



Curriculum Vitae

Personal information **Antonio Gomez-Outes**

Work experience

1. Employer: Spanish Agency for Medicines and Medical Devices (AEMPS)
 - Start date: June 2008
 - End date: ongoing
 - Position: CHMP alternate member for Spain (since April 2024); Past position: Clinical Assessor. Head of Service of Cardiovascular and Respiratory Drugs (since June 2008 to March 2024)
 - Country: Spain
2. Employer: Rovi Pharmaceuticals
 - Start date: 062000
 - End date: 042008
 - Position: Medical Department
 - Activities: _ Clinical trials. _ Drug safety. _ Pharmacoeconomics. _ Medical writing. _ Participation in I+D+i projects.
 - Country: Spain
3. Employer: Andalusian Health Service
 - Start date: April 1996
 - End date: April 2000
 - Position: Resident physician in Clinical Pharmacology. Malaga University Hospital
 - Activities: _ Hospital care. _ Member of the Clinical Research Ethics Committee. _ Member of the Spanish group for the Study of Drug Induced Liver Injury (GEHAM).
 - Country: Spain

Education and training

1. Subject: University of Malaga
 - Start date:
 - End date: 1994
 - Qualification: Medical Degree (MD) in Medicine and Surgery
 - Organisation:
 - Country: Spain
2. Subject: Spanish Ministry of Health
 - Start date:
 - End date: 2000
 - Qualification: Medical Specialist in Clinical Pharmacology
 - Organisation:
 - Country: Spain
3. Subject: Universidad Complutense of Madrid
 - Start date:
 - End date: 2012
 - Qualification: Doctor of Philosophy (Ph.D) in Medicine
 - Organisation:
 - Country: Spain
4. Subject: Carlos III University, Getafe, Madrid
 - Start date: 2012
 - End date: 2013
 - Qualification: Master of Science (MSc) in Health Technology Assessment and Market Access (Pharmacoeconomics)
 - Organisation:
 - Country: Spain
5. Subject: National School of Public Health
 - Start date:
 - End date: 2008
 - Qualification: Postgraduate Diploma in Pharmacoeconomics and Analysis of Rationale Use of Medicines
 - Organisation:
 - Country: Spain
6. Subject: Andalusian Health Service
 - Start date:
 - End date: 1997
 - Qualification: Director of Radiodiagnostic Installations
 - Organisation:
 - Country: Spain

Additional information

Publications

- Author/co-author of several book chapters and more than 50 scientific publications in high-impact medical journals during the last years, including the "New England Journal of Medicine" (IF: 74.699), "The Lancet" (60.392), the "British Medical Journal" (IF: 30.223), the "Journal of the American College of Cardiology" (IF: 20.589), the "European Heart Journal" (IF: 22.673), the "Journal of Thrombosis and Haemostasis"

(IF: 5.720), the "British Journal of Clinical Pharmacology" (IF: 3.740), "Pharmacoeconomics" (IF: 3.563), "Thrombosis Research" (IF: 2.840), and the "European Journal of Hematology" (IF: 2.220) (Source: Journal Citation Reports 2020).

- The full list of MEDLINE articles is available [HERE](#)
- Author/co-author of more than 50 scientific communications in national and international congresses.
- Professor in several courses related to pharmacology, clinical investigation, pharmacoeconomics and pharmacovigilance of medicinal products for human use.

Ruepp R, Botgros R, Le Ber V, Brandt F, Pantke E, Fuerst-Wilmes M, Gomez-Outes A, Fernandez-Cortizo MJ. [Changes to the use of medicines containing the antibiotic azithromycin](#). Fam Med Community Health. 2025; 13(4): e003699.

Dimmeler S, Ferri L, Nioi P, O'Donnell CJ, Damy T, Gómez-Outes A, Giacca M, Guo W, Kavousi M, Kupatt C, Landmesser U, Schunkert H, Zouridakis E, Elliott PM. [Translation of genomics into routine cardiological practice: insights from a European Society of Cardiology Cardiovascular Round Table](#). Eur Heart J. 2025; 46(15): 1384-1393.

[Gómez-Outes A](#), Sancho-López A, Carcas Sansuan AJ, Avendaño-Solá C. [CLINICAL RESEARCH AND DRUG REGULATION IN THE CHALLENGING TIMES OF INDIVIDUALIZED THERAPIES: A PIVOTAL ROLE OF CLINICAL PHARMACOLOGY](#). Pharmacol Res. 2024; 199: 107045.

Plaza Moral V, Alobid I, Álvarez Rodríguez C, Blanco Aparicio M, Ferreira J, García G, [Gómez-Outes A](#), Garín Escrivá N, Gómez Ruiz F, Hidalgo Requena A, Korta Murua J, Molina París J, Pellegrini Belinchón FJ, Plaza Zamora J, Praena Crespo M, Quirce Gancedo S, Sanz Ortega J, Soto Campos JG. [GFMA 5.3. Spanish Guideline on the Management of Asthma](#). Open Respir Arch. 2023; 5(4): 100277.

Alobid I, Colás C, Castillo JA, Arismendi E, Del Cuvillo A, [Gómez-Outes A](#), Sastre J, Mulla J; POLINA group. [Spanish consensus on the management of chronic rhinosinusitis with nasal polyps \(POLIposis Nasal / POLINA 2.0\)](#). J Investig Allergol Clin Immunol. 2023; 33(5): 317-331.

[Gómez-Outes A](#), Suárez-Gea ML, Lecumberri R. [When and How to Use Reversal Agents for Direct Oral Anticoagulants?](#) Curr Cardiol Reports. 2023; 25(5): 371-380.

[Gómez-Outes A](#), Suárez-Gea ML, Pérez-Cabeza AI, García-Pinilla JM. [Pharmacotherapy for stroke prevention in nonvalvular atrial fibrillation: current strategies and future directions](#). Expert Opin Pharmacother. 2022; 23(17): 1941-1955.

Plaza V, Alobid I, Alvarez C, Blanco M, Ferreira J, García G, [Gómez-Outes A](#), Gómez F, Hidalgo A, Korta J, Molina J, Pellegrini FJ, Pérez M, Plaza J, Praena M, Quirce S, Sanz J, [Spanish asthma management guidelines \(GFMA\) version 5.1. Highlights and controversies](#). Arch Bronconeumol. 2022; 58(2): 150-158.

[Gómez-Outes A](#), Alcubilla P, Lecumberri R, Calvo-Rojas G, Vargas-Castrillón E. Reply: [Preventing Bleeding With Direct-Acting Oral Anticoagulants](#). J Am Coll Cardiol. 2021; 78(16): e129.

[Gómez-Outes A](#), Alcubilla P, Calvo-Rojas G, Terleira-Fernández AI, Suárez-Gea ML, Lecumberri R, Vargas-Castrillón E. [Meta-Analysis of Reversal Agents for Severe Bleeding Associated With Direct Oral Anticoagulants](#). J Am Coll Cardiol. 2021; 77(24): 2987-3001.

Plaza-Moral V, [Gómez-Outes A](#), Quirce-Gancedo S, Alobid I, Álvarez-Rodríguez C, Blanco-Aparicio M, García G, Gómez-Ruiz F, Hidalgo-Requena A, Korta-Murua J, Molina-París J, Pellegrini-Belinchón FJ, Pérez-Encinas M, Plaza-Zamora J, Praena-Crespo M, Sánchez-Pina C, Sanz-Ortega J. [Discrepancies Between GFMA and GINA in the Classification of Inhaled Corticosteroids](#). Arch Bronconeumol. 2020; 56(7):472-473.

[Gómez-Outes A](#), Suárez-Gea ML, García-Pinilla JM. [When are the cardiovascular and stroke risks too high? Pharmacotherapy for stroke prophylaxis](#). Expert Opin Pharmacother. 2018; 19(13): 1427-1440.

[Gómez-Outes A](#), Terleira-Fernández AI, Lecumberri R, Suárez-Gea ML, Calvo-Rojas G, Vargas-Castrillón E. [Causes of Death in Patients with Venous Thromboembolism Anticoagulated with Direct Oral Anticoagulants: A Systematic Review and Meta-Analysis](#). Semin Thromb Hemost. 2018; 44(4): 377-87.

[Gómez-Outes A](#), García-Fuentes M, Suárez-Gea ML. [Discovery methods of coagulation-inhibiting drugs](#). Expert Opin Drug Discov. 2017; 12(12): 1195-205.

[Gómez-Outes A](#), Suárez-Gea ML, García-Pinilla JM. [Causes of death in atrial fibrillation: Challenges and opportunities](#). Trends Cardiovasc Med. 2017; 27(7): 494-503.

[Gómez-Outes A](#), Lagunar-Ruiz J, Terleira-Fernández AI, Calvo-Rojas G, Suárez-Gea ML, Vargas-Castrillón E. [Causes of death in anticoagulated patients with atrial fibrillation](#). J Am Coll Cardiol. 2016; 68(23): 2508-21.

Plaza Moral V, Alonso-Mostaza S, Alvarez-Rodríguez C, [Gomez-Outes A](#), Gómez-Ruiz F, López-Viña A, Molina-París J, Pellegrini-Belinchón FJ, Plaza-Zamora J, Quintano-Jiménez JA, Quirce-Gancedo S, Sanz-Ortega JS, Soler-Vilarrasa R, Villa-Asensi JS. [Spanish guideline on the management of asthma](#). J Investig Allergol Clin Immunol. 2016; 26(Suppl 1): 1-92.

[Gómez-Outes A](#), Terleira-Fernández AI, Calvo-Rojas G, Suárez-Gea ML, Vargas-Castrillón E. [Direct oral anticoagulants for stroke prevention in patients with atrial fibrillation: meta-analysis by geographic region with a focus on European patients](#). Br J Clin Pharmacol. 2016; 82(3): 633-44.

Plaza Moral V, Álvarez Rodríguez C, [Gómez-Outes A](#), Gómez Ruiz F, López Viña A, Pellegrini Belinchón FJ, Plaza Zamora J, Quintano Jiménez JA, Quirce Gancedo S, Sanz Ortega J, Soler Vilarrasa R, Villa Asensi JR; en representación del Comité Ejecutivo de la Guía Española para el Manejo del Asma (GEMA). [Obsolete anti-pneumococcal vaccination recommendations in the Spanish guidelines for the management of asthma \(GEMA 4.0\): The authors reply](#). Arch Bronconeumol. 2016; 52(8): 449. [in Spanish]

[Gómez-Outes A](#), Lecumberri R. [\[Antidotes for the new oral anticoagulants: Reality and expectations\]](#). Med Clin (Barc). 2016; 146(11): 488-90.

[Gómez-Outes A](#), Suárez-Gea ML, Lecumberri R, Terleira-Fernández AI, Vargas-Castrillón E. [Direct-acting oral anticoagulants: pharmacology, indications, management, and future perspectives](#). Eur J Haematol. 2015; 95(5): 389-404.

[Gómez-Outes A](#), Lecumberri R, Suárez-Gea ML, Terleira-Fernández AI, Monreal M, Vargas-Castrillón E. [Case fatality rates of recurrent thromboembolism and bleeding in patients receiving direct oral anticoagulants for the initial and extended treatment of venous thromboembolism: A systematic review](#). J Cardiovasc Pharmacol Ther. 2015; 20(5): 490-500.

[Gomez-Outes A](#), Suarez-Gea ML, Lecumberri R, Terleira-Fernandez AI, Vargas-Castrillon E. [Specific antidotes in development for reversal of novel anticoagulants: a review](#). Recent Pat Cardiovasc Drug Discov. 2014; 9(1): 2-10.

[Gómez-Outes A](#), Suárez-Gea ML, Lecumberri R, Terleira-Fernández AI, Vargas-Castrillón E. [Direct oral anticoagulants in the treatment of venous thromboembolism, with a focus on patients with pulmonary embolism: an evidence-based review](#). Vasc Health Risk Manag. 2014; 10: 627-39.

- [Gómez-Outes A, Terleira-Fernández AI, Lecumberri R, Suárez-Gea ML, Vargas-Castrillón E. Direct oral anticoagulants in the treatment of acute venous thromboembolism: a systematic review and meta-analysis. Thromb Res. 2014; 134\(4\): 774-82.](#)
- [Gómez-Outes A, Avendaño-Solá C, Terleira-Fernández AI, Vargas-Castrillón E. Pharmacoeconomic evaluation of dabigatran, rivaroxaban and apixaban versus enoxaparin for the prevention of venous thromboembolism after total hip or knee replacement in Spain. Pharmacoeconomics. 2014; 32\(9\): 919-36.](#)
- Calvo G, McMurray JJ, Granger CB, Alonso-García A, Armstrong P, Flather M, [Gómez-Outes A](#), Pocock S, Stockbridge N, Svensson A, Van de Werf F. [Large streamlined trials in cardiovascular disease](#). Eur Heart J. 2014; 35(9): 544-8.
- [Gómez-Outes A, Terleira-Fernández AI, Calvo-Rojas G, Suárez-Gea ML, Vargas-Castrillón E. Dabigatran, Rivaroxaban, or Apixaban versus Warfarin in Patients with Nonvalvular Atrial Fibrillation: A Systematic Review and Meta-Analysis of Subgroups. Thrombosis. 2013; 2013: 640723.](#)
- Berntgen M, Enzmann H, Schabel E, Prieto Yerro C, [Gómez-Outes A](#), Salmonson T, Musaus J. [Linaclotide for treatment of irritable bowel syndrome--the view of European regulators](#). Dig Liver Dis. 2013; 45(9): 724-6.
- [Gómez-Outes A, Suárez-Gea ML, Lecumberri R, Terleira-Fernández AI, Vargas-Castrillón E, Rocha E. Potential role of new anticoagulants for prevention and treatment of venous thromboembolism in cancer patients. Vasc Health Risk Manag. 2013; 9: 207-28.](#)
- [Gómez-Outes A, Terleira-Fernández AI, Suárez-Gea ML, Vargas-Castrillón E. Dabigatran, rivaroxaban, or apixaban versus enoxaparin for thromboprophylaxis after total hip or knee replacement: systematic review, meta-analysis, and indirect treatment comparisons. BMJ. 2012; 344: e3675.](#)
- [Gómez-Outes A. Editorial: New anticoagulant drugs: a change of paradigm? Curr Drug Discov Technol. 2012; 9\(2\): 81-2.](#)
- [Gómez-Outes A, Suárez-Gea ML, Calvo-Rojas G, Lecumberri R, Rocha E, Pozo-Hernández C, Terleira-Fernández AI, Vargas-Castrillón E. Discovery of anticoagulant drugs: a historical perspective. Curr Drug Discov Technol. 2012; 9\(2\): 83-104.](#)
- Calvo-Rojas G, [Gómez-Outes A](#). [Clinical drug development in thromboembolic diseases: regulatory and methodological approach](#). Curr Drug Discov Technol. 2012; 9(2): 105-18.
- Lecumberri R, Panizo E, Gomez-Guiu A, Varea S, García-Quetglas E, Serrano M, García-Mouriz A, Marqués M, [Gómez-Outes A](#), Páramo JA. [Economic impact of an electronic alert system to prevent venous thromboembolism in hospitalised patients](#). J Thromb Haemost. 2011; 9(6): 1108-15.
- [Gómez-Outes A, Suárez-Gea ML, Lecumberri R, Rocha E, Pozo-Hernández C, Vargas-Castrillón E. Nuevos anticoagulantes parenterales en desarrollo clínico. Actualidad en Farmacología y Terapéutica. 2011; 9\(3\): 167-81.](#)
- [Gómez-Outes A, Suárez-Gea ML, Lecumberri R, Rocha E, Pozo-Hernández C, Vargas-Castrillón E. New parenteral anticoagulants in development. Ther Adv Cardiovasc Dis. 2011; 5\(1\): 33-59.](#)
- [Gómez-Outes A, Suárez-Gea ML, Pozo-Hernández C. Apixaban or enoxaparin for thromboprophylaxis. N Engl J Med. 2009; 361\(21\): 2100-1.](#)
- [Gómez-Outes A, Suárez-Gea ML, Blázquez-Pérez A, Pozo-Hernández C, Vargas-Castrillón E. Will oral rivaroxaban improve clinically relevant outcomes and thromboprophylaxis management in the orthopedic patient? J Thromb Haemost. 2009; 7\(12\): 2149-50.](#)
- [Gómez-Outes A, Suárez-Gea ML, Blázquez-Pérez A, Pozo-Hernández C, Vargas-Castrillón E. Rivaroxaban versus enoxaparin after total knee arthroplasty. Lancet. 2009; 374\(9691\): 682.](#)
- [Gómez-Outes A, Lecumberri R, Pozo C, Rocha E. New anticoagulants: focus on venous thromboembolism. Curr Vasc Pharmacol. 2009; 7\(3\): 309-29.](#)
- [Gómez-Outes A, Gómez de la Bárcena C, Martínez-González J. Delayed-type hypersensitivity to low molecular weight heparins and heparinoids: cross-reactivity does not depend on molecular weight. Commentary. Br J Dermatol. 2008; 158\(4\): 869-70.](#)
- Otero-Fernández R, [Gómez-Outes A](#), Martínez-González J, Rocha E, Fontcuberta J; Bemiparin Cooperative Study Group in Orthopaedic Patients. [Evaluation of the effectiveness and safety of bemiparin in a large population of orthopedic patients in a normal clinical practice](#). Clin Appl Thromb Hemost. 2008; 14(1): 75-83.
- Balibrea JL, Altimiras J, Larrucea I, [Gómez-Outes A](#), Martínez-González J, Rocha E; Bemiparin Cooperative Study Group in Surgery for Cancer. [Optimal dosing of bemiparin as prophylaxis against venous thromboembolism in surgery for cancer: an audit of practice](#). Int J Surg. 2007; 5(2): 114-9.
- Abad JJ, [Gómez-Outes A](#), Martínez-González J, Rocha E; Bemiparin 6 Hours After Surgery Study Group. [A prospective observational study on the effectiveness and safety of bemiparin, first dose administered 6 h after knee or hip replacement surgery](#). Arch Orthop Trauma Surg. 2007; 127(8): 665-70.
- [Gómez-Outes A, Berto P, Prandoni P. Cost-effectiveness of bemiparin in the prevention and treatment of venous thromboembolism. Exp Rev Pharmacoecon Outcomes Res. 2006; 6: 249-59.](#)
- Santamaría A, Juárez S, Reche A, [Gómez-Outes A](#), Martínez-González J, Fontcuberta J; ESFERA Investigators [Low-molecular-weight heparin, bemiparin, in the outpatient treatment and secondary prophylaxis of venous thromboembolism in standard clinical practice: the ESFERA Study](#). Int J Clin Pract. 2006; 60(5): 518-25.
- [Gómez-Outes A, Rocha E, Martínez-González J, Kakkav VV. Cost effectiveness of bemiparin sodium versus unfractionated heparin and oral anticoagulants in the acute and long-term treatment of deep vein thrombosis. Pharmacoeconomics. 2006; 24\(1\):81-92.](#)
- Miras-Parra F, Navascués-Martínez E, [Gómez-Outes A](#), Martínez-González J, Rocha E; on behalf of the Bemiparin Cooperative Study Group in Medical Patients*. [Utilisation and safety of bemiparin, a low-molecular-weight heparin, in medical patients : a prospective, uncontrolled cohort study](#). Clin Drug Investig. 2005; 25(7): 463-72.
- Rocha E, Gómez-Outes A, Martínez González J, Kakkav VV. [Effect of unfractionated heparin and long-term treatment with low-molecular-weight heparin, bemiparin, on potassium levels](#). Thromb Haemost. 2005 Nov;94(5):1109-10.
- [Gómez-Outes A, Lecumberri R, Lafuente-Guijosa A, Martínez-González J, Carrasco P, Rocha E. Correlation between thrombus regression and recurrent venous thromboembolism. Examining venographic and clinical effects of low-molecular-weight heparins: a meta-analysis. J Thromb Haemost. 2004; 2\(9\): 1581-7.](#)
- Honorato J, [Gómez-Outes A](#), Navarro-Quilis A, Martínez-González J, Rocha E, Planés A. [Pharmacoeconomic analysis of bemiparin and enoxaparin as prophylaxis for venous thromboembolism in total knee replacement surgery](#). Pharmacoeconomics. 2004; 22(13): 885-94.
- Andrade RJ, Lucena MI, [Gómez-Outes A](#). [Indicaciones y precauciones del empleo de fármacos en pacientes con hepatopatía crónica](#). Medicine - Programa de Formación Médica Continuada Acreditado. 2000; 8: 655-9.

Lucena MI, Andrade RJ, [Gomez-Outes A](#), Rubio M, Cabello MR. [Acute liver failure after treatment with nefazodone](#). Dig Dis Sci. 1999; 44(12):2577-9.

Andrade RJ, Lucena MI, Martin-Vivaldi R, Fernandez MC, Nogueras F, Pelaez G, [Gomez-Outes A](#), Garcia-Escaño MD, Bellot V, Hervás A, Cárdenas F, Bermudez F, Romero M, Salmerón J. [Acute liver injury associated with the use of ebrotidine, a new H2-receptor antagonist](#). J Hepatol. 1999; 31(4): 641-6.

Lucena MI, Andrade RJ, Sanchez-Martinez H, Perez-Serrano JM, [Gomez-Outes A](#). [Norfloxacin-induced cholestatic jaundice](#). Am J Gastroenterol. 1998; 93(11): 2309-11.

Projects

- Development of EMA-CHMP guidelines of clinical investigation in the cardiovascular field, as member of the Cardiovascular Working Party (CVSWP) of the EMA-CHMP, 2000 to date.
- Updates of the Spanish Guideline for the Management of Asthma (GEMA), since 2014 to 2023.
- Collaborator in the investigational project titled "Development of oligosaccharides derived from heparin and their applications in venous thromboembolic disease" ("Desarrollo de oligosacáridos derivados de heparina de aplicación en la enfermedad tromboembólica venosa"), 2003.
- Collaborator in the investigational project titled "Epidemiology of pharmacological treatments in hospitalised patients with hepatic diseases. A national multicenter study" ("Epidemiología de los tratamientos farmacológicos en pacientes hospitalizados con problemas hepáticos. Estudio multicéntrico nacional"). By a research grant of Carlos III Health Institute ("Instituto de Salud Carlos III"), 2000_2002. • Collaborator in the Spanish Group for the Study of Drug-Induced Liver Disease (GEHAM), 1996_2000.

Memberships

- Member of the Spanish Society of Clinical Pharmacology (SEFC; "Sociedad Española de Farmacología Clínica").
- Former Member of the Scientific Committee of the "Victoria Eugenia Royal Foundation" (RFVE) for the study of congenital coagulopathies (haemophilia and others).
- Co-author and former AEMPS representative for the Spanish Guideline for the Treatment of Haemophilia, 2022.
- Former SEFC representative for the "Strategy in cardiovascular health of the Spanish Health System (ESCAV)", coordinated by the General Directorate of Public Health, Spanish Ministry of health.
- Former SEFC representative at the Executive Committee of the Spanish Guideline for the Treatment of Asthma (GEMA).
- Former SEFC representative at the Spanish Guideline for the Treatment of Nasal Polyposis (POLINA guideline), 2023.

Other Relevant Information

AWARDS:

- Best publication of the year in Clinical Pharmacology. "XXIX Congreso de la Sociedad Española de Farmacología Clínica", Barcelona, Spain, 2016. Publication entitled: "Causes of death in anticoagulated patients with atrial fibrillation" (as main author).
- Oral Communication Prize in the 12th Congress of the European Association for Clinical Pharmacology and Therapeutics (EACPT), Madrid, Spain, 2015. Communication entitled: "Direct oral anticoagulants versus warfarin for stroke prevention in atrial fibrillation: a subgroup meta_analysis in European patients" (as main author).
- Oral Communication Prize in the "XXIV Congreso de la Sociedad Española de Farmacología Clínica", Malaga, Spain, 2011. Communication entitled: "New oral anticoagulants for thromboprophylaxis after total hip or knee replacement: a meta_analysis and indirect treatment comparisons" (as main author).
- Ministerio de Ciencia y Tecnología (currently, Ministerio de Ciencia, Innovación y Universidades). Premio Príncipe Felipe a la Innovación Tecnológica. VIII Edition, 2003. Investigational project: "Development of oligosaccharides derived from heparin and their applications in venous thromboembolic disease" (as collaborator in the project).