



ESPRM



PRELIMINARY PROGRAM
European School on
“Rehabilitation of pain and pain-related disability”

Focus on central pain: CPSP & SCI

22-26 September 2024
Piacenza- Italy

Aim

*The recognition that acute and chronic pain have two distinct mechanisms and that **chronic pain is a disease in its own right** has been a major insight. More recently WHO have stated that **chronic pain is a disabling disease** and therefore that **physical and rehabilitation medicine has a pivotal role in the management of the chronic pain patient and of the related disability**. In our daily practice we witness cases in which pain is the generator of disability as well as cases where the disability is becoming unbearable because of the presence of chronic pain.*

The School will assist clinicians to refine their clinical diagnostic approach to identify various phenotypes of pain - nociceptive, neuropathic, Nociplastic-, to improve their ability to interpret clinical, instrumental and laboratory finding and to establish the most appropriate rehabilitation as well as physical and pharmacological treatment to overcome pain and the related disabling condition.

*The 2024 edition is focused on central pain. **Chronic Post Stroke Pain (CPSP) and pain in Spinal Cord Injuries (SCI)** are already “per se” a dramatic clinical condition. In clinical practice this situation can be even more disabling as other form of pains i.e nociceptive and nociplastic are overlapping the neuropathic component making a correct diagnosis and rehabilitation approach not so easy to disentangle. A better understanding of the complexity of pain in stroke and spinal cord injured patients has an important role in providing appropriate and adequate rehabilitation management for these patients.*

*School’s structure is **residential** and will have **front lessons, workshops and hands-on sessions with the voluntary participation of persons affected by Chronic Post Stroke Pain (CPSP) and pain in Spinal Cord Injuries (SCI)**.*

*Front lessons will also be recorded and available on the school podcast. **Front lessons will last 45 minutes with 15 minutes for questions & answers***

*The School is prepared to host the attendants and to give attendants full board accommodation. **Dinners with the Faculty are also free from charge and are a distinguish feature of the school.***

Faculty

Nickolaos Barotsis

Marijana Brass

Anthony Dickenson

Belgin Erhan

Giorgio Ferriero

Diego Fornasari

Luis Garcia-Larrea

Klemen Grabljevec

Magdi Hanna

Per Hansson

Ziad Hawamdeh

Xiaolei Hu

Daiana Michaela Popa

Roland Pejron

Alberto Rainoldi

Vladimir Romanenco

Marcos Sganzos

Riccardo Torta

Mauro Zampolini

SUNDAY

18:00-19:00 SFORZA- FOGLIANI OPENING CERIMONY at the Palazzo Farnese

- **Presentation of the School's program (hybrid presentation)**
 - Klemen Grabljevec ESPRM President
 - Nicholaos Barotsis UEMS PRM Board
 - Mauro Zampolini PRM Section of UEMS
 - Roberto Casale School's Director

- **Ceremony for the Signing of the Letter of Interest between ESPRM and EFIC**

The Presidents of the two scientific societies Klemen Grabljevec and Luis Garcia Larrea will sign a Lol for a closer collaboration on the rehabilitation of pain and pain-related disability.

MONDAY

Morning session 8:00 to 13.00

Basics on pain

08:00-09:00 Anthony Dickenson –Physiopathology of pain. Mechanisms of Acute and Chronic Pain; nociceptive, neuropathic and Nociplastic pain This pivotal lecture will cover mechanisms of pain in a translational context to patients. Transduction, Transmission, Perception, Modulation. Pain without nociception and nociception without pain.

09:00 - 10:30 Per Hansson The clinical examination of the pain patient

This basic tutorial will examine the diagnostic approach to pain in general and in a stroke patient in particular in a rehabilitation context. Nociceptive, Nociplastic, Neuropathic pain all these forms of pain can be concomitant superimposed or mixed in stroke. In practice the interview is pivotal in addressing the clinical examination and to make a first essential working hypothesis and to address further instrumental examinations and a tailored rehabilitation plan.

10:30 – 11:00 Coffee Break

Stroke

Stroke is the third leading cause of disability and death worldwide with a total of 12.2 million incident cases of stroke and 6.5 million stroke related deaths. The incidence of PSP varies widely from 10% to 70%. The vast difference can be explained by different study designs, cohort samples and follow up period. A better understanding of this type of pain has an important role in providing appropriate and adequate rehabilitation management for these patients.

11:00 – 12:00 Xiaolei Hu The clinical rehabilitation approach

12:00 – 13:00 Vladimir Romanenco Chronic Post Stroke Pain (CPSP)

Lunch 13:00 to 14:00

Afternoon session 14:00 to 18:30

Spinal Cord Injury (SCI).

Neuropathic pain is present in 40% to 50%, usually develops within the first year, and tends to become chronic. However other form of pain may be present and of relevance in a rehabilitation program. Shoulder, wrists and back pain, muscle weakness, and spasticity are common in the chronic phase. Heterotopic ossification, and pain related to spasms and muscle contractures are other examples of nociceptive pain. Visceral pain is also present. Thus pain may be therapeutically challenging and has a substantial impact on rehabilitation and on quality of life.

14:00-15:00 Belgin Erhan - The clinical rehabilitation approach

15:00 – 16:00 Roberto Casale Nociceptive and neuropathic (central & peripheral) pain coexistence in the SCI patient.

Coffee Break 16.00 to 16.30

The language of pain and suffering

16:30 –17.30 Giorgio Ferriero Questionnaires, diaries and pain mapping in stroke and SCJ patients. Which questionnaires and how to use them to assess pain and disability.

- Pain questionnaires: A critical reappraisal of their usefulness and limits in CPSP and SCI with special regards on (MPQ-SF2, DN4, Chronic Pain Grade,etc ;).
- Stroke and SCI specific questionnaires
- Quality of life and other questionnaires on the activity of the day living.

17:30 –18.30 Roberto Casale - The language of pain

_Personal experience or universal feeling? Between “Scilla and Cariddi” in collecting the clinical history.

1st interactive “eclectic”session

Enrico Fermi & Roberto Casale, Theory and practice, an interactive lesson. Are we able to describe sensory experiences in words?

“..... but let a sufferer try to describe a pain in his head to a doctor and language at once runs dry.....”
Virginia Woolf “On Being Ill” 1926.

TUESDAY

Morning session 8:00 to 13.00

Diagnostics

Roland Pejron & Luis Garcia Larrea

Objective pain diagnostics in poststroke and SCI patients help or hinder? The anatomical lesion, the motor impairment and pain. Differentials between CPSP, nociplastic and nociceptive post-stroke / SCI pains.

08:00 – 09:00 Chronic Post Stroke Pain (CPSP) and imaging

09:00 – 10:00 SCI Neurophysiological Measures

Coffee Break 10:00 to 10:30

10:30 –11:30 Marijana Bras Cognitive impairment and Post Stroke Pain

11:30 – 12:30 TbD Testing the autonomic nervous system with some easy bed side examination: what they can tells us about pain and rehabilitation in these patients.

Lunch 12:30 to 14:00

Afternoon session 14:00 to 18:30

Clinical pharmacology

14:00 –16:00 Pain in stroke as well as in SCI patients can be nociceptive, nociplastic as well as neuropathic. Moreover, sometimes these components are overlapping. It is therefore pivotal to have pharmacological basis to treat these three different forms of pain.

- **Diego Fornasari** - Drugs acting on transduction, transmission and on modulation

- **Riccardo Torta** - Drugs for nociceptive, nociplastic and neuropathic pain.

- **Magdi Hanna** - Hidden pain, acute and chronic back pain in SCI and post stroke pain patients: critical appraisal for current guidelines

Coffee Break 16:00 to 16.30

2nd interactive session

Per Hansson & Xiaolei Hu

16:30 – 18:30 Stroke: The clinical examination in practice. Under the guidance of an expert clinician the participants will be guided through an outpatient consultation from the interview to the clinical examination of a patients affected by CPSP.

WEDNESDAY

Morning session 8:00 to 13:00

How does a central lesion affect skeletal muscle.

The functional consequences of a central nervous system lesion lead to adaptations and modifications within the nervous system, but also changes in the skeletal muscle. Both stroke and SCI greatly affects muscle in two different directions: loss and overactivity.

08:00 – 9:00 Marcos Sganzos - The striated muscle: Contractures, spasms and spasticity

- Clinical differences
- Common mechanisms and Inference with pain

09:00 – 10:00 Botulin toxin for spasticity & pain in CPSP and SCI

- **Klemen Grabljevec**
When, how much and where to inject.
What we should expect from a botulin toxin treatment for pain and spasticity
- **TbD**
Beyond Botulin Toxin: Baclofen, alcoholization, phenol, cryoablation

Coffee break 10.00 to 10.30

Neuromodulation for both sensory and motor symptoms in CPSP and SCI

Central lesions cause changes in several neural networks affecting both pain and motor control. The modulation of these processes through noninvasive brain stimulation, has been proposed in a rehabilitation context as a viable intervention that could promote post-stroke clinical recovery, functional independence as well as modulate pain.

10:30-13:00 Luis Garcia-Larrea & Roland Peyron deep brain, cortical stimulation and SCS

- rTMS repetitive Trans Cranial Magnetic Stimulation
- tDCS transcranial Direct Current Stimulation
- MCS Motor Cortex Stimulation

Lunch 13:00 to 14:00

Afternoon session 14:00 to 18:30

3rd interactive session

14:00 – 16:00 Instrumental appraisal of muscle on the use of Botulin Toxin

- **Alberto Rainoldi** The use of sEMG to assess muscle structure
- **Nikolaos Barotsis** Ultrasound in contractures, muscle spasms and spasticity

Coffee Break 16:00 to 16:30

4th interactive session

Per Hansson & Daiana Popa

16:30 – 18:30 The clinical examination of the disability and pain related disability in a SCI patient in practice

Under the guidance of expert clinicians the participants will be guided from the interview and clinical examination of a SCI patient.

THURSDAY

Morning session 8:00 to 13:00

08:00-09:00 Ziad Hawamdeh Return to work with pain

09:00-10:00 Giorgio Ferriero & Roberto Casale Neural Plasticity, Artificial Neural Network and Rehabilitation

Coffee break 10:00 to 10.30

10:30-11:30 Mauro Zampolini The PRM of the future present: AI in rehabilitation

11:30-13:0

Reappraisal of difficult topics & Take-home messages

In this setting, the clinical and diagnostic tools learned during the School will be discussed and compared, with teachers, in relation to real clinical cases.

Learning questionnaires

Closing down of the School