

Online

14 November 2022



**SPPCV**  
SOCIEDADE  
PORTUGUESA  
DE PATOLOGIA  
DA COLUNA  
VERTEBRAL

# Spanish & Portuguese Spine Societies Course Diploma

## Module 6

# Using Literature to Inform my Practice

PROGRAMME

## QUICK FACTS

### WHEN:

14 November 2022

### WHERE:

Online

### REGISTRATION FEE:

200 € for Members\*

300 € for Non Members

\*Discounts for GEER and SPPCV members are available.

### MAXIMUM ATTENDEES:

30 delegates

### LANGUAGE:

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

### DRESS:

Smart Casual

### IMPORTANT NOTE:

- Attendance at every session is mandatory.

## COURSE CHAIRMEN

- **Marta Esteban Blanco**  
Spain
- **Rafael LLombart Blanco**  
Spain

## COURSE FACULTY

- Miquel Bovea
- Marta Esteban
- Rafael LLombart
- Gonzalo Mariscal
- Miguel Menéndez

## TARGET AUDIENCE

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

## AIMS OF THE MODULE

This course will provide participants with the necessary skills to critically appraise the quality of the spine literature. Specifically, the course will introduce basic study designs and discuss the main threats to the validity of clinical studies. Learning methods include online didactic lectures and workshops. Recently published papers will be used in the workshops. The topics covered in the course include: the importance of research to inform practice, randomised clinical trials, systematic reviews and cohort studies. Participants will learn to use a critical appraisal tool to assess the quality of systematic reviews, randomised control trials and cohort/prognostic studies.

## LEARNING OUTCOMES MODULE 6

This module aims to enable learners to:

### GENERAL OUTCOMES AND OBJECTIVES

- Understand the place of critical appraisal in a clinical practice that includes published evidence and patients' perspectives
- Evaluate the quality of randomised clinical trials (RCTs)
- Evaluate the quality of cohort/prognostic studies
- Evaluate the quality of systematic reviews
- Judge whether to change their practice based on new evidence

## LEARNING OUTCOMES

### OUTCOMES AND OBJECTIVES SESSION 1

#### INTRODUCTION TO CRITICAL APPRAISAL AND TOOLS

- Understand the place of critical appraisal in clinical practice that includes published evidence and patients' perspectives
- Identify the research question and study objective in a published article
- Understand the notions of statistical significance and clinical importance of study results
- Judge when to change their practice based on new evidence
- Critically appraise a journal article using checklists, assessing bias, effect measures

### OUTCOMES AND OBJECTIVES SESSION 2

#### THE ARCHITECTURE OF RCTS: WHAT CLINICIANS NEED TO KNOW TO DETERMINE THE QUALITY OF AN RCT

- Understand the basic design of an RCT
- Understand key issues to address when critically appraising a randomised controlled trial: selection issues, randomisation, measurement of key outcomes, comparability of groups, data analysis

### OUTCOMES AND OBJECTIVES SESSION 3

#### THE ARCHITECTURE OF COHORT/PROGNOSTIC STUDIES: WHAT CLINICIANS NEED TO KNOW TO DETERMINE THE QUALITY OF A COHORT/PROGNOSTIC STUDY

- Understand the basic structure of cohort/prognostic studies
- Understand the role of data registry in the conduct of cohort/prognostic studies
- Understand key issues to address when critically appraising a cohort/prognostic study: selection of participants, measurement of exposures and outcomes, control for confounders and interpretation of results

## **OUTCOMES AND OBJECTIVES SESSION 4**

### **THE ARCHITECTURE OF SYSTEMATIC REVIEW A: WHAT CLINICIANS NEED TO KNOW TO DETERMINE THE QUALITY OF A SYSTEMATIC REVIEW**

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- Understand the fundamentals of a systematic review
- Understand key issues to address when critically appraising a systematic review: selection issues, randomisation, measurement of key outcomes, heterogeneity, data analysis

## **OUTCOMES AND OBJECTIVES WORKSHOP 1**

### **CRITICAL APPRAISAL OF AN RCT**

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- Critically appraise a published randomised controlled trial using a standardized critical appraisal tool and identify the main threats to its validity
- Discuss the validity of a published randomised clinical trial
- Discuss the relevance of results of a published randomised clinical trial

## **OUTCOMES AND OBJECTIVES WORKSHOP 2**

### **CRITICAL APPRAISAL OF A COHORT/ PROGNOSTIC STUDY**

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- Critically appraise a published cohort/prognostic study using a standardized critical appraisal tool and identify the main threats to its validity
- Discuss the validity of a published cohort/prognostic study
- Discuss the relevance of results of a cohort/prognostic study to clinical practice

## **OUTCOMES AND OBJECTIVES WORKSHOP 3**

### **CRITICAL APPRAISAL OF A SYSTEMATIC REVIEW**

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- Critically appraise a published systematic review using a standardized critical appraisal tool and identify the main threats to its validity
- Discuss the validity of a published systematic review
- Discuss the relevance of results of a systematic review to clinical practice

## INSTRUCTIONAL METHODS

The following instructional methods will be employed in the teaching of this module:

- Online lectures to be visualized by the participants
- Articles will be given to participants in order to make a critical appraisal at home.
- Online workshops: during the live online sessions the faculty will explain how to critically appraise the chosen articles

## LEARNING

### INTRODUCTION TO CRITICAL APPRAISAL

- Lecture: This two sessions will introduce learners to the importance of critically reading the clinical literature and introduce the basic principles necessary to evaluate the quality of RCTs and clinical practice guidelines

### THE ARCHITECTURE OF RCTS: WHAT CLINICIANS NEED TO KNOW TO DETERMINE THE QUALITY OF A RCT

- Lecture: The session will provide basic knowledge of the methodological design of RCTs
- Activity: The instructor will facilitate the evaluation of a RCT with the class by using a critical appraisal tool

### THE ARCHITECTURE OF COHORT/PROGNOSTIC STUDIES: WHAT CLINICIANS NEED TO KNOW TO DETERMINE THE QUALITY OF A COHORT/ PROGNOSTIC STUDY.

- Lecture: The session will provide basic knowledge of the methodological design of a cohort/prognostic study
- Activity: The instructor will facilitate the evaluation of a cohort/prognostic study with the class by using a critical appraisal tool

### THE ARCHITECTURE OF SYSTEMATIC REVIEW A: WHAT CLINICIANS NEED TO KNOW TO DETERMINE THE QUALITY OF A SYSTEMATIC REVIEW

- Lecture: The session will provide basic knowledge of the methodological design of a systematic review study
- Activity: The instructor will facilitate the evaluation of a systematic review study with the class by using a critical appraisal tool

### LIVE SESSION

#### **WORKSHOP 1: CRITICAL APPRAISAL OF AN RCT**

- Activity: to evaluate a RCT using the CASP Randomised Controlled Trial Checklist

#### **WORKSHOP 2: CRITICAL APPRAISAL OF COHORT STUDY**

- Activity: to evaluate a RCT using the CASP Checklist

#### **WORKSHOP 3: CRITICAL APPRAISAL OF A SYSTEMATIC REVIEW**

- Activity: to evaluate a systematic review study using a checklist

### ASSIGNMENT

Participants will be provided with three articles, reporting a RCT, a cohort study and a systematic review; they will have to fill the corresponding checklist. Participants are then encouraged to self-evaluate during the online workshop sessions.

### COURSE EVALUATION BY THE PARTICIPANTS

Participants will be requested to complete a mandatory course evaluation at the end of the module in the form of a short online survey.

# Module 6: Using Literature to Inform my Practice Scientific Programme

Chairmen: **Marta Esteban Blanco & Rafael LLombart Blanco**

Course attendance is mandatory

**MONDAY, 14 NOVEMBER**

TIME	TOPIC	FACULTY
<b>INTRODUCTION</b>		
15 min	Introduction to Critical Appraisal	Rafael Llombart
15 min	Critical Appraisal Tools: Checklists, Assessing Bias, Effect Measures...	Marta Esteban
<b>RANDOMISED CONTROL TRIALS, COHORT STUDIES AND SYSTEMATIC REVIEWS</b>		
20 min	The Structure of RCTs	Miquel Bovea
20 min	Critical Appraisal of a Cohort Study: the Fundamentals	Miguel Menéndez
20 min	Critical Appraisal of a Systematic Review: the Fundamentals	Gonzalo Mariscal
	Knowledge Check Questions	

**THURSDAY, 15 DECEMBER**

TIME	TOPIC	FACULTY
<b>CRITICAL APPRAISAL (ONLINE LIVE SESSION)</b>		
10 min	Clinical Case Presentation	
15 min	Article Search and Appraising the Pertinence of Abstracts	Rafael Llombart
15 min	Critical Appraisal of Article 1 (RCT)	Miquel Bovea
15 min	Critical Appraisal of Article 2 (Cohort)	Miguel Menéndez
15 min	Critical Appraisal of Article 3 (Systematic Review )	Gonzalo Mariscal
10 min	Applicability of Study Results to Initial Cases	Marta Esteban

**END OF MODULE**



# Recommended Reading

- Guyatt G, Meade MO. Users' Guides to the Medical Literature: A Manual for Evidence-Based Clinical Practice, 3<sup>rd</sup> ed. McGraw Hill; 2015.
- Reader's guide to critical appraisal of cohort studies: 1. Role and design Rochon PA BMJ 2005 Apr 16;330(7496):895-7. doi: 10.1136/bmj.330.7496.895.
- Reader's guide to critical appraisal of cohort studies: 2. Assessing potential for confounding. Mamdani M, BMJ. 2005 Apr 23;330(7497): 960-2. doi: 10.1136/bmj.330.7497.960.
- Readers guide to critical appraisal of cohort studies: 3. Analytical strategies to reduce confounding. Normand SL. BMJ. 2005 Apr 30;330(7498):1021-3. doi: 10.1136/bmj.330.7498.1021.

## Course Organisation



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