Spanish & Portuguese Spine Societies

COURSE DIPLOMA

2019

Module 1

Module 1:
—
Basic Comprehensive Course

When:
—
9 // July // 2019

Where :
—
Lisbon - Portugal

Table of Content

Module 1
Basic Comprehensive Course

Scientific Content

-

Prof. Dr. Paulo Pereira

Quick Facts

When	9 July 2019
Where	Lisbon / Portugal Course: Lusíadas Hospital Rua Abílio Mendes, 12
Maximum Attendees	30 delegates
Registration Fee	300 € for Members / 400 € for Non Members Discounts for SPPCV, GEER members are available *Modules with a discount structure of 10% for 2 modules and 15% for 3 modules*
CME Credits	6 European CME Credits (ECMEC®s) by European Accreditation Council for Continuing Medical Education (EACCME®)
Language	English
Dress	Casual
Important Note	Attendance at every session is mandatory A final exam will be performed The course evaluation is mandatory to obtain the CME certificate

Target Audience

Senior trainees and trained surgeons, who are planning a career in spinal surgery and general practitioners, rheumatologists, physiatrists and others who wish to develop their knowledge in the area of spinal pathology

Learning Outcomes:

Module 1
Basic Comprehensive Course

1. Explain the impact of spinal disorders on the individual and society

2. Evaluate a spinal patient

3. Recognize serious and urgent spinal disorders

4. Formulate a plan for the safe early management of emergency and serious spine disorders, based on sound principles of treatment

5. Demonstrate sound clinical judgment in planning patient management around selected cases

6. Discuss a multidisciplinary approach and the role of conservative treatment in patients with chronic back pain

7. Explain the role of EBM, clinical trials and registries

8. Discuss the use of clinical outcome scores

9. Explain the application and limitation biomechanical lumbar spine in vitro and finite element models

10. Be aware of current molecular research on intervertebral disc degeneration

Pre-Learning
3 ½ Hours of Content

-

Participation in the programme requires an excellent working knowledge of spinal anatomy.

Participants of Module 1 will be asked to build foundation knowledge for the module with 3.5 hours of pre-module work. Learning outcomes have been defined, so participants and faculty are clear about the standards expected and a self-test will be administered to check that learning outcomes have been achieved. Resources to help participants achieve learning outcomes include: PowerPoint presentations, videos and reading material. Registered delegates will receive email instructions on how to proceed with the learning content. By the end of the pre-course learning, participants should be able to:

1. Radiographic Measurements

2. Radiology Imaging (X-RAY, MRI & CT)

3. Outcome Measures (pre-learning for module 1 and task force research course)

4. Importance of Spine Registries

5. Recognising Serious Spine Disorders: Red Flags

6. Systemic Disease & the Spine

By the end of the pre-course learning, participants should be able to:

1. Radiographic Measurements

    a. Define the role of radiographic measurements in spinal pathology

    b. Apply the cobb angle and measures of sagittal balance to deformity

    c. Assess spinal instability

2. Radiology Imaging (X-RAY, MRI & CT)

    a. Differentiate between x-ray, MRI and CT

    b. Explain how each works

    c. Anticipate risks associated

    d. Compare radiation exposure resulting from each

3. Outcome Measures
(pre-learning for module 1 and task force research course)

    a. Differentiate between generic and specific health measures

    b. Distinguish between patient and clinician related outcome measures

    c. Use common measures for spinal disorders

    d. Explain the challenges associated with measuring outcomes

4. Importance of Spine Registries

    a. Explain their impact on the care of patients

    b. Plan how to make contributions themselves

    c. Differentiate between an RCT and a registry

5. Recognising Serious Spine Disorders: Red Flags

    a. Link clinical scenarios to serious spine disorders

    b. Teach non-spine specialists to recognize serious spine disorders

6. Systemic Disease & The Spine

    a. Recognize the importance of teamwork and appropriate involvement of others

    b. Anticipate common pitfalls in diagnosis of spinal disorders

    c. Describe systemic conditions associated with spinal disease

**Face-To-Face Module
Learning Outcomes:**

Session 1
Low Back Pain (LBP)

• **Case Discussion: Low Back Pain**

• **Clinical Examination**

• **Radiology**

• **Risk Factors for Chronic LBP**

• **Rehabilitation and Manual Therapy**

· Case Discussion: Low Back Pain

- · Use clinical information to formulate a diagnosis and treatment plan
- · Recognizing 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

· Radiology

- · Explain risks of exposure to radiation and minimize risks for patients
- · Select the most appropriate investigations in spinal disorders
- · Discuss role, costs, advantages and limits of imaging in LBP
- · Select appropriate image guided infiltration tests and discuss clinical significance

· Risk Factors for Chronic LBP

- · Pathophysiology of LBP, role of the musculature, lesion versus dysfunction
- · Discuss the importance in patient's personal representation
- · Recognizing poor prognostic factors for surgical treatment

· Rehabilitation and Manual Therapy

- · Outline principles of physical therapy
- · Discuss the possibilities of rehabilitation programs for patients with LBP
- · Select appropriate patients and explain principles of manual therapy

Learning Outcomes:

Session 2
Fundamental Research

· **Biomechanics in Vitro Models**

· **Finite Element Models**

· **Biology of the Lumbar Intervertebral Disc**

· **Celular and Molecular Research**

· Biomechanics 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 celular 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

· Celular and Molecular Research

· Describe the significance of animal models

· Outline principles of stem cell research

· Explain the role of molecular therapy

Learning Outcomes:

Session 3
Epidemiology and Clinical Research

· **Epidemiology & Economics**

· **Evidence Based Medicine**

· **Clinical Research**

· **Outcome Measures**

· Epidemiology & Economics

- · Quantify the problem of back in the society
- · Propose a strategy to reduce the problem
- · Explain research definitions, quality of life, economic utility values (QUALY)

· Evidence Based Medicine

- · 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

· 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**

· **Spondylodiscitis**

· **Primary Tumor of the Spine**

· **Inflammatory Diseases of the Spine**

· Traumatic Spinal Cord Injury

· Recognize, 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 differential diagnosis, clinical, biologic, imaging studies and treatment

Course Chairman:

Paulo Pereira PORTUGAL

Course Faculty:

Bruno Santiago PORTUGAL

Cristina Freitas Pereira PORTUGAL

Isabel Cravo PORTUGAL

Jorge Alves PORTUGAL

Mário Vaz PORTUGAL

Nuno Neves PORTUGAL

Paulo Pereira PORTUGAL

Pedro Santos Silva PORTUGAL

Raquel Gonçalves PORTUGAL

Scientific Programme
Module 1

Time	Topic	Faculty
-	-	-
07.30 - 08.00	Course Registration & Welcome Coffee	
-	-	-
	Session 1: Low Back Pain (LPB)	
08.00 - 08.10	Introduction	Paulo Pereira
08.10 - 08.30	Case Discussion: Low Back Pain	Paulo Pereira
08.30 - 09.00	Clinical Examination	Bruno Santiago
09.00 - 09.30	Radiology	Isabel Cravo
09.30 - 10.00	Risk Factors for Chronic LBP	Jorge Alves
10.00 - 10.30	Rehabilitation and Manual Therapy	Cristina Freitas Pereira
-	-	-
Coffee Break 30 mins.		
-	-	-
	Session 2: Fundamental Research	
11.00 - 11.20	Biomechanic in Vitro Models	Mário Vaz
11.20 - 11.40	Finite Element Models	Mário Vaz
11.40 - 12.00	Biology of the Lumbar Intervertebral Disc	Raquel Gonçalves
12.00 - 12.20	Cellular and Molecular Research	Raquel Gonçalves
-	-	-
Lunch 50 mins.		
-	-	-
	Session 3: Epidemiology and Clinical Research	
13.10 - 13.30	Epidemiology & Economics	Nuno Neves
13.30 - 13.50	Evidence Based Medicine	Bruno Santiago
13.50 - 14.10	Clinical Research	Pedro Santos Silva
14.10 - 15.00	Outcome Measures	Pedro Santos Silva
-	-	-
Coffee Break 30 mins.		
-	-	-
	Session 4: Red flags: Case discussion - Case: 5' – Small groups: 10' – Discussion: 15'	
15.30 - 16.00	Traumatic Spinal Chord Injury	Jorge Alves
16.00 - 16.30	Spondylodiscitis	Pedro Santos Silva
16.30 - 17.00	Primary Tumor of the Spine	Bruno Santiago
17.00 - 17.30	Inflammatory Diseases of the Spine	Nuno Neves
17.30 - 17.45	Course Evaluation (Mandatory for All Participants)	
-	-	-
	End of Module	
-	-	-
		Course Attendance is Mandatory

Contacts

Course Organisation

SPPCV Sociedade Portuguesa de Patologia da Coluna Vertebral

-

Cristiana Mota
sppcv_secretariado@yahoo.com
T: +351 96 253 9452

GEER Sociedad Española de Columna Vertebral

-

Mari Cruz Berruezo
Silvia Núñez
secretaria@geeraquis.org
T. +34 95 244 5586

Scientific Content

-

Prof. Dr. Paulo Pereira

EUROSPINE, the Spine Society of Europe:

-

Seefeldstresse 16
8610 Uster
Switzerland
www.eurospine.org

SPPCV Sociedade Portuguesa de Patología da Coluna Vertebral

-

Escritório nº E03 Estrada de São Bartolomeu, 169
1750-276 Lisboa
Portugal
www.sppcv.org

GEER Sociedad Española de Columna Vertebral

-

Av. García Lorca s/n. Edf. Club Municipal de Hielo
29630 Benalmádena, Málaga
España
www.geeraquis.org

Thank you
for your participation.

Spanish & Portuguese Spine Societies
COURSE DIPLOMA
Module 1: Basic Comprehensive Course
2019

Organized by:
—

GEER
Spanish Spine Society

SPPCV
SOCIEDADE
PORTUGUESA
DE PATOLOGIA
DA COLUNA
VERTEBRAL

Endorsed by:
—

EURO SPINE