

## **STUDENT GUIDE**

### **MODULE:**

## **Physiopathology and therapeutic approach of Spinal Cord Injury**

**Coordinator:** Dr. Jesús Benito Penalva

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**UAB Code:** 44136

**Modality:** mandatory

**9 ECTS**

### **Presential classes:**

Dates: from January 18<sup>th</sup> to January 22<sup>nd</sup> and from  
February 15<sup>th</sup> to February 19<sup>th</sup>, 2021

Schedule: 9 a.m. to 5 p.m.

### **Objective**

Provide knowledge and skills for the prevention and treatment of the main complications that affect people with spinal cord injury.

### **Workload:**

9 ECTS: equivalent to 225 hours of student work, of which 67,5 h are on-site.

### **Competences and learning outcomes**

E01 Demonstrate an advanced mastery of knowledge and technologies in Neurorehabilitation, as well as techniques of patient care and attention to improve the quality of life of people affected for a disability of neurological origin.

E01.18 Identify the different location and severity of spinal cord injury.

E01.19 Classify the different types of neurological injury in the spinal cord injured patient.

E01.20 Recognize the rehabilitation process of the injured spinal cord with an interdisciplinary approach.

E01.21 Describe the approach and treatment of pain and spasticity in the spinal cord injured patient.

E01.22 Recognize and differentiate the variability and the different manifestations of possible complications and sequelae.

E02 Analyze the causes and physical, psychological and social consequences of neurological disability.

E02.10 Examine the different treatments applied to improve the quality of life of patients with spinal cord injury.

E02.11 Prioritize current neuromodulation and neurostimulation techniques for the treatment of spasticity and neuropathic pain.

E03 Perform and interpret the explorations and apply the advanced techniques that allow the diagnosis and definition of therapeutic strategies in neurorehabilitation.

E03.08 Make or interpret the most advanced explorations and diagnostic techniques in the patient with spinal cord injury.

E03.09 Interpret the possible neurological changes in the evolution of the patient with spinal cord injury.

E04 Apply knowledge in Neurorehabilitation to solve problems regarding the treatment and specialized rehabilitation of people with spinal cord injury or acquired brain injury, as well as the complications of their pathology.

E04.08 Propose a prevention plan for the most common complications in the adult spinal cord injury.

E04.09 Formulate a rehabilitation plan according to the type of spinal cord injury in the different phases of it.

### **Transversal Competences**

GT01 Analyze, synthesize and make decisions reasoning critically about the different professional actions.

GT02 Raise work protocols through information research in the scientific literature.

GT03 Work according to deontology and professional responsibility.

GT04 Integrate into multidisciplinary teams in diverse cultural and scientific environments, creating and maintaining a climate of open collaboration and teamwork.

### Teaching methodology

The teaching methodology and the proposed evaluation may undergo some modification depending on the restrictions on attendance that the health authorities impose.

The methodological approach of the module starts from considering the student as the protagonist of his teaching and learning process. The student must be active and autonomous throughout the process and the teacher will give support by providing the information and resources necessary for the learning to take place.

The module is presential and have an obligatory attendance of the 80% of the subjects. The methodology in class is an expository presentation with audiovisual support and workshops.

Through the e-learning Guttmann platform you will have access, among others, to the calendar and class schedules, to bibliographic support documentation, and you can also use it to do a collaborative work between the students and, between the students and teachers to clarify doubts, to share interesting findings, news, articles, books, conferences, etc.

The information presented in this document provides a summary of the main features of the program and learning outcomes that you could reasonably expect and achieve if you make the most of the learning opportunities provided to you.

### Contents description:

- Epidemiology and clinic of spinal cord injury
- Neurological exploration of spinal cord injury
- Clinical and surgical treatment of spinal cord injury
- Therapeutic approach of the main complications of the spinal cord injury un relation to the level and severity of the injury

### Competences evaluation

The evaluation activities will be carried out through and at the end of the module and consists of:

1. **Practical case:** It has a value of **30% of the final grade of the module.**
2. **Theoretical tests:** It has a value of **30% of the final grade of the module** and will consist of multiple-choice questions of all the topics addressed in the program, one for each week of class.
3. **The Portfolio** consists of the collection of student work, to demonstrate through progressive improvement, what you can do, finding, searching or compiling in a certain thematic area or in a specific content. The Portfolio have a value of **30% of the final grade of the module.**
4. **The attendance and participation** in class has a weight of **10% in the final mark of the module.**

The maximum date for the delivery of the tests will be **March 07<sup>th</sup>, 2021.**

- If you do not present evidence of learning or you have not attended the minimum number of hours of the programmed activities of the module (80%), the subject will be “not evaluable”. The qualification of not evaluable in the final evaluation report implies exhausting the inherent right in the module’s enrollment.
- You will pass the subject if you obtain a minimum score of 5 points (scale 0-10) as the average mark of the two evidences of learning.

### **Procedure and recovery criteria**

The re-evaluation is a process that will be put into operation once the period of publication of the final grades has ended.

- You will be entitled to a re-evaluation if you have obtained between 3.5 and 4.9 in the average grade of the subject.
- The test submitted to the re-evaluation process may not exceed 5.0 points (approved) in the final grade.

### **The module’s web**

In the web of each module you Will find information of interest for the follow-up of the study:

- Forum of the module. Through this space you can keep in touch with the teachers or among the other students, to provide suggestions, answer questions, etc.
- News. It is the space from where you Will receive news and announcements about the evolution of the module.
- Programs. The module can be downloaded in PDF format, indicating the subjects, schedules and the teaching staff.
- Documentation. Here you Will find information and bibliography of interest that you can consult for the later study of the topics.
- Evaluation of competences. In this space you Will find all the necessary information and the delivery dates of the evaluation that will be done for this module

### **Satisfaction surveys**

It is very important that students send us your comments, complaints and suggestions regarding the module. That’s why we put t your disposal two evaluation surveys. The surveys are **anonymous**:

- Teacher evaluation. Daily, at the end of the classes, you Will receive an email (on your computer or on your mobile) that Will link you to a brief satisfaction questionnaire about the teachers that have taught that day. The objective of these surveys is to collect your opinion that will be a great help for the improvement of this module.
- Module evaluation. Also, at the end of the course you can answer the general evaluation survey of the module.

**Coordination**

For any aspect of the organization and planning of the module you can contact

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**RECOMMENDED BIBLIOGRAPHY**

- Spinal Cord Injury research evidence (<https://scireproject.com>)