20th February

AI in Digestive Healthcare – Clinical Course

Organized by:

SPG - Portuguese Society of Gastroenterology
NIAG – Núcleo de Inteligência Artificial em Gastrenterologia

Venue:

SEDE SPG - Rua Abranches Ferrão, nº 10 – 14º, 1600-001 Lisboa

Duration:

1 DAY - (09H00 – 17H30)

Format:

In-person (with optional hybrid streaming)

Course Objectives

- Provide clinicians with a clear, accessible understanding of how AI works and where it can enhance gastroenterology.
- Train participants in the practical interpretation, validation, and safe application of AI tools (CADe, CADx, CADq).
- Offer real clinical examples across the digestive tract — from detection to diagnosis and quality assurance.
- Discuss regulatory, ethical, and implementation challenges relevant to clinical adoption.
- Evaluate participants' knowledge and readiness through a final structured assessment.

Course Program

09h00 – 09h15

Welcome and Introduction

Topics:

- Opening remarks.
- Course goals, structure, and expected outcomes.
- Overview of AI's transformative potential in digestive healthcare.

09h15 – 10h00

Session I – AI for dummies: The basics every clinician should know

Chair: Miguel Mascarenhas

Focus:

- What is Artificial Intelligence? (CADe, CADx, CADp, CADq explained simply).
- How AI "sees" medical images — an intuitive explanation of deep learning.
- Myths and realities: AI is not magic, but mathematics.
- Understanding datasets, bias, and why validation matters.

Interactive Element:

- Short "AI Mythbusters" quiz to check intuitive understanding.

Learning Outcome:

- Participants gain accessible, jargon-free foundations for interpreting AI concepts.
- Confidently.

Discussion Panel:
Guilherme Macedo
Pedro Narra Figueiredo

10h00 – 11h15

SESSION II – AI in real endoscopy practice: Lesion detection and prognostics

Chairs: Bruno Rosa and Maria José Temido

Focus:

- CADe systems in colonoscopy, upper GI, and capsule endoscopy.
- Evidence on ADR, PDR, and miss-rate reduction.
- When AI helps — and when it can mislead.
- Operator–AI synergy: vigilance, attention, and feedback.
- CADp systems is Inflammatory Bowel Diseases (IBD) and Colorectal anastomic dehiscences.

Discussion Panel:
Manuel Limbert
Matheus Carvalho
Vitor Macedo

Learning Outcome:

- Recognize where AI can meaningfully enhance lesion detection and impact prognosis.

11h15 – 11h30

Coffee Break

11h30 – 13h00

SESSION III – AI for characterization, decision support and quality of care

Chairs: Miguel Mascarenhas and Bernardo Moura

Focus:

- CADx: differentiating neoplastic from non-neoplastic lesions.
- Real-time “optical biopsy” and its diagnostic accuracy.
- Capsule enteroscopy and high-resolution manometry decision-making assisted by AI.
- Role of AI in bilio-pancreatic endoscopy in lesion characterization.
- CADe for mucosal coverage, withdrawal time, and completeness monitoring.
- Using AI for quality metrics auditing, training, and feedback

Discussion Panel:
Eduardo Moura
Mariano González-Haba
Nuno Nunes

Learning Outcome:

- Confidently interpret AI visual outputs to guide endoscopic decision-making.
- Understand how AI improves quality, consistency, and procedural standardization.

13h00 – 14h30

Lunch Break

14h30 – 15h00

LIVE – SESSION – GI Genius ® Medtronic

15h00 – 15h45

SESSION V – Implementation, regulation and future directions

Chairs: Luís Lourenço

Focus:

- How to validate AI tools before clinical use.
- CE marking, FDA pathways, and PCCP (Predetermined Change Control Plans).
- Data governance, privacy, and accountability in practice.
- Integrating AI safely into clinical units and electronic workflows.
- Emerging technologies and multidisciplinary collaboration.
- How to build a culture of AI literacy within endoscopy units.

Discussion and Debate:

- "Who is responsible when AI fails?" – shared decision-making and liability.

Learning Outcome:

- Identify practical steps to implement and validate AI tools safely in hospitals.
- "From innovation to clinical routine: where should Portugal lead?".

Discussion Panel:
Luis Lopes
Marilia Cravo

15h45 – 16h00

Coffee Break

16h00 – 16h45

Final exam and certification

Format:

- 20-question multiple-choice digital exam.
- Immediate feedback and collective correction.
- Certification of successful completion (SPG–NIAG).

Exam Scope:

- Covers fundamental concepts, clinical interpretation, validation, and implementation principles.

Outcome:

- Participants receive a Certificate of Competency in AI in Digestive Healthcare.

16h45 – 17h00

End of course and closing remarks