

**UNIVERSITY HOSPITAL OF SANTIAGO DE
COMPOSTELA, SPAIN**

DEPARTMENT OF GASTROENTEROLOGY AND HEPATOLOGY

**The International Center for Education and
Development in Gastroenterology**

(ICEDiG)

Director: Prof. J.Enrique Domínguez-Muñoz

**ADVANCED HANDS-ON MASTERCLASS
PROGRAM ON ENDOSCOPIC ULTRASOUND**

Dr. Julio Iglesias-García, Dr. Jose Lariño-Noia

Scientific rationale

Endoscopic ultrasound (EUS) has evolved in recent years into a technique with a major clinical impact in digestive and mediastinal diseases. In fact, EUS has represented a major advance in the diagnosis and staging of several tumors, and can determine a change in diagnosis and management in 25% to 50% of cases. EUS also provides guidance for fine-needle aspiration of almost all lesions detected during a standard procedure. In addition, several new diagnostic techniques associated with EUS have been developed over the last years, such as EUS guided elastography, contrast-enhanced EUS, and EUS-guided biopsy that are very useful for the differential diagnosis of solid lesions. These techniques are becoming essential in clinical routine. EUS-guided therapy is also increasing in terms of new indications, such as drainage procedures, tumor ablation and injection techniques. Although these procedures are being used in the clinical practice of specialized centers, there is a need for producing research data and increasing the knowledge in these fields.

In line with these scientific and technological developments, there is a clear need for education in EUS and related techniques, and for the adequate positioning of these techniques in clinical practice.

The Department of Gastroenterology and Hepatology of the University Hospital of Santiago de Compostela, Spain, is an internationally recognized and reference center for diagnostic and therapeutic endoscopic ultrasound. In addition, this Department is an international reference center for research and education in this technique.

The Department of Gastroenterology and Hepatology of the University Hospital of Santiago de Compostela, Spain, is organizing Masteclass Programs on Pancreatic Diseases and on Advanced Endoscopic Ultrasound since 2005. These courses are being attended by Gastroenterologists of many different countries all around the world, mainly from Europe but also from America and Asia.

Prof. Domínguez-Muñoz is an internationally well-known expert in pancreatic function, pancreatic diseases, and pancreatic endoscopy. He is the Chief of the Department of Gastroenterology and Hepatology of the University Hospital of Santiago de

Compostela, Spain. Dr. Iglesias-García is an internationally well-known expert in advanced endoscopic ultrasound as well as in pancreatic diseases. He has contributed over the past years with new developments on several novel techniques associated with endoscopic ultrasound, like elastography, contrast-enhancement and endoscopic ultrasound guided biopsy. Dr. Lariño is an internationally expert in endoscopic ultrasound as well as in pancreatic diseases. Dr. Ihab Abdulkader is an internationally well-known expert in cytopathology, mainly in the evaluation of endoscopic ultrasound biopsy samples. He is one of the key opinion leaders in the development of new strategies for the evaluation of biopsy samples obtained by endoscopic ultrasound.

The Department of Gastroenterology and Hepatology of the University Hospital of Santiago de Compostela offers different educational programs to gastroenterologists and GI fellows. The main programs consist on Masterclass educational EUS hands-on programs, and fellowships. An application has been sent to get the endorsement of the European Society of Gastrointestinal Endoscopy. A collaboration agreement between the University Hospital of Santiago de Compostela and international companies with interest in endoscopy and endoscopic ultrasound is desirable to support participants and to ensure the financial viability of the programs.

Main aims of the program

The present education program consists on theoretical modules and hands-on training.

The main aims are:

- **Theoretical modules**
 - To provide the appropriate knowledge in endoscopic ultrasound, ranging from basic to specialized concepts.
 - To promote the acquisition of knowledge for the adequate EUS-guided diagnosis, management and decision making of different diseases.
 - To learn the future trends in the field of endoscopic ultrasound, mainly related to new technologies and therapeutic options.

- **Practical hands-on modules**
 - To acquire the skills needed to perform a basic endoscopic ultrasound, identifying anatomical landmarks, with both radial and linear probe.
 - To learn the use of advanced imaging technologies, such as elastography and contrast-enhanced endoscopic ultrasound.
 - To learn the performance of endoscopic ultrasound-guided tissue acquisition, including the procedure, the selection of the appropriate needle and the sample handling.
 - To get insight in advanced therapeutic endoscopic ultrasound.

Content of the theoretical program

Part 1. Theoretical basis of endoscopic ultrasound

- Endoscopic ultrasound systems
- Dedicated material for endoscopic ultrasound
- Organization of an Endoscopic Ultrasound Unit
- Quality Indicators for Endoscopic Ultrasound

Part 2. Diagnostic endoscopic ultrasound

- The EUS technique
 - o Radial probe
 - o Linear probe
- Indications for endoscopic ultrasound (based on organs)
 - o Evaluation of the gut wall (esophageal, gastric, duodenal and rectal indications).
 - o Pancreatico-biliary indications
 - Pancreatic solid and cystic lesions
 - Acute and Chronic Pancreatitis
 - Biliary diseases
 - o Mediastinal
 - Lung cancer
 - o Others
 - Liver lesions
 - Left adrenal gland

Part 3. EUS-guided tissue acquisition

- EUS-guided tissue acquisition techniques
 - o Cytological and/or histological needles
 - o Handling of tissue samples
- Formal and accepted indications

Part 4. Advanced imaging technologies associated with endoscopic ultrasound

- Elastography

- Contrast-enhanced endoscopic ultrasound
- Confocal endomicroscopy

Part 5. Endoscopic ultrasound guided therapies

- Neurolysis and blockade
- Drainage techniques
 - Collections
 - Ductal drainage
- Fine needle injection

Program of practical (hands-on) activities

A total of 45-50 EUS procedures are performed at the Endoscopic Ultrasound Unit on a weekly basis.

- Distribution of general indications of the procedures are as follows:
 - 70% pancreatobiliary disease
 - 15% gut lesions
 - 10% mediastinal lesions
 - 5% others
- Out of the 45-50 procedures, advanced imaging is used in about 75% of the cases (elastography and contrast-enhanced endoscopic ultrasound).
- Tissue acquisition (FNA/FNB) is performed in 10 to 15 of these cases.
- Number of therapeutic procedures is variable.

According to this data each participant will perform during the Masterclass program a total of 10 to 15 procedures by himself/herself, guided by expert faculties.

PROGRAM SCHEDULE (5-DAYS PROGRAM)

8:00-8:15h.	<i>Arrival to the hospital and welcome.</i>
8:15-9:00h.	Theoretical session
9:00-11:30h.	Hands-on & Live demonstration
11:30-12:00h.	<i>Coffee-break</i>
12:00-14:00h.	Hands-on & Live demonstration
14:00-14:45h.	Theoretical session
15:00-16:00h.	<i>Lunch</i>
16:00-19:00h.	Individual tutoring sessions

Online theoretical program

The 5-day program at the University Hospital of Santiago de Compostela, Spain, will be followed by an online program that includes videos, slides, and specific scientific manuscripts.

The foreseen time to cover this online program is 20 hours.

Final exam and certification

After finishing the Masterclass program, participants can register online for the final exam. The exam consists on an online multiple-choice test. A correct answer of at least 70% of the questions is required to successfully pass the exam.

Participants who pass the exam successfully will receive the corresponding Masterclass certification.

Total time dedicated to the program: 70 educational hours

Total duration of the program: 50 hours at the University Hospital of Santiago de Compostela, 20 hours online program.

PRACTICAL INFORMATION

- Venue:

Endoscopy Unit
Department of Gastroenterology and Hepatology
University Hospital of Santiago de Compostela
C/Choupana s/n
15706-Santiago de Compostela, Spain.

- Duration: The program is designed to have duration of five days (from Monday to Friday).
- Number of participants: Each program is designed for six participants.
- **Registration fee:** A fee of 3,600€ has to be paid at registration. This fee includes course expenses, practitioner insurance and accommodation for five nights at a 4* hotel located at walking distance from the hospital. Any additional night has to be specifically requested by email at the program secretariat.

FACULTY TEAM

- Prof. J.Enrique Domínguez-Muñoz
Director of the Department of Gastroenterology and Hepatology
- Dr. Julio Iglesias-García
Head of the Endoscopy Unit. Department of Gastroenterology and Hepatology
- Dr. José Lariño-Noia
EUS Unit. Department of Gastroenterology and Hepatology

SECRETARIAT

- Mrs. Paula Otero
Department of Gastroenterology and Hepatology
University Hospital of Santiago de Compostela
C/Choupana s/n
15706-Santiago de Compostela, Spain.

Email: Paula.Otero.Iglesias@sergas.es

Tel: +34-981 951 364

Fax: +34-981 955 100