

Publisher

Deanship of Scientific Research (DSR)
The University of Jordan
Amman 11942 Jordan
Fax: +962- 6- 5300815
E-mail: jmj@ju.edu.jo

First Established in Jordan Medical Association in 1965

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means: electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the publisher.

Jordan University Press

الناشر

عمادة البحث العلمي
الجامعة الأردنية
عمان: 11942 الأردن
فاكس +962 -6 -5300815
البريد الإلكتروني: jmj@ju.edu.jo

تأسست في نقابة الأطباء الأردنية عام 1965

جميع الحقوق محفوظة، ولا يسمح بإعادة طباعة هذه المادة أو النقل منها أو تخزينها، سواء أكان ذلك عن طريق النسخ أم التصوير أم التسجيل أمغيره، وبأية وسيلة كانت: إلكترونية، أو ميكانيكية، إلا بإذن خطي من الناشر نفسه.

مطبعة الجامعة الأردنية

JORDAN MEDICAL JOURNAL

Volume (59), Number (1), March 2025

Editor-in-Chief

Prof. Malik E. Juweid

University of Jordan, Amman, Jordan

Editorial Board

Prof. Kamil Fram

University of Jordan, Amman, Jordan

Prof. Mamoun Ahram

University of Jordan, Amman, Jordan

Prof. Susan Al-Khateeb

University of Science and Technology, Irbid, Jordan

Prof. Khitam Al-Refu

Mutah University, Al-Karak, Jordan

Prof. Hakam Al-Khateeb

Yarmouk University, Irbid, Jordan

Prof. Nawal Hijjawi

Hashemite University, Al-Zarqa, Jordan

Editorial Office

Editorial Secretary

Amal Al-Khawaldeh

Arabic Editor

Ibrahim Rababah

English Editor

Dr Samantha Hague

Production

Na'eemeh Mofeed Al-Sarrawi

Advisory Board

Yusuf Al-Gaud, Jordan
Muayyad Ahmad, Jordan
Walid abu Hammour, USA
Hatem Shanti, USA
Markus Schwaiger, Germany
Raed Dweik, USA
Samir Khleif, USA
Zuhair Amarin, Jordan
Inaam Khalaf, Jordan
Nadera Sweiss, USA
Ziyad M. Hijazi, USA
Sharock Shariat, Austria

Andrea Gallamini, France
Samir Elbabaa, USA
Yaser Al-Rayyan, Jordan
Amira Taher Al-Masri, Jordan
Kamal Bani Hani, Jordan
Shireen Wajeih, Egypt
James Armitage, USA
Mones Abu-Asab, USA
Feras Hawari, Jordan
Manar Al-Lawama, Jordan
Orhan Alimoglu, Turkey
Mariano del Sol, USA

Ahed Wahadneh, Jordan
Malik Zohlof, Jordan
Ali Guermazi, USA
Faleh Tamimi, Qatar
Mohammad Abu Faraj, Jordan
Akram Al-Ibraheem, Jordan

المجلة الطبية الأردنية

المجلد (59) العدد (1)، آذار 2025

رئيس هيئة التحرير

أ.د. مالك جويعد

الجامعة الأردنية، عمان، الأردن

أعضاء هيئة التحرير

أ.د. سوزان الخطيب

جامعة العلوم والتكنولوجيا الأردنية،
إربد، الأردن

أ.د. نوال سميج حجاوي

الجامعة الهاشمية، الزرقاء، الأردن

أ.د. مأمون أهرام

الجامعة الأردنية، عمان، الأردن

أ.د. حكم الخطيب

جامعة اليرموك، إربد، الأردن

أ.د. كميل أفرام

الجامعة الأردنية، عمان، الأردن

أ.د. ختام الرفوع

جامعة مؤتة، الكرك، الأردن

أمينة السر

أمل الخوالدة

محرر اللغة العربية

ابراهيم ربابعة

محررة اللغة الإنجليزية

سامنثا هيچ

التصميم والإخراج

نعيمة مفيد الصراوي

الهيئة الاستشارية

أ.د. مارينو ديل سول، أمريكا

أ.د. عاهد وهادنة، الأردن

أ.د. علي قرمزي، أمريكا

أ.د. فالح التميمي، قطر

د. محمد أبو فرج، الأردن

د. أكرم الإبراهيم، الأردن

أ.د. أندريا جالاميني، فرنسا

أ.د. سميع البعباع، أمريكا

أ.د. ياسر الريان، الأردن

أ.د. أميرة المصري، الأردن

أ.د. مالك الزحلف، الأردن

أ.د. كمال بني هاني، الأردن

أ.د. شيرين وجيه، مصر

أ.د. جيمس أرميتاج، أمريكا

د. مؤنس ابو عصب، أمريكا

أ.د. فراس الهواري، الأردن

أ.د. منار اللواما، الأردن

أ.د. أورهان علمغلو، تركيا

أ.د. يوسف قاعود، الأردن

أ.د. مؤيد أحمد، الأردن

أ.د. حاتم الشطي، أمريكا

أ.د. وليد أبو حمور، أمريكا

أ.د. ماركوس شوايجر، ألمانيا

أ.د. رائد دويك، أمريكا

أ.د. سمير خليف، أمريكا

أ.د. زهير عمارين، الأردن

أ.د. أنعام خلف، الأردن

أ.د. نادرة الصويص، أمريكا

أ.د. زياد حجازي، أمريكا

أ.د. شاركوت شريعت، ألمانيا

Jordan Medical Journal

Contents

Volume (59), Number (1), March 2025

Articles

REVIEW ARTICLE

1

Comprehensive Management of Coarctation of the Aorta; Modern Approaches and Updated Strategies for Adolescents and Adult

M. Sharif Noorintan Liana^{1,3}, Ziyad M. Hijazi^{1,2}

¹ Department of Cardiovascular Diseases, Sidra Medicine, Doha-Qatar

² University of Jordan, Amman-Jordan

³ Pediatric Cardiology Unit, University Malaya Medical Center, Malaysia

*Corresponding author: zhijazi@me.com

ORIGINAL ARTICLE

20

The Therapeutic Effect of Honey on Respiratory Infections: A Systematic Review

M Ahmed Ouaamr^{1,2,*}, Mouna Mekkaoui¹, Nadia Kamel³, Mohammed Hassar¹, Yahya Cherrah³ and Katim Alaoui¹

¹ Pharmacodynamics Research Team ERP, Laboratory of Pharmacology and Toxicology, Faculty of Medicine and Pharmacy, University Mohammed V in Rabat, Rabat BP 6203, Morocco

² High Institute of Nursing Professions and Health Techniques, ISPITS, Tiznit, Morocco

³ Biopharmaceutical and Toxicological Analysis Research Team, Laboratory of Pharmacology and Toxicology, Faculty of Medicine and Pharmacy, University Mohammed V in Rabat, Rabat BP 6203, Morocco

*Corresponding author: ahmed_ouaamr@um5.ac.ma

ORIGINAL ARTICLE

40

Breaking Bad News: Jordanian Doctors' Training Needs & Applicability of Training Frameworks

Katherine C. Miles¹, Mustafa Saad Yousuf², Abdel-Ellah Al-Shudifat³

¹ Department of Pharmacology, Public Health and Clinical Skills, Faculty of Medicine, The Hashemite University, PO Box 330127, Zarqa 13133, Jordan

² Department of Anatomy, Physiology and Biochemistry, Faculty of Medicine, The Hashemite University, PO Box 330127, Zarqa 13133, Jordan

³ Department of Internal and Family Medicine, Faculty of Medicine, The Hashemite University, PO Box 330127, Zarqa 13133, Jordan

*Corresponding author: katemiles@doctors.org.uk

ORIGINAL ARTICLE

60

Burnout among Physicians and Nurses Working in Emergency Departments of Public Hospitals in Jordan: A Cross-sectional Study

Hana Taha^{1,2,*}, Osama Al Khatib³, Sireen Al Khaldi¹, Lujain Al Omari⁴, Mohammed Qussay Al-Sabbagh⁵, Abdallah Al-Ani⁶, Iman Aolymat⁷, Amjad Al-Shdaifat⁸, Vanja Berggren²

¹ Department of Family and Community Medicine, School of medicine, The University of Jordan, Amman, Jordan.

² Department of Neurobiology, Caring Science and Society, Karolinska Institutet, Stockholm, Sweden.

³ Higher Colleges of Technology, UAE, Fujairah

⁴ University of Texas Medical Branch-Galveston, Texas, USA

⁵ Department of Neurology, University of Kansas, Kansas City, USA

⁶ Office of Scientific Affairs and Research, King Hussein Cancer Center, Amman, Jordan

⁷ Department of Anatomy, Physiology and Biochemistry, Faculty of Medicine, The Hashemite University, Zarqa, Jordan

⁸ Department of Internal Medicine, Hashemite University, Zarqa, Jordan

*Corresponding author: hanagh@yahoo.com

ORIGINAL ARTICLE**71****When Hysterectomy is the Best Solution: How do we improve its outcome? A Teaching Hospital Experience**

Ayman Qatawneh¹, Kamil M. Fram^{1*}, Shawqi Saleh¹, Farah Fram¹, Rand Fram¹, Nada Abu Heijleh¹, Farah Abu Shaikha¹, Amwaj Farajat¹, Banan Tarawneh¹, Rola Baydoon¹, Mosa Fram¹, Rosul Mulla¹, Amira Hamdan¹, Nour Abumurra¹, Ghadeer Sabateen¹, Layan Attili¹, Saja Khalaylih¹, Jood Al-Adwan¹, Tamara Alazzah¹

¹Department of Obstetrics and Gynecology, School of Medicine, Jordan University Hospital, The University of Jordan

*Corresponding author: kamilfram@gmail.com

ORIGINAL ARTICLE**83****Cross-sectional Study of the Anatomic Variation of Brachial Plexus' Nerve Roots Origin in Jordan: Prefixed and Postfixed**

Osama Samara¹, Feras Al Khatib², Ruba Braik¹, Tariq Alsayouri², Abdallah Al-Qawasmeh², Osama Afaneh², Nosaiba Al Ryalat¹, Darwish Badran³, Amjad Shatarat^{4*}

¹ Department of Radiology, School of Medicine, University of Jordan, Amman, 11942, Jordan.

² School of Medicine, University of Jordan, Amman, 11942, Jordan.

³ Ibn Sina University for Medical Sciences, Amman, 16197, Jordan.

⁴ Aqaba Medical Sciences University, Aqaba, 77110, Jordan.

*Corresponding author: a.shatarat@ju.edu.jo

ORIGINAL ARTICLE**94****Knowledge and Attitude of the Public about Organ Donation in Jordan**

Hanaa S. Said^{1,2*}, Dania W. Salah³, Amany IA Soliman¹

¹ Family Medicine Department, Faculty of Medicine –Zagazig University–Egypt

² Internal medicine department, family medicine, Faculty of medicine, Mutah university, Jordan

³ Faculty of medicine, Mutah University, Al Karak, Jordan

*Corresponding author: drhanasalah@yahoo.com

ORIGINAL ARTICLE**105****Antibiotic Resistance Patterns and Distribution of Extended-Spectrum Beta-Lactamases and Different Classes of Integrons Among *Pseudomonas aeruginosa* strains recovered from various clinical samples**

Hamid Vaez^{1*}, Mohsen Barani², Mohsen Khamar², Zahra Yazdanpour¹, Soudabeh Hamedi-Shahraki³

¹ Department of Microbiology, School of Medicine, Zabol University of Medical Sciences, Zabol, Iran

² School of Medicine, Amiralmomenin hospital, Zabol University of Medical Sciences, Zabol, Iran

³ Department of Epidemiology and Biostatistics, Faculty of Public Health, Zabol University of Medical Sciences, Zabol, Iran

*Corresponding author: hamidvaez@hotmail.com

ORIGINAL ARTICLE**115****Prior Exercise Training Improves Hepatotoxicity and Liver Damage Induced by Different Doses of Doxorubicin**

Valiollah Dabidi Roshan^{1,2*}, Niloofar Karimi¹, Fatemeh Zolfagharzadeh¹

¹ School of Medicine, University of Jordan, Amman, Jordan.

² Faculty of Medicine, Mutah University, Karak, Jordan.

*Corresponding author: jehadsam2000@gmail.com

ORIGINAL ARTICLE**125****The Impact of SMS Follow-up on Treatment Outcomes and Patient Satisfaction in Trauma Patients**

Mahdi Rezai¹, Homa Hosseinasab², Kourosh Javdani Esfehiani³, Nader Sadigh⁴,
Aidin Mohammad Valipour⁴, Nazanin Alaei Faradonbeh¹, Alireza Javan^{5*}

¹ Emergency Medicine Management Research Center, Health Management Research Institute, Iran University of Medical Sciences, Tehran, Iran; Department of Emergency Medicine, School of Medicine, Iran University of Medical Sciences, Tehran, Iran

² Student Research Committee, School of Medicine, Iran University of Medical Sciences

³ Iranian Hospital Dubai, UAE

⁴ Department of Emergency Medicine, School of Medicine, Iran University of Medical Sciences, Tehran, Iran

⁵ Student Research Committee, School of Medicine, Iran university of Medical Sciences, Tehran, Iran

*Corresponding author: alirezajavan76@gmail.com

ORIGINAL ARTICLE**136****Effect of Hydrofluoric Acid Etching Time on Flexural Strength and Surface Roughness of CAD/CAM Ceramic Materials**

Omar M. Awad^{1*} and Mohammed R. Hameed¹

¹ Department of Restorative and Esthetic Dentistry, College of Dentistry, Baghdad, Iraq

*Corresponding author: omarmhmudaiaad@gmail.com

REVIEW ARTICLE**150****Evaluating Standardization of Neoadjuvant Immunotherapy in Transplant-Eligible Hepatocellular Carcinoma Populations**

Abdullah Esmail¹, Yaser Rayyan², Hashim Rayyan² and Maen Abdelrahim^{1*}

¹ Section of GI Oncology, Houston Methodist Cancer Center, Houston Methodist Hospital, Houston, TX, United States.

² Department of Gastroenterology & Hepatology, Faculty of Medicine, The University of Jordan, Amman, Jordan

*Corresponding author:

mabdelrahim@houstonmethodist.org

Instructions for Authors

Jordan Medical Journal (JMJ) is a peer-reviewed Journal. Authors are invited to submit their work on any topic of wide spectrum coverage including epidemiology, public health, medicine, surgery, biomedical sciences, nursing, dentistry, indigenous disease, and statement of health care of interest to health care professionals regionally and globally. Original, unpublished papers undergo a careful peer review before being accepted for publication. The Editorial Board reserves the right to make the final decision on publication. Please see the **Editorial policy**.

The journal publishes several types of manuscripts:

1. Original research articles that present novel findings.
2. Review articles on special and up-to-date topics.
3. Case reports with a review of the related literature, especially interesting or challenging clinical cases.
4. Editorials and letters to the editor that can be written by a member of the Editorial Board or submitted by readers.

Authors Responsibility

Manuscripts are received with the understanding that they are not under simultaneous consideration by another journal. An abstract published before a full report is not regarded as a duplicate publication. Please see the **Submission Process**.

Accepted manuscripts or parts of them should not be published elsewhere without JMJ permission.

Manuscript Preparation

The format of the JMJ complies with “Uniform Requirements for Manuscripts submitted to Biomedical Journals” published by the International Committee of Medical Journal Editors in Vancouver, British Columbia, in 1979 (the widely accepted Vancouver Style), as described in the JMJ November 1993.¹ With the exception of blood pressure, all units of measurement and laboratory values must be expressed in SI units; conventional units may be included parenthetically.

Manuscript's text, tables, references, and figure legends must be typewritten, double-spaced on 8 ½ x 11 inch or size A4 paper, with margins of at least 1 inch. Word limits (excluding references) and maximum number of tables/figures and references for each type of manuscripts are listed below:

Manuscript type	Word limits	Maximum number of tables and/or figures	Maximum number of references
Original research article	5000	8	60
Review articles	7000	12	100
Case reports	1000	3	15
Editorials and letters to the editor	900	-	-

Submission checklist

1. Cover Letter

The cover letter serves to introduce the submission to the editorial staff. The letter should explain any deviation from the standard format and any potential conflicts concerning the exclusive nature of the paper. The authors' cover letter must contain these statements:

“The manuscript has been seen and approved by all authors and has not been published or is considered for publication elsewhere. The authors transfer all copyright and ownership to the Jordan Medical Journal.”

2. Manuscript

The submission should be typed as double-spaced with 1" margins on 8.5" x 11", or A4 paper. The first author's last name should appear after the title page. Pages should be numbered consecutively, beginning with the title page. We recommend that the authors insert line numbers into the manuscript to allow the reviewers to precisely indicate where changes should be made. The authors are encouraged to use programs such as Grammarly to ensure the accuracy and appropriateness of the language used in the manuscript.

Full Title Page

The title page will have the followings:

Title: Must be concise and informative to describe the contents of the manuscript. Do not use registered/trademark terms in the manuscript title. The title should not be more than 85 characters long including spaces.

Authors: Provide first name(s) and family name(s) of each author and check that all names are accurately spelled.

Author Affiliations: Please list departmental/institutional affiliations for authors. Please tie each author to the appropriate department(s)/institution(s) where the work was performed using consecutive, superscripted Arabic numbers.

Corresponding Author Info: Provide the name, street address, telephone and fax numbers, and the e-mail address of the corresponding author.

Acknowledgments: Use this section to acknowledge individuals who have provided personal assistance. Please give full names of all individuals mentioned in this section.

Grant/Funding Support: List grant/funding support, if any, on the full title page.

Running Title: At the bottom of the page, please include a short running title of no more than 45 characters long, including spaces, and should give a general idea as to the subject of the paper.

Formal Abstract page

For original papers, the abstract page should contain a structured abstract of no more than 250 words. The abstract should not include footnotes, figures, tables or citations. The abstract must be structured into four distinct sections: A) Background and Aims introducing the significance of the topic and the precise purpose of the paper; B) Materials and Methods describing the principal methods; C) Results presenting the main findings; D) Conclusions summarizing the significance of the work.

For reviews and case reports, an unstructured abstract of no more than 200 words should be submitted.

Keywords

Three to five keywords should be included at the end of the abstract page or the summary page.

Introduction

The introduction presents a brief background of the topic and states the significance and purpose(s) of the study.

Materials and Methods

This section must provide sufficient information to permit detailed evaluation and duplication of the work by other investigators. Ethical guidelines followed must be described. Approval of institutional human research review committees or animal welfare committees should be placed here. Please see the **Editorial policy**.

Results

In this section, report the findings of the work. Use tables and figures where appropriate to improve the clarity of the presentation of the results.

Discussion

Discuss the results in relation to other published works in the same field. Offer explanations for any differences or discrepancies between the presented work and previous reports. Offer possible recommendations, hypotheses, and logical speculations.

References

References should be numbered consecutively in the order in which they are first mentioned in the text, not alphabetically. All references must be cited in the text or tables. Unpublished data and personal communications can be mentioned within the manuscript as such between parentheses but not as references.

References to journal articles should include, in this order: (1) authors, (2) title, (3) journal name (as abbreviated in index medicus), (4) Year, (5) volume, and (6) inclusive page numbers. References to books should include (1) authors, (2) chapter title (if any), (3) editors' names (if any), (4) title of book, (5) city of publication, (6) publisher, and (7) year. Volume and edition numbers and specific page numbers should be included when appropriate. The author is responsible for the accuracy and completeness of the references and their correct textual citation. Refer to reference citations and listings in the text for proper format. For example:

Journal: Hammoudeh A. Cigarette Smoking Cessation among Jordanians after Sustaining Acute Coronary Events. JMJ 2002; 2: 122- 125.

Book Chapter: Weinstein L, Swartz MN. Pathogenic properties of invading microorganisms. In: Sodeman WA Jr. Sodeman WA, eds. Pathologic mechanism of disease. Philadelphia: WB Saunders, 1974; 457-472.

Tables

Type the tables double-spaced within the manuscript where the authors want the tables to be placed or at the end of the manuscript. The tables must be numbered consecutively according to their appearance in the manuscript using Arabic numbers (1, 2, 3, etc.). Place the table legend that contains the table number above the table and provide a meaningful title for the table contents. Any additional notes should be numbered as superscripts and explained below the table as footnotes.

Figures

High-quality figures can be used in the manuscript. It is recommended to use the minimum number of figures required. Do not duplicate data already present in the text or tables. Submit the figures in their actual size with a label at least 1.5 mm high. The largest size that can be published without reduction is 17.5 cm wide and 22cm tall. The figures can be placed where the authors want them to appear in the manuscript or at the end of the manuscript.

The figures must have legends that are typed double-spaced below the figures containing the figures' numbers and a brief description of the figures that would allow interpretation of the figures. The figures must be numbered consecutively according to their appearance in the manuscript using Arabic numbers (1, 2, 3, etc.).

Note: color illustrations are accepted if they make an exceptional contribution to the article. Authors will be required to bear the cost of color figures at the cost price.

Proofs

Proof of accepted manuscripts will be returned to the authors. Timely correction of the proof is essential to ensure speedy publication of the article. At this stage, authors may only make minor corrections. Major modifications (i.e. new data, figures, etc) of accepted manuscripts are not accepted. At this point, the author may order reprints.

Responsibilities of Authors

Please see the **Revised Editorial policy**.

Ethical considerations

Please see the **Revised Editorial policy**.

Privacy Statement

The names and email addresses entered in this journal site will be used exclusively for the stated purposes of this journal and will not be made available for any other purpose or to any other party.

Articles

Section default policy

Privacy Statement

The names and email addresses entered in this journal site will be used exclusively for the stated purposes of this journal and will not be made available for any other purpose or to any other party.

TRANSFER OF COPY RIGHT AGREEMENT

In consideration of the *Jordan Medical Journal (J Med J)* taking action in reviewing and editing my submission, the author (s) undersigned hereby transfer(s), assign(s) or otherwise convey(s) all copyright ownership to the *J Med J* in the event such work is published by the *J Med J*.

I (We) can take full responsibility concerning the authenticity of work and data submitted in this paper.

Title:

Date: / /

Author's printed name

Author's signature

Author's printed name

Author's signature

Author's printed name

Author's signature

Author's printed name

Author's signature

Author's printed name

Author's signature

(Use a continuation sheet if necessary for additional signatures)

رقم الإيداع لدى المكتبة الوطنية
(د/2007/3635)
المجلة الطبية الأردنية/ فصلية