

Director: President of the Portuguese Medical Association, **Carlos Cortes**

Deputy Director and Editor: **Tiago Villanueva**

Editorial Staff

Editor-in-Chief: **Tiago Villanueva**, Acta Médica Portuguesa, Lisbon, Portugal.

Deputy Editor-in-Chief: **Helena Donato**, Centro Hospitalar e Universitário de Coimbra, Coimbra, Portugal..

Associated Editors: **Bernardo Gomes**, Unidade de Saúde Pública Entre Douro e Vouga I, Santa Maria da Feira, Portugal.; **Edgar Mesquita**, Instituto de Saúde Pública da Universidade do Porto, Porto, Portugal.; **Filipe Martinho**, Hospital Prof. Doutor Fernando Fonseca, Amadora, Portugal.; **Helena Gouveia**, Fundação Champalimaud, Lisbon, Portugal.; **Henrique Alexandrino**, Centro Hospitalar e Universitário de Coimbra, Coimbra, Portugal.; **João Carlos Ribeiro**, Centro Hospitalar e Universitário de Coimbra, Coimbra, Portugal.; **Maria João Lobão**, Hospital de Cascais, Cascais, Portugal.; **Marina Pinheiro**, Unidade de Saúde Pública ACES Cávado III - Barcelos/Esposende, Braga, Portugal.; **Tiago Torres**, Centro Hospitalar Universitário do Porto, Porto, Portugal.

Editorial Coordination: Carla de Sousa **Editorial Assistant:** Bruna Duarte **Image Editor:** Rui Matos **Open Journal System:** José Carona Carvalho **Webmaster:** Cloudpro Lda. **Translator:** Miguel Fontes.

Editors Emeriti: Alberto Galvão Teles (1978 – 1987), F. Veiga Fernandes (1987 – 1993), A. Sales Luís (1993 – 1996), Carlos Ribeiro (1996 – 1998), J. Germano Sousa (1999 – 2004), Pedro Nunes (2005 – 2010), Rui Tato Marinho (2011 – 2016), José Manuel Silva (2017).

Publisher's Office: Ordem dos Médicos (VAT nr 500 984 492)

Av. Almirante Gago Coutinho, 151. 1749-084 Lisboa, Portugal. Tel: +351 21 151 71 00 E-mail: secretariado@actamedicaportuguesa.com

ISSN:0870-399X | e-ISSN: 1646-0758

Subscriptions: Portugal: €300.00; International: €350.00.

AMP39(3) - March 2026



Registration: At the Regulatory Communication Authority (ERC), entry number 106 369

Editorial Statute: <http://www.actamedicaportuguesa.com/eng/normas-de-publicacao>

Open Access: Acta Médica Portuguesa is licensed under a Creative Commons Attribution Non-Commercial License (CC BY NC).

Scientific Advisory Board

Ana Isabel Santos

Representative of the Nuclear Medicine Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

António Franklin Ramos

Representative of the Health Services Management Competence National Board at Portuguese Medical Association, Lisbon, Portugal.

António Gandra d'Almeida

Representative of the Military Medicine Competence National Board at Portuguese Medical Association, Lisbon, Portugal.

António Jorge Silva

Representative of the Medical Hydrology Competence National Board at Portuguese Medical Association, Lisbon, Portugal.

António Marques da Silva

Representative of the Anesthesiology Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

António Martins Baptista

Representative of the Internal Medicine Specialists College National Board at Portuguese Medical Association, Lisbon, Portugal.

António Moraes

Representative of the Pulmonology College National Board at Portuguese Medical Association, Lisbon, Portugal.

Álvaro Cohen

Representative of the Specialized Obstetric Ultrasound Competence National Board at Portuguese Medical Association, Lisbon, Portugal.

Carlos Sottomayor

Representative of the Medical Oncology Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Catarina Aguiar Branco

Representative of the Physical Medicine and Rehabilitation Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Cristina Galvão

Representative of the Palliative Medicine Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Daniel Beirão

Representative of the Medical Safety Expertise Competence Social National Board at Portuguese Medical Association, Lisbon, Portugal.

Daniel Machado Oliveira

Representative of the Immunology and Allergology Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Daniela Jardim Pereira

Representative of the Neuroradiology Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Dora Gomes

Representative of Radiocology Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Duarte Nuno Vieira

Representative of the Personnel Harm Assessment Competence National Board at Portuguese Medical Association, Lisbon, Portugal.

Fernando Lopes

Representative of the Clinical Coding Competency National Board at Portuguese Medical Association, Lisbon, Portugal.

Filomena Botelho

Representative of the Experimental Pathology Competency National Board at Portuguese Medical Association, Lisbon, Portugal.

Francisco Esteves

Representative of the Intensive Medicine Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Gonçalo S. Paupério

Representative of the Thoracic Surgery Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Graça Mesquita

Representative of the Pain Medicine Competency National Board at Portuguese Medical Association, Lisbon, Portugal.

Isabel Lima dos Santos

Representative of the Medical Acupuncture Competency National Board at Portuguese Medical Association, Lisbon, Portugal.

Isabel Luzeiro

Representative of the Neurology Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Joana Cabete

Representative of the Dermatovenereology Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Joana Calejo Jorge

Representative of the Specialty of Child and Adolescent Psychiatry National Board at Portuguese Medical Association, Lisbon, Portugal.

Joana Patrícia Tavares Ferreira

Representative of the Ophthalmology Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

João Mariano Pego

Representative of the Clinical Pathology Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

João Guerra da Costa

Representative of the General Pharmacology Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Jorge Paulino

Representative of the General Surgery Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

José Artur Paiva

Representative of the Infection Control and Rational Use of Antibiotics Competence National Board at Portuguese Medical Association, Lisbon, Portugal.

José Diogo Ferreira Martins

Representative of the Pediatric Cardiology Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

José Durão

Representative of Conselho Nacional do Médico Interno at Portuguese Medical Association, Lisbon, Portugal.

José G. Merino

Georgetown University Medical Center, Washington, United States of America.

José Manuel Mira Mendes Furtado

Representative of the Gynecology and Obstetrics Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

José Miguens

Representative of the Neurosurgery Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

José Neves

Representative of the Cardiothoracic Surgery Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

José Pinho Marques

Representative of the Sports Medicine Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Lia Sousa Fernandes

Representative of the Geriatrics Competency National Board at Portuguese Medical Association, Lisbon, Portugal.

Lino Gonçalves

Representative of the Cardiology Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Lisa Ferreira Vicente

Representative of the Sexology Competency National Board at Portuguese Medical Association, Lisbon, Portugal.

Luciana Baêre de Faria Ricca Gonçalves

Representative of the Immunohematology Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Luís Laranjeira

Representative of the Pharmaceutical Medicine Competence National Board at Portuguese Medical Association, Lisbon, Portugal.

Luís Lopes

Representative of the Gastroenterology Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Luís Monteiro

Representative of the Urology Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Manuel Carlos Loureiro de Lemos

Representative of the Endocrinology and Nutrition Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Maria Emilia Ferreira

Representative of the Angiology and Vascular Surgery Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Maria José Costa Almeida

Representative of the Occupational Medicine Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Maria da Graça de Figueiredo Vilar

Representative of the Clinical Radiology Competency National Board at Portuguese Medical Association, Lisbon, Portugal.

Mário Raimundo

Representative of the Nephrology Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Marta Janeiro da Costa Dias

Representative of the Pediatric Surgery Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Matthew Clarke

Institute of Cancer Research / University College London Hospitals, London, United Kingdom.

Miguel Ribeiro de Andrade

Representative of the Plastic, Reconstructive and Cosmetic Surgery Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Miguel Vilares

Representative of the Maxillofacial Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Nelson José de Sousa Pereira

Representative of the Medical Emergency Competency National Board at Portuguese Medical Association, Lisbon, Portugal.

Nuno Diogo

Representative of the Orthopedics Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Nuno Madeira

Representative of the Psychiatry Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Nuno Maria Trigueiros da Silva Cunha

Representative of the Otorhinolaryngology Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Paula Maria Broeiro Gonçalves

Representative of the Specialty of General and Family Medicine National Board at Portuguese Medical Association, Lisbon, Portugal.

Raquel Tavares

Representative of the Infectious Diseases Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Ricardo Mexia

Representative of the Public Health Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Ricardo Veiga

Representative of the Pathological Anatomy Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Rui Duarte Castro Moreira

Representative of the Stomatology Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Sofia Vidigal e Almada

Representative of the Aviation Medicine Competency National Board at Portuguese Medical Association, Lisbon, Portugal.

Susana de Sousa

Representative of the Sleep Medicine Competency National Board at Portuguese Medical Association, Lisbon, Portugal.

Susana Tavares

Representative of the Legal Medicine Specialty National Board at Portuguese Medical Association, Lisbon, Portugal.

Teresa Magalhães

Medicine Faculty, Universidade do Porto, Porto, Portugal.