

(equivalent to the Eurospine Diploma)

MODULE 4: TRAUMA

19 April 2024

Athens Medical Group Amphitheater Kefalari Square, Athens, Greece



The Panhellenic Medical Association will grant credit points of Continuing Medical Education (CME-CPD)

Course Manager

Ioannis Magras

Professor of Neurosurgery

SCIENTIFIC PROGRAMME

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19 April 2024

Course Manager
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FACULTY

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LEARNING OUTCOMES

MODULE 4

- 1. Select & interpret appropriate x-ray, CT and MRI in spinal trauma
- 2. Classify fractures of CO-2, subaxial C-spine, TL-spine and sacrum
- 3. Compare surgical and conservative treatment methods at different levels, including CO-2, subaxial C,TL and sacrum
- 4. Define special features of conditions including AS, osteoporosis and trauma of the immature spine
- 5. Plan how to prevent complications in spinal trauma
- 6. Describe characteristics of spinal shock and spinal cord injury syndromes

DETAILED LEARNING OUTCOMES: SESSION 1 - TRAUMA CERVICAL SPINE

Imaging of Cervical Trauma

- Select appropriate imaging for suspected cervical spinal injury
- Evaluate options for x-ray views
- Select CT and/or MRI as appropriate
- Differentiate between requirements following major and minor cervical spine trauma

Trauma of CO-C2: Classification & Management

- Define the role of ligaments in cervical spine stability
- · Classify and relate to treatment
- Occipital condyle fractures
- Occipito-cervical dislocation
- Occipito-atlantal dislocation
- Axial atlanto-axial InstabilityAtlas (C1) fracture
- Axis (C2) fracture
- Traumatic spondylolisthesis C2

Trauma of Subaxial C- Spine: Classification & Management

- Estimate the incidence of and classify using the AO classification
- Use other classifications to determine treatment and prognosis
- Anticipate diagnostic pitfalls
- Evaluate non-surgical management options and when appropriate
- · Recognise indications for surgical management
- Emergency
- Urgent
- Elective
- Justify different surgical approaches (anterior vs posterior, combined ant-post or post - ant)

SESSION 2 - TRAUMA THORACOLUMBAR SPINE

Imaging of Thoracic/Thoracolumbar Trauma

- Use the AO classification
- · Select appropriate imaging for major and minor trauma
- Assess x-ray images
- Define the indications of CT and MRI as appropriate
- Identify specific conditions with compromised spinal function

Trauma of TL spine: classification & management

- Recognise the signs and symptoms of TL spine trauma
- Differentiate Denis, AO and TLICS classifications
- Explain the role of PLC for burst fractures, hematological, nutritional and metabolic
- Evaluate surgical techniques in:
- Anterior surgery including MIS techniques
- Posterior surgery including MIS techniques

Sacral Fractures: classification & management

- · Describe the relevant anatomy
- Differentiate sacral fracture types
- Use the AO classification
- Recognize signs and symptoms of sacral fractures
- Compare surgical vs conservative treatment
- Evaluate surgical options



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Trauma of Spine with Ankylosing Spondylitis and DISH: features & management

- · Explain the aetiology of ankylosing spondylitis
- Define the role of the spine surgeon in AS
- Formulate a surgical management plan for AS fractures
- Anticipate particular difficulties in this patient population
- Explain what kind of imaging is mandatory and why

Osteoporotic Fractures: Classification & Management (Case based Presentation).

- Define osteoporosis
- Describe medical management of osteoporosis
- Summarize the diagnosis of osteoporotic fractures
- Use the AO Spine osteoporotic fracture classification
- Evaluate surgical options
- Outline the indications for vertebral augmentation procedures
- Outline indications for spinal instrumentation ± VBR

SESSION 3 - PAEDIATRIC TRAUMA AND SCI TOPICS

Paediatric Spinal Trauma: features & management

- Outline features of the immature cervical and thoracolumbar spine
- Define SCIWORA/SCIWORET
- Explain mechanism of:
- C-spine injury
- · Lumbar apophyseal injuries
- Plan appropriate investigations and management of injuries

Spinal Shock and Incomplete SCI Syndromes

- Explain spinal shock and its pathomechanism
- Define the different types of incomplete spinal cord injury
- Classify SCI by using the ASIA impairment scale and explain its clinical and surgical relevance
- Describe the clinical symptoms and pathomechanism of Central Cord Syndrome
- Discuss the importance of timing of surgery
- Explain why there is no role for methylprednisolone in SCI (NASCIS I-III)

Biomaterials in Spine Surgery

- Evaluate different biomaterial options in spine surgery
- Differentiate between Calcium-phosphate/ Hydroxyapatite act osteoconductive, whereas Bone Morphogenetic Proteins act osteoinductive
- Evaluate the options for cement stabilisation
- Explain the mechanical behaviour of calcium phosphate and BMP

SESSION 4 - POST-TRAUMATIC KYPHOSIS Management of Post-Traumatic Kyphosis

- · Discuss the reasons of post traumatic kyphosis
- Formulate therapeutic goals
- · Explain how to restore sagittal balance
- Evaluate surgical options
- · Justify a multidisciplinary team approach



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SCIENTIFIC PROGRAMME

Module 4: Trauma

Saturday, 19 April 2024

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08:30 - 09:00	Course Registration & Welcome Coffee
09:00 - 10:30	Session 1: Trauma Cervical Spine
09:00 - 09:10	Introduction Frank Kandziora, Stavros Stavridis
09:10 - 09:30	Imaging of Cervical Trauma Apostolos Karantanas
09:30 - 10:00	Trauma of CO-C2: Classification & Management (Case based Presentation Dimos Bouramas
10:00 - 10:30	Trauma of Subaxial C-Spine: Classification & Management (Case based Presentation) Alkinoos Athanasiou
10:30 - 11:00	Coffee Break
11:00 - 13:30	Session 2: Trauma Thoracolumbar Spine
11:00 - 11:20	Imaging of Thoracic/Thoracolumbar Trauma Apostolos Karantanas
11:20 - 11:50	Trauma of TL Spine: Classification and management (Case based Presentation) Konstantinos Paterakis
11:50 - 12:10	Sacral Fractures: Classification & Management (Case based Presentation) Efthimios Samoladas
12:10 - 12:40	Trauma of Spine with Ankylosing Spondylitis & DISH: Features & Management (Case based Presentation) Frank Kandziora
12:40 - 13:00	Osteoporotic Fractures: Diagnosis & Management ww(Case based Presentation) Stavros Stavridis
13:00 - 13:30	Discussion
13:30 - 14:30	Lunch Break



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14:30 - 16:00	Session 3: Paediatric Trauma and SCI Topics
14:30 - 14:50	Pediatric Spinal Trauma: Features & Management (Case based Presentation) Arion Kapinas
14:50 - 15:10	Spinal Shock & Incomplete Spinal Cord Injury Syndromes Parmenion Tsitsopoulos
15:10 - 15:30	Biomaterials in Spine Surgery Alexandros Brotis
15:30 - 16:00	Participant case presentation
16:00 - 16:30	Coffee Break
16:30 - 17:35	Session 4: Post-Traumatic Kyphosis
16:30 - 17:00	Management of Post-Traumatic Kyphosis (Case based Presentation) Frank Kandziora
17:00 - 17:30	Case Discussion Frank Kandziora
17:30 - 17:35	Closing remarks
17:35	End of course



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GENERAL INFORMATION

Module

Module 4: TRAUMA

Registration Fee

Module 4: 300 euros

Module 1 and 4: 500 euros

Date

19 April 2024

Official Language

English

Accreditation

The Panhellenic Medical Association grants 14 credit points of Continuing Medical Education (CME-CPD)

Venue

Centre for Dissemination of Research Results of Aristotle University of Thessaloniki (KE.D.E.A) A.U.TH. Thessaloniki, Greece

Organization

Hellenic Spine Society

Course Secretariat



Premium Congress & Social Events Solutions

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MODULE 1: BASIC COMPREHENSIVE COURSE

20 April 2024

Athens Medical Group Amphitheater Kefalari Square, Athens, Greece



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FACULTY Athanasiou Alkinoos

Balogiannis Ioannis

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Karantanas Apostolos Palaiologos Theofilos

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MODULE 1: BASIC COMPREHENSIVE COURSE

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LEARNING OUTCOMES

MODULE 1

- 1. Explain the impact of spinal disorders on the individual and society
- 2. Evaluate a spinal patient with a spine problem
- 3. Recognise 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

DETAILED LEARNING OUTCOMES: SESSION 1 - GENERAL FEATURES

Epidemiology of spine diseases

- Quantify the problem of back pain in the society
- Propose a strategy to reduce spine problems
- Explain research definitions of back pain and study methodology

Evidence Based Medicine

- · Rank levels of evidence
- Define the needs of individual patients in the context of Evidence Based Medicine
- · Explain the risk of bias
- Justify the role of Evidence Based Medicine, guidelines and registries

Surgical Anatomy of the Spine

- Understand the most important anatomical features in spine care
- Identity the main anatomical points during surgical spinal approaches

Radiology Standards

- Explain risks of exposure to radiation and minimize risks for patients and staff
- Justify the role of the team in evaluating radiological requests and investigations
- Select the most appropriate investigations in spinal Disorders

Spine Journals and literature

- · Become familiar with the main spine journals
- Acquire ability to perform focused search on spine topics
- · Understand and interpret the spine literature

SESSION 2 - THE FUNCTIONAL SPINE

Biomechanics

- Outline loads in different positions of the spine
- Explain how loading changes with age and pathology
- Describe the basic principles of biomaterials and biocompatibility

The Young Spine

- · Describe spine growth and growth velocity
- Define specific trauma related factors in the child

The Old Spine

- Identify common disorders in elderly patients
- Explain the natural history and treatment of fragility fractures of the spine
- Describe the impact of age and co-morbidity on risk assessment and patient safety



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SESSION 3 - CLINICAL EVALUATION & MEDICAL ETHICS

Hints and tips during clinical examination

- Identify actual and potential communication problems within practice
- Assess own strengths and weaknesses in communicating with patients, their families and other team members
- Select appropriate clinical tests for a clinical situation
- · Perform a safe and effective clinical examination

Warnings during clinical decision making

- · Recognise Serious Red Flags during spine care
- Use clinical information to formulate a diagnosis and treatment plan

Ethics & Medicolegal Issues

- · Apply an ethical framework to critical thinking
- · Formulate principles of informed consent
- Identify the main medicolegal issues and how to avoid them in spine practice
- Evaluate organizational and personal factors involved in patient safety

SESSION 4 - SPINAL EMERGENCIES

Evaluation & management principles of spine trauma

- · Recognise and document details of a spinal cord injury
- Plan transport, investigation and treatment of a patient with a spinal cord injury
- Anticipate potential complications and how to avoid them
- Plan a simple rehabilitation strategy for a patient with spinal cord injury

Incomplete spinal cord injury

- Recognise and investigate an incomplete spinal cord injury
- Formulate a plan for the presurgical management of incomplete spinal cord injury and compression
- Outline the common causes and treatment options of acute spinal cord compression

Conus Medullaris & Cauda Equina Syndrome

- Justify the difficulties in proper diagnosis and treatment of conus medullaris and cauda equina syndrome
- Explain the impact of cauda equina syndrome on patient's life



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SCIENTIFIC PROGRAMME

MODULE 1: BASIC COMPREHENSIVE COURSE FRIDAY, 19 APRIL 2024

COURSE ATTENDANCE IS MANDATORY

08:30 - 09:00	Course Registration & Welcome Coffee
09:00 - 10:30	Session 1: General Features
09:00 - 09:15	Epidemiology of spine diseases A. Brotis
09:15 - 09:30	Evidence Based principles A. Brotis
09:30 - 09:50	Practical anatomy of the cervical spine E. Antoniades
09:50 - 10:10	Practical anatomy of the thoracolumbar spine K. Barkas
10:10 - 10:30	Radiological standards and methods A. Karantanas
10.30 - 11.00	Coffee break
11:00 - 12:15	Session 2: The Functional Spine
11:00 - 11:15	Biomechanical principles P. Tsitsopoulos
11:15 - 11:30	Biomechanics of spine constructs D. Bouramas
11:30 - 11:45	Peculiarities and specific features of the young spine A. Kapinas
11:45 - 12:00	Peculiarities and specific features of the aged spine S. Stavridis
12:00 - 12:15	Case Discussion Faculty
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12.15 - 13.00	Lunch break



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MODULE 1: BASIC COMPREHENSIVE COURSE

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13:00 - 14:30	Session 3: Clinical Evaluation & Spinal Emergencies
13:00 - 13.15	Hints and tips through clinical examination K. Barkas
13:15 - 13:30	Warnings and dilemmas during clinical decision making K. Paterakis
13:30 - 13:45	Evaluation & management principles of spine trauma A. Athanasiou
13:45 - 14:00	Incomplete spinal cord injury T. Palaiologos
14:00 - 14:15	Conus medullaris & Cauda Equina Syndrome S. Korfias
14:15 - 14:30	Case Discussion Faculty
14:30 - 15:00	Coffee Break
15:00 - 16:10	Session 4: Medical Ethics, Research & Innovative technologies
15:00 - 15:20	Ethics & Medicolegal issues S. Stavridis
15:20 - 15:40	Literature search and types of clinical studies P. Tsitsopoulos
15:40 - 16:00	Artificial Intelligence and technical innovations in spine practice A. Athanassiou
16:00 - 16:10	Closing Remarks I.Magras



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20 April 2024

Course Manager loannis Magras Professor of Neurosurgery

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GENERAL INFORMATION

Module

Module 1: BASIC COMPREHENSIVE COURSE

Registration Fee

Module 1: 300 euros

Module 1 and 4: 500 euros

Date

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English

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Organization

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Course Secretariat



Premium Congress & Social Events Solutions

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