Patients with Special Needs

» Modality: online

» Duration: 12 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/pk/dentistry/professional-master-degree/master-odontology-patients-special-needs

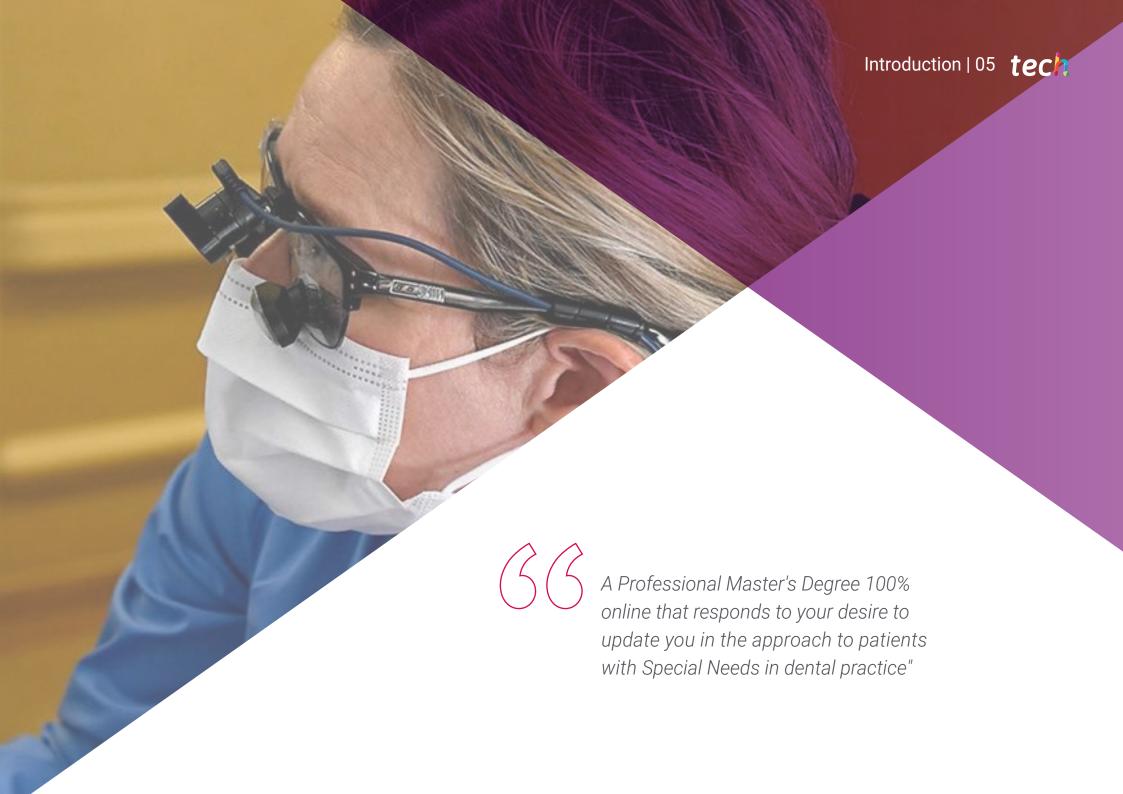
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# tech 06 | Introduction

From adapting the environment, to dealing with accidental exposure to a virus in the dental office, or even implementing a protocol for diagnosing and treating a patient suffering from CRP in a dental office. A set of actions that lead the dental professional to be prepared not only to attend the most frequent pathologies, but also to handle different situations in patients with Special Needs.

Beyond people with functional diversity or in advanced age, the dentist must be aware of the approach to other cardiovascular, renal, oncological diseases or even in lactating women patients with diabetes. Aware of this need, TECH has designed this Professional Master's Degree that allows the graduate to obtain a complete update in only 12 months.

An intensive but dynamic program thanks to a syllabus designed to offer a theoretical-practical perspective from the very beginning. In addition, students will have at their disposal first class teaching tools based on video summaries of each topic, videos in detail, specialized readings and clinical cases prepared by an excellent team of dental professionals with accumulated experience in the sector.

In this way, students will be able to keep abreast of advances in dental care for patients with endocrine, digestive-hepatic, oncological, cardiovascular, and psychiatric disorders, and will end with an in-depth study of less frequent situations in the dental clinic.

Undoubtedly, an ideal opportunity to update your knowledge through an advanced and flexible academic option. All you need, to take the course, is a digital device with an internet connection, which allows you to view the content at any time of the day. This way, without the need for attendance or scheduled classes, the professional will be able to combine their daily activities with a first class program.

This Professional Master's Degree in Odontology for Patients with Special Needs contains the most complete and up-to-date scientific program on the market. Its most outstanding features are:

- Practical cases presented by experts in Dentistry
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- Practical exercises where self-assessment can be used to improve learning
- Its special emphasis on innovative methodologies
- 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



You are looking at a Professional Master's Degree that adapts to your schedule and allows you to combine your responsibilities with a quality program"



Integrates the most effective clinical methodology in autoimmune people with dental problems thanks to the numerous clinical cases in this program"

The program's teaching staff includes professionals from sector who contribute their work experience to this educational program, as well as 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.

Update your clinical practice in patients with systemic diseases parallel to their own oral health problem.

Get a complete update on the dental management of patients with chronic or acute pathology.







# tech 10 | Objectives



# **General Objectives**

- Update knowledge on the identification of endocrine pathologies that may affect the normal development of dental treatment
- Analyze digestive pathologies that may hinder dental treatment
- Define the pharmacological guidelines for patients with IBD
- Define and analyze the basic and advanced aspects that define the actions to be taken in case of the main urgent and emergent conditions in a dental office
- Address the most common medical complications in patients with renal pathology
- Provide updated recommendations based on scientific evidence for an adequate dental approach to patients affected by head and neck cancer
- Describe the appropriate actions in the pre-treatment period, during and after cancer treatment, from an odontological point of view
- Identify the main oral characteristics of patients with functional diversity
- Delve into the cardiovascular pathologies with the highest incidence in our daily practice in the dental clinic
- Update knowledge on the medical conditions and medication with hematological alterations
- $\bullet\,$  Deepen in the main complications derived from the medical pathology presented
- Delve into the possible interactions derived from the medical pathology in the dental setting





## **Specific Objectives**

# Module 1. Dental Care in Patients with Endocrine Pathology. Special situations in women

- Identify the medical complications of Diabetes Mellitus in relation to dental treatment
- Establish the existing association according to the scientific literature between Diabetes and Periodontal Disease and vice versa, and with other oral pathologies
- Present a protocol for dental care in patients with Diabetes Mellitus
- Identify the medical complications of hyper or hypothyroidism in relation to dental treatment
- Present a protocol for dental care in patients with hyper or hypothyroidism
- Specify in which situations we can detect a possible adrenal insufficiency due to taking exogenous corticoids
- Present a protocol for dental care in patients taking high doses of corticosteroids
- Identify the systemic complications associated with being pregnant or breastfeeding in relation to dental treatment
- Present a protocol for dental care for pregnant and lactating women

#### Module 2. Dental Care in Patients with Digestive-Hepatologic Pathology

- Identify a history of peptic ulcer in the medical history
- Evaluate the risk of NSAID treatment for the gastric mucosa
- Establish a protocol for the prescription of NSAIDs in patients with peptic ulcer disease
- Identify the drugs that can cause pseudomembranous colitis

- Analyze the risks involved in prescribing drugs to patients with IBD
- Establish an action protocol for patients with Hepatitis B or C
- Propose an action protocol for accidental exposure to the Hepatitis virus

#### Module 3. Management of urgent and emergency situations in the dental office

- Define the concepts of urgency and emergency
- Analyze the definition of alert criteria and alarm criteria
- Study the principles that define the critical patient in a generic way
- Define the principles of severity standardization
- Analyze the specific action guidelines for each syndromic condition included in emergency medicine and its application in the dental office
- Study and analyze the principles governing life support for patients in CRA (cardiorespiratory arrest) according to the European Resuscitation Council 2021 recommendations
- Define and analyze the essential technical and pharmacological resources for a dental office

# Module 4. Dental Care in Patients with Renal Pathology. Dental Care in Patients with Respiratory Pathology

- Identify the most important systemic complications in patients with renal pathology
- Identify the problems related to coagulation in patients with CKD and on dialysis
- Establish which drugs used in dentistry are indicated or contraindicated and when bacterial endocarditis prophylaxis should be prescribed

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- Propose an action protocol for renal transplant patients
- Identify the most common drugs used in COPD and their adverse effects on the oral cavity
- Recognize the risk situations with the dental treatment of patients with COPD and bronchial asthma
- Acknowledge the peculiarities in the dental management of the asthmatic patient
- Solve a medical emergency situation in the asthmatic patient

# Module 5. Dental care in oncological patients. Radio and Chemotherapy. Bone Marrow Transplant

- Establish an update on the concepts and determinants of survival of patients diagnosed with head and neck cancer
- Identify those factors that may condition the appearance or recurrence of oral squamous cell cancer
- Specify the role of the dentist prior to radio-chemotherapy or surgical treatment
- Establish the role of the dentist during to radio-chemotherapy or surgical treatment
- Define the role of the dentist prior to radio-chemotherapy or surgical treatment
- Educate professionals on the role of the dentist as a member of the multidisciplinary oral cancer treatment team
- Define the different treatment and approach options available for patients diagnosed with head and neck cancer

#### Module 6. The patient with functional diversity in the dental clinic

- Update knowledge on the main characteristics of patients with functional diversity
- Identify the most frequent systemic pathology in patients with functional diversity
- Recognize the most frequent oral and dental pathology in patients with functional diversity
- Propose the treatment modalities in patients with functional diversity
- Establish the main factors for decision making in patients with functional diversity
- Develop competencies for the diagnosis, management and treatment of the different patients with functional diversity
- Present the adaptation of the different dental specialties in these patients

#### Module 7. Dental care in the elderly patient

- Identify the problems of demographic change worldwide
- Analyze the general physiological and oral cavity changes that occur with age
- Establish guidelines for geriatric assessment of elderly patients and to know the major geriatric syndromes
- Propose treatment and prevention guidelines for the elderly with dry mouth
- Propose conservative dental treatment guidelines for the elderly
- Expose periodontal and preventive treatment guidelines for the elderly
- Present a preventive action protocol for institutionalized seniors

#### Module 8. Dental Care in Patients with Cardiovascular Pathology

- Identify the medical complications associated with cardiovascular pathologies and their treatment
- Present a protocol for dental care in patients with Heart Failure
- Expose a protocol for dental management in patients with ischemic heart disease
- Guideline a protocol for dental management in patients with Cardiac Arrhythmias disease
- Establish a protocol for dental management in patients with arterial hypertension
- Present a protocol for dental management in patients at risk of bacterial endocarditis
- Propose a protocol for the medical-dental management of possible emergencies that we may have with patients with cardiovascular pathology in the dental office

#### Module 9. Dental Care in Patients with Hematologic Alterations

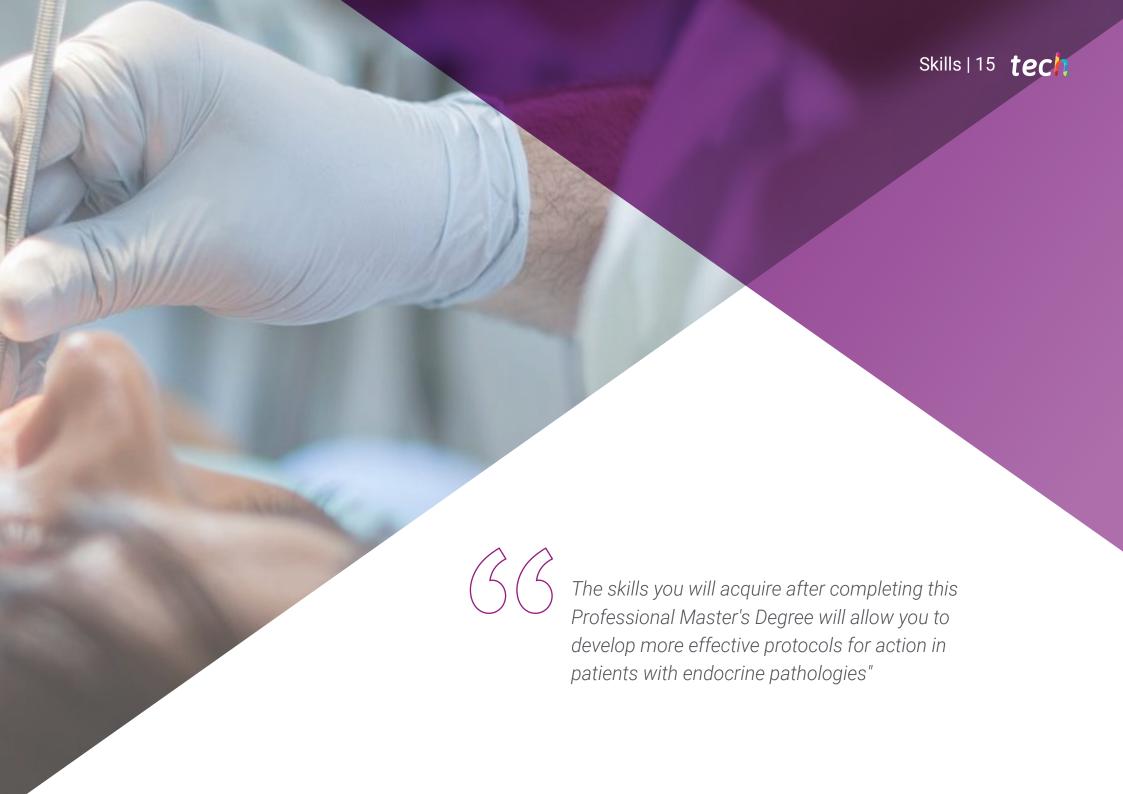
- Develop the physiological phenomena that occur during hemostasis
- Identify which coagulation tests should be ordered for dental treatment
- Establish guidelines for the dental treatment of patients treated with antiplatelet agents
- Establish the guidelines for the dental treatment of patients anticoagulated with coumarin derivatives and heparin
- Identify the different types of direct oral anticoagulants and their management in dental treatment
- Define the criteria for safe dental treatment in patients with hemophilia and other congenital pathologies
- Establish guidelines for dental treatment in patients with red blood cell disorders
- Establish guidelines for dental treatment in patients with white blood cell disorders
- Identify the different types of Purpura and their management in dental treatment
- Develop protocols for the control of intraoperative and postoperative bleeding

# Module 10. Dental management in immunocompromised patients, patients with psychiatric disorders and in less frequent situations in the dental clinic

- Analyze autoimmune diseases with repercussions in the oral cavity and their management
- Demonstrate the odontological management of the patient with articular prostheses
- Establish the dental patient management in morbid obesity
- Identify the treatment of choice in the patient with sleep disorders
- Identify the main drugs abuse and their impact on the oral cavity
- Establish the management protocol for a patient in palliative care
- Define the concept of gender dysphoria and its impact on dental clinical practice







# tech 16 | Skills



### **General Skills**

- Establish the guidelines for medical-dental management of patients with endocrine pathologies of various types
- Establish medical-dental management guidelines for pregnant and lactating women
- Propose an action protocol for patients with endocrine pathologies and for pregnant and breastfeeding women
- Set up dental action protocols for patients with a history of hepatitis
- Carry out action protocols for accidental exposure to the hepatitis virus
- Perform a specific action against the main urgent and emergent syndromic conditions in a dental office



Raise your skills to act and adapt your dental procedures to patients with functional diversity"







# Specific Skills

- Work on pathology prevention, control and oral health maintenance in patients with oral cancer who are going to undergo combined radio-chemotherapy treatment
- Increase competences to diagnose, plan and perform, in general, a multidisciplinary, sequential and integrated treatment in patients with functional diversity
- Propose conservative, periodontal and preventive treatment guidelines for functionally dependent elderly patients
- Present a dental action protocol for institutionalized elderly patients
- Manage patients with cardiovascular pathologies
- Perform safe dental treatment in patients with hematologic alterations
- Act in immunosuppressed patients
- Identify the possible interactions derived from the medical pathology in the dental setting
- Develop management protocols for patients with neurodegenerative disorders
- Act before the most common medical complications in patients with Rehabilitation pathology





### Management



### Dr. Jose Antonio Gil Montoya

- General Dentist in private practice
- Coordinator of the Doctoral Program in Clinical Medicine and Public Health of the University of Granada
- Director of the Stomatology Department of the University of Granada
- Head Teacher of Dentistry in Special Patients at the University of Granada
- Gerodontology Professor at the University of Granada
- Invited professor of online Masters in Special Patients and Gerodontology
- Degree in Dentistry from the University of Granada
- PhD in Dentistry from the University of Granada
- Master's Degree in Social Gerontology from the University of Granada
- Master in Health Research Methodology by the Andalusian School of Public Health

#### **Professors**

#### Dr. Antonio Cardenas Cruz

- Head of the Intensive Care Medicine Department, Motril Hospital
- Director of the Clinical Unit of Critical Care and Emergency Management of the Poniente University Hospital
- Institute Director of Continuing Education of the Andalusian Society of Intensive Care Medicine and Coronary Universities
- Training Program Director for Life Support Trainers of the IAVANTE Line of the Progreso y Salud Foundation of the Consejería de Salud y Consumo de la Junta de Andalucía (Andalusian Regional Government)

- Training Program Director for Sedation the IAVANTE Line of the Progreso y Salud Foundation of the Consejería de Salud y Consumo de la Junta de Andalucía (Andalusian Regional Government)
- Head of Critical Care and Emergency Department, Hospital Universitario de Poniente
- Professor of Medicine
- Degree in Medicine and Surgery from the UGR
- PhD in Medicine and Surgery, UGR
- Specialist in Intensive Care Medicine

#### Dr. Lizett Castellanos Cosano

- Odontologist at Dental Clinic Dras. Castellanos Cosano
- Odontologist at the Virgen del Rocío University Hospital
- Assistant Professor at the University of Seville
- PhD in Dentistry at the University of Seville
- Degree in Current Pediatric from the University of Seville
- Professional Master's Degree in Oral Surgery by the University of Seville
- Professional Master's Degree in Endodontics by the University of Seville
- Professional Master's Degree in Integrated Dentistry of Adults and Special Patients from the University of Seville
- Master's Degree in Dental Sciences from the University of Seville
- Director's Board Member of the Spanish Society of Odontostomatology in Patients with Special Needs (SEOENE), of the Spanish Society of Oral Surgery (SECIB) and the Andalusian Association of Oral Surgery (AACIB)

#### Dr. Maria Cristina Fuertes Gonzalez

- Expert Odontologist in Pediatric Dentistry
- Specialist in Pediatric Dentistry, Dentomaxillofacial Orthopedics, Myofunctional and Respiratory Therapy, RNO and Patients with Functional Diversity
- Professor of the Master's Degree in Hospital Dentistry and Special Patients at the University of Valencia
- PhD in Physiopathology of the Stomatognathic System from the University of Valencia
- Degree in Dentistry from the University of Valencia
- Professor of the Master's Degree in Hospital Dentistry and Special Patients at the University of Valencia

#### Dr. Aida Gutierrez Corrales

- Specialized private practice in Special Needs Dentistry and Oral Surgery
- Lecturer in Special Needs Odontology at the University of Seville
- PhD in Odontology from the University of Seville
- Degree in Dentistry from the European University of Madrid
- Master's Degree in Dental Sciences at the University of Seville
- Master in Medical-Surgical and Integrated Odontology at the University of Seville
- Master's Degree in Oral Surgery at the University of Seville
- Master's Degree in Advanced Oral Surgery at the University of Seville

#### Dr. Francisco Javier Moreno

- Specialist in Oral Surgery and Implantology
- Dentist in several private clinics
- Assistant Professor of the Degree of Dentistry at the University of Granada
- PhD International in Dentistry from the University of Granada
- Degree in Dentistry from the University of Granada
- Professional Master's Degree in Oral Surgery and Implantology from the University of Granada
- Professional Master's Degree in Research in Dentistry, University of Granada, Spain

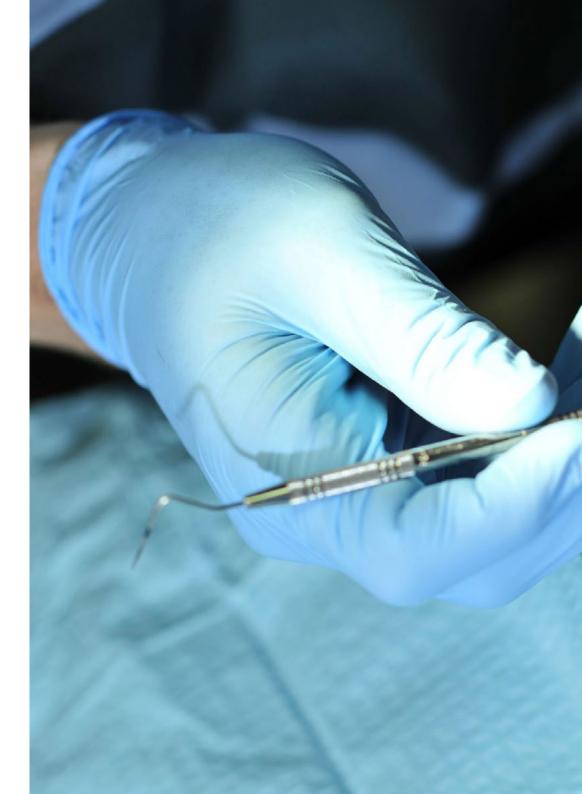
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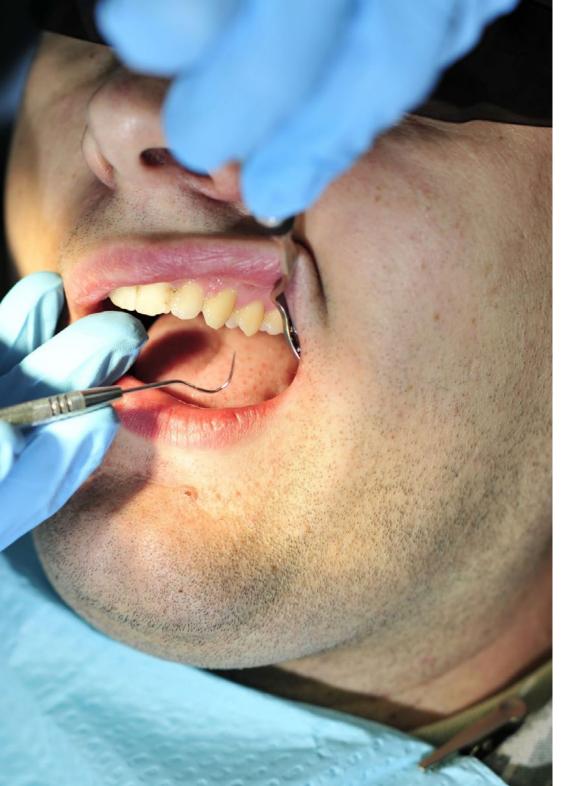
### Dr. Federico Martínez López

- Head of the Murcia Floridablanca Oral Health Unit
- Dentist in private clinic
- Collaborating Professor in Special Patients and Gerodontology at the University of Murcia
- PhD in Medicine and Surgery from the University of Murcia
- Degree in Medicine and Surgery, Autonomous University of Barcelona, Teaching Unit in Vall Hebron Degree in Odontology from the University of Seville
- Master's of Special Patients from the University of Murcia

#### Dr. Esther Muñoz Soto

- Dentist in private practice
- Master Degree teacher in Dentistry at the University of Granada
- Professional Master's Degree in Oral Surgery and Implantology at the University of Granada
- Master's Degree in Tissue Engineering at the University of Granada
- Official Master's Degree in Oral Surgery and Implantology at the University of Granada
- PhD in Dentistry from the University of Granada
- Degree in Dentistry from the University of Granada





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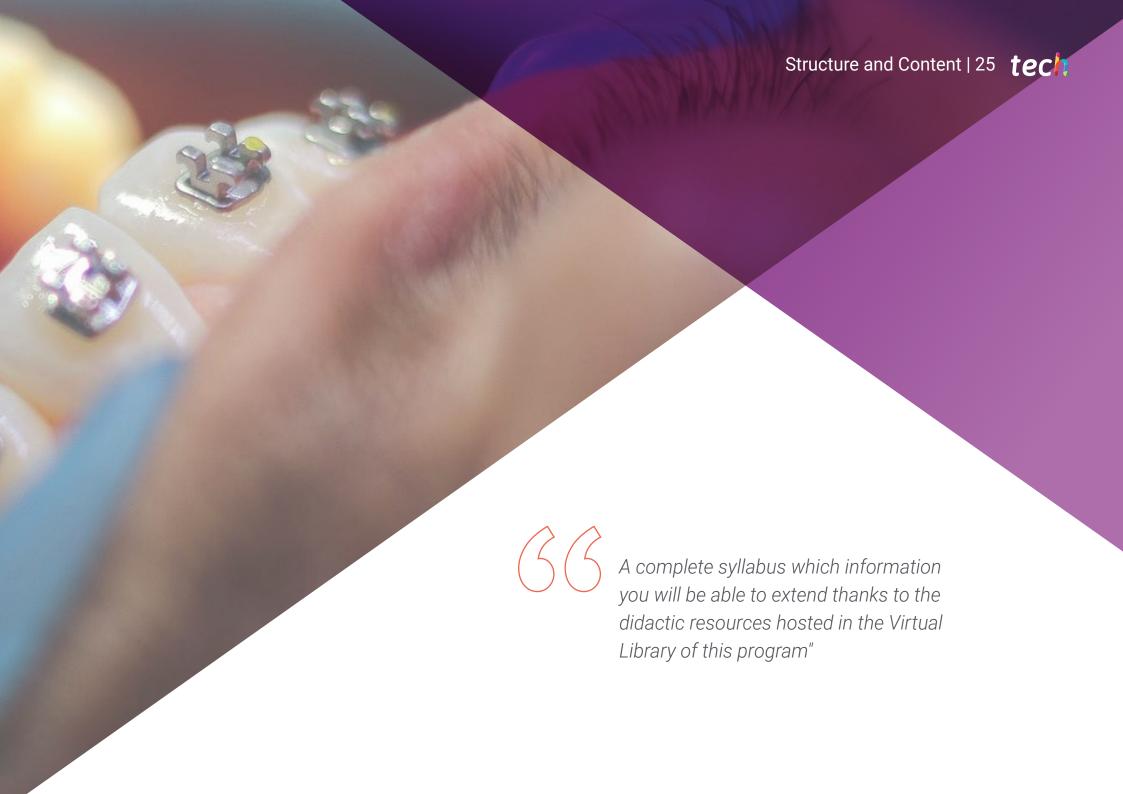
#### Dr. Candela Reyes Botella

- Dentist in private practices
- Professor of Odontology at the University of Granada
- Degree in Medicine and Surgery
- Degree in Dentistry
- PhD in Medicine and Surgery
- Stomatology Specialist
- Master's Degree university in Oral Surgery and Implantology from the University of Granada

#### Dr. Javier Silvestre Rangil

- Private practice from general dentistry
- Specialist in Periodo-ntics, Oral Surgery, Oral Medicine, and Special Needs Patients
- Associate professor attached to the Stomatology Department from the Faculty of Medicine and Dentistry, University of Valencia
- Degree in Dentistry from the University of Barcelona
- PhD in Dentistry from the University of Valencia
- Master in Oral Medicine and Surgery by the University of Valencia
- Master in Special Patients and Hospital Dentistry by the University of Valencia





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# **Module 1.** Dental Care in Patients with Endocrine Pathology. Special situations in women

- 1.1. Diabetes Mellitus
  - 1.1.1. The Concept of Diabetes Mellitus
  - 1.1.2. Types of Diabetes
  - 1.1.3. Medical treatment of Diabetes Mellitus
- 1.2. Medical Complications in Diabetes Mellitus
  - 1.2.1. General medical complications
  - 1.2.2. Medical complications that can affect oral health
  - 1.2.3. Medical complications that can affect dental treatment
- 1.3. Dental management of patients with diabetes mellitus
  - 1.3.1. Caries and periodontal disease control
  - 1.3.2. Dental management protocol of the patient with Diabetes Mellitus
  - 1.3.3. Action in case of hypo- or hyperglycemia in the dental chair
- 1.4. Action in case of hypo- or hyperglycemia in the dental chair
  - 1.4.1. Thyroid pathology: hyperthyroidism and hypothyroidism. Medical considerations
  - 1.4.2. Dental management of the patient with hyperthyroidism
  - 1.4.3. Dental management of the patient with hypothyroidism
- 1.5. Dental management of the patient with parathyroid pathology
  - 1.5.1. Parathyroid Pathology
  - 1.5.2. Oral health-related systemic complications
  - 1.5.3. Dental management of the patient with parathyroid pathology
- 1.6. Dental management of the patient with Cushing's Syndrome/Addisone's Disease
  - 1.6.1. Cushing's Syndrome. General Aspects
  - 1.6.2. Addison Disease General Aspects
  - 1.6.3. Dental management of the patient with Cushing's Syndrome/Addisone's Disease
- 1.7. Dental management of the patient treatment with Corticoids
  - 1.7.1. Corticosteroids. Indications and Adverse Effects
  - 1.7.2. Secondary Adrenal Gland Insufficiency
  - 1.7.3. Preventive action protocol for a patient with secondary adrenal insufficiency
- 1.8. Physiological Changes during Pregnancy. Oral Health of a Pregnant Woman
  - 1.8.1. General physiological changes in the pregnant woman

- 1.8.2. Oral physiological and pathological changes in pregnant women
- 1.8.3. Adverse pregnancy events associated with oral health
- 1.9. Dental management of pregnant women
  - 1.9.1. Radiologic treatment considerations in pregnant women
  - 1.9.2. Pharmacological treatment considerations in pregnant women
  - 1.9.3. General Dental management in pregnant women
- 1.10. Dental management of lactating women
  - 1.10.1. Pharmacological treatment considerations in lactating women
  - 1.10.2. Oral health care in lactating women
  - 1.10.3. Oral health Care in a Newborn

### Module 2. Dental Care in Digestive-Hepatologic Pathology Patients

- 2.1. Peptic Ulcers
  - 2.1.1. Concept and Types of Peptic Ulcers
  - 2.1.2. Clinic and treatment of peptic ulcer disease
  - 2.1.3. Gastric Cancer
- 2.2. Gastrointestinal adverse effects of NSAIDs
  - 2.2.1. Types of AINES
  - 2.2.2. AINES Action Mechanisms
  - 2.2.3. Recommendations for the Consumption of AINES
- 2.3. Dental management of patients with peptic ulcer disease
  - 2.3.1. Medical history in patients with a history of peptic ulcer disease
  - 2.3.2. Risk situations in odontology for patients with peptic ulcer disease
  - 2.3.3. Pharmacological preventive treatment
- 2.4. Inflammatory Bowel Disease (IBD)
  - 2.4.1. Concept of IBD Pathophysiology
  - 2.4.2. Crohn's Disease and Ulcerative Colitis. Clinical and prognosis
  - 2.4.3. Pharmacological treatment of patients with IBD
- 2.5. Dental management of the patient with IE
  - 2.5.1. Medical History of the patient with IBD
  - 2.5.2. Oral lesions associated with IBD
  - 2.5.3. Dental management of the patient with IE
- 2.6. Pseudomembranous colitis
  - 2.6.1. Concept. Clinical manifestations of pseudomembranous colitis

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- 2.6.2. Etiology
- 2.6.3. Dental management of patients with Pseudomembranous colitis disease
- 2.7. Acute Hepatitis
  - 2.7.1. Etiology of acute hepatitis. Clinical Symptoms
  - 2.7.2. Evolution and pharmacological treatment
  - 2.7.3. Complications related to dental treatment
- 2.8. Hepatitis B
  - 2.8.1. Clinical manifestations, evolution and routes of infection
  - 2.8.2. Serologic Test
  - 2.8.3. Dental management of patients with Hepatitis B disease
- 2.9. Hepatitis C:
  - 2.9.1. Clinical manifestations, evolution and routes of infection
  - 2.9.2. Serologic Test
  - 2.9.3. Dental management of patients with Hepatitis C: disease
- 2.10. Accidental exposure to hepatitis virus
  - 2.10.1. Accidents in the dental clinic
  - 2.10.2. What to do in case of exposure at the clinic?
  - 2.10.3. Accidents prevention

# **Module 3.** Management of urgent and emergency situations in the dental office

- 3.1. Critical Patients Conceptualization
  - 3.1.1. Critical Patients
  - 3.1.2. Emergency Care
  - 3.1.3. Gravity Standardization
  - 3.1.4. Alert and Alarm Criteria
- 3.2. Technical resources for the control of urgencies and emergencies in a dental cabinet
  - 3.2.1. Airway
  - 3.2.2. Venous Route
  - 3.2.3. Monitoring
- 3.3. Applied pharmacology: basic active principles for use in urgencies and emergencies in a dental cabinet
  - 3.3.1. Cardiovascular sphere

- 3.3.2. Respiratory sphere
- 3.3.3. Neurological sphere
- 3.4. Alterations in the Level of Consciousness
  - 3.4.1. Coma: conceptualization
  - 3.4.2. Clinical assessment of the coma patient
  - 3.4.3. Action sequence for the patient with deteriorated level of consciousness
- 3.5. Shock
  - 3.5.1. Shock. Concept
  - 3.5.2. Classification: special study of anaphylactic shock as a model of distributive shock
  - 3.5.3. Actions in case of severe anaphylaxis
- 3.6. Syncope
  - 3.6.1. Syncope. Conceptualization
  - 3.6.2. Classification
  - 3.6.3. Basic actions for the management of the patient with syncope depending on the probable origin of the syncope
- 3.7. Acute Coronary Syndrome (ACS)
  - 3.7.1. Conceptualización: angina vs infarto: tipología
  - 3.7.2. Identification of alarm criteria in a patient with ACS
  - 3.7.3. Sequence of action for management of a patient with ACS in the dental office
- 3.8. Acute complications of AHT
  - 3.8.1. Acute Complications of AHT Conceptualization
  - 3.8.2. Hypertensive Crisis and hypertensive Emergency
  - 3.8.3. Basic actions for the control of hypertensive emergencies
- 3.9. Acute Metabolic Complications
  - 3.9.1. Acute Metabolic Complications. Conceptualization
  - 3.9.2. Acute diabetic decompensations
  - 3.9.3. Actions for the management of the patient with symptomatic hypo / hyperglycemia
- 3.10. BLS (basic life support) / IVS (immediate life support): European Resuscitation Council
  - 3.10.1. Conceptualization

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- 3.10.2. Identification of the PCR patient: prevention
- 3.10.3. Algorithms of action for patients with CRP

# **Module 4.** Dental Care in Patients with Renal Pathology. Dental Care in Patients with Respiratory Pathology

- 4.1. Kidney pathology
  - 4.1.1. Medical history of the patient with renal pathology
  - 4.1.2. Pathophysiology of renal diseases
  - 4.1.3. Main renal diseases with repercussions on dental treatment
- 4.2. Chronic Renal Insufficiency (IRC)
  - 4.2.1. Chronic Renal Insufficiency. Definition
  - 4.2.2. AHT Clinic
  - 4.2.3. Medical repercussions in dental management
- 4.3. Renal replacement therapy
  - 4.3.1. Hemodialysis
  - 4.3.2. Peritoneal Dialysis
  - 4.3.3. Renal Transplant
- 4.4. Dental management of the CKD patient
  - 4.4.1. Clinical history in patients with CKD
  - 4.4.2. Oral alterations in patients with CKD
  - 4.4.3. Prescription of common drugs in dentistry
- 4.5. Dental management of the CKD patient Continuing
  - 4.5.1. Alterations in coagulation in patients with CKD
  - 4.5.2. Action Protocol in Patients with Renal Pathology
  - 4.5.3. Antibiotic prophylaxis in dialysis patients
- 4.6. Pharmacological treatment of the renal transplant patient
  - 4.6.1. Pharmacological treatment of patients renal transplant
  - 4.6.2. Before, During and After the Transplants Dental Management
  - 4.6.3. Graft versus host disease
- 4.7. Respiratory Diseases
  - 4.7.1. Clinical history and pathophysiology of respiratory diseases
  - 4.7.2. Chronic Obstructive Pulmonary Disease

- 4.7.3. Pharmacological treatment of patients with IBD
- 4.8. Bronquial Asthma
  - 4.8.1. Definition and clinical
  - 4.8.2. Pathogenesis
  - 4.8.3. Pharmacological and emergency treatment in the asthmatic patient
- 4.9. TB. Sarcoidosis
  - 4.9.1. Etiology and routes of tuberculosis infection
  - 4.9.2. Pathogenesis and diagnosis of tuberculosis and sarcoidosis
  - 4.9.3. Pharmacological treatment and prevention of possible infections
- 4.10. Dental management of patients with Pulmonary Alterations
  - 4.10.1. Caring for a Patient with CPOD
  - 4.10.2. Management of the Bronquial Asthma Patient
  - 4.10.3. Management of the patient with Sarcoidosis

# **Module 5.** Dental care in oncological patients. Radio and Chemotherapy. Bone Marrow Transplant

- 5.1. Head and Neck Cancer
  - 5.1.1. Concept, Classification and Prevalence
  - 5.1.2. Update on TNM staging DOI:
  - 5.1.3. The SCOC Squamous Cell Oral Carcinoma
- 5.2. Predisposing factors for the development of head and neck cancer
  - 5.2.1. Tobacco and its implication in oral squamous cell carcinoma
  - 5.2.2. Consequences of concomitant consumption of tobacco and alcohol
  - 5.2.3. New cohorts in oral cancer: Human Papillomavirus
- 5.3. Approaching and treatment of head and neck cancer
  - 5.3.1. Radiotherapy
  - 5.3.2. Chemotherapy
  - 5.3.3. Surgical Management
- 5.4. The role of the odontologist in the period prior to oncologic treatment
  - 5.4.1. Actions to reduce the incidence of cavities or periodontal disease in adult oral oncology patients



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- 5.4.2. Actions to reduce the incidence of Mucositis in adult oral oncology patients
- 5.4.3. Actions to reduce the incidence of xerostomia and/or candidiasis in adult oral oncology patients
- 5.4.4. Actions to reduce the incidence of Osteoradionecrosis in adult oral oncology patients
- 5.4.5. Actions to reduce the incidence of drug-induced osteonecrosis or chemonecrosis in adult oral oncology patients
- 5.5. The role of the odontologist during the oncological treatment Dental treatment during oncological therapy
  - 5.5.1. Taste alterations in patients with head and neck cancer
  - 5.5.2. Consequences of xerostomia and candidiasis
  - 5.5.3. Dental treatment during oncological therapy
- 5.6. The role of the odontologist after oncologic treatment. Palliative dental treatment
  - 5.6.1. Palliative dental treatment
  - 5.6.2. Treatment of choice for osteoradionecrosis according to stage of disease
  - 5.6.3. Treatment of choice for osteochemonecrosis or osteonecrosis by medication according to its stage
- 5.7. The role of the odontologist after oncologic treatment. Xerostomia treatment
  - 5.7.1. Adequate post-treatment oncologic timeframes for different dental procedures
  - 5.7.2. Indications and timelines for prosthetic and implant rehabilitation
  - 5.7.3. Xerostomia treatment
- 5.8. The approach to radiochemotherapy-induced oral mucositis in head and neck cancer
  - 5.8.1. Oral Mucositis Why is it produced
  - 5.8.2. The Use of Laser and Biostimulation
  - 5.8.3. Other adjuvant treatments to treat oral mucositis
- 5.9. Dental treatment of oncological patients
  - 5.9.1. Consequences of head and neck cancer treatment
  - 5.9.2. Prosthetic rehabilitation
  - 5.9.3. Implant rehabilitation

# tech 30 | Structure and Content

- 5.10. Dental management of patients in need of bone marrow transplantation
  - 5.10.1. Indications of Bone Marrow Transplantation
  - 5.10.2. Dental management prior to transplant
  - 5.10.3. Dental management prior to transplant

#### Module 6. The patient with functional diversity in the dental clinic

- 6.1. The patient with functional diversity
  - 6.1.1. The patient with functional diversity. Definitions
  - 6.1.2. Oral manifestations
  - 6.1.3. Barriers to dental treatment
- 6.2. Behavior management
  - 6.2.1. Behavior Management Techniques
  - 6.2.2. Protective stabilization
  - 6.2.3. Necessary Material
- 6.3. Sedation and General Anaesthesia
  - 6.3.1. Indications
  - 6.3.2. Mild sedation
  - 6.3.3. Deep sedation and general anesthesia
- 6.4. Prevention
  - 6.4.1. Risk assessment of our patients
  - 6.4.2. Home preventive actions
  - 6.4.3. Preventive actions in the Dental Clinic
- 6.5. Tratamiento odontológico
  - 6.5.1. Decision Making
  - 6.5.2. Limitations
  - 6.5.3. Specialty treatments
- 6.6. Patients. with Intellectual Disabilities
  - 6.6.1. Patients, with Intellectual Disabilities, Definition
  - 6.6.2. Oral manifestations
  - 6.6.3. Dental Management
- 6.7. Down Syndrome
  - 6.7.1. Downs syndrome Definition
  - 6.7.2. Oral manifestations
  - 6.7.3. Dental Management

- 6.8. Autism Spectrum Disorders
  - 6.8.1. Autism Spectrum Disorder. Definition
  - 6.8.2. Oral manifestations
  - 6.8.3. Dental Management
- .9. Cerebral Palsy
  - 6.9.1. Cerebral Palsy. Definition
  - 6.9.2. Oral manifestations
  - 6.9.3. Dental Management
- 6.10. Rare Diseases
  - 6.10.1. Rare Diseases Definition
  - 6.10.2. Most Common Rare Diseases
  - 6.10.3. Dental Management

### Module 7. Dental care in the elderly patient

- 7.1. Geriatrics
  - 7.1.1. Demographic changes in our society
  - 7.1.2. The general health of the elderly. Major Geriatric Syndromes
  - 7.1.3. Concept and social-health classification of the elderly
- 7.2. Aging and Physiological Changes of the elderly
  - 7.2.1. Theories of Aging
  - 7.2.2. Physiological Changes Associated with Aging
  - 7.2.3. Pharmacotherapy for the elderly
- 7.3. Comprehensive geriatric assessment
  - 7.3.1. Clinical and functional evaluation
  - 7.3.2. Mental health assessment and cognitive decline
  - 7.3.3. Assessment of the socioeconomic situation
- 7.4. Oral aging
  - 7.4.1. Macroscopic changes
  - 7.4.2. Macroscopic changes
  - 7.4.3. Function changes

# Structure and Content | 31 tech

- 7.5. Conservative treatment in elderly dental patients
  - 7.5.1. Treatment of caries in the elderly
  - 7.5.2. Endodontic treatment in the elderly
  - 7.5.3. Prosthetic treatment in the elderly
- 7.6. Periodontal treatment in elderly dental patients
  - 7.6.1. Prevalence of periodontal disease in the elderly
  - 7.6.2. Periodontal treatment in the frail patient
  - 7.6.3. Periodontal Disease and Alzheimer's Disease
- 7.7. Preventive treatment in elderly dental patients
  - 7.7.1. Caries and periodontal disease preventive treatment
  - 7.7.2. Brushing techniques and oral care for functionally dependent elderly people
  - 7.7.3. Prevention protocols in geriatric centers
- 7.8. Most common oral pathology in the elderly
  - 7.8.1. Dry mouth syndrome
  - 7.8.2. Oral candidiasis and stomatitis due to prosthesis
  - 7.8.3. Oral ulcers
  - 7.8.4. Others: epulis, hypermobile tissue, fibroma, saburral tongue, burning mouth syndrome and oral cancer
- 7.9. Home dental care for the elderly
  - 7.9.1. Concept and examples in neighboring countries
  - 7.9.2. Home dental care treatment possibilities
  - 7.9.3. Future of dental home care
- 7.10. Dental care for the palliative care patient
  - 7.10.1. clinical characteristics of the patient in palliative care
  - 7.10.2. Dental Management for the palliative care patient
  - 7.10.3. Clinical Cases

### Module 8. Dental Care in Patients with Cardiovascular Pathology

- 8.1. Cardiovascular System
  - 8.1.1. Components of the Cardiovascular System
  - 8.1.2. Physiology
  - 8.1.3. Regulatory Mechanisms

- 8.2. Heart Failure
  - 8.2.1. Heart Failure Concept
  - 8.2.2. Types
  - 8.2.3. Compensating mechanisms
  - 8.2.4. Etiopathogenesis of Heart Failure
  - 8.2.5. Classification
  - 8.2.6. Treatment
- 8.3. Heart failure: clinical and dental management
  - 8.3.1. Clinical signs and symptoms
  - 8.3.2. Oral complications
  - 8.3.3. Dental Management Protocols
- 8.4. Ischemic Heart Disease
  - 8.4.1. Ischaemic heart disease. Concept
  - 8.4.2. Etiopathogenesis
  - 8.4.3. Risk Factors
  - 8.4.4. Clinical signs and symptoms
  - 8.4.5. Diagnosis and Treatment
- 8.5. Ischemic heart disease: dental management
  - 8.5.1. Potential problems
  - 8.5.2. Dental management: action protocol
  - 8.5.3. Management of Chest Pain during dental treatment
  - 8.5.4. Management of patients with pacemakers
- 8.6. Cardiac Arrhythmias
  - 8.6.1. Cardiac Electrophysiology
  - 8.6.2. Arrhythmia concept
  - 8.6.3. Sinus rhythm and ectopic rhythm
  - 8.6.4. Production Mechanisms of Arrhythmias
  - 8.6.5. Classification
- 8.7. Heart Arrhythmias: clinical and dental management
  - 8.7.1. Clinical Symptoms
  - 8.7.2. Diagnosis
  - 8.7.3. Classification
  - 3.7.4. Dental management of patients with arrhythmias

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- 8.8.1. High Blood Pressure Concept
- 8.8.2. Etiopathogenesis
- 8.8.3. Classification
- 8.8.4. Treatment
- 8.8.5. Detection of hypertensive patients
- 8.9. Arterial hypertension: dental management
  - 8.9.1. Treatment algorithm for hypertensive patients
  - 8.9.2. Dental Management
  - 8.9.3. Management of hypertensive crisis during dental treatment
- 8.10. Bacterial Endocarditis
  - 8.10.1. Endocarditis Concept
  - 8.10.2. Guidelines of Antibiotic Prophylaxis
  - 8.10.3. Prophylaxis according to cardiac conditions
  - 8.10.4. Prophylaxis according to dental procedures

#### Module 9. Dental Care in Patients with Hematologic Alterations

- 9.1. Hemostasis Physiology
  - 9.1.1. vascular phenomena of hemostasis
  - 9.1.2. Primary Hemostasis. Platelet aggregation
  - 9.1.3. Secondary Hemostasis. Coagulation
- 9.2. Diagnosis of Hemostasis Disorders
  - 9.2.1. Clinical history in patients with hemostasis disturbances
  - 9.2.2. Platelet count. Bleeding time. PFA-100
  - 9.2.3. Prothrombin time. INR. Thrombin time. Activated partial thromboplastin time. Fibrinogen Concentration
- 9.3. Dental management of the patient treatment with platelet aggregation Inhibitors
  - 9.3.1. Pharmacodynamics and pharmacokinetics of antiplatelet agents
  - 9.3.2. Classification and action mechanism of platelet antiplatelet agents
  - 9.3.3. Dental management of patients with antiplatelet therapy
- 9.4. Dental management of the patient treatment with coumarin derivatives and heparin
  - 9.4.1. Pharmacodynamics and pharmacokinetics of coumarin and

#### heparin derivatives

- 9.4.2. Classification and Mechanism of Action of coumarin and heparin derivatives
- 9.4.3. Patient management of dental treatment with coumarin derivatives and heparins
- 9.5. Patient's dental management in treatment with direct oral anticoagulants
  - 9.5.1. Pharmacodynamics and pharmacokinetics of direct oral anticoagulants
  - 9.5.2. Classification and action mechanism of Direct Oral Anticoagulants agents
  - 9.5.3. Patient dental management with direct oral anticoagulants
- 9.6. Dental management of the hemophilic patient and other congenital diseases
  - 9.6.1. Pathophysiology of hemophilia
  - 9.6.2. Congenital diseases with hemostasis involvement
  - 9.6.3. Clinic management of the hemophilic patient and from other congenital diseases
- 9.7. Dental management of the patient with red series alterations
  - 9.7.1. Clinical history and laboratory tests in patients with red series alterations.
     Wintrobe indices
  - 9.7.2. Pathophysiology and diagnosis of anemias
  - 2.7.3. Dental management of anemias
- 9.8. Dental management of the patient in treatment with white series alterations
  - 9.8.1. Clinical history and laboratory tests in patients with white series alterations
  - 9.8.2. Pathophysiology of the alterations of the white series
  - 9.8.3. Clinic management of the patient with white series alterations
- 9.9. Thrombocytopenic purpuras, thrombocytopathic and angiopathic
  - 9.9.1. Pathophysiology of Purpura
  - 9.9.2. Oral manifestations of purpuras
  - 9.9.3. Dental management of patients with purpura
- 9.10. Dental management of intraoperative and postoperative hemorrhage
  - 9.10.1. Risk classification of bleeding according to different dental treatments
  - 9.10.2. Control of intraoperative hemorrhage
  - 9.10.3. Control of postoperative hemorrhage

# **Module 10.** Dental management in immunocompromised patients, patients with psychiatric disorders and in less frequent situations in the dental clinic

- 10.1. Dental care for autoinmmune disease patient
  - 10.1.1. Concept of immunity. Pathophysiology of the HLA system
  - 10.1.2. Autoimmune diseases with oral repercussions
  - 10.1.3. Clinical Cases
- 10.2. Dental care for autoinmmune disease patient (Continued)
  - 10.2.1. Immunodeficiencies
  - 10.2.2. Immunosuppressants
  - 10.2.3. Dental Management of the Immunosuppressed patients
  - 10.2.4. Clinical Cases
- 10.3. Dental care for AIDS patient
  - 10.3.1. HIV Infection. AIDS Triggering
  - 10.3.2. Lesiones principales asociadas al SIDA
  - 10.3.3. Dental management of the patient with AIDS
  - 10.3.4. Clinical Cases
- 10.4. Dental Care in Patients with Psychiatry Pathology
  - 10.4.1. Dental management of the Schizophrenia patient
  - 10.4.2. Dental management of patients with Depressive Syndromes
  - 10.4.3. Dental management of the patient with eating disorders
- 10.5. Dental care in patients who use drugs and/or alcohol
  - 10.5.1. Definition and scheme of action of drugs abuse
  - 10.5.2. Patient dental management of patients with drugs abuse
  - 10.5.3. Clinical Cases
- 10.6. Dental care for neurodegenerative diseases patient
  - 10.6.1. Principal neurodegenerative diseases not associated with aging
  - 10.6.2. Patient dental management with neurodegenerative disease
  - 10.6.3. Clinical Cases
- 10.7. Dental care for patients with joint prostheses
  - 10.7.1. Joint prostheses, classification and complications
  - 10.7.2. Patiend odontological management with articular prostheses
  - 10.7.3. Clinical Cases

- 10.8. Dental care for morbidly obese patients
  - 10.8.1. Concept of morbid obesity and associated factors
  - 10.8.2. Dental management of the morbidly obese patient
  - 10.8.3. Clinical Cases
- 10.9. Dental care for the patient with sleep disorders
  - 10.9.1. Apnea syndrome (OSAHS) and obstructive sleep hypopnea (OSA)
  - 10.9.2. Dental management of the patient with OSAHS
  - 10.9.3. Clinical Cases
- 10.10. Dental care for patients undergoing treatment with sex hormones
  - 10.10.1. Concept of gender dysphoria. Pathophysiology
  - 10.10.2. Dental management of the patient with gender dysphoria
  - 10.10.3. Clinical Cases



A program that will allow you to be updated on control guidelines in rare pathologies such as Cushing's Syndrome or Addison's disease"



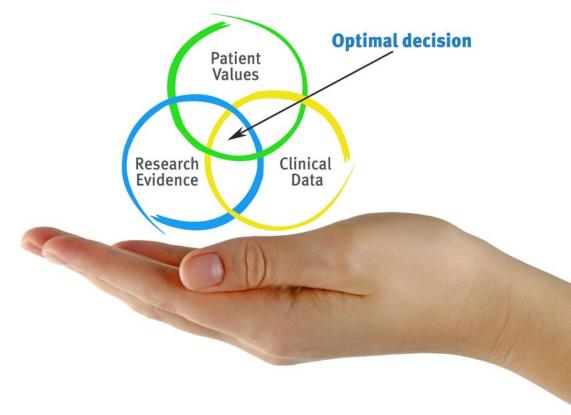


# tech 36 | Methodology

#### At TECH we use the Case Method

In a given situation, what should a professional do? 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 dentist'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:

- Dentists who follow this method not only grasp concepts, but also develop their mental capacity by means of exercises to evaluate real situations and apply their 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.

The student will learn through real cases and by solving complex situations in simulated learning environments.

These simulations are developed using state-of-the-art software to facilitate immersive learning.



# Methodology | 39 tech

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 we have trained more than 115,000 dentists with unprecedented success, in all specialties regardless of the workload. 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 training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for 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.



#### **Educational Techniques and Procedures on Video**

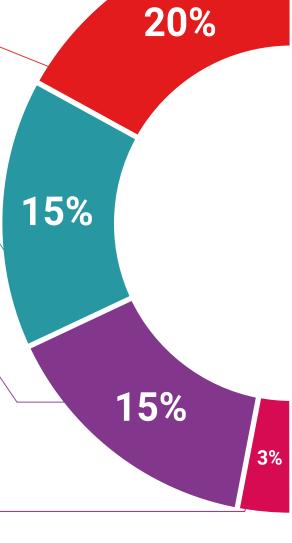
TECH introduces students to the latest techniques, the latest educational advances, and to the forefront of medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times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



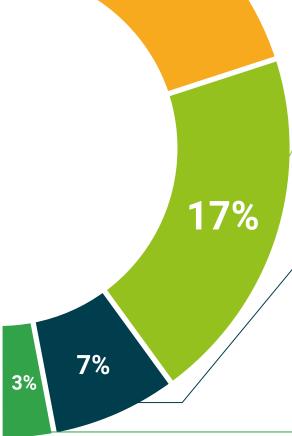
There is scientific evidence suggesting that observing third-party experts can be useful.

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.



20%





# tech 44 | Certificate

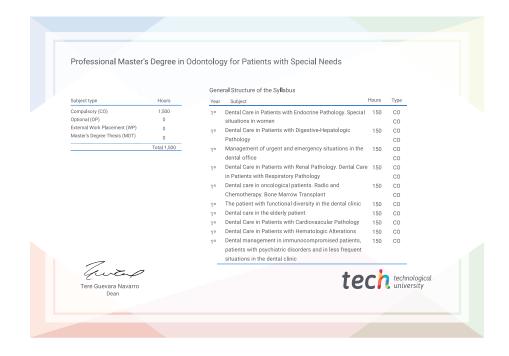
This **Professional Master's Degree in Odontology for Patients with Special Needs** contains the most complete and up-to-date scientific program on the market.

After the students have passed the assessments, they will receive their corresponding **Professional Master's Degree diploma** issued by **TECH Technological University.** 

The certificate issued by **TECH University** will reflect the qualification obtained in the Professional Master's Degree, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Program: Professional Master's Degree in Odontology for Patients with Special Needs Official No. of Hours: 1,500 h.





<sup>\*</sup>Apostille Convention. In the event that the student wishes to have their paper certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

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# Peofessional Master's Degree

Odontology for Patients with Special Needs

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

