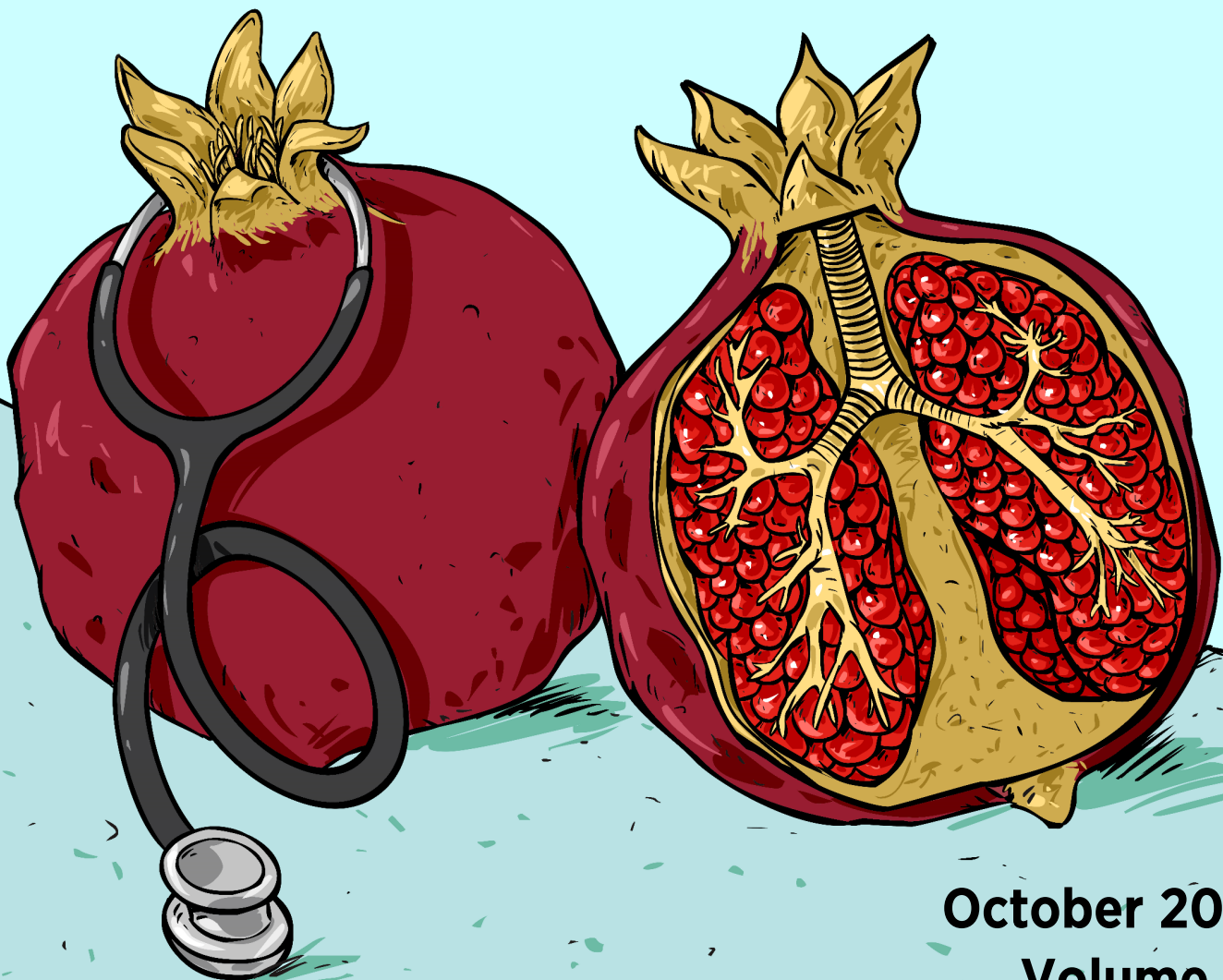


ISSN: 2516-3507

ELECTRONIC JOURNAL OF GENERAL MEDICINE



**October 2025
Volume 22
Issue 5**

Published by: **Modestum**

Publication Office: Modestum LTD, 29 Gildredge Road, Eastbourne, East Sussex, BN21 4RU, United Kingdom

Serbia Office: Modestum DOO, Bulevar Zorana Đinđića 125D, sprat 1, stan 12C, 11070 Belgrade, SERBIA

Phone: +381 61 6600107

Email: publications@modestum.co.uk

Publisher: <https://www.modestum.co.uk>

Journal Web: <https://www.ejgm.co.uk>

© 2004-2025. All rights reserved by Modestum. Copyright for Open Access Content is Retained by Authors. Also, authors continue to hold the copyrights of their own papers by acknowledging that their papers are originally published in the Electronic Journal of General Medicine. Hence, articles published are licensed under a "Creative Commons Attribution 4.0 International License."

ISSN: 2516-3507 (Online)

ELECTRONIC JOURNAL OF GENERAL MEDICINE

October 2025

Volume 22

Issue 5



This page is intentionally left blank

ELECTRONIC JOURNAL OF GENERAL MEDICINE

Electronic Journal of General Medicine (*Abbrev. Electron J Gen Med*) is an English multidisciplinary double-blind peer-reviewed open-access medical journal publishing articles in the fields of general medicine with ISSN 2516-3507. **Electronic Journal of General Medicine** is published bimonthly (February, April, June, August, October and December).

Electronic Journal of General Medicine encourages submissions from all authors throughout the world. Manuscripts are judged by two experts solely on the basis of their contribution of original data, ideas and their presentation. All manuscripts must comply with Manuscript Preparation Guidelines and Publication Ethics. The following articles will be considered for publication: editorials, original and review articles, brief reports/short communications, case reports, letters to the editor, interviews, and book reviews. Submitted manuscripts must not have been published, accepted for publication or be under consideration elsewhere.

COPYRIGHT & LICENSING

Articles are published under the [Creative Commons Attribution License](#). Authors do not have to transfer copyright to the journal or publisher and retain ownership of their articles. They grant **Modestum** the license to publish the work as the original publisher.

Authors are not allowed to use copyrighted material in their articles unless explicit permission from the copyright holder is received to reproduce the material under [Creative Commons Attribution License](#). Authors or their institution/company cannot reserve particular use rights, and the publisher cannot insert a declaration in any published document stating, "all rights reserved."

As a result, everyone is free to use, copy, distribute, transmit, and adapt the work, if the article's original authors and citation information are acknowledged.

AIMS AND SCOPE

Electronic Journal of General Medicine publishes original articles in the following areas:

Basic Sciences

- Anatomy
- Biophysics
- Biostatistics
- Physiology
- Histology and Embryology
- Medical Biochemistry
- Medical Biology
- Biostatistics
- Medical Education and Informatics
- Medical Microbiology
- Medical History and Ethics

Medical Sciences

- Cardiology
- Chest Diseases
- Emergency Medicine
- Family Medicine
- Forensic Medicine
- Infectious Diseases and Clinical Microbiology
- Internal Medicine
- Medical Genetics
- Medical Pharmacology
- Neurology
- Nuclear Medicine Pediatrics
- Public Health
- Radiation Oncology
- Radiology
- Sports Medicine
- Child and Adolescent Psychiatry
- Dermatology
- Physical Medicine and Rehabilitation
- Psychiatry

Surgical Sciences

- Anesthesiology and Reanimation
- Pediatric Surgery
- General Surgery
- Chest Surgery
- Cardiovascular and Thoracic
- Ophthalmology
- Obstetrics and Gynecology
- Otorhinolaryngology
- Neurosurgery
- Orthopedics and Traumatology
- Medical Pathology
- Plastic Reconstructive and Aesthetic Surgery
- Urology

INDEXING AND ABSTRACTING

Electronic Journal of General Medicine is indexed and/or abstracted in:

- Web of Science – Emerging Sources Citation Index (ESCI)
- Scopus
- ROAD
- CINAHL
- EBSCO-Academic Research Complete
- EBSCO-Academic Research Alumni Edition
- EMBASE
- CAB Abstracts
- Library Ru
- Bioline International
- Scilit
- Chemical Abstracts Service
- Academic Search Complete
- CrossRef
- Google Scholar

All articles are archived by:

- The British Library
- Portico

EDITORIAL BOARD

Editors

Abduzhappar Gaipov, Nazarbayev University, School of Medicine, Nur-Sultan, Kazakhstan

Marcos Roberto Tovani-Palone, University of São Paulo, Ribeirão Preto, SP, Brazil

Associate Editors

Alin Laurentiu Tatu, Clinical Medical Department, Dunarea de Jos University of Galati, Romania

Davor Štimac, Department of Gastroenterology, Clinical Hospital Centre Rijeka, University of Rijeka, Croatia

Kristiyan Georgiev (2022-2027), University Hospital for Multidisciplinary Active Treatment "Sveta Marina" Varna, Bulgaria & Department of Neurological Ohio, of Neurological diseases and Neurosciences, Medical University of Varna, Bulgaria

Namrata Singhania (2020-2025), Department of Hospital Medicine, Mount Carmel East Hospital, Columbus, Ohio, USA & Family Medicine, Ohio University Heritage College of Osteopathic Medicine, Athens, Ohio, USA

Olivera M Knežević, Faculty of Sport and Physical Education, University of Belgrade, Serbia

Editorial Board Members

Abdulkaki "Baki" Agbas, Department of Basic Sciences, College of Osteopathic Medicine, Kansas City University of Medicine and Biosciences, USA

Adi Pinkas, Department of Pathology, Albert Einstein College of Medicine, USA

Ahmed El-Nawawy, Pediatrics & Pediatric Critical Care, Alexandria University, Egypt

Ahmed Abushahin, Pediatric Pulmonology, Sidra Medicine, Doha, Qatar

Aleksa Igić, Department of Interventional Radiology, University Clinical Center of Serbia, Belgrade, Serbia

Alfio Ferlito, Department of Surgical Sciences, School of Medicine, University of Udine, Italy

Ali Mohammad Ibrahim Al-Radaideh, Department of Medical Imaging, Faculty of Applied Health Sciences, The Hashemite University, Jordan

Bhagath Kumar Potu, Department of Anatomy, Arabian Gulf University, Kingdom of Bahrain

Bilal Lashari, Pulmonary and Critical Care Medicine, Temple University Hospital, Philadelphia, USA

Birnur Yılmaz, Department of Radiology, Okan University Hospital, Turkey

BMDB Basnayake, Nephrology and Transplant Unit, National Hospital Kandy, Sri Lanka

Branka Marković, Department of Anatomy, Faculty of Sports and Physical Education, University of Belgrade, Belgrade, Serbia

Cheng-Wei Liu, Department of Internal Medicine, Tri-Service General Hospital Songshan Branch, National Defense Medical Center, Taipei, Taiwan & Graduate Institute of Clinical Medicine, College of Medicine, National Taiwan University, Taipei, Taiwan

Chinna Nneka Orish, Department of Anatomy, College of Health Sciences, University of Port Harcourt, Nigeria

Dagmar Eigner, Medical Anthropology, Medical University of Vienna, Austria

David W. Holt, Bioanalytics, St George's University of London, UK

Dejan Marković, Department of Pediatric and Preventive Dentistry, School of Dental Medicine, University of Belgrade, Serbia

Demian Arturo Herrera Morban, Hospital Infantil Dr Robert Reid Cabral, Dominican Republic

Eliane Trovatti, School of Biotechnology in Regenerative Medicine and Medicinal Chemistry, University of Araraquara (UNIARA), Brazil

Erwin Hernando Hernández Rincón, Department of Family Medicine and Public Health, Universidad de La Sabana, Spain

Gabriela Sanchez-Petitto, Department of Stem Cell Transplant and Cellular Therapy, The University of Texas M.D. Anderson Cancer Center, USA

George P. Patrinos, Department of Pharmacy, University of Patras, Greece

Georgia Gioula, Medical Microbiology, Aristotle University of Thessaloniki, Greece

Gerard Criner, Thoracic Medicine and Surgery, Lewis Katz School of Medicine at Temple University, USA & Temple Lung Center, USA

Gernot Schulte-Altdorneburg, Department of Neuroradiology, University of Munich, Germany

Gianluigi Bisleri, Cardiac Surgery, The KGH Research Institute (KGHRI) & Queen's University, Canada

Giovanni Improta, Department of Public Health, University of Naples "Federico II", Italy

Gregory G. Homish, Department of Community Health and Health Behavior, University of Buffalo, USA

Harunor Rashid, Specialty of Child and Adolescent Health, The University of Sydney, Australia

Hilal Hizli Guldemir, Department of Nutrition and Dietetics, Anadolu University, Turkiye

Hyeon Ju Kim, Department of Family Medicine, Jeju National University, Republic of Korea

Jagoš Golubović, Clinic of Neurosurgery, University of Novi Sad, Serbia

Joe James, Department of Neurology, Government Medical College Kozhikode, India

Joseph Inungu, Central Michigan University, USA

Jovana Rosić, Department of Genetics & Evolution, Faculty of Medicine, University of Belgrade, Serbia

Khodabakhsh Javanshir, Department of Physiotherapy, Babol University of Medical Sciences, Iran

Magdalena Lachowska, Department of Otorhinolaryngology, Medical University of Warsaw, Poland

Makram Koubaa, Department of Infectious Diseases, Hedi Chaker University Hospital, Tunisia

Marcio José Concepción-Zavaleta, Endocrinology and Metabolism, Perú

Marko Miladinov, Clinic for Digestive Surgery—First Surgical Clinic, University Clinical Center of Serbia, Belgrade, Serbia

Maryam Baradaran Binazir, Community Medicine, Tabriz University of Medical Science, Iran

Masaru Tanaka, Neuroscience Research Group, University of Szeged, Hungary

Mohammad Asif Hussain, Biomedical, King Abdulaziz University, Saudi Arabia

Naotaka Hamasaki, Department of Clinical Chemistry and Laboratory Medicine, Kyushu University School of Medicine, Fukuoka, Japan & Faculty of Pharmaceutical Sciences, Nagasaki International University, Sasebo, Nagasaki, Japan

Nicolino Ambrosino, Scientific Director of Auxilium Vitae Volterra, Italy

Nikola M Stojanović, Department of Physiology, Faculty of Medicine, University of Niš, Serbia

Ohnmar Htwe, Department of Orthopaedics and Traumatology, University Kebangsaan Malaysia, Malaysia

Osama H. Al-Jiffri, Department of Medical Laboratory Technology, Faculty of Applied Medical Sciences, King Abdulaziz University, Saudi Arabia

Patil Shital, Pulmonary Medicine, MIMSR Medical College, India

Petar Avramovski, Internal Medicine, Higher Medical School, JZU Clinical Hospital “Dr. Trifun Panovski”, Republic of Macedonia

Praveen Kumar Potukuchi, University of Tennessee, USA

Rahmat A. Khan, Department of Biotechnology, University of Science and Technology Bannu, Pakistan

Raida Ben Salah, Internal Medicine, Hédi Chaker University Hospital, Tunisia

Rajendra Shrestha, Department of Neurosurgery, West China Hospital, Sichuan University, China

Rizwan Ishtiaq, Department of Gastroenterology, Beth Israel Deaconess Medical Center, USA

Roger W. Byard, Forensic Science SA and the School of Biomedicine, The University of Adelaide, Australia

Seyhan Hasirci, Sport Psychology, Nisantasi University, Türkiye

Shigeyuki Kano, Department of Tropical Medicine and Malaria, National Center for Global Health and Medicine in Japan, Japan

Simona Gurzu, University of Medicine and Pharmacy of Tirgu Mures, Romania

Suhail Ahmad, Nephrology, NorthWest Kidney Center, University of Washington, USA

Su-Ying Tsai, Department of Health Management, I-Shou University, Taiwan

Suzana Otašević, Department of Microbiology and Immunology, University of Niš, Niš, Serbia

Udai P. Singh, Department of Pharmaceutical Sciences, The University of Tennessee Health Science Center, USA

Vesna Stojanović, Department of Pediatrics, Faculty of Medicine, University of Novi Sad, Novi Sad, Serbia

Veysel Kayser, Sydney School of Pharmacy, Faculty of Medicine and Health, The University of Sydney, Australia

Vincenzo Russo, Cardiology Unit, Department of Medical Translational Sciences, University of Campania "Luigi Vanvitelli", Italy

Viroj Wiwanitkit, Department of Laboratory Medicine, Chulalongkorn University, Thailand & Department of Biological Science, Joesph Ayobabalola University, Ikeji-Arakeji, Nigeria

Vladimir J. Šimunović, Department of Family Medicine, University of Split, Republic of Croatia

Yogesh Shejul, Radiation Medicine, Bhabha Atomic Research Centre Hospital, India

Editorial Assistant

Aleksandra Piljak, MSc, Modestum DOO, Serbia

CONTENTS

Review Article

- An analysis of socially accepted addictive behaviors among adolescents** em672

Ionela Daniela Fertu, Gabi Topor, Claudia Simona Stefan, Elena Lăcrămioara Lisa

<https://doi.org/10.29333/ejgm/16584>

Original Article

- Pharmacist role in optimizing asthma management for inpatients in Jordan** em673

Shireen O Abu Al Hommos, Iman A Basheti

<https://doi.org/10.29333/ejgm/16585>

Study Protocol

- Protocol for pre-pregnancy care mobile health app: Development, validation and usability testing with a human-centered design approach** em674

Nur Diyana Sakinah Muhamad Rusdi, Nik Nairan Abdullah, Suzanna Daud, Mohd Shahril Ahmad Saman

<https://doi.org/10.29333/ejgm/16620>

Original Article

- Analysis of surgical apgar score combined with ASA classification (SASA) score in ICU and non-ICU patients following intra-abdominal surgery** em675

Kulsiri Bumrunghatudom, Rebecca Chavez, Weeratian Tawanwongsri, Siwatus Puangrab

<https://doi.org/10.29333/ejgm/16621>

Original Article

- Risk factors for cognitive impairment in chronic kidney disease: A cross-sectional study** em676

Sameeha Alshelleh, Hussein AlHawari, Ayah A Eyalawwad, Batool B Ahmad, Chaima Karchoud, Dana A Al-masaada, Ghada T Alzoubi, Hala S Aljboor, Ruwa A Abuzneimah, Ashraf Oweis, Karem H Alzoubi

<https://doi.org/10.29333/ejgm/16622>

Case Report

- Darier's disease masquerading as eczema: A case report and diagnostic challenges** em677

Asilah Abd Rahim, Rosediani Muhamad, Azlina Ishak, Norazlima Mohd Ali

<https://doi.org/10.29333/ejgm/16638>

Original Article

- The effectiveness of combined application of transfer factors in natural killers and natural killers T-cells deficiency in children with autism spectrum disorders** em678

Dmitry Maltsev

<https://doi.org/10.29333/ejgm/16719>

Case Report**Unveiling dysferlinopathy: A rare genetic cause of progressive muscle weakness in a Malay woman**

em679

Lai Mei Kuen, Siti Suhaila Mohd Yusoff, Aida Maziha Zainudin<https://doi.org/10.29333/ejgm/16726>

Original Article**The relationship between psycho-emotional and behavioral disorders and invasive pneumococcal infection with direct impact on children and parents**

em680

Loredana Stavăr-Matei, Aurel Nechita, Luiza-Camelia Nechita, George Țocu<https://doi.org/10.29333/ejgm/16735>

Original Article**Factors associated with colorectal cancer screening among U.S. adults: A cross-sectional study using NHIS 2023 data**

em681

Nirajan Budhathoki, Mary Isha Koroma, Chin-I Cheng, Joseph Ntein Inungu, Vincent Mumford<https://doi.org/10.29333/ejgm/16745>

Original Article**A national survey of health professional student preceptors' workplace mental health and well-being**

em682

Preshit Nemdas Ambade, Zach Hoffman, Minseo Yi, Neil J MacKinnon<https://doi.org/10.29333/ejgm/16746>

Original Article**Disparities in adult mental health service utilization in the United States: A cross-sectional study**

em683

Mary Isha Koroma, Joseph Ntein Inungu, Mimi Adu-Serwaah, Sanchita Sultana, Mustafa Z Younis, Kechinyere Iheduru-Anderson<https://doi.org/10.29333/ejgm/16747>

Original Article**LSU-CrescentCare Sexual Health Center: An inter-organizational partnership initiative to improve access to sexual health services in New Orleans, Louisiana, United States**

em684

Stephanie N Taylor, Rebecca A Lillis, Ronald D Wilcox, Laura Damioli, David H Martin, Alice Riener, Julio E Figueroa, M Jacques Nsuami<https://doi.org/10.29333/ejgm/16748>

Review Article**Utilization of mental health services among Black African immigrants in the US: Integrative literature review**

em685

Kechi Iheduru-Anderson, Joseph Ntein Inungu, Roop Jayaraman, Vincent E Mumford<https://doi.org/10.29333/ejgm/16749>

Original Article

Molecular profiling and genetic diversity of *mecA*-mediated methicillin-resistant *staphylococcus aureus* isolates from healthcare workers in a major hospital

em686

Saqr Abushattal, Sulaiman M Alnaimat, Saif M Dmour, Nehaya Saidat, Esraa H Al-Nsour

<https://doi.org/10.29333/ejgm/16775>

Original Article

Assessment of minimal residual disease in patients with B-cell acute lymphoblastic leukemia using EuroFlow: Relation to other prognostic factors

em687

Faisal M Alzahrani, Samirah M Alqhatani, Saeed Sattar Shaikh, Fathelrahman Mahdi

Hassan, Heba N Raslan, Saad Al Daama, Solaf Sami A Kanfar, Arwa M Al Saber

<https://doi.org/10.29333/ejgm/16837>

Original Article

Diagnostic performance of the rapid urease test versus histopathology for diagnosing *Helicobacter pylori*: A prospective study in Saudi Arabia

em688

Raed Mohammed Alsulaiman

<https://doi.org/10.29333/ejgm/16898>
