

# THERAPEUTIC ADVANCES in *Drug Safety*

13th APLF Annual Conference, 18-19 October 2025, Aveiro, Portugal  
Programme and selected Abstracts



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# THERAPEUTIC ADVANCES in *Drug Safety*

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#### Aims and Scope:

*Therapeutic Advances in Drug Safety* delivers the highest quality peer-reviewed open access original research articles, reviews, and scholarly comment on pioneering efforts and innovative studies pertaining to the safe use of drugs in patients. The journal has a strong clinical and pharmacological focus and is aimed at an international audience of clinicians and researchers in drug safety, providing an online forum for rapid dissemination of recent research and perspectives in this area.

The journal is dedicated to publishing clinical research. We do not publish preclinical research, including basic laboratory research and animal studies.

*Therapeutic Advances in Drug Safety* adheres to a single-anonymous peer review process in which the reviewer's name is routinely withheld from the author unless the reviewer requests a preference for their identity to be revealed. Each research article and review manuscript is reviewed by at least two referees.

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# 13th APLF Annual Conference, 18-19 October 2025, Aveiro, Portugal - Programme and selected Abstracts

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*Dear participants,*

The XIII National Conference, organized by the Portuguese Association of Pharmacy Technicians (APLF), reinforces the commitment to fostering scientific exchange and discussion among Pharmacy Technicians, bringing together professionals, students, academia, and the professional association. Held on 18–19 October 2025 at Aveiro, this year’s conference embraces the central theme “Medication Safety”, addressing one of the most pressing priorities in healthcare today. The event gathers renowned national and international speakers, ensuring a multidisciplinary and up-to-date approach to the safe and effective use of medicines and health technologies. The scientific programme includes lectures, workshops, debates, and scientific presentations, covering the diverse areas of professional practice and offering a platform for the sharing of innovative ideas, best practices, and research outcomes.

A record-breaking 92 abstracts were submitted for this edition — the highest number ever in the history of the institution, now published in the *Therapeutic Advances in Drug Safety*, marking a unique contribution to scientific dissemination in the field.

Our thanks go to all participants, to the members of the Organizing and Scientific Committees — composed of dedicated professionals from across the country — and to all authors who have actively contributed by sharing their research and practical experiences, thereby promoting both professional growth and the advancement of the profession.

We hope this conference proves to be a fruitful opportunity for knowledge exchange and networking, and we look forward to continuing this journey of excellence together.

Jorge Balteiro

President of the Organizing Committee of XIII National Conference of APLF

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## Programme

### Day 1 – 18<sup>th</sup> October, 2025

#### 09:30 – Opening Ceremony

Cristiano Matos (President of APLF)

Jorge Balteiro (President of the Organizing Committee, XIII National Conference)

Rui Cruz (President of the Scientific Committee, XIII National Conference)

#### 10:00 – Inaugural Conference: *“Medication Safety: From Approval to Use”*

Moderator: Sofia Antunes (Senior Specialist in Pharmacovigilance, PharmaLex Portugal, LDA, Portugal)

- *“Medicinal Product Lifecycle: Safety and Risk Management”* – Maria Teresa Herdeiro (Associate Professor with Habilitation, Department of Medical Sciences, University of Aveiro, Portugal) – **CONFERENCE-01**
- *“Medicinal product lifecycle: Regulatory and Quality Management”* – André Luz (OWLTECH – Manager and Qualified Person, Portugal) – **CONFERENCE-02**

#### 11:30 – Panel I: *“Medicines in Society and Sport: The Thin Line Between Use and Misuse”*

Moderator: Luís Fonseca (Judicial Police, Forensic Science Laboratory – Drugs and Toxic Unit, Portugal)

- *“The Medicalisation of Everyday Life and the Trivialisation of Risk: The Trajectory of Addiction”* – Graça Vilar (Director, Department of Integrated Intervention, Institute for Addictive Behaviours and Dependencies, I.P., Portugal) – **CONFERENCE-03**
- *“Illicit and Inappropriate Use of Medicines in Portugal: The Current Landscape”* – Sara Tábuas (Forensic Science Specialist, Drugs and Toxic Sector of the Forensic Science Laboratory, Judicial Police, Portugal) – **CONFERENCE-04**
- *“Use of Performance-Enhancing Substances: Factors and Prevalence among Fitness Enthusiasts in Portugal”* – Ana Sofia Tavares (Escola Superior de Tecnologia da Saúde de Lisboa, Instituto Politécnico de Lisboa, Lisboa, Portugal) – **CONFERENCE-05**

#### 14:30 – Panel II: *“Antibiotics: Strategies for Safe and Efficient Use”*

Moderator: Cláudia Nazareth (Clinical Director for Hospital Healthcare, Local Health Unit of Coimbra)

- *“Antimicrobial stewardship: data-driven behaviour change in proximity”* – Francisco Almeida (Infection Prevention and Control and Antimicrobial Resistance Unit – UPCIRA, Local Health Unit São João, Portugal) – **CONFERENCE-06**
- *“Multifaceted interventions to improve antibiotic use – One Health approach”* – Fátima Roque (ESS/IPG; BRIDGES – Biotechnology Research, Innovation and Design for Health Products, Portugal) – **CONFERENCE-07**
- *“Rational Use of Antibiotics and the Challenges of Antimicrobial Resistance”* – André Peralta Santos (Deputy Director General of Health - DGS - Portugal)

**16:30 – Panel III: “Artificial Intelligence in Medication Safety and its Impact on the Future of the Profession: Challenges and Opportunities”**

Moderator: Fábio Urbano Soares (Edol Laboratories, Portugal; Seeha, United Arab Emirates)

- “*Localized AI in Hospital Pharmacy: Medex and Smart Distribution*” - António Fonseca (Local Health Unit of Vila Nova de Gaia/Espinho, Portugal) – **CONFERENCE-08**
- “*Artificial Intelligence in Hospital Pharmacy: Revolution or Complement?*” - José Miguel Mesquita (Senior Manager, Strategy Unit, Glintt Life Hospitals, Portugal) – **CONFERENCE-09**
- “*Pharmaceutical AI and Care Delivery: Reality or Promise?*” - Filipa Fixe (Healthcare Director, KPMG; Visiting Professor, Institute of Social and Political Sciences, University of Lisbon, Portugal)
- “*Ideas and Opportunities for Clinical Trials management systems in the age of AI*” - Rui Patricio (Universidade of Aveiro, Aveiro, Portugal) – **CONFERENCE-10**

**18:00 – Cultural Moment**

**Day 2 – 19<sup>th</sup> October, 2025**

**09:00 – Oral Communications** (choice from Scientific Committee)

**11:00 – Panel IV: “Deprescribing: Less is More”**

Moderator: Carla Perpétuo (Local Health Unit of Guarda; BRIDGES – Biotechnology Research, Innovation and Design for Health Products, Polytechnic Institute of Guarda, Portugal)

- “*Optimizing Medication Use in Elderly Patients: A Framework for Deprescribing and Rational Prescribing*” - Luís Monteiro (Coordinator, USF Esgueira +; Full Professor, Department of Medical Sciences, University of Aveiro; Researcher, Egas Moniz Academic and Clinical Centre, Portugal) – **CONFERENCE-11**
- “*A Multifaceted Intervention to Reduce Potentially Inappropriate Medication in Older Adults*” - Daniela Rodrigues (BRIDGES – Biotechnology Research, Innovation and Design for Health Products, Polytechnic Institute of Guarda, Portugal) – **CONFERENCE-12**
- “*Deprescribing in Portugal: Perspectives of Physicians and Older Patients*” - Anabela Pereira (RISE-Health, Associated Laboratory, Portugal) – **CONFERENCE-13**

**12:30 – Closing Ceremony and Awards Presentation**

Cristiano Matos (President of APLF)

Jorge Balteiro (President of the Organizing Committee, XIII National Conference)

2. Derchi, G., & Forni, G. L. (2005). Therapeutic Approaches to Pulmonary Hypertension in Hemoglobinopathies: Efficacy and Safety of Sildenafil in the Treatment of Severe Pulmonary Hypertension in Patients with Hemoglobinopathy. *Annals of the New York Academy of Sciences*, 1054(1), 471–475.
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### Abstract-Post-42 Other

*Towards harmonisation: mapping pharmacy technician roles and skills across European EQF levels*

Carolina Valeiro<sup>1</sup>, Vitor Silva<sup>2</sup>, João Joaquim<sup>3</sup>, Ângelo Jesus<sup>4</sup>, Simon Tee-Carter<sup>5</sup>, Tao Zhang<sup>5</sup>, Sean a Hogan<sup>5</sup>, Gemma Kinsella<sup>5</sup>, Christine O'Connor<sup>5</sup>, Isabel Elguero Claramunt<sup>6</sup>, M. Jesús Aparicio Cabezas<sup>6</sup>, Alejandra Reyes Moreno<sup>6</sup>, Antonio Rodrigo Díaz<sup>6</sup>, Cristiano Matos<sup>1</sup>

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**Background:** Pharmacy Technicians (PTs) play vital roles in European healthcare systems. However, their qualifications, responsibilities, and skillsets vary significantly across countries, influenced by differences in educational systems, national regulations, and assigned European Qualifications Framework (EQF) levels [1]. **Objective:** Map and compare roles, responsibilities, and skills across EQF Levels 4, 5, and 6, identify key differences and progression pathways to inform education, policy, and workforce development strategies. **Methods:** A qualitative comparative analysis was conducted based on national professional profiles, curricula, and institutional documentation related to PT roles and qualifications, across Portugal, Ireland, Spain, and Belgium. The study focused on EQF Levels 4 to 6, exploring PTs responsibilities, professional

competencies, and transferable skills across community and hospital pharmacy settings. **Results:** EQF Level 4 PTs perform foundational tasks such as medication dispensing, stock management, pharmacovigilance support, and non-sterile compounding. At EQF Level 5, PTs demonstrate greater autonomy and scientific understanding, contributing to microbiological processes, vaccine programmes, and reimbursement systems. EQF Level 6 PTs, seen only in Portugal, take on advanced clinical and managerial roles, including protocol development, clinical risk assessments, quality assurance, and evidence-based practice. Progression reflects increasing complexity, responsibility, and the development of transferable skills such as leadership, communication, and critical thinking. **Conclusions:** There is a clear skills and responsibility gradient across EQF levels for PTs. Harmonising qualifications and expectations at the European level could support professional mobility, ensure consistent professional standards, and better prepare PTs for their expanding role in modern healthcare systems.

**Keywords:** Pharmacy Technicians, European Qualifications Framework, Competency Mapping

### Acknowledgements

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### Reference

1. European Union. (2025). *Description of the eight EQF levels*.

### Abstract-Post-51 Other

*Impact of the covid-19 pandemic on the consumption of immunological supplements among higher education students*

Ânnia Graça<sup>1</sup>, Giovanni Afonseca<sup>1</sup>, Leviniór Delgado<sup>1</sup>, Cristiana Midões<sup>2</sup>, Luís Nascimento<sup>3</sup>

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**Background:** Scientific evidence has shown that supplementation with micronutrients, including vitamins C, D, and E, as well as zinc and selenium, plays a key role in supporting immune function, thereby helping to reduce susceptibility to infections, including respiratory infections [1]. In addition, recent analyses have shown that the use of nutritional supplements, particularly antioxidants and vitamins, can be beneficial during the post-COVID-19 recovery process, promoting an improvement in overall health and reducing persistent chronic inflammation [2]. **Objectives:** To characterize the consumption of immune supplements before and after the start of the COVID-19 pandemic among students at the Health School of the Polytechnic University of Bragança. **Methods:** Descriptive-correlational study, based on an online survey with 19 questions, applied to health students enrolled in 2021/2022 ( $\geq 18$  years old). The sample ( $n=320$ ) was calculated based on a 95% confidence interval and 5% margin of error. **Results:** The majority of students (77%) reported awareness of immune supplements, and 63.5% stated they used them to support immune health. Consumption increased in 71.7% of cases after the start of the pandemic, with 85.4% indicating use only during specific periods. The most commonly used supplement contained vitamin C. Decisions to use supplements were primarily personal (40.4%) or based on informal advice. Notably, 56.3% began supplementation after the pandemic began. **Conclusion:** The findings reveal lasting changes in the health behaviours of higher education students, with a high perceived usefulness of immune-related food supplements even after the peak of the pandemic.

**Keywords:** Immune supplements, Health students, COVID-19

### References

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### Abstract-Post-52 Other

*The therapeutic potential of Punicalagin in the prevention and treatment of covid-19*

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**Background:** COVID-19 was first identified in China in December 2019. It is a single-stranded, positive-sense RNA virus whose entry into the host cell is mediated by the Spike protein, through interaction with ACE. Antiviral repositioning and prophylactic measures have been adopted strategies. Recent evidence points to the pharmacological potential of punicalagin, a polyphenol presents in the pomegranate peel, revealing it as a promising approach in supporting the prevention and treatment of COVID-19 [1-3]. **Objectives:** This review aims to gather information on punicalagin and its impact on the mechanism of action of SARS-CoV-2 infection, identifying possible therapeutic targets for this compound. **Methods:** A search for scientific articles in PubMed, Scielo, and Google Scholar included 15 articles, including 9 systematic reviews, 4 experimental studies conducted in vitro and in silico, 1 conducted in humans, and 1 cross-sectional study. The included studies were published between 2019 and 2024. **Results and Discussion:** Studies demonstrate that punicalagin effectively inhibits Spike-ECA binding and 3CL protease activity. These effects are dose-dependent and exhibit low cellular toxicity. Other studies identify potential promising therapeutic targets, such as RdRp-Nsp12, HE protein, and the RBD domain of the spike [1-3]. **Conclusion:** Punicalagin appears to be a promising compound due to its interaction with some SARS-CoV-2 structures. Despite its therapeutic potential, further clinical studies are needed to demonstrate its efficacy and safety in humans.

**Keywords:** Punicalagin; COVID-19; Therapeutic Potential

### References

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