

Madrid, Spain
15 November 2022



SPPCV
SOCIEDADE
PORTUGUESA
DE PATOLOGIA
DA COLUNA
VERTEBRAL

Spanish & Portuguese Spine Societies Course Diploma

Module 1

Basic Comprehensive Course

PROGRAMME

Application for
accreditation of continuing
medical education



QUICK FACTS

WHEN:

15 November 2022

WHERE:

Madrid. Spain

Course Venue:

Hotel AC La Finca
Pº del Club Deportivo, 1. Ed. 17
Parque empresarial La Finca
Pozuelo de Alarcón, 28223 Madrid

Cad-Lab Workshops:

Universidad Francisco de Vitoria
Carretera Pozuelo a Majadahonda, Km 1.800
Pozuelo de Alarcón, 28223 Madrid

REGISTRATION FEE:

300 € for Members*

400 € for Non Members

*Discounts for GEER and SPPCV members are available.

MAXIMUM ATTENDEES:

30 delegates

CME CREDITS:

Application for accreditation of continuing medical education

LANGUAGE:

English, Spanish and Portuguese (*The speaking is in Spanish or Portugues, but the slides are in English, live discussions are also in Spanish-Portuguese without translation available*)

DRESS:

Casual

IMPORTANT NOTE:

- Attendance at every session is mandatory
- A wireless Internet device (mobile phone/lpad/ Computer) will be required to access on-line resources during the programme, please bring one with you

COURSE CHAIRWOMAN

- **Teresa Bas Hermida**
Spain

COURSE FACULTY

- Rafael Aguirre García
- Carlos Atienza Vicente
- Andrés Barriga Martín
- Teresa Bas Hermida
- Juan Blanco Blanco
- Máximo Alberto Díez Ulloa
- Alberto Hernández Fernández
- Rafael Llobart Blanco
- Miguel Menéndez García
- M^a Lourdes Peñalver Barrios
- Félix Tomé Bermejo

TARGET AUDIENCE

Senior trainees and trained surgeons, who are planning a career in spinal surgery

COURSE LEARNING OUTCOMES MODULE 1

1. Evaluate a patient with low back pain (LBP) in a multidisciplinary approach
2. Discuss appropriate clinical and radiologic tests
3. Evaluate systemic causes of back pain as differential diagnosis (muscle pain, inflammatory diseases)
4. Discuss the role of psychosocial models and rehabilitation
5. Explain the impact of spinal disorders on the individual and society
6. Discuss the application and limitation of biomechanical lumbar spine in vitro and finite element models
7. Explain the principles of intervertebral disc biology and degeneration
8. Be aware of current molecular research on intervertebral disc degeneration

PRE-LEARNING OUTCOMES

Participants of Module 1 will be asked to build foundation knowledge for the module with online pre-module work. Learning outcomes have been defined, so participants and faculty are clear about the standards expected. **Module 1 will target multidisciplinary approaches in LBP, principles of spinal biomechanics and intervertebral disc biology. These topics may provide complementary knowledge around spine care, which might differ from clinical surgical practice.**

Upon completion of the eLearning component, participants should be able to:

1. CLINICAL EXAMINATION

- Select appropriate clinical tests for a clinical situation
- Perform a safe and effective clinical examination
- Select appropriate communication skills with patients and their families

2. IMAGING IN LOW BACK PAIN

- Select appropriate radiologic exams for a clinical situation
- Discuss advantages and disadvantages of radiologic examination methods
- Be aware of radiation exposure when selecting an exam

3. DIFFERENTS PERSPECTIVES ON LOW BACK PAIN

- Discuss differential diagnosis of inflammatory spinal disorders
- Evaluate the role of muscle pain
- Discuss the role of non-surgical approaches (e.g., infiltration)

4. LOW BACK PAIN: REHABILITATION AND MANUAL THERAPY

- Be aware of the principles of the bio-psycho-social model
- Discuss the principles of a rehabilitation program
- Select appropriate patients for manual therapy

5. BIOMECHANIC IN VITRO MODELS

- Outline loading in different positions of the spine
- Explain how loading changes with age and pathology
- Describe the basic principles of an in vitro experiment
- Discuss the interpretation and limitation for evaluation of biomaterials

6. FINITE ELEMENT MODELS

- Discuss applications for FE models
- Explain setup, boundary conditions and validation of FE models
- Interpretation and value of FE studies

7. BIOLOGY OF THE LUMBAR INTERVERTEBRAL DISC

- Outline principles of cellular and molecular biology of the nucleus
- Explain the role of nutrition and changes with age
- Discuss the role of genetics in disc degeneration
- Mechanical alteration of microstructures in the annulus

8. CELULAR AND MOLECULAR RESEARCH

- Describe pre-clinical models for the intervertebral disc
- Outline principles of stem cell therapy for disc regeneration
- Explain the role of molecular for disc regeneration

9. EPIDEMIOLOGY & ECONOMICS

- Be aware of the impact of LBP on the society
- Explain outcome measures for quality of life and economy (QUALY)
- Discuss the impact of direct and indirect medical costs in LBP

10. PRINCIPLES OF CLINICAL RESEARCH

- How to design an appropriate clinical study and select classification criteria
- Discuss the use of study results for own clinical practice
- Define the role of registries

FACE-TO-FACE MODULE

**LEARNING OUTCOMES
SESSION 1
LOW BACK PAIN (LBP)**

CASE DISCUSSION: LOW BACK PAIN

- Use clinical information to formulate a diagnosis and treatment plan
- Recognising serious spine disorders: rule out red flags

CLINICAL EXAMINATION

- Select appropriate clinical tests for a clinical situation
- Perform a safe and effective clinical examination
- Select appropriate communication skills with patients and their families

IMAGING IN LOW BACK PAIN

- Select appropriate radiologic exams for a clinical situation
- Discuss advantages and disadvantages of radiologic examination methods
- Be aware of radiation exposure when selecting an exam

DIFFERENTS PERSPECTIVES IN LBP

- Select appropriate radiologic exams for a clinical situation
- Discuss advantages and disadvantages of radiologic examination methods
- Be aware of radiation exposure when selecting an exam

REHABILITATION AND MANUAL THERAPY

- Be aware of the principles of the bio-psycho-social model
- Discuss the principles of a rehabilitation program
- Select appropriate patients for manual therapy

LEARNING OUTCOMES SESSION 2 FUNDAMENTAL RESEARCH

BIOMECHANIC IN VITRO MODELS

- Outline loading in different positions of the spine
- Explain how loading changes with age and pathology
- Describe the basic principles of an in vitro experiment
- Discuss the interpretation and limitation for evaluation of biomaterials

FINITE ELEMENT MODELS

- Discuss applications for FE models
- Explain setup, boundary conditions and validation of FE models
- Interpretation and value of FE studies

BIOLOGY OF THE LUMBAR INTERVERTEBRAL DISC

- Outline principles of cellular and molecular biology of the nucleus
- Explain the role of nutrition and changes with age
- Discuss the role of genetics in disc degeneration
- Mechanical alteration of microstructures in the annulus

CELLULAR AND MOLECULAR

- Describe pre-clinical models for the intervertebral disc
- Outline principles of stem cell therapy for disc regeneration
- Explain the role of molecular for disc regeneration

LEARNING OUTCOMES SESSION 3

EPIDEMIOLOGY AND CLINICAL RESEARCH

EPIDEMIOLOGY & ECONOMICS

- Be aware of the impact of LBP on the society
- Explain outcome measures for quality of life and economy (QUALY)
- Discuss the impact of direct and indirect medical costs in LBP

EVIDENCE BASED MEDICINE AND STUDY DESINGS

- Rank levels of evidence
- Define the needs of individual patients in the context of EBM
- Explain the risk of bias and justify the role of EBM and guidelines

PRINCIPLES OF CLINICAL RESEARCH

- How to design an appropriate clinical study and select classification criteria
- Discuss the use of study results for own clinical practice
- Define the role of registries

OUTCOME MEASURES

- Explain the content of common scores used for LBP
- Discuss the selection of appropriate questionnaires in a study or registry
- Implement outcome measures in own clinical applications

LEARNING OUTCOMES SESSION 4

RED FLAGS: CASE DISCUSSION

TRAUMATIC SPINAL CORD INJURY

- Recognise, plan transport, investigation and treatment of a patient with SCI
- Anticipate potential complications and how to avoid them

SPONDYLODISCITIS

- Discuss diagnostic pathways, potential complications, treatment options

PRIMARY TUMOR OF THE SPINE

- Interpret clinical information and imaging studies
- Formulate a diagnosis and treatment plan

INFLAMMATORY DISEASES OF THE SPINE

- Discuss diferential diagnosis, clinical, biologic, imaging studies and treatment

Module 1: Basic Comprehensive Course Scientific Programme

Chairwoman: Teresa Bas Hermida

Course attendance is mandatory

TUESDAY, 15 NOVEMBER

TIME	TOPIC	FACULTY
07:30-08:00	Course Registration	
08:00-08:10	Introduction	Teresa Bas Hermida
SESSION 1: LOW BACK PAIN (LPB)		
08:10-08:30	Case Discussion: Low Back Pain	Miguel Menéndez García
08:30-09:00	Clinical Examination	Félix Tomé Bermejo
09:00-09:30	Imaging in Low Back Pain	Alberto Hernández Fernández
09:30-10:00	Different Perspectives on Low Back Pain	Félix Tomé Bermejo
10:00-10:30	Low Back Pain: Rehabilitation and Manual Therapy	M ^a Lourdes Peñalver Barrios
10:30-11:00	Coffee Break	
SESSION 2: FUNDAMENTAL RESEARCH		
11:00-11:20	Biomechanic - In Vitro Models	Carlos Atienza Vicente
11:20-11:40	Finite Element Models	Carlos Atienza Vicente
11:40-12:00	Biology of the Lumbar Intervertebral Disc	Juan Blanco Blanco
12:00-12:20	Celular and Molecular Research	Juan Blanco Blanco
12:20-12:50	Discussion	All Faculty
12:50-13:50	Lunch	
SESSION 3: EPIDEMIOLOGY AND CLINICAL RESEARCH		
13:50-14:10	Epidemiology & Economics	Rafael Llombart Blanco
14:10-14:30	Evidence Based Medicine and Study Designs	Máximo Alberto Díez Ulloa
14:30-14:50	Principles of Clinical Research	Rafael Llombart Blanco
14:50-15:10	Clinical Outcome Measures	Miguel Menéndez García
SESSION 4: RED FLAGS: CASE DISCUSSION Case: 5' – Small groups: 10' – Discussion: 15'		
15:10-15:40	Traumatic Spinal Cord Injury	Andrés Barriga Martín
15:40-16:10	Spondylodiscitis	Miguel Menéndez García
16:10-16:40	Primary Tumour of the Spine	Rafael Aguirre García
16:40-17:10	Inflammatory Diseases of the Spine	Andrés Barriga Martín
17:10-17:40	Coffee Break	
17:40-17:55	Closing Remarks, Diploma and Mandatory Course Evaluation	Teresa Bas Hermida

END OF MODULE

Recommended Reading

Part I Basic Module 1: Conservative Therapy. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach. Switzerland: Springer.

- E. Shiban and B. Meyer (2019). Treatment for Acute, Subacute and Chronic Low Back Pain. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 3-8). Switzerland: Springer.
- M. Jägersberg and E. Tessitore (2019). Indications for Emergency Surgical Treatment. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 9-15). Switzerland: Springer.



Sponsors

Course Organisation



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