VNIVERSITAT DE VALÈNCIA

Course Guide
34719 Dental pathology, conservative dentistry and endodoncy II

COURSE DATA

Data Subject	
Code	34719
Name	Dental pathology, conservative dentistry and endodoncy II
Cycle	Grade
ECTS Credits	12.0
Academic year	2024 - 2025

Study (s)

Degree	Center	Acad. year	Period
1206 - Degree in Dentistry	Faculty of Medicine and Odontology	4	Annual

Subject-matter

Degree	Subject-matter	Character
1206 - Degree in Dentistry	20 - Dental pathology, conservative dentistry and endodontics	Obligatory

Coordination

Name	Department
FORNER NAVARRO, LEOPOLDO	131 - Stomatology

SUMMARY

“Dental Pathology, Operative Dentistry and Endodontics II” is the second part of a mandatory topic located at the 3rdand 4thyears, during the studies of Dentistry. It takes part of the specific topics on Dental Pathology and Therapeutics. The first part (3rdyear) includes basic elemntsm while the second one (4thyear), the present topic we are describing, talks about endodontic therapy and complex operative dentistry, including the restoration of the endodontic treated tooth though direct, semidirect and indirect techniques, as well as Esthetic Operative Dentistry

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

1206 - Degree in Dentistry :

R4-OBLIGATION TO HAVE SUCCESSFULLY COMPLETED THE COURSE

34718 - Dental pathology, conservative dentistry and endodoncy I

Other requirements

COMPETENCES (RD 1393/2007) // LEARNING OUTCOMES (RD 822/2021)

1206 - Degree in Dentistry

- Obtain and elaborate a clinical history withrelevant information.
- Saber realizar un examen bucal completo, incluyendo las oportunas pruebas radiográficas y de exploración complementarias, así como la obtención de adecuadas referencias clínicas
- Tener capacidad para elaborar un juicio diagnóstico inicial y establecer una estrategia diagnóstica razonada, siendo competente en el reconocimiento de las situaciones que requieran una atención odontológica urgente.
- Establecer el diagnóstico, pronóstico y una adecuada planificación terapéutica en todas las áreas clínicas de la Odontología, siendo competente en el diagnóstico, pronóstico y elaboración del plan de tratamiento odontológico del paciente que requiera cuidados especiales, incluidos los pacientes médicamente comprometidos (como diabéticos, hipertensos, inmunodeprimidos, anticoagulados, entre otros) y pacientes con discapacidad.
- Conocer y aplicar el tratamiento básico de la patología bucodentaria más habitual en pacientes de todas las edades. Los procedimientos terapéuticos deberán basarse en el concepto de invasión mínima y en un enfoque global e integrado del tratamiento bucodental.
- Saber planificar y realizar tratamientos odontológicos multidisciplinares, secuenciales e integrados de complejidad limitada en pacientes de todas las edades y condiciones y de los pacientes que requieran cuidados especiales.
- Adquirir experiencia clínica bajo la adecuada supervisión.
- Conocer los procedimientos y pruebas diagnósticas clínicas y de laboratorio, conocer su fiabilidad y validez diagnóstica y ser competente en la interpretación de sus resultados.
- Identificar el principal motivo de consulta y la historia de la enfermedad actual. Realizar una historia clínica general del paciente y una ficha clínica que refleje fielmente los registros del paciente.
- Reconocer la normalidad y la patología bucal, así como la evaluación de los datos semiológicos.
- Tomar e interpretar radiografías y otros procedimientos basados en la imagen, relevantes en la práctica odontológica.

- Realizar tratamiento médico de las enfermedades comunes de los tejidos blandos bucales.
- Manejar, discriminar y seleccionar los materiales e instrumentos adecuados en odontología.
- Diseñar, preparar los dientes, prescribir, registrar, realizar pruebas clínicas y colocar y poner en servicio restauraciones indirectas: incrustaciones, carillas o frentes laminados estéticos y coronas unitarias,
- Realizar procedimientos estéticos convencionales desde una perspectiva multidisciplinar.
- Conocer los biomateriales dentales: su manipulación, propiedades, indicaciones, alergias, bio-compatibilidad, toxicidad, eliminación de residuos e impacto ambiental.
- Conocer y usar el equipamiento e instrumentación básicos para la práctica odontológica.
- Proporcionar un enfoque global de los cuidados orales y aplicar los principios de promoción de la salud y prevención de las enfermedades bucodentarias.
- Realizar tratamientos básicos de la patología buco-dentaria en pacientes de todas las edades. Los procedimientos terapéuticos deberán basarse en el concepto de invasión mínima y en un enfoque global integrado del tratamiento buco-dental.
- Determinar e identificar los requisitos estéticos del paciente y de las posibilidades de satisfacer sus inquietudes.
- Tratar traumatismos dento-alveolares en denticiones temporal y permanente.
- Valorar y tratar al paciente con caries su otra patología dentaria no cariosa y ser capaz de utilizar todos los materiales encaminados a restaurar la forma, función y la estética del diente en pacientes de todas las edades.
- Tratar operatoriamente los procesos destructivos y las lesiones traumáticas dento-alveolares.
- Realizar tratamientos endodóncicos y aplicar procedimientos para preservar la vitalidad pulpar.
- Prácticas preprofesionales, en forma de rotatorio clínico odontológico y con una evaluación final de competencias que permita incorporar los valores profesionales, competencias de comunicación asistencial, razonamiento clínico, gestión clínica y juicio crítico. Deberán incluir trabajo clínico del estudiante en todas las edades y condiciones de un modo integrado y bajo adecuada supervisión.
- Trabajo fin de grado. Materia transversal cuyo trabajo se realizará asociado a distintas materias,
- Realizar las radiografías necesarias en la práctica odontológica, interpretar las imágenes obtenidas y conocer otras técnicas de diagnóstico por imagen que tengan relevancia.
- Identificar y atender cualquier urgencia odontológica.

LEARNING OUTCOMES (RD 1393/2007) // NO CONTENT (RD 822/2021)

The pupil who overcomes the matter will be qualified to be able to realize clinical diagnosis of the patient identifying those pathologies of caries, trauma, graze and pulpar pathology, as well as it will be qualified to realize clinical treatment basic.

Like wise it will be capable of transmitting information to the patient so that it understands the procedures that are going to realize and of its assent.

Also it will know the evolution of the investigation in endodontics and restorative dentistry, having access to new materials and skills.

DESCRIPTION OF CONTENTS

1. THEORY. Introduction to the subject

1.Introduction to the subject Dental Pathology, Conservative Dentistry and Endodontics II.

2. ENDODONTIC THERAPY

2.Fundamentals of the endodontic therapy.
3.Phisiopathology of the dentinal-pulpal and periapical complex.
4.Diagnosis in Endodontics.
5.Endodontic radiology.
6.Root canal system organization.
7.Crown access for the root canal treatment.
8.Hand instruments for the biomechanical preparation of the root canal system.
9.Shaping techniques.
10.Root canal length assessment.
11.Root canal cleaning.
12.Root canal filling: Materials and instruments.
13.Root canal filling techniques I.
14.Root canal filling techniques II.
15.Shaping rotary instruments.
16.Shaping rotary techniques.
17.Endodontic bioactive materials.
18.Vital dental pulp therapy I.
19.Vital dental pulp therapy II.
20.Regenerative endodontics. Endodontic treatment in teeth with incomplete root formation.
21.Diagnostic and therapeutic approach to endo-peridontal pathology.
22.Difficulties in the endodontic treatment.
23.Guided endodontics.
24.Prognosis in endodontics and its assessment. Causes of endodontic treatment failure.
25.Orthograde endodontic retreatment: instruments, materials and techniques.
26.Radicular and periapical surgery, in office and in hospital.
27.Tooth rehabilitation after a root canal treatment I.
28.Tooth rehabilitation after a root canal treatment II.
29.Endodontic Medicine´

3. ADVANCED CONSERVATIVE DENTISTRY

30.Dental color assessment.
31.Patterns in facila esthetics. Smile analysis. Dental proportions. Interdental relationships Gingival factors.
32.Adhesive clinical procedures in Restorative Dentistry.
33.Composite resins: clinical properties, types and indications.
34.Great esthetic dental reconstructions: advanced techniques of field isolament and matrix placement.
35.Conservative treatment of dismorphic teeth.
36.Injected composite veneres.
37.Composite veneres: indirect technique.
38.Ceramic veneers.
39.Great esthetic reconstructions in anterior teeth.
40.Great esthetic reconstructions in posterior teeth. Direct placement.
41.Great esthetic reconstructions in posterior teeth. Materials. Clinical procedures.
42.Digital dental reconstruction techniques.
43.Maintenance in Esthetic Restorative Dentistry. Repair versus substitution.
44.Prognosis of esthetic restorations.
45.Bleaching agents.
46.Vital bleaching: at-home and in-office.
47.Non vital bleaching.
48.Side effects of dental bleaching. Prevention.
49.Prognosis of dental bleaching.
50.Clinical cases I.
51.Clinical cases II.
52.Clinical cases III, in office and in hospital.

4. PRACTICAL PROGRAM

Dental restorations with composite in anterior and posterior teeth.
Use of a matrix.
Isolation techniques of the operating field.
Recognition of specific instruments for use in Endodontics. Terminology and clinical use.
Selection and clinical use of filling materials in Endodontics.
Use of diagnostic procedures inn Endodontics: clinical, radiographic and complementary.
Assessment of a prognostic judgment and a treatment plan for the pathology of the dentine-pulp complex.
Performing root canal treatments.
Coronal reconstruction after root canal treatment.
Insertion of intraradicular posts.
Preparation and insertion of composite veneers using direct and indirect techniques.
Performing direct and indirect reconstructions on posterior teeth.
Preparation of bleaching trays for at-home use.

WORKLOAD

ACTIVITY	Hours	% To be attended
Odontology practices	64,00	100
Laboratory practices	60,00	100
Theory classes	52,00	100
Classroom practices	4,00	100
Attendance at events and external activities	5,00	0
Development of group work	14,00	0
Development of individual work	5,00	0
Study and independent work	14,00	0
Readings supplementary material	5,00	0
Preparation of evaluation activities	10,00	0
Preparing lectures	50,00	0
Preparation of practical classes and problem	5,00	0
Resolution of case studies	9,00	0
Resolution of online questionnaires	3,00	0
TOTAL	**300,00**	

TEACHING METHODOLOGY

The Schedule of the activities will be published in september, before the beginning of the course, in order to allow a better time organization and the possibility of preparing theoretical and practical lessons. Theoretical lessons (twice a week) will be implanted focusing on practical aspects through images, clinical cases and explanations about diagnostic and therapeutic techniques. Bibliographic references will be provided. There will be two different practical activities, the simulation (lab) and the clinical ones. Three seminars on dentin-pulpar diagnostic and therapeutics will be organized, where clinical cases will be presented and discussed. Group working and autoformation will be fomented, so an experimental work or a literature revision will be performed by students with the help of a professor-mentor. This work will be presented in a public sessions during a 10 minutes, with a discussion, together with the students of this topic from the 3rd year. These presentations will be organized as a congress, entitled “University meeting on dental pathology and therapeutics”. An estern professor will be invited for a lecture. TICs and e-learning will be present throughout the teaching-learning process, mainly with the help of the different tools of the “Aula Virtual”.

- The gender perspective, the respect for diversity, and the sustainable development goals (SDGs) will be incorporated into teaching, whenever possible.

EVALUATION

It will have two parts: 1.- Written test, 50 multi-choice questions, to assess the record of the exam the follow formjula will be used: X = A-(E·K), being X the obtained score (taking in account the randomness). A = well answered items, E = mistakes or not answered items, k = 1/n-1, being n the number of distractor (5). For passing the test, X must be 25. 2.- Continuous a evaluation of practical activities. When test is passed, an average between theoretica ¡and practical evaluations, will be done. This will be the 90% of final qualification, the 10% will be the evaluation presented at the “University meeting on dental pathology and therapeutics”.

Attendance at practical activities is mandatory. The student is considered to meet this requirement if he or she has attended a minimum of 80% of these activities and has adequately justified the impossibility of attending the remaining sessions due to the occurrence of a cause of force majeure. It will be essential to comply with this requirement to pass the subject.

Students are reminded of the great importance of carrying out evaluation surveys of all the teaching teachers of this subject

REFERENCES

Basic

- Manual de Endodoncia. Durán-Sindreu, S. y cols. Editorial Edra. Zaragoza. 2022.
  -Odontología restauradora. Brennan, F. y cols. Elsevier Masson. Barcelona. 2010.

  RECURSOS e-Salut:

  ClinicalKey Student Medicina, Odontologia y Enfermería
  [https://uv-es.libguides.com/RecursosSalut]
  Acces Medicina
  [https://uv-es.libguides.com/Access_Medicina]
  Médica Panamericana
  [https://uv-es.libguides.com/Medica_Panamericana]

Additional

- -Endodontology. An integrated biological and clinical view. Ricucci, D. y Siqueira Jr, JF. Quintessence Publishing. London. 2013.

  -Blanqueamiento dental. Bases científicas y técnicas clínicas. Amengual, J. y Forner, L. Ediciones Especializadas Europeas. Barcelona. 2011.