



The 3rd International Conference on Medical and Pharmaceutical Sciences (3rd ICMPS)





Phone Number:

6267



Website: https://icmhs2025.alnoor.edu.iq





المؤتمر الدولي الثالث للعلوم الطبية والصيدل نية – 2025

برعاية وزير التعليم العالي والبحث العلمي الدكتور نعيم العبودي المحترم

وباشراف رئيس جامعة النور الاستاذ الدكتور ياسين الحجار المحترم

تتشرف اللجنة المنظمة العليا بدعوتكم

لحضور

المؤتمر الدولي الثالث للعلوم الطبية والصيدلانية والذي يُعقد تحت شعار:

"نحو آفاق جديدة في البحث العلمي والتطبيقات السريرية"

> المكان : جامعة النور - نينوى التاريخ : 2029 / 04 / 2025 الوقت : 9 صباحا - 3 عصرا



للتسجيل, امسح ال QR

جامعة النور

المؤتمر الدولي الثالث للعلوم الطبية والصيدلانية 29-30 April 2025 3rd ICMPS - 2025



- یستمر التسجیل الی یوم 29-04-2025
 للتسجیل امسح الـQR (التسجیل مجاناً)

ارسال ملخص بحث

- يستمر ارسال الملخصات الى يوم 15-04-2025 لإرسال الملخص امسح الـQR (نشر الملخص مجاناً)

ارسال بحث كامل

B

يستمر ارسال البحوث الى ما بعد المؤتمر
 لإرسال البحث امسح الـQR (نشر البحث مجاناً فى BMV)



ملاحظة مهمة حداً

جامعة النور تتحمل اجور السكن ليوم إلقاء البحث للبحوث المقبولة من خارج المحافظة



Conference Info

) Title

01

02

03

04

The 3rd International Conference on Medical and Pharmaceutical Sciences

) Date

29-30 April 2025 conference 28 April 2025 Pre-conference workshops (6 Workshops)

Location

Iraq - Nineveh - Al Shalalat Road - Alnoor University site (D1 & D2 Halls)

About

3rd International Conference on Medical and Pharmaceutical Sciences" with great pleasure and excitement. 3rd, ICMPS, organized by Al-Noor University, is scheduled for April 29–30, 2025, in the conference hall. Academic scientists, researchers, physicians, and pharmacists from all fields of medical sciences, health sciences, and associated fields will have the chance to exchange experiences, talk about, and share their most recent scientific findings at the event.

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Registration and accommodation

Alnoor University will cover all registration fees and the accommodation for the day of presentation of the accepted abstracts.

Publication

Accepted Abstracts will be published in the conference book. Accepted abstracts can be submitted at (Biomed Visions Journal) for publication Consideration. **submission link**: <u>https://bmvj.alnoor.edu.iq</u> **Note:** AlNoor University will cover all the publication charges for the accepted papers.

Alnoor University

As the pioneering private university in Nineveh Governorate, Alnoor University has been shaping the future since 2013. Currently, it consists of ten colleges: Pharmacy, Dentistry, Health and Medical Technologies, Engineering, Law, Education, Arts, Applied Arts, Technical Engineering, and Technical Management. The university offers twenty-six scientific specialties and awards bachelor's degrees in both morning and evening undergraduate programs. It also has teaching clinics for Dentistry, several research centers, and units. Alnoor University strives to achieve the goals of higher education by preparing students to become professionals who can contribute to the workforce, administration, and production sectors. Additionally, it supports scientific research by encouraging its academic community to publish research in Scopus-indexed journals and organizes global conferences and seminars in partnership with prestigious universities.

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President's Speech



Prof. Dr. Yaseen Taha Al-Hajjar President of Al-Noor University

We are fortunate to have a unique gathering of renowned experts, researchers, and academics from all over the world who have come together to exchange their knowledge, perspectives, and medical innovations. They are all bound together by the same objective: to learn about the latest developments in pharmacy, dentistry, health, and medicine. This conference will be an important occasion that promotes cooperation, education, and advancement because of your attendance and involvement.

I want to express my sincere gratitude to all the attendees, sponsors, the hard-working members of every committee, and our keynote speakers for their invaluable contributions. This conference will become a major event in the medical world thanks to your efforts. I have no doubt that every one of you will come from this conference with fresh perspectives, revitalized motivation, and an expanded professional network.

Let's work together to create an unforgettable and significant. I hope your conference is both successful and fun.

President of the Organizing Committee



Assist. Prof. Dr. Omer Q. B. Allela

President of Organizing Committee

Honorable Guests, Distinguished Speakers, Respected Researchers, and Esteemed Participants, It is with immense pleasure and honor that I welcome you all to the 3rd International Conference on Medical and Pharmaceutical Sciences (ICMPS-2025). This prestigious event brings together brilliant minds from across the globe scientists, medical professionals, pharmaceutical experts, and researchers united by a shared commitment to advancing healthcare, medical innovation, and pharmaceutical sciences.

The ICMPS-2025 serves as a platform to exchange groundbreaking research, discuss emerging trends, and foster collaborations that will shape the future of medicine and pharmacy. Organizing this conference has been a remarkable journey, and I would like to extend my deepest gratitude to our organizing committee, scientific advisors, sponsors, and dedicated volunteers. Your unwavering commitment has been instrumental in making this event possible. Over the next few days, we will engage in thought-provoking keynote speeches, insightful discussions, and pioneering research presentations. I encourage all participants to actively participate, share knowledge, and build meaningful professional connections. Together, we can drive the future of healthcare and pharmaceutical sciences toward excellence.

Thank you, and I wish you all a productive and enriching conference.

Heads of the Scientific Committee



PROF. DR. YASSAR AL-TAMER

Dean of Medical and Health Technologies College Head of Health Sciences Scientific Committee



PROF. DR. SHAKIR MAHMOOD

Deputy Dean for Scientific Affairs—College of Pharmacy Head of Basic Sciences Scientific Committee



PROF. DR. TALAL AL-SALMAN

Dean of Dentistry College Head of Dentistry Sciences Scientific Committee



DR. BAHJAT SAEED ISSA

Deputy Dean for Administrative Affairs, College of Pharmacy Head of Pharmaceutical Sciences Scientific Committee



DR. MUSSALAM L ALOBAIDY

BioMed Visions Journal Managing Editor Lecturer at Medical and Health Technologies College Head of Medical Sciences Scientific Committee

Organizing Committees

Scientific Committee

Prof. Dr. Faris Abdlmawjod Ahmed Prof. Dr. Sameer Khalaf Prof. Dr. Ismail Ibrahim Daoud Prof. Dr. Ismail Ibrahim Daoud Prof. Dr. Abdulaziz Jameel Prof. Dr. Abdulaziz Jameel Prof. Dr. Muhannad R.M.Salih Prof. Dr. Ali Rajeh Khateb Prof. Dr. Ali Rajeh Khateb Prof. Dr. Rafid Kamal Jameel Prof. Dr. Rafid Kamal Jameel Prof. Dr. Ahmed Hashim Prof. Dr. Salim Jasim Mohammed Prof. Dr. Theia'a Najim Al-Sabha Prof. Dr. Hana Ihsan Al-Baroudi Prof. Dr. Abdulnasser Mohammed Abdullah Prof. Dr. Muna Kashmoola Assist. Prof. Dr. Huner Kamal Omer Assist. Prof. Dr. Harith Al-Kazzaz Assist. Prof. Dr. Bassam Adwar Hanna Assist. Prof. Dr. Dana Muhammad Hamad Assist. Prof Dr. Wafa Muhamed Ali Assist. Prof Dr. Wafa Muhamed Ali Assist. Prof Dr. Ma`an Muwafaq Nayef Assist. Prof. Dr. Sajeda Shareef Huseein Assist. Prof. Dr. Wafaa Khalil Abd Assist. Prof. Dr. Nabeel Ahmed Jarjees Assist. Prof. Dr. Hadi Mohammad Assist. Prof. Dr. Jameel M.A.Sulaiman Assist. Prof Dr. Nada Zuhair Dr. Moayad Aziz Alabdaly Dr. Mareb Hameed Ahmed Dr. Dena Akram Jerjees Dr. Yahya Dhoubian Zakaria Dr. Ammar Ahmed Mohammed Dr.Baref Zahir Rashid Dr.Adnan Burhan Qader

Preparatory Committee

Prof .Dr. Samir Khalaf Abdullah Prof .Dr. Yassar Yehya Al-Tamer Prof .Dr. Talal Hameed Al-Salman Prof .Dr. Shakir Mahmood Saied Prof .Dr. Saeb Younis Abdulrahman Assist .Prof .Dr. Nabeel Ahmed Gergees Assist .Prof. Dr. Mutaz Ghazi

Thamir Mayof

Marwa Aljubory

Noah Manhal Luqman Munther Obay Mahmood Amin Abdulhakeem Ammar Mustafa Amin Assist .Prof .Dr .Wael Sheet Hussain Assist .Prof .Dr. Waleed Bader Aldeen Allela Assist .Prof .Dr. Bassim Idris Thanoon Dr. Hani Muslim Ahmed Dr. Mussalam L Alobaidy Mr. Thamir mayof

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Vision and Mission

Our Vision

The 3rd International Conference on Medical and Pharmaceutical Sciences (3rd ICMPS-2025) aims to be a leading scientific platform that brings together researchers and specialists from around the world to discuss the latest advancements and innovations in medical and pharmaceutical sciences. The conference seeks to enhance scientific research. promote collaboration between academic and industrial institutions, and contribute to the development of effective solutions to contemporary healthcare challenges, ultimately improving community well-being and advancing the quality of healthcare services.

Our Mission

The 3rd International Conference on Medical and Pharmaceutical Sciences (3rd ICMPS-2025) aims to foster scientific research and innovation in the medical and pharmaceutical fields by providing an interactive platform for researchers and experts to share the latest findings and technologies. The conference seeks to support academic and industrial collaboration, promote knowledge exchange, and contribute to the development of sustainable healthcare practices that address global healthcare challenges.

Guide to Submission

The conference abstract must not have been published before, and it must be submitted electronically to <u>icmps2025@alnoor.edu.iq</u> The word count should not exceed 250 words in the submitted abstract for both oral or poster presentations. Each abstract should have the following headings: Background, Methods, Results and Conclusion. (4-6) Keywords should be included.

Submission of full articles to BioMed Visions Journal (BMVJ)

Submission (Abstract only)

Registration



술 bmvj@alnoor.edu.iq

Goals and Objectives

Objective of the Conference

- Facilitate scientific knowledge exchange among researchers and academics in the fields of medical and pharmaceutical sciences.
- Stay updated on the latest advancements and innovations in medical and pharmaceutical research and clinical applications.
- Enhance research collaboration between universities, academic institutions, and medical centers.
- Discuss current challenges in healthcare and the pharmaceutical industry and propose innovative solutions.
- Encourage researchers and students to actively participate in scientific research and publish their findings in indexed journals.
- Strengthen partnerships between academia and industry to foster research and development in the pharmaceutical sector.
- Promote applied scientific research that contributes to public health improvements.
- Create an interactive platform for dialogue and networking among experts and specialists in medical and pharmaceutical sciences.

Goal of the Conference

The goal of the Third International Conference on Medical and Pharmaceutical Sciences (the 3rd ICMPS) is to disseminate the latest developments in medicine, dentistry, health, pharmaceutical sciences, and education to scholars, professionals, and researchers as well as students. The 3rd ICMPS seeks to establish a communication platform that unites eminent academics and medical professionals from various specialties to exchange ideas, discuss important issues, and offer insights on the latest developments, trends, and difficulties in medical practice, research, and teaching.

Special Guest



DR. HAYDER AL-SAEG

CHAIRMAN SYNDICATE OF IRAQI PHARMACISTS

Title of presentation

REVIEW OF FIRST YEAR IN THE 24TH TERM

SESSION TIME STARTED 10:00 AM – TO 11:00 AM BAGHDAD TIME

International Keynote Speakers



Prof. Dr. Barbara R. Conway

BSC. PHD FRPHARMS, FACPS, CMGR FCMI (ASTON UNIVERSITY) HEAD OF PHARMACY - UNIVERSITY OF HUDDERSFIELD (UNITED KINGDOM) DIRECTOR OF THE PHARMACEUTICS AND FORMULATION RESEARCH CENTRE



Prof. Dr. Mohd Baidi bin Bahari

E, PHARM (HONS) USM,PHARM D UNIVERSITY OF MINNESSOTA (USA) FORMER ACTING VICE CHANCELLOR (AIMST UNIVERSITY) (MALAYSIA)



Dr. Rafid Ismail Aziz

MECHE, MSC, MRCA, MRCGP (UNITED KINGDOM) MEDICAL DIRECTOR AND LUC CLINICAL LEAD, HERTFORDSHIRE, UK PRESIDENT OF THE UNITED IRAQI MEDICAL ASSOCIATION, UNITED KINGDOM AND IRELAND



Dr. Abdullah Isreb

SC PHARMACY, PHD IN PHARMACEUTICAL FORMULATIONS (UNIVERSITY OF RADFORD) IVERPOOL JOHN MOORES UNIVERSITY UNITED KINGDOM)



Dr. Almurtadha Mula Kh

JK-CERTIFIED (CCT) MEDICAL ONCOLOGY CONSULTANT SPECIALTY TRAINING IN MEDICAL ONCOLOGY (THE ROYAL COLLEGE OF PHYSICIANS) THE ASSOCIATION OF CANCER PHYSICIANS OF THE (UNITED KINGDOM)

National Keynote Speakers



Prof Dr. Haydar F Al-Tukmagi

PHD IN CLINICAL PHARMACY BAGHDAD COLLEGE OF MEDICAL SCIENCES / PHARMACY DEPT



Prof Dr. Mohammed D Al Rekabi

POST DOCTORATE IN PHARMAGOTHERAPY, PHD, MSC, PHARMACY HEAD OF CLINICAL PHARMACY DEPARTMENT, COLLEGE OF PHARMACY, INNIVERSITY OF ALMAFETI, NATAE IDAO



Prof Dr. Jabbar H Kamel

M.D.SC. IN CONSERVATIVE DENTISTRY TESHIR INTERNATIONAL UNIVERSITY FACULTY OF DENTISTRY



Prof Dr. Muhannad R Salih

B.SC, M.PHARM (CLINICAL PHARMACY), PHD PHARMACY DEPARTMENT, AL-RASHEED UNIVERSITY COLLEGE



Dr.Manal M. Younus

PHD CLINICAL PHARMACY, PHARMACOVIGILANCE DIPLOMA PHARMACOVIGILANCE FELLOWSHIP AND PATIENT SAFETY FELLOWSHIP IBACI PHARMACOVIGILANCE CENTER, DIRECTORATE OF TECHNICAL AFFAIR, MOH-IRAY



Assist. Prof Dr. Harith K Al-Qazaz

PHD / CLINICAL PHARMACY COLLEGE OF PHARMACY / UNIVERSITY OF MOSUL

Conference Workshops

3rd ICMPS - 2025 How to create coshh

ASSESSMENT AND RISK



ASSESSMENT

Dr. Bahjat Saeed Issa PhD. Pharmaceutics

Monday, 28 April 2025 AT 09.00-11.00 AM 70 Seats Available AL-NOOR UNIVERSITY, HALL D1



REGISTRATION

الحضور لجميع المهن الطبية والصحية والعلوم الاساسية





Strengthening Patient Safety: A Workshop on ADR Reporting





Specialist ph Ban Abdulameer Abd

Ph. Amina Hani

Specialist ph Ahmed Sami Abbas

70 Seats Available 28 APRIL 2025 11.00 AM - 1.00 PM

For registration, Scan QR AL-NOOR UNIVERSITY, HALL D1



الحضور للصيادلة, الاطباء, التمريض

Our Speakers



Dr Mussalam Alobaidy



Dr. Mohammed Mahdi

3rd ICMPS - 2025

CANCER DOESN'T FOLLOW THE RULES: WHY ONCOLOGY NEEDS A DIFFERENT APPROACH

Monday **28 April 2025** 1.00 pm - 3.00 pM

O Al-noor University, hall D1

70 Seats Available

FOR REGISTRATION, SCAN QR:







2025 3rd ICMPS

Blending Perfection: Advanced Techniques for Class IV Restorations

Our Speakers In cooperation with



Dr. Maan M. Nayif

Dr. Kubais Hahim Al-Assaf

Dr. Omar Faez

Tokuyama

REGISTRATION:



28 APRIL 2025 9.00AM - 11.00 AM AL-NOOR UNIVERSITY, HALL D2 70 Seats Available

2025 3rd ICMPS

Digital workflow in guided implant surgery

Our Speakers:



Dt. Ayad khuder



Assist. Prof. Dr.Wael Sheet



Dr. Sarmad Natiq

REGISTRATION:



28 APRIL 2025 11.00 AM - 1.00 PM AL-NOOR UNIVERSITY, HALL D2

70 Seats Available



Dr. Yamen Hegazy

The use of magnetic mallet in implantology and maxillofacial surgery

الحضور لأطباء الأسنان الممارسين والاختصاص

In cooperation with

REGISTRATION



28 APRIL 2025 1.00 PM - 3.00 PM AL-NOOR UNIVERSITY HALL D2

70 Seats Available

COSMO LIGHT BENTAL

Conference Agenda

OPENING CEREMONY 29TH APRIL 2025 STARTED 09:00 AM – TO 09:30 AM MOSUL TIME

Facilitator: Mr. Thamer Mayouf



SCAN TO WATCH VIDEO OR PRESS الله FOR PDF VERSION





Keynotes – Session 1 - Venue: D1

Chairperson: Assist. Prof. Dr. Omer Q. B. Allela 9:30 - 10:30

| 1 | Dr. Hayder Al-Saeg Chairman of Syndicate of Iraqi Pharmacists | Review of First Year in the 24 th Term |
|--------------|--|---|
| 2 | Prof. Dr. Mohd Baidi bin Bahari (Virtual) B. Pharm (Hons) USM, Pharm D University of Minnesota (USA) Former Acting Vice Chancellor - AIMST University (Malaysia) | Development of Total Parenteral Nutrition (TPN) in Malaysia |
| 3 | Prof. Dr. Hayder F. Al-Tukmagi Baghdad College of Medical Sciences / Pharmacy Department | Communication Skills in Pharmacy, the Way for Good Pharmacy Business |
| Coffee Break | | 10.30 - 10:45 |

Keynotes – Session 2

Chairperson: Assist. Prof. Dr. Sabah Aldabagh **Co-chairperson: Dr. Ahmed Faisal**

10:45 - 12:30

| 1 | Prof. Dr. Mohammed Dakhil Al Rekabi Head of Clinical Pharmacy Dep., University of Alkafeel, Najaf, Iraq | Will AI Replace Pharmacists? Exploring the Future of Pharmacy Profession |
|----------|--|---|
| 2 | Prof. Dr. Muhannad R. M. Salih Pharmacy Department, Al-Rasheed University College | Well-being assessment of Iraqi hemodialysis patients; a multicenter observational analysis |
| 3 | Assist. Prof. Dr. Harith Kh. Al-Qazaz College of Pharmacy/ University of Mosul | Medication Therapy Management (MTM): Significance, and Practical Applications in Pharmacy Practice |
| 4 | Dr. Manal M. Younus Iraqi Pharmacovigilance Center, MOH-Iraq | Medication Errors: A Glance at the National Adverse Events Database |
| 5 | Dr. Jaafer M. Kurmanji University Sains Malaysia, School of Pharmaceutical Sciences, Pulau Pinang, Malaysia ———————————————————————————————————— | Pharmacovigilance as a valuable Tool in Tackling Antimicrobial Resistance |
| Coffee I | Break | 12:30 – 13:00 |

Panel Discussion - Venue: D1

Pharmaceutical industry in Nineveh: reality and ambition Panel moderator: Assistant Prof Dr. Omer Q. Allela

13:00-14:00



3rd ICMPS – 2025 Al-Noor University - College of Pharmacy

Pharmaceutical industry in Nineveh: reality and ambition

Assist. Prof. Dr. Myasar Alkotaji



Panel Head





Panel member



Panel member





Panel member



Panel moderator





April 29, 2025 13:00–14:00 Hall D1

Keynotes – Session 3 - Venue: D2

Chairperson: Prof. Dr. Talal Al-Salman

9:30 - 10:30

Prof. Dr. Jabbar Hussien Kamel Faculty of Dentistry, Teshik International University/ Iraq

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2

Stress-reducing Protocol Concept for Composite resin Restoration

Chairperson: Dr. Bahjat Saeed Issa

Prof. Dr. Barbra R. Conway (Virtual) Head of Pharmacy school, University of Huddersfield, UK

Nano-formulations for Enhanced Skin Delivery: Innovations and Applications

Chairperson: Dr. Mussalam L. Alobaidy

| 2 | Dr. Almurtadha Mula Kh Consultant Medical Oncologist, UK | Up to Date Advances in Colorectal Cancer Management – New Era from UK based Practice |
|--------------|--|---|
| Coffee Break | | 10.30 - 10:45 |



Session 4 - Venue: D2

Chairperson: Dr. Mussalam L. Alobaidy Co. Chairperson: Dr. Bahjat Saeed Issa 10:45 - 12.30

| 1 | Keynote Lecture: Dr. Rafid Ismail Aziz (Virtual) Medical Director and President of Iraqi Medical Association UK & Ireland | Palliative Care Philosophy - UK Principles and Iraq Prospective |
|---|--|---|
| 2 | Keynote Lecture: Dr. Abdullah Isreb (Virtual) Pharmacy School, University of Central Lancashire (UK) | Prediction of Miscibility in Solid Dispersion Using Cohesion Parameters |

| Code | Title | Presenter | Time |
|--------------------|---|---------------------------|-------------|
| OP 1 | RFXAP Mutations in Autosomal Recessive Bare Lymphocyte Syndrome: A Case Report and Implications for Genetic Counselling | Dr. Fahad A. Jameel | 11.25-11.35 |
| OP 2 | Barriers to and facilitators of early childhood immunization in Duhok city, Iraq | Dr. Azad A. Haleem | 11.35-11.45 |
| OP 3 | Nottingham Prognostic Index (NPI) Plus is an Essential Tool for Breast Cancer Risk Stratification and Management Planning | Dr. Dena A. Jerjees | 11.45-11.55 |
| OP 4 | First 18 months experience in Mosul BMT center | Dr. Fakhraldin Flaih | 11.55-12.05 |
| OP 5 | Management of Minor ABO Incompatible Hematopoietic Stem Cell Transplantation in Beta Thalassemia Major Patient-Case Study | Dr. Rana N. Al-Noori | 12.05-12.15 |
| OP 6 | Ai and Medical Future | Dr. Mohammed M. Manakhoor | 12.15-12.25 |
| Session Discussion | | | |
| Coffee B | reak | 12.30 – 13.00 | |

Session 5–Venue: D2

Chairperson: Prof. Dr. Yassar Yehya Al-Tamer Co-Chairperson: Dr. Thabit Maadh Omar 13.00 – 15.00

| Code | Title | Presenter | Time |
|-------|--|--------------------------|-------------|
| OP 7 | Antibacterial and Antioxidants of Peptides Extracted from Lactobacillus paracasei against Pathogenic Bacteria | Dr. AbdulMuhsin M. Shami | 13.00-13.10 |
| OP 8 | Cord Serum Prolactin Level in Normal and Abnormal Pregnancies | Dr. Alaa L. Abdulazeez | 13.10-13.20 |
| OP 9 | Associations Between VEGF Gene Polymorphisms and Susceptibility to Diabetes Mellitus | Sabah S. Ismael | 13.20-13.30 |
| OP 10 | Structural Alterations of the Umbilical Cord in relation to Intrauterine Growth Restriction (IUGR) | Mareb H. Ahmed, | 13.30-13.40 |
| OP 11 | Haemorrhage control using ND: YAG laser | Dr. Haider M. Al-Saigh | 13.40-13.50 |
| OP 12 | Association of microbial infection with IL-17 genes polymorphism in multiple sclerosis | Dr. Eman W. Kadhum | 13.50-14.00 |
| OP 13 | The effect of Helicobacter pylori infection on thyroid disorders and serum interleukin-6 levels | Dr. Mohammed Sehree | 14.00-14.10 |
| OP 14 | Identification of Risk Factors of Autism among Children in AL-Najaf AL- Ashraf Governorate | Dr. Karrar K. Jawad | 14.10-14.20 |
| OP 15 | Postoperative Duodenal Stricture in a Neonate with Duodenal Atresia – Innovative Approach and Lessons Learned | Dr. Raniah I. Alnaser | 14:50-15:00 |
| OP 16 | Metabolic Syndrome and Cardiovascular Risk in Hashimoto's Thyroiditis: A Case-Control Study | Dr. Dhifaf Zeki | 14:30-14:40 |
| OP 17 | The relationship between nitric oxide and age with entamoeba histolytica | Dr. Rasha A. Al Tufaili | 14:40-14:50 |
| OP 18 | | | |
| | Session Discussion | | |

3RD INTERNATIONAL CONFERENCE ON MEDICAL AND PHARMACEUTICAL SCIENCES PROGRAMME SCHEDULE - DAY 2 (30 APRIL 2025) VENUE: D1

Session 6 - Venue: D1

Chairperson: Prof. Dr. Shakir Mahmood Saied Co. Chairperson: Assist. Prof. Dr. Nabeel Ahmed Gorgees

9:00 - 10.30

| Code | Title | Presenter | Time |
|----------------------------|---|---------------------|-------------|
| OP 19 | Association between Serum Zinc Levels and Central Obesity among Adults in Al-Najaf City, Iraq | Sabreen A. Hassouni | 9:00-9:10 |
| OP 20 | Evaluation of Antifungal Properties of Shiitake and the Effects of Its Extracts on Some Pathogenic Fungi | Asal Faiz | 9:10-9:20 |
| OP 21 | Knowledge about Infection Control and Prevention Measures among Mosul Hospitals' Nurses | Younes K. Attia | 9:20-9:30 |
| OP 22 | The Health and Nutritional Benefits of Fruits and Vegetables to Reduce the Risk of Obesity and High Blood Lipids | Hana A. Alsaeed | 9:30-9:40 |
| OP 23 | Depression among breast cancer survivors in Iraq: A quantative analysis using HADS scale | Eman A. Ali, | 9:50-10:00 |
| OP 24 | Detection of High Prevalence of Human Papillomavirus DNA in Cervical Swabs from Women in middle cities Iraq | Nisreen J. Kadhim | 10:00-10:10 |
| OP 25 | Scar Management and Revision | Dr. Rafal Talib | 10:10-10:20 |
| OP 26 | Fear and Anxiety of childbirth Among Primigravida Women: A cross- sectional study | Watheq G. Younus | 10:20-10:30 |
| Session Discussion | | | |
| Coffee Break 10:30 – 10:45 | | | |

Session 7 - Venue: D1

Chairperson: Prof. Dr. Harith Alqazaz Co-Chairperson: Dr. Ammar Ahmed 10:45 – 12.30

| Code | Title | Presenter | Time | |
|--------------------|--|--|-------------|--|
| OP 27 | Development of new Oral Medication Adherence Report- Scale (OMAR-S): Hyperlipidemic patients | Abdulalla K. khudhur Mahmoud Othman | 10:45-10:55 | |
| OP 28 | Development of a questionnaire that assesses knowledge, attitude, and practice of healthcare providers towards pharmacovigilance and adverse drug reactions reporting in the governorate of Nineveh. | Amina H. Muslim | 10:55-11:05 | |
| OP 29 | A new spectrophotometric method for the determination of Irbesartan in its pure form and in pharmaceutical doses by Oxidative and coupling reaction | Farha K. Omar | 11:05-11:15 | |
| OP 30 | Predictors of adherence to Antihypertensive medications: New Oral Medication Adherence Report Scale. | Hala Ghazwan Qamar Myaser | 11:15-11:25 | |
| OP 31 | A Review on the Role of Metformin as a Potential Anti-Epileptic Agent | Hanan J. Ali, | 11:25-11:35 | |
| OP 32 | Measurement of adherence to diabetes medication by the Oral Medication Adherence Report- Scale. | Mohammed I. Khalil Mohammed Aqeel | 11:35-11:45 | |
| OP 33 | Synthesis, and biological evaluation of New Oxazepanes derivatives | Mohammed R. Alhaideri | 11:45-11:55 | |
| OP 34 | Cardioprotective Activity of Flavonoid-Rich Extracts and Fractions of Herba Poguntano (Picria fel-terrae Lour.) in Rats with Doxorubicin- Induced - (Virtual) | Adelia Syahfitr | 11:55-12:05 | |
| OP 35 | Hepatoprotective Activity of Flavonoid-Rich Extracts and Fractions of Herba Poguntano (Picria fel-terrae Lour.) on Doxorubicin-Induced Rats – (Virtual) | Annisa R. Munthe | 12:05-12:15 | |
| OP 36 | Nephroprotective Activity of Flavonoid-Rich Extracts and Fractions of Herba Poguntano (Picria fel-terrae Lour.) in Rats with Doxorubicin- Induced Nephrotoxicity – (Virtual) | Aisyah Sabrina | 12:15-12:25 | |
| Session Discussion | | | | |
| | Closing Remarks and Conference Conclusion | | | |
| | Coffee Break 12:45 - 13:00 | | | |

3RD INTERNATIONAL CONFERENCE ON MEDICAL AND PHARMACEUTICAL SCIENCES PROGRAMME SCHEDULE – DAY 2 (30 APRIL 2025) VENUE: D2

Session 8 - Venue: D2

Chairperson: Prof. Dr. Hana Ihsan Al-Baroudi Co-Chairperson: Dr. Moayad Aziz Alabdaly

9:00 - 10.30

| Code | Title | Presenter | Time | |
|-------|--|-----------------------------|-------------|--|
| OP 37 | Assessment of butchers information regarding hemorrhagic fever in Mosul city ,cross-sectional study | Adel Y.Ayed | 9:00-9:10 | |
| OP 38 | Chemical study of some phenolic compounds of the genus Trigonella at the Mosul Dam site using High Performance Liquid Chromatography (HPLC) Technique | Dr. Talal T. Ali | 9:10-9:20 | |
| OP 39 | The level of health culture and its relationship to the use of stimulants and unhealthy nutritional supplements among players of the Iraqi Central Federation for Bodybuilding teams | Dr. Ahmed S. Al-Taei | 9:20-9:30 | |
| OP 40 | Assess the diagnostic potential of several significant biomarkers for Parkinson's disease | Khalid M. Khudhour | 9:30-9:40 | |
| OP 41 | The incidence of some intestinal protozoa: Entamoeba histolytica, Blastocystis hominis and Giardia lamblia among Iraqi individuals at Baghdad province | Prof. Dr. Amani M. Jasim | 9:50-10:00 | |
| OP 42 | Importance of Molecular Detection of Human papilloma virus (18) that causes Cervical cancer in Iraqi women by Real time PCR and conventional PCR | Dawood S. Edan | 10:00-10:10 | |
| OP 43 | Effect of temperature and sterilization on the isolation of fungi from pumpkin seeds in Duhok Province/Iraq | Dr. Asia Saadullah | 10:10-10:20 | |
| OP 44 | Nephrotoxic and Hepatotoxic Effects of Isotretinoin in Mice: A Biochemical, Histological, and Immunohistochemical Study | Dhafar M. Abdulfatah | 10:20-10:30 | |
| | Session Discussion | | | |
| | Coffee Break 10:30 - 10:45 | | | |

Session 9 - Venue: D2

Chairperson: Prof. Dr. Theia'a Najim Al-Sabha Co. Chairperson: Assist. Prof. Dr. Hadi Mohammad 10:45 – 12.30

| Code | Title | Presenter | Time |
|--------------------|--|---------------------|-------------|
| OP 45 | The Antimicrobial Effects of Clove and Ginger Extracts on Oral Pathogenic Bacteria: A Natural Alternative to Synthetic Antibiotics | Noor R. Abdulghani | 10:45-10:55 |
| OP 46 | Effect of vaping contains ketamine on locomotor activity in mice | Yasir H. Saber | 10:55-11:05 |
| OP 47 | Pharmacy Student's Knowledge and Perceptions of Pharmacovigilance, and Associated Factors: A Cross-Sectional Study in Palestine – (Virtual) | Rami S. Mosleh | 11:05-11:15 |
| OP 48 | Upregulation of PD-L1 in Extracellular vesicles derived from Gefitinib- resistant EGFR-mutant Lung cancer | Dr. Dian J.Salih | 11:15-11:25 |
| OP 49 | N-acetyltransferase II Genetic Variants among a Sample of Iraqi People - (Virtual) | Yazun Jarrar | 11:25-11:35 |
| OP 50 | A New Era in Neuropathic Pain: Integrating Guidelines, Therapies, and Techniques - (Virtual) | Dr. Anas Hamdan | 11:35-11:45 |
| OP 51 | Bibliometric Evaluation of the Correlation between Medical Biotechnology and Machine Learning - (Virtual) | Abdullah W. Khaleel | 11:45-11:55 |
| OP 52 | Physicians' perspective regarding the prevention of antibiotics resistance. | Nadia H. Saied | 11:55-12:05 |
| OP 53 | Advancements In Medical Devices for Skin beautification | Umniyah K. Ghayyib | 12:05-12:15 |
| Session Discussion | | | |
| | Closing Remarks and Conference Conclusion | 12:30 – 12:45 | |
| | Coffee Break | 12:45 – 13:00 | |

ABSTRACTS



Pharmacovigilance as a valuable Tool in Tackling Antimicrobial Resistance

Jaafer M. Kurmanji, Mustafa Mohammed Albassam Universiti Sains Malaysia, School of Pharmaceutical Sciences, Pulau Pinang, Malaysia. Al-Esraa University, College of Pharmacy, Baghdad, Iraq.

Antimicrobial resistance (AMR) is a growing concern threatening the public health societies. Facing this global problem through the WHO Global Action Plan and various national antimicrobial stewardship (AMS) efforts highlights the need for multidisciplinary cooperation to hinder bacterial resistance.

For instance of multidisciplinary collaboration, Iraq has implemented cooperative efforts among the Ministry of Health (Clinical Pharmacy Department), Ministry of Agriculture, and the AMR-National Coordinating Committee. These institutions have worked jointly to align national actions with the WHO AMR framework.

Pharmacovigilance (PV) systems represent a treasured and promising tool might help in AMR battle. Data in the system were structured in electronic nature facilitates the systematic collection and analysis. It may cover antibiotic-related adverse drug reactions (ADRs), helping identify inappropriate use, suspected resistance, and treatment failure. Several research exploring how PV data can be integrated with AMS objectives to monitor antibiotic usage trends and promote rational prescribing. Studies such as those analyzing data from VigiBase and EudraVigilance have shown that PV databases can capture AMR-related terms like "drug ineffective" and "drug resistance", "bacterial resistance" and "pathogen resistance" offering indirect but valuable indicators of resistance patterns in the absence of lab-confirmed data.

In Conclusion recent efforts across several countries have included expanding the scope of PV to encompass antibiotic prescription audits, particularly for newly innovated or reserved antibiotics group according to the WHO AWaRe categories. Further investigation needed to re-evaluate the value of PV not only for improving drug safety, but also for its emerging role in combating antimicrobial resistance.

Keywords: Antimicrobial resistance, Pharmacovigilance, Antibiotics

OP1: RFXAP Mutations in Autosomal Recessive Bare Lymphocyte Syndrome: A Case Report and Implications for Genetic Counselling

Fahad Abdulwahab Jameel Alibrahim, Tamara Shamil Abdulrahman University Of Duhok

Background & Aim: Autosomal recessive bare lymphocyte syndrome (BLS) is a rare primary immunodeficiency characterized by defective expression of major histocompatibility complex class II, leading to combined immunodeficiency. BLS II is an exceptionally rare condition, with less than 200 cases reported in the medical literature. This study aims to highlight the diagnostic utility of whole genome sequencing (WGS) in resolving complex immunodeficiency cases and add to the limited body of literature on this rare disorder.

Methods: A comprehensive case study approach was employed, documenting the clinical presentation, diagnostic journey, and genetic findings of a 3-month-old male infant born to consanguineous parents. The patient underwent extensive initial testing including immunological assays, metabolic panels, and imaging studies. After these conventional tests proved inconclusive, whole genome sequencing was performed to identify the underlying genetic etiology of the condition.

Results: The patient presented with a constellation of symptoms including failure to thrive, recurrent severe infections, hepatomegaly, and developmental delays. Despite extensive metabolic and immunological workup, a definitive diagnosis remained elusive. WGS analysis revealed a homozygous pathogenic variant (c.609del) in the RFXAP gene, confirming the diagnosis of BLS, complementation group D. This molecular diagnosis enabled appropriate genetic counseling for the family. In a subsequent pregnancy, prenatal testing identified the fetus as an unaffected carrier, demonstrating the practical clinical utility of genetic diagnosis for family planning and reproductive decision-making.

Conclusion: This case demonstrates the powerful diagnostic capability of WGS in resolving complex immunodeficiency cases, particularly in consanguineous families where autosomal recessive disorders are more prevalent. For ultra-rare conditions like BLS II with fewer than 200 reported cases, molecular diagnosis is crucial for proper management and family planning. A precision medicine approach encompassing molecular diagnosis, tailored care, genetic counseling, and comprehensive family support can significantly improve outcomes and quality of life for patients with rare genetic diseases.

Keywords: Bare lymphocyte syndrome, BLS II, whole genome sequencing, primary immunodeficiency, consanguinity, RFXAP gene, precision medicine, genetic counseling, rare disease, MHC class II deficiency

OP2: Barriers to and facilitators of early childhood immunization in Duhok city, Iraq

Azad A. Haleem, Abdulmateen A. Shukri, Bashar I. Mohammed, Nareen A. Abdulrahman, Khalid H. Haleem, Kiner I. Hussein University of Duhok

Background & Aim: Childhood vaccination is critical for reducing infectious disease morbidity/mortality. Despite high coverage, unvaccinated communities pose outbreak risks, with millions missing vaccines annually.

Objective: Identify barriers and facilitators of childhood immunization in Duhok Governorate, Iraqi Kurdistan.

Methods, Design: Cross-sectional study (June 2023–June 2024)

Participants: 1,039 caregivers in Duhok Governorate

Tools: Pretested questionnaire

Analysis: SPSS v27 (descriptive statistics, chi-square, logistic regression; significance at $p \le 0.05p \le 0.05$)

Key Results, Demographics: Majority female respondents (20-30 years old).

Facilitators: Urban residency, Higher maternal education, Pediatrician-provided information, Positive vaccination experiences among relatives

Barriers: Distrust in healthcare systems, Fear of side effects, Misinformation, Economic constraints Conclusion: Targeted interventions addressing barriers (e.g., trust-building campaigns, economic support) and leveraging facilitators (e.g., pediatrician engagement) could improve vaccination rates in Duhok.

Keywords: Immunization, facilitators, barriers, vaccine hesitancy, caregivers, misinformation.

OP3: Nottingham Prognostic Index (NPI) Plus is an Essential Tool for Breast Cancer Risk Stratification and Management Planning

Dena Akram Jerjees Alnoor University, Mosul, Iraq

Background: Breast cancer (BC) exhibits significant molecular heterogeneity, with molecular subtypes directly influencing tumor behavior and prognosis. While the Nottingham Prognostic Index (NPI) integrates clinicopathological variables (tumor stage, grade, and size) for risk stratification, it lacks critical tumor biology components.

Objective: To evaluate the enhanced NPI Plus framework, which combines molecular features (e.g., gene expression profiles) with traditional clinicopathological variables, enabling personalized treatment planning and improved prognostic accuracy.

Methods, Scope: Critical analysis of the NPI Plus scoring system.

- Focus:
 - a. Clinicopathological variables (tumor size, grade, lymph node status).
 - b. Molecular subtypes (e.g., Luminal A/B, HER2-enriched, Triple-negative).
 - c. Clinical utility in risk stratification and therapeutic decision-making.
- Approach: Narrative synthesis of existing literature and case studies.

Key Innovations of NPI Plus

- 1. Integration of Tumor Biology: Incorporates molecular biomarkers (e.g., ER/PR/HER2 status, Ki-67 index).
- 2. Refined Prognostic Accuracy: Addresses BC heterogeneity by linking molecular subtypes to clinical outcomes.
- 3. Personalized Management: Guides targeted therapies (e.g., endocrine therapy for Luminal subtypes, anti-HER2 agents).
- Recommendation: Include comparative survival rates, recurrence risks, or treatment efficacy data tied to NPI Plus stratification.

Keywords: Breast cancer, NPI Plus, risk stratification, molecular subtypes, personalized management.

OP4: First 18 months experience in Mosul BMT center Fakhraldin Flaih, Sameera Tariq Al Hadba Hospital

Background & Aim: Bone marrow transplant is an established method of treatment in many neoplastic and non- neoplastic hematological diseases.

The source of stem cells could be from the same patient or from healthy donor according to the kind of disease, also the stem cells could be harvested from bone marrow itself or from peripheral blood through a process called mobilization and apheresis.

Methods: To assess the early experience in Mosul BMT center during its first 18 month of its work (from October 2023 till April 2025) using patients' data analysis.

Results: 25 patients was enrolled, 14(56%) male and 11(44%) female, 13(52%) Allogenic and 12(48%) Autologous.

Different age group (12 pediatric and 13 adults).

Main disease in adult is Multiple myeloma (8)(61.5%) and then Hodgkin lymphoma (4)(30.7%) and myelofibrosis (1)(7.7%).

Main disease in pediatric is thalassemia major (5)(41.6%), thalassemia intermedia (4)(33.3%), sickle thalassemia (1)(8.3%), acute myeloid leukemia (1)(8.3%) and acute lymphoid leukemia (1) (8.3%).

Success rate is (10)(83.3%) in autologous with 2 patients failed to mobilize, while there were 2 peritransplant mortality in Allogenic , one(7.7\%) in adult group and other(7.7\%) in pediatric group.

Conclusion: Early experience in Mosul BMT center seems similar to the standard success rates in most BMT centers world wide.

Keywords: BMT, Allogenic, Autologous
OP5: Management of Minor ABO Incompatible Hematopoietic Stem Cell Transplantation in Beta Thalassemia Major Patient-Case Study

Rana Nidham Al-Noori

Al-Hadbaa Specialized Hospital for Blood Diseases and Bone Marrow Transplantation

Background & Aim: ABO incompatibility between donor and recipient, is not a barrier across allogenic bone marrow transplantation (BMT). It can be done across major or minor ABO incompatibility. These antibodies found in such incompatible marrow graft could lead to hemolysis and delay in engraftment. Aiming to improve patient's outcomes, prevent hemolysis, and improve engraftments. By removing these antibodies, through graft manipulation and plasma reduction.

Methods: A descriptive case study of nine years old female with beta thalassemia major. Her ABO blood group was B, she has got fully HLA matched, minor incompatible brother donor, with O blood group. Donor underwent bone marrow harvest in the scheduled day.

Antibody titration was done for the bone marrow product using standard tube method, with serial dilutions of the donor's serum.

Results: Antibody titration result after immediate spin (IS) was 32, while it was 256 after 30 min incubation in 37° C and adding anti human globulin (AHG).

Conclusion: To overcome the problem of ABO antigen mismatch and avoid complications, vigorous teamwork between Blood Transfusion Services and Transplant Units may help. In addition to precise following of the guidelines table for selecting of the ABO blood groups for erythrocytes and plasma - containing components, modified based on Gajewski et al. review study (Gajewski, Johnson et al. 2008).

Keywords: Hematopoietic stem cell transplantation. ABO incompatibility. Bone marrow graft. Cell manipulation. Engraftment.

OP6: Ai and medical future Mohammed Mahdi Manakhoor Karbala

Background & Aim: The rapid advancement of Artificial Intelligence (AI) is transforming multiple sectors, with healthcare being among the most impacted. AI technologies now assist in diagnostics, treatment planning, and patient monitoring, promising greater efficiency, accuracy, and accessibility. However, their integration into clinical practice also raises questions about safety, ethics, and the evolving role of medical professionals.

Methods: Narrative review was conducted, synthesizing findings from peer-reviewed journals, clinical case studies, and current AI implementations in healthcare settings. Key focus areas included AI in diagnostics, predictive analytics, robotic surgery, and virtual care.

Results: AI has demonstrated high accuracy in image-based diagnostics (e.g., radiology and dermatology), predictive modeling for disease outbreaks, and real-time patient monitoring through wearable technologies. Furthermore, AI-assisted systems have reduced diagnostic errors, improved workflow efficiency, and enabled more personalized care. However, concerns regarding algorithmic bias, data security, and physician deskilling remain significant.

Conclusion: AI is reshaping the future of medicine, offering tools that enhance—but do not replace —clinical judgment. To harness its full potential, healthcare systems must integrate AI with a strong ethical framework, ongoing medical training, and human oversight. Rather than being a threat, AI should be viewed as a catalyst for redefining medical roles toward more humancentered, intelligent care.

Keywords: Artificial Intelligence, Future of Medicine, Healthcare Technology, Medical Diagnostics, Predictive Analytics, Clinical Decision Support, Digital Health, Algorithmic Bias, Physician Role, Medical Ethics

OP8: Cord Serum Prolactin Level in Normal and Abnormal Pregnancies

Alaa Luqman Abdulazeez, Raida Muhammed Al-Wazzan University of Mosul

Background & Aim: Cord blood prolactin level have been linked to pregnancy complications and adverse neonatal outcome. The aim of the study was to compare cord prolactin level in newborns of women with normal pregnancy and women with some pregnancy complications and their neonatal outcome.

Methods: A prospective non-interventional case-control study conducted in Al-Batool Maternity Teaching Hospital, Mosul, Iraq from 10th of July 2016 till 1st of July 2017. Hundred (100) pregnant women aged between (18-40) years and their gestational age ranged from 28-40+6 weeks with singleton pregnancies were included in the study. The case group consisted from fifty (50) pregnant women who had complications (abnormal pregnancy) and the control group consisted from fifty (50) healthy pregnant women (normal pregnancy).

Cord blood was taken at the time of delivery for estimation of prolactin by enzyme-linked fluorescence assay method (ELFA). The results were analyzed statistically.

Results: Women with abnormal pregnancy had significantly lower mean cord prolactin level as compared to that with normal pregnancy $(161.57\pm32.89 \text{ vs } 185.68\pm22.00 \text{ ng/ml})$. Low mean cord prolactin level was associated with adverse neonatal outcome. There was positive correlation between cord prolactin level and birth weight among both groups.

Conclusion: Low cord prolactin level was reported among women with abnormal pregnancies. Adverse neonatal outcome was reported with low cord prolactin level. This study might in turn help clinicians to use prolactin as a marker for neonatal outcomes.

Keywords: Adverse neonatal outcome, Abnormal pregnancy, Cord prolactin level, Fetal prolactin level, Pregnancy complications.

OP9: Associations Between VEGF Gene Polymorphisms and Susceptibility to Diabetes Mellitus

Sabah Subhi Ismael

University of Mosul

To provide a comprehensive evaluation of the relationship between common VEGF gene polymorphisms and susceptibility to diabetes mellitus.

In this Iraqi case–control study (30 diabetic women, 15 healthy controls), we genotyped the VEGF SNP (rs10434\G1612A) by Tetra ARMS PCR and sequenced representative amplicons.

The mutant AA genotype appeared in 17 % of patients but in none of the controls (OR = 30.0, 95 % CI = 3.54-254.25, P = 0.0018), while the A allele frequency was 25 % in patients versus 0 % in controls (OR = 11.8, 95 % CI = 4.01-34.76, P < 0.0001), indicating a strong association with DM susceptibility. Sanger sequencing uncovered six additional nucleotide alterations (one deletion, one insertion, four substitutions) within VEGF coding and intronic regions among diabetics, suggesting broader genetic heterogeneity. These findings affirm VEGF (rs10434\ G1612A) as a population specific risk marker.

These findings affirm VEGF (rs10434) G1612A) as a population specific risk marker, implicate angiogenic imbalance in DM pathogenesis, and justify larger multi ethnic studies to validate these associations and clarify the functional impact of newly identified variants

Keywords: VEGF gene, diabetes mellitus, genotype

OP10: Structural Alterations of the Umbilical Cord in relation to Intrauterine Growth Restriction (IUGR)

Mareb H. Ahmed

Dental College, Alnoor University

Abstract

Background: Intrauterine growth restriction (IUGR) is a significant obstetric complication associated with increased perinatal morbidity and mortality. The umbilical cord plays a critical role in fetal development by facilitating the exchange of oxygen and nutrients between the placenta and fetus. Structural alterations in the umbilical cord may reflect underlying placental insufficiency and impaired fetal circulation in IUGR cases.

Objective: This study aims to investigate the histomorphological changes in the umbilical cord associated with IUGR.

Methods: Umbilical cord samples were collected from the Obstetrics and Gynaecology Teaching Hospitals in Mosul, Iraq. A total of 50 specimens were analyzed, comprising 35 from pregnancies complicated by IUGR and 15 from normal pregnancies (control group). All samples were fixed in 10% buffered formaldehyde for 48 hours and processed for light microscopic examination.

Results: Umbilical cords from the IUGR group demonstrated a reduced cross-sectional area. The umbilical arteries exhibited collapsed lumens, thrombotic occlusion, endothelial damage, hypertrophied tunica intima with increased collagen deposition, and, in some cases, hemorrhagic endovasculitis. Smooth muscle fibers were separated by interstitial edema. The umbilical vein appeared dilated with a thinner wall. Wharton's jelly showed dense bundles of collagen fibers, especially adjacent to the umbilical vessels.

Conclusion: The study highlights significant structural alterations in the umbilical cord in association with IUGR. These histomorphological changes may contribute to impaired fetal growth. Early diagnosis and appropriate clinical intervention are essential to improving fetal outcomes and ensuring favorable obstetric results.

Keywords: Umbilical cord, Intrauterine growth restriction, histology, fetal development

OP11: HEMORRHAGE CONTROL USING Nd: YAG LASER

Haider Mohy Al-Saigh University of Kerbala

Simply described, a hemorrhage occurs when blood escapes from a burst blood vessel. It may be divided into three types: arterial, venous, and capillary bleeding, each with its own set of obstacles. Arterial bleeding, for example, is frequently the most severe due to high pressure in the arteries, resulting in fast blood loss. Venous bleeding, while slower, can still be fatal, while capillary hemorrhage, while often mild, can be hazardous if extensive.

Hemorrhage is commonly caused by severe events such as vehicle accidents or falls, as well as medical disorders such as ulcers, aneurysms, or even certain drugs that alter blood coagulation. High blood pressure, blood diseases, and surgical procedures are also considered risk factors. Traditionally, bleeding control procedures included direct pressure, tourniquets, and surgical treatments. While effective, these techniques take time and may not be appropriate for all types of bleeding. There is an enormous amount of blood. This is where innovative technologies like the Nd:YAG laser come into play, offering new hope in the fight against excessive bleeding.

Different modes (CW and pulsed) of laser have been used to illuminate the wounds in order to monitor the coagulation process. This process of coagulation is based on the heat effect of the laser on the precise tissue. CW Nd:YAG laser device with wavelength of1064nm, 100 mW power used in the experiment as shown in fig. 4. Pulsed Nd:YAG laser device with wavelength of 1064nm, energies of 20, 80, and 100mW, pulse duration of 10 nsec, and 2 second space between pulse and another as shown in fig. 5. The thermal effect of lasers on biological tissue is a complex process resulting from three distinct phenomena:

1. Conversion of light to heat. 2. Heat transfer. 3. Tissue reaction.

Heat energy is deposited in the tissue by the absorption of light and its subsequent conversion into heat via vibrational relaxation. This causes a rise in temperature of the tissue. Then the heat will diffuse through the tissue, causing a rise in temperature in the surrounding tissue. Using Nd:YAG laser beams at different powers, energies, and modes makes a reduction in the time needed for coagulation over the normal coagulation time. The time needed for coagulation is shorter in the case of using pulsed Nd:YAG laser mode than the CW mode. It was found that the optimum value of the pulsed Nd:YAG laser that gives the best results of blood coagulation is 80 mJ. It was found that giving energy greater than 80 mJ of pulsed Nd:YAG laser will make tissue char. For CW Nd:YAG laser, the time needed for hemostasis theoretically ranges between 60 and 90 seconds, while the time needed for hemostasis practically has a mean of 79.58 seconds.

the Nd:YAG laser represents a significant advancement in the field of hemorrhage control. From its precise targeting capabilities to its minimally invasive nature, this technology offers numerous benefits over traditional methods. While there are challenges and limitations, ongoing research and technological advancements promise to address these issues, making the Nd:YAG laser an even more effective tool in the future.

Keywords: Nd:YAG lase, bleeding control, biological tissue.

OP12: Association of microbial infection with IL-17 genes polymorphism in multiple sclerosis Eman Wahab Kadhum,Sura I. A.Jabuk and Frial Gemeel Abd Al-Qasim Green University

Background & Aim: Chlamydia pneumonia and Epstein-Barr virus have been identified as potential Multiple sclerosis (MS) pathogens. Cytokines, such as Th17 cells that produce IL-17, cause demyelination in MS. Neurological dysfunction is an outcome of MS, an inflammatory disease that affects the central nervous system.

Aim of Study: The study was aimed to investigate the associated environmental factors (EBV and Cpn), immunological parameters (IL-17) genes and immunogenetics for IL-17 (rs2275913) in patients suffering with pathogenesis of MS disease

Methods: The study included 200 blood specimens, 140 from patients with MS and 60 from controls(32 male and 108 female with age ranged between 16-55 years old) who were admitted to Babil Neurology Center in Imam Sadiq Teaching Hospital, during the period from November 2022 to September 2023. Immunity Study by ELISA Test Done by Estimation of EBV-VCA IgG Ab, Cpn Ab and IL-17 Concentration in serum. The T-ARMS-PCR method was used to identify and genotype the IL-17 gene polymorphism in MS patients and healthy control specimens.

Results: The study found four types of MS among 140 patients the more prevalent type was relapsing remitting (71.43%), then secondary progressive (15%), primary progressive (7.86%) and clinical isolated syndrome(5.71%). the percentage of females infected with MS was 108 (77.13), while males was 32 (22.87) from 140 specimen. The current study discovered that the prevalence of C. pneumonia infection among 140 patients with multiple sclerosis was 105 (75%). Also, found the prevalence of C. pneumonia infection according to the sex including 75(71.43%)female and 30(28.57%) male. The prevalence of EBV infection among MS patients was 90 (64.29%). In addition, the prevalence of EBV infection was found to be 68 (75.56%) in females and 22 (24.44%) in males. The mean levels of IL-17 were 1.59 ± 0.67 in patients and 1.21 ± 0.53 in healthy control. The patient group's level was substantially greater than that of the healthy control supject (P < 0.05). The current findings revealed a significant differentiation between the IL-17 (rs2275913) variant A allele and the risk of multiple sclerosis (OR = 1.16; 95% CI = 0.41-3.33).

Conclusion: The result showed C. pneumonia, EBV and IL-17 have been proposed to be included in the pathogenesis of MS.

Keywords: C. pneumonia, EBV, MS, IL-17, polymorphism, T-ARMS-PCR

OP13: The effect of Helicobacter pylori infection on thyroid disorders and serum interleukin-6 levels

Mohamed Mofik Sehree,, Ashraf Raad Salem

Telafer university

Background & Aim:

Helicobacter pylori is a Gram-negative, spiral-shaped bacterium capable of surviving in the acidic environment of the stomach, where it colonizes the gastric mucosa. It is a common chronic infection linked to diseases such as peptic ulcers, prostatitis, and gastric cancer. This study aimed to assess diagnostic methods for H. pylori, examine associations with sex, age, thyroid disorders, and evaluate effects on IL-6 levels and blood types.

Methods:

Blood samples were collected from 120 patients with gastrointestinal symptoms at Al-Salam Hospital, Mosul, Iraq, between May and October 2024. Serum was obtained and stored at -20°C. H. pylori antibodies were detected using a rapid IgG test and ELISA-based IgA (Alegria®). Thyroid hormones were analyzed using the Minvidus device, IL-6 by ELISA, and blood types via standard serology.

Results:

The rapid IgG test identified 40 positives, and ELISA IgA confirmed 32 of these. No significant difference was found between methods (p = 0.346), but results were significant when comparing positives and negatives overall (p = 0.0001). Infection was significantly higher in females (72.5%, p = 0.004). Thyroid disorders were more common in the infected group: hyperthyroidism (15% vs. 5%, p = 0.0001) and hypothyroidism (32.5% vs. 10%, p = 0.0001). IL-6 levels were significantly elevated in infected individuals (35.76±15.46 vs. 6.03±4.85 pg/ml, p = 0.0001). Blood type O was more prevalent among the infected (p = 0.0001).

Conclusion:

Both diagnostic methods were similarly effective. H. pylori infection was significantly associated with female sex, thyroid dysfunction, elevated IL-6 levels, and blood type O. Keywords: H-pylori, ELISA, Hyperthyrodisim, Hypothyrodisim, Interlukin

OP14: Identification of Risk Factors of Autism among Children in AL-Najaf AL-Ashraf Governorate

Karrar kadhim Jawad Al-Aameri, Ahmed A. Mohammed Alshamarti Al-Najaf Health Directorate

Background & Aim: Autism is a neurodevelopmental condition in children that affects the progress of brain functions in three main areas: language and communication, social skills, and the ability to imagine for genetic and natural environmental reasons. Symptoms appear at an early age in the child's life, and there is difficulty in learning. Communication with others, which is supposed to start from the age of six months to one and a half years, and any delay in that; will lead to delayed speech and perception (cognitive deficiency). Early intervention and detection of children with autism; contributes to solving the autism problem facing the family The aims of conducting this study is to identify the risk factors for autism in children and to identify the relationship between risk factors and demographic characteristics, clinical characteristics, and nutrition during pregnancy.

Methods: To achieve the specific objectives, a descriptive case-control study was directed. The research was conducted in Najaf Governorate in Iraq, between November 9, 2023 and April 15, 2024. The study was conducted on a purposive sample of 50 children from Najaf Governorate who were divided equally into a case group (children with autism) and a control group (children without autism).

Results: The results indicate that the most important factors affecting the occurrence of autism in children are: (meningitis and jaundice) were p-value (0.034 and 0.01 respectively(while oods ratio (5.412 and 4.750 respectively). The occurrence of autism is also affected by sleep disorders for long periods p-value (0.009) odds ratio (5.091). The research results also showed that malnutrition, especially in the seventh, eighth and ninth months of pregnancy, is one of the factors that lead to the occurrence of autism in children (0.0001, 0.0001 and 0.002 respectively). In addition, children with autism at the age of three years had the maximum incidence of the disease.

Conclusion: The study concluded the maximum important factors disturbing the occurrence of autism in kids (jaundice, meningitis), and sleep disturbance affects the occurrence of autism, Parents' family history is one of the factors that lead to autism in their children The study advises conducting more research on the risk factors associated with autism and including a larger sample.

Keywords: Autism; Children; Global problem; Case-Control study.

OP16: Metabolic Syndrome and Cardiovascular Risk in Hashimoto's Thyroiditis: A Case-Control Study

Dhifaf Zeki, Noor al-huda Saber Sadiq

University of Kufa, Faculty of Science, Department of Pathological Analyses

Background & Aim: Hashimoto's thyroiditis (HT) is a common autoimmune thyroid condition marked by persistent lymphocytic infiltration of the thyroid gland, frequently resulting in hypothyroidism. Recent studies indicate a strong correlation between HT and metabolic syndrome (MetS)

Methods: This study aims to examine the influence of MetS on cardiovascular risk in HT individuals, emphasizing the interaction among thyroid dysfunction, metabolic abnormalities, and cardiovascular implications. A case-control study was performed in Najaf, Iraq, comprising 60 HT patients and 40 healthy controls.

Results: Biochemical indicators including thyroid-stimulating hormone (TSH), thyroid peroxidase antibodies (Anti-TPO), thyroglobulin antibodies (Anti-Tg), lipid profiles, fasting glucose, and insulin resistance (HOMA-IR) were evaluated

Conclusion: The findings indicated that individuals with HT had markedly elevated TSH levels (5.8 \pm 1.2 µIU/mL) in contrast to the control group (2.1 \pm 0.5 µIU/mL, p < 0.001). Insulin resistance was significantly higher in HT (HOMA-IR: 3.2 \pm 0.8 vs. 1.6 \pm 0.5, p 88 cm in females and >102 cm in men) was markedly elevated in HT patients (68% vs. 42%, p 130 mmHg or DBP >85 mmHg) at 55% compared to 30% in controls (p < 0.01). Significant association was noted between TSH levels and metabolic indicators, including lipids and fasting glucose, highlighting the impact of thyroid dysfunction on metabolic abnormalities. These findings underscore the essential function of thyroid hormone abnormalities in exacerbating components of MetS, hence elevating cardiovascular risk.

Keywords: Hashimoto's thyroiditis, Metabolic syndrome, cardiovascular diseases

OP17: The relationship between nitric oxide and age with entamoeba histolytica Rasha Amer Al-Tufaili, Teebah Talib Abdulridha Al-Najaf, University of Kufa

Amebiasis, caused by Entamoeba histolytica, is a significant global health issue, particularly in regions with poor sanitation. Nitric oxide (NO), a versatile signaling molecule, plays a complex role in this infection. While NO can contribute to tissue damage and inflammation, it also exhibits protective properties by aiding in wound healing and inhibiting parasite proliferation. Thus, NOs impact on amebiasis involves a delicate balance of detrimental and beneficial effects. This case-control study, conducted in Al-Najaf, Iraq, from September 2024 to January 2025, investigated nitric oxide levels in 50 confirmed Entamoeba histolytica infection cases by analyzing serum samples collected from patients at multiple hospitals. Serum samples were obtained and stored at -80ŰC for nitric oxide analysis.

The study indicated that E. histolytica infection was most prevalent among individuals aged 21-40 years. Additionally, a notable rise in nitric oxide levels was observed in infected patients between 31-49 years old.

This case-control study investigated nitric oxide levels in patients with Entamoeba histolytica infection. The research was conducted at the Advanced Research Laboratory in the Al-Amin center for advanced biotechnology and research between September 2024 and January 2025. Researchers collected 110 samples, with 50 confirmed cases of E. histolytica infection. Blood samples were taken from patients at several hospitals in Al-Najaf, including Al-Manathera General Hospital, Al-Hakeem General Hospital, Al-Sader Medical City, Al-Zahraa Teaching Hospital, and Al-Najaf Al-Ashraf Teaching Hospital. From these 110 samples, 50 were confirmed positive for the parasite. Three milliliters of venous blood were collected from each of the 50 confirmed positive cases. The blood was processed by centrifuging to separate the serum, which was then stored at -80ŰC for later analysis of nitric oxide levels.

This study revealed that the highest prevalence of E. histolytica infection was observed in individuals aged 21-40 years. Furthermore, a significant increase in NO levels was revealed in E. histolytica-infected patients aged 31-49 years.

Keywords: Entamoeba histolytica, Nitric oxide, Age, serum

OP18 :Postoperative Duodenal Stricture in a Neonate with Duodenal Atresia – Innovative Approach and Lessons Learned

Raniah I A ALnaser, Dr Mussalam L Alobaidy , Fawaz A. Alassaf, and Mohammed N. Abed Nineveh Health Directorate

Background and aim: Duodenal atresia (DoA) is a congenital condition that is characterized by complete or incomplete duodenal obstruction. This condition needs urgent surgical intervention that carries risks of postoperative complications especially in low-birth-weight babies and with associated comorbidities. The success rate of the surgical procedure was reported to be higher than 90%. This case study details a neonate's clinical course reporting the challenge in the management of delayed stricture and malnutrition after the primary surgery.

Results: A female neonate was born at 38 weeks of gestation with 2.6kg weight. During the immediate postnatal period, she was presented with upper abdominal distention and bilious vomiting. Duodenal atresia was the diagnosis, prompting duodenoduodenostomy surgery. She was discharged five days later after tolerating oral feeds. However, few days later she was readmitted to the hospital because of recurrent vomiting, feeding intolerance, and weight loss then progressed to passage of dark bloody stool. She was resuscitated with intravenous fluids, antibiotics, and antiacids medications. She needed blood transfusion as her Hb level was dropped to 7 g/dL. Adjusted total parenteral nutrition (TPN) as per the body weight and biochemical profile was prescribed to improve the general condition. Water soluble contrast was performed which revealed a stricture at the site of the original pathology. Revision surgery was performed with the insertion of a nasojejunal tube to enhance early feeding distal to the anastomotic site. The baby had uneventful postoperative recovery and tolerated full oral feeds.

Conclusion: Despite the reported surgical success rate, this case illustrates delayed stricture formation. The nasojejunal tube enhanced the recovery and reduced potential postoperative risks due to malnutrition. Therefore, proactive monitoring and structured operative strategies can reduce morbidity and improve survival in neonates with postoperative complications.

Keywords: Duodenal atresia; postoperative stricture; redo surgery; anastomosis.

OP19: Association between Serum Zinc Levels and Central Obesity among Adults in Al-Najaf City, Iraq

Sabreen A Hassouni, Jabbar T Ahmed, Salam Jasim Mohammedc, Ahmed A. Mohammed Alshamarti

Al-Najaf Health Directorate, Public Health Deparment

Background & Aim: Central obesity, also known as abdominal obesity is the excessive accumulation of fat around the abdomen and is strongly linked to an increased risk of serious health problems. These health issues include heart disease, type 2 diabetes, and certain types of cancer. Addressing central obesity through lifestyle changes such as diet and exercise can significantly reduce these risks and improve overall well-being. The objectives of the study are to find the association between serum zinc levels and central obesity, to find the association between obesity and different socio-demographic factors, and to describe the socio-demographic characteristics of the participants.

Methods: a case-control study was directed, starting in Jan 2022 until Aug of the same year. on 140 participants who were equally separated into two groups, the case group (central obesity) and the control group (normal weight). From the Nutrition Center at Al-Sadr Hospital, Data were collected in three stages after obtaining ethical and administrative approvals, and then statistical analysis was done using Microsoft Excel and SPSS programs.

Results: The findings indicate a significant association between zinc deficiency and central obesity was (p-value 0.004), but no correlation with sociodemographic characteristics except gender and marital status was (p-value 0.002, 0.016). On the other hand, most of the participants were in the age group (18-25 years) and married (34.3, 70.7); the majority were females (61.4), housewives (39.3), lived in the city (63.6), had a university education level (42.9), and had an average monthly income (500,000-1,000,000 Iraqi dinars).

Conclusion: The study concluded that zinc deficiency affects central obesity and is not affected by sociodemographic characteristics. It recommends focusing on dietary quality rather than quantity, conducting regular trace mineral tests, and conducting further studies on a larger sample.

Keywords: zinc deficiency; Central Central obesity; Adults; Case-Control study.

OP20: Evaluation of Antifungal Properties of Shiitake and the Effects of Its Extracts on Some Pathogenic Fungi

Asal F. Hameed, Abdulkareem Sulaiman Hasan, Enaam Jasim Muhammed Nineveh

Background & Aim: The present study aims to investigate the inhibitory effect of shiitake mushrooms on some common fungi found in the soil of Mosul City.

Methods: The fungal extract from Shiitake was prepared using ethanol or water. Different concentrations of the extract were prepared to analyze the antifungal properties of the mushroom by first making a stock solution and then adding specific amounts to the plates containing (Potato Dextrose Agar) PDA medium to achieve the desired concentrations.

Results: The active components found in Shiitake were pinpointed through the use of HPLC. The findings revealed how the aqueous extract of Shiitake affected Trichoderma sp. Penicillium sp. with the impact intensifying as the extract concentration levels rose. In the case of Rhizopus sp. and Aspergillus sp. the influence was noticeable, at a concentration of 0.5 units. Increased with concentrations. Furthermore the ethanolic extract exhibited efficacy against Trichoderma sp., Penicillium sp. and Rhizopus sp. At concentration levels leading to a decrease in growth diameter as the concentration increased. As for Aspergillus sp. its impact was more pronounced at concentrations. Analysis using HPLC revealed that phenolic compounds such as Chlorogenic Acid, Quercetin, Caffeic Acid, Lutine and Vanillic Acid were identified, along with their retention times and concentrations in mg/g for both types of extracts.

Conclusion: In conclusion, it is evident that shiitake mushrooms contain levels of compounds particularly vanillic acid and caffeic acid, which play a vital role, in combating fungal infections.

Keywords: Fungi, Mushroom, Phenolic, Shiitake, Vanillic acid.

OP21: Knowledge about Infection Control and Prevention Measures among Mosul Hospitals' Nurses

Younes Khalaf Attia, Karam Yaseen Fathi, Atheer Abd Ahmed Ninevah University

Background & Aim: Infection control is a crucial part of healthcare that aims to prevent and manage the spread of infectious diseases within healthcare settings. Assessing newly graduated nurses' knowledge regarding infection control measures is important for improving patient outcomes and healthcare quality.

The study aims to assess nurses' knowledge regarding infection control and prevention measures in Mosul, Iraq.

Methods: The study adopted a cross-sectional design from September 2023 to April 2024. The target population consisted of nurses who worked in Mosul hospitals. A Multistage sampling technique was used to select 200 nurses. To achieve the study aim, the researchers used descriptive and inferential statistics in SPSS software. The researchers reviewed the previous studies and constructed a questionnaire to measure the nurses' knowledge.

Results: The study found significant gaps in nurses' knowledge regarding infection control practices. The highest knowledge gap was related to preventing healthcare-associated infections, where 90% of nurses answered incorrectly. This was followed by errors in correctly removing gloves (79%), identifying the most effective methods to prevent infection spread (74%), and adequately cleaning medical equipment (70%). Furthermore, there were considerable mistakes in disinfecting high-touch surfaces (64%), using personal protective equipment (62%), and practicing proper respiratory etiquette (59%).

Conclusion: There are significant gaps in the knowledge of nurses regarding infection control measures in Mosul city, as evidenced by the high percentage of incorrect responses. The findings highlight the need for comprehensive training and education programs to improve nurses' knowledge and understanding of infection control measures.

Keywords: Assessment, Nurses, Infection, Precaution

OP23: Depression among breast cancer survivors in Iraq: A quantitative analysis using HADS scale Eman A. Ali, Harith Kh. Al-Qazaz

University of Mosul

Background & Aim: Breast cancer (BC) represents a significant warning to women's health in Iraq, accounting for 40% of all new cancer cases in 2022. The depression challenge faced by BC survivors results from the severe emotional influence of diagnosis and various management modalities. This study aims to examine the prevalence of depression among Iraqi BC survivors and the factors affecting it.

Methods: A cross-sectional study was conducted with a population of 161 BCSs aged 60 years and younger, who were attending Azadi Hematology-Oncology Center in Duhok/ Iraq. The data were collected between December 2024 and February 2025, including demographics, clinical features, as well as the Hospital Anxiety and Depression Scale (HADS) to assess the depression. The final score for HADS ranges from 0–21 points, in which higher score indicates a higher level of depression.

Results: Out of 161 breast cancer survivors participating in the study, the mean age was 41.97 ± 5.06 years, with the majority 118 (73.3%) aged between 40-60y. Among the participants, 130 (80.7%) were married, 125 (77.6%) were unemployed and 127 (78.9%) were housewives. Of the total population, 43 (26.7%) had depression, with a mean depression score of 7.67± 4.54 which was predominantly observed among housewives, not employees and significantly long-term survivors (>70 months).

Conclusion: The findings highlight that depression is a significant challenge for breast cancer survivors in Iraq. Being housewives and non-employees with low family income could be an independent contributor to that issue. Survivors for longer time found to have higher score of HADS, and those group pf subjects may need further attention from the healthcare providers. As breast cancer survival rates rise, a psycho-social support programs and psychological screening are needed among healthcare systems to minimize the risk for developing depression.

Keywords: Breast cancer survivors, Depression, HADS, Iraq

OP24: Detection of High Prevalence of Human Papillomavirus DNA in Cervical Swabs from Women in middle cities Iraq

Nisreen Jawad Kadhim, Mohammed Salih Mahdil , Laith M Abbas Al-Huseini2 , Raed H. Ogaili University Warith Al-Anbiyaa

Background: The second leading cause of mortality for women is cervical cancer. Prevention, early detection, and prompt treatment cut mortality more than any other type of cancer. Methods: Using the "polymerase chain reaction PCR", this study sought to identify the genotype and presence of the "human papillomavirus HPV".

Methods: Cervical samples were subjected to HPV screening.Between "May 2023 and April 2024, 250 cervical smear" samples were taken during two health screening campaigns. Additionally, samples were taken from women who visited obstetrics and gynecology clinics in many hospitals located in central Iraqi cities. The women were between the ages of 15 and 66. Following DNA extraction, the genomes of "HPV-16, HPV-18, HPV-(MY09-HPV-MY

11 (MY), HPV-31, HPV-33, and HPV-35", respectively, were used to detect "HPV DNA by PCR.

Results: 150 out of the 250 samples were positive for HPV DNA".Samples were classified from "HPV 1 to HPV 150". "HPV-Typpe (MY09-HPV-MY11 (MY) 63/150, type 31 (42/150), type 33 (23/150), low-risk type 35 (10/150), and high-risk, carcinogenic type 16 (92/150)" were the most prevalent HPV types. Our research demonstrated the great sensitivity of the " polymerase chain reaction (PCR) approach for HPV DNA detection".

Conclusion: It is advised that healthcare regulations be swiftly altered to provide an early "HPV vaccination program" in order to stop the growth in cervical cancer cases, given the rising incidence of HPV infection.

Keywords: Prevalence, Human Papillomavirus, DNA, Cervical, Iraq

OP25: Scar Management and Revision

Rafal Talib Al-Hachami

Ivane Javakhishvili Tbilisi State University Medical Doctor's Diploma

Background:

Most surgical patients develop scars, often prompting aesthetic concerns. While proper wound closure is important, optimal scar management may require additional interventions. This review examines both preventive and treatment options, including surgical techniques (Z-plasty, W-plasty, geometric broken-line closure) and adjuvant therapies (dermabrasion, lasers). Special focus is given to comparing surgical scar re-orientation plus fractional CO_2 laser resurfacing versus laser treatment alone for linear facial scars. The combined approach showed superior cosmetic outcomes and greater patient satisfaction, highlighting the need for comprehensive treatment plans for visible facial scars.

Methods:

This prospective study involved two patient groups:

- Group A (63 patients) received fractional CO₂ laser resurfacing.
- Group B (59 patients) underwent surgical scar revision (Z-plasty) followed by laser therapy.
- Participants had linear facial scars and were screened for contraindications. Outcomes were assessed using the Manchester Scar Scale and a Visual Analogue Scale (VAS) by both surgeon and patient.

Results:

Scar lengths averaged 9.5–9.8 cm, primarily located on the cheek. The combined surgical-laser approach yielded better aesthetic and psychological results than laser alone. While therapies like silicone gel and steroids are beneficial, more high-quality studies are needed. The findings support an algorithmic, individualized approach to scar management.

Conclusion:

Facial scars affect both appearance and mental wellbeing. No single treatment is universally best; instead, tailored strategies are essential. This study confirms that combining surgical re-orientation with fractional laser therapy achieves better outcomes than laser alone.

Keywords: Suboptimal scar, topical, fractional laser resurfacing, surgical, scar management, scar revision

OP26: Fear and Anxiety of childbirth Among Primigravida Women: A cross-sectional study Marwa Ibrahim shabaan, Mohammed Salih Jasim, Abdulrahman Mazin Hashim, Elaaf Hazim Khudair, and Watheq Gharbi Younus Ahmed University of Mosul - College of Nursing

Background & Aim: Pregnancy is often described as an emotional crisis for some women. Psychological issues, such as fear and anxiety, are linked with pregnancy, significantly affecting their lives, their newborns, and their families. This study aims to explore the fear and anxiety experienced by primigravida women.

Methods: A cross-sectional study design was adopted for the period extending from the 25th of December 2023 to the 5th of October 2024, involving a total of 480 pregnant women selected through a purposive sampling technique at various weeks of gestation. Data was collected from consulting clinics and maternity wards in three teaching hospitals in Mosul city using two standard scales: the Pregnancy-Related Anxiety Questionnaire-Revised 2 (PRAQ-R2) and the Amsterdam Preoperative Anxiety and Information Scale (APAIS).

Results: The study findings reveal that 69% of pregnant women feared giving birth, 55.2% feared bearing a physically or mentally handicapped child, and 45% expressed concerns about their appearance. Additionally, 48.5% of pregnant women experienced anesthesia-related anxiety, 44.4% had surgery-related anxiety, and 47.3% showed a desire for more information.

Conclusion: Over half of the pregnant women feared giving birth and were concerned about having a physically or mentally handicapped child, while nearly half expressed anxiety regarding anesthesia and surgery.

Keyword: Fear, Anxiety, Childbirth, and Primigravida

OP27: Development of new Oral Medication Adherence Report- Scale (OMAR-S): Hyperlipidemic patients

Omer Q. B. Al-lela, Abdulalla khalid, Mahmoud Othman Al-Noor University

Background: Dyslipidemia, characterized by abnormal lipid levels in the blood, is a major risk factor for cardiovascular diseases, including heart attacks and strokes. Proper management relies on lifestyle modifications and medication adherence to lipid-lowering therapies, such as statins and fibrates. However, non-adherence remains a significant challenge due to medication side effects, regimen complexity, and patient-related factors.

Aim: This study aimed to evaluate medication adherence among dyslipidemic patients using the Oral Medication Adherence Report Scale (OMAR-S) and to identify key factors influencing adherence.

Method: A cross-sectional study was conducted in four specialty clinics in Ninawa, Iraq, from October 2023 to March 2024, with 50 dyslipidemic patients. The OMAR-S was developed by modifying existing adherence scales and adding two items addressing travel-related adherence barriers and difficulty swallowing medication. The final seven-item scale used binary Yes/No responses, with total adherence scores ranging from 0 to 7. Patients were categorized as good adherence (7), moderate adherence (5-6), or poor adherence (<5). SPSS V.25 was used for statistical analysis.

Results: Findings revealed low adherence rates, with a significant portion of patients exhibiting partial or poor adherence. Higher adherence was observed among females, educated individuals, and those without chronic conditions. Patients with longer disease duration or complex medication regimens showed lower adherence levels.

Conclusion: The study emphasizes the urgent need for adherence-improving strategies, such as patient education, treatment simplification, and improved physician-patient communication. Future research should focus on larger sample sizes and behavioral interventions to optimize adherence outcomes.

Keywords: Dyslipidemia, Medication Adherence, OMAR-S, Cardiovascular Risk, Patient Compliance

OP28: Development of a questionnaire that assesses knowledge, attitude, and practice of healthcare providers towards pharmacovigilance and adverse drug reactions reporting in the governorate of Nineveh.

Amina Hani Muslim, Harith Kh. Al-Qazaz, Omer Q. B. Allela University of Mosul

The systematic process of pharmacovigilance assures that the pharmaceutical products are being used safely, throughout the entire course of their lifecycle. The main practitioners of pharmacovigilance are the healthcare providers; they should perceive adverse drug reaction reporting as a crucial component of their professional duties.

Aim To translate a knowledge, attitude, and practice (KAP) questionnaire that assesses pharmacovigilance and reporting of adverse drug reactions in healthcare providers, and to examine the reliability and validity of the translated questionnaire.

A cross-sectional observational pilot study was performed in hospitals of Mosul city, including Ibn al-Athir and Al-Hadba'a hospitals. The demographic data of thirty healthcare providers was obtained in November 2024 over a seven-day duration. The KAP questionnaire included fourteen questions on knowledge, six on attitude, five on practice, and one that assesses the barriers to reporting. Descriptive statistics were applied. Cronbach's alpha was used to examine the reliability of the KAP questionnaire.

Our study included physicians, pharmacists, and nurses, where ten from each profession were taken, totaling 13 of females and 17 of males. The average score for knowledge was 8.03 ± 2.10 out of 14, the average attitude score was 26.36 ± 2.25 out of 30, and the average practice score was 2.2667 ± 1.94 out of 5. The internal consistency coefficient was satisfactory for knowledge, attitude, and practice (Cronbach's alpha being 0.729, 0.722, and 0.722, respectively). Face-content validity was verified by 5 experts. Our instrument also showed construct validity, where the total KAP score was significantly more elevated in HCPs who had taken training on adverse drug reactions reporting (Pearson's correlation, r = 0.469).

The translated KAP questionnaire was found to be a reliable and valid instrument for assessing healthcare providers' KAP.

Keywords: Pharmacovigilance, KAP, Adverse drug reaction, Questionnaire, Validity, Reliability

OP29: A new spectrophotometric method for the determination of Irbesartan in its pure form and in pharmaceutical doses by Oxidative and coupling reaction.

Farha Khalaf Omar, Zahraa Mohammed Thamir

Anesthesia Techniques ,College of Health and Medical Technologies, AL Noor University Nineveh University ,College of Medicine ,Department of Biochemistry

ABSTRACT

A novel, accurate, selective, and rapid spectrophotometric method was developed for estimating irbesartan (IRBN) in its pure form and pharmaceutical preparations. The method involves oxidizing IRBN with excess potassium per iodate (KIO4), allowing the reaction to complete, and then coupling the oxidized IRBN with Phenothiazine (PHZ) to form a pink product. The absorbance of the product, proportional to the IRBN concentration, was measured at 522 nm. A linear calibration curve was achieved over the range of $5-25 \,\mu\text{g/mL}$, with a correlation coefficient of 0.9994. The molar absorptivity and Sandell's sensitivity index were $1.628 \times 10^4 \,\text{L/mol/cm}$ and $0.0263 \,\mu\text{g/cm}^2$, respectively. The limits of detection (LOD) and quantification (LOQ) were 0.744 $\mu\text{g/mL}$ and 2.48 $\mu\text{g/mL}$. This method was successfully applied to IRBN dosage forms and validated through recovery studies using the standard addition technique.

Key words: irbesartan ; Periodate ; Determination ; Spectrophotometry ; Phenothiazine.



OP30: Predictors of adherence to Antihypertensive medications: New Oral Medication Adherence Report Scale (OMAR-S)

Hala Ghazwan , Qamar Myaser, Omer Q. Allela Al-Noor University

Background: Hypertension (HT) is a chronic, age-related disease often called the "silent killer" due to its lack of symptoms and significant health risks. In Iraq, it is the sixth leading cause of death, affecting approximately 40% of adults over 25 years old, with a higher prevalence among women. Medication adherence is critical for managing hypertension, yet about half of patients discontinue antihypertensive medications within a year.

Objective: This study aimed to identify predictors of adherence to antihypertensive medications using a newly developed tool: the Oral Medication Adherence Report Scale (OMAR-S).

Methods: A literature review informed the modification and development of the OMAR-S, incorporating seven items assessing medication intake, discontinuation due to side effects, and barriers such as transportation or difficulty swallowing pills. A cross-sectional study was conducted between October 2023 and March 2024 across four specialty clinics in Ninawa, Iraq. Fifty hypertensive Arab patients aged over 18 years, using oral medication for at least three months, were recruited. Patients completed the OMAR-S, and data were analyzed using SPSS v25.

Results: The study found low full adherence among participants, with a majority displaying partial or poor adherence. Males adhered slightly better than females. Patients with chronic diseases, higher education levels, and longer disease durations (5–10 years) showed improved adherence. Marriage status was also associated with better adherence rates.

Conclusion: The findings highlighted significant challenges in maintaining medication adherence among hypertensive patients. Although some groups demonstrated better adherence, the overall lack of full compliance underscores the need for targeted interventions. No gold standard exists for measuring adherence, and subjective measures may underestimate non-adherence.

OP31: A Review on the Role of Metformin as a Potential Anti-Epileptic Agent

Hanan Jadaan Ali, Aisha Abdulaziz Haidar ,Ali Saad Fathi ,Mawiya Ayed Hussein, Raghda Zakaria Muttlak Al-hadbaa university

Background & Aim: Epilepsy is a chronic neurological disorder of the brain that affects around 50 million people worldwide, Seizures is characterized by synchronized, rhythmic aberrant neural activity that can cause a variety of symptoms, several clinical disorders that are typified by temporary changes in awareness and/or behavior are included in the differential diagnosis of epilepsy. This review aims to explore the potential anti-seizure effects of the anti-diabetic drug metformin in epilepsy treatment.

Methods: This review highlights metformin's multifaceted mechanisms of action and its potential as a promising therapeutic approach for epilepsy treatment.

Results: The anti-diabetic agent metformin has anti-seizure activity. Nevertheless, the underlying mechanism of the anti-seizure activity of metformin was not entirely clarified, metformin has anti-seizure activity by activating AMP-Activated Protein Kinase (AMPK) signaling and inhibiting the Mechanistic Target of Rapamycin (mTOR)pathway which are dysregulated in epilepsy (high mTOR and low AMPK). Also, metformin has antioxidant properties, that ameliorated the brain oxidative stress in epilepsy. the BDNF-TrkB pathway has been implicated and epileptic brains also show increased expression of TrkB, Metformin successfully reduced their levels.

Conclusion: Metformin, a widely used antidiabetic drug, has emerged as a promising therapeutic agent in the management of epilepsy. regulation.

Keywords: AMPK: AMP-Activated Protein Kinase, BDNF: Brain-derived Neurotrophic Factor, MDA: Malondialdehyde, TLR: Toll-Like Receptor, TrkB: Tropomyosin receptor kinase B

OP32: Measurement of Adherence to diabetes medication by Oral Medication Adherence Report-Scale (OMAR-S)

Omer Q. B. Al-lela, Mohammed Ibrahim Khalil Al-noor University

Background: Diabetes mellitus (DM) is a chronic metabolic disorder characterized by insulin resistance and impaired glucose regulation, leading to long-term complications. Type 2 diabetes accounts for approximately 90% of cases globally, posing significant health challenges. Effective disease management requires adherence to prescribed oral medications, yet non-adherence remains a major issue, affecting glycemic control and increasing the risk of complications. Factors influencing adherence include treatment complexity, patient education, and medication side effects. Aim: This study aimed to assess medication adherence among diabetic patients using the Oral Medication Adherence Report Scale (OMAR-S), a modified and validated tool designed to improve sensitivity and specificity in detecting non-adherence.

Methods: A cross-sectional study was conducted in specialty clinics in Ninawa, Iraq, from October 2023 to March 2024, involving 50 diabetic patients. The OMAR-S was developed by modifying existing adherence scales and adding two new items addressing travel-related adherence barriers and difficulty swallowing medication. The final seven-item scale used binary Yes/No responses, with total adherence scores ranging from 0 to 7. Patients were categorized as good adherence (7), moderate adherence (5-6), or poor adherence (<5). SPSS V.25 was used for statistical analysis.

Results: Findings revealed low adherence rates, with 50% of patients classified as non-adherent, 38% as partially adherent, and only 12% achieving full adherence. Higher adherence was observed among patients without other chronic diseases and those with controlled diabetes, while disease duration, gender, and education level showed no significant correlation with adherence.

Conclusion: The study highlights the critical role of adherence in diabetes management and the need for interventions such as patient education, simplified medication regimens, and improved healthcare communication to enhance adherence and glycemic control. Future research should explore behavioral and systemic approaches to improving medication adherence in diabetic patients.

Keywords: Diabetes Mellitus, Medication Adherence, OMAR-S, Glycemic Control, Patient Compliance

OP34: Cardioprotective Activity of Flavonoid-Rich Extracts and Fractions of Herba Poguntano (Picria fel-terrae Lour.) in Rats with Doxorubicin-Induced Cardiotoxicity

Adelia Syahfitri, Nur Aira Juwita University of North Sumatra

Background & Aim: To determine the effect of flavonoid-rich fraction of poguntano herb (Picria fel-terrae Lour.) as cardioprotector in doxorubicin-induced male rats. Doxorubicin is one of the drugs used in cancer therapy, but has side effects that can produce compounds that are toxic to heart cells.

Methods: This research include the preparation of making ethanol extract of poguntano herb with reflux method using 70% ethanol solvent, making fractions, testing total flavonoid, and testing on animals.

Results: In negative control group of doxorubicin 10 mg there was damage to the heart myocardial cells in the form of severe necrosis and there was severe bleeding than the positive control and dose 50, 100, 200 and 400 there was a better effect in heart protection against cardiomyocytes in myocardial cells characterized by improvement and an increase in the number of normal cells in the myocardium. On the LDH results, it was concluded that the negative group and the poguntano herb fraction group had greater LDH values than the positive group, dose 400, dose 200, and dose 100.

Conclusion: Based on these results, it is suspected that flavonoid compounds from the fraction of poguntano herb have antioxidant activity that protects the heart from cardiotoxic effects.

Keywords: Poguntano herb (Picria fel-terrae Lour.), Flavonoids, Doxorubicin, Hematology, LDH, Quercetin

OP35: Hepatoprotective Activity of Flavonoid-Rich Extracts and Fractions of Herba Poguntano (Picria fel-terrae Lour.) on Doxorubicin-Induced Rats

Annisa Renzu MuntheNur Aira Juwita

University of North Sumatera

Background & Aim: Doxorubicin (DOX) is a potent and widely used chemotherapy for various cancers. To determine the effect of flavonoid-rich extract or fraction of poguntano herb (Picria felterrae Lour.) as hepatoprotector in doxorubicin-induced male rats.

Methods: This study was conducted experimentally with research stages including the preparation of simplisia, making ethanol extract of poguntano herb with reflux method using 70% ethanol solvent, characterization of simplisia and extracts, phytochemical screening of simplisia and extracts, making fractions, testing the total flavonoid content of extracts and fractions, and testing on experimental animals.

Results: Based on the results, severe damage was seen in the negative control group given 0.5% CMC Na, damage was also seen in the dose groups of 50mg / kg BW and 100mg / kg BW. However, at doses of 200mg / kg BW and 400mg / kg BW, no damage was seen.

Conclusion: Where it can be concluded that the flavonoid-rich fraction of poguntano herb has hepatoprotective effectiveness.

Keywords: Hepatoprotector, Flavonoids, Doxorubicin, poguntano (Picria fel-terrae Lour.), Quercetin

OP36: Nephroprotective Activity of Flavonoid-Rich Extracts and Fractions of Herba Poguntano (Picria fel-terrae Lour.) in Rats with Doxorubicin-Induced Nephrotoxicity

Aisyah Sabrina, Nur Aira Juwita University of North Sumatera

Background & Aim: The kidney is a vital organ can be damaged by nephrotoxic agents. Most cases of nephrotoxicity are induced by drugs, including anticancer agents. Doxorubicin used in the treatment of various tumor diseases. However, the toxic effects on several organs are attributed to its iron complex, which promotes the release of ROS. This study aims to evaluate the nephroprotective effect of flavonoid-rich extract or fraction of Poguntano herb in doxorubicin-induced male rats through an experimental approach.

Methods: The research stages included the preparation of raw material, making ethanol extract of poguntano herb with reflux method using 70% ethanol solvent, making fractions, testing the total flavonoid content of extracts and fractions, and testing on experimental animals.

Results: Based on these results, it is suspected that flavonoid compounds from the residual fraction of Poguntano herb play a role in nephroprotection given their polarity and high solubility in polar solvents, which is attributed to their ability to bind to sugar molecules. These compounds exhibit antioxidant activity, which protects the kidneys from nephrotoxic effects induced by doxorubicin. Based on creatinine and urea levels, it was concluded that the negative control group and the group receiving 50 mg/kg of Poguntano herb fraction exhibited higher creatinine values compared to the normal control group and the groups receiving 400, 200, and 100 mg/kg doses.

Conclusion: Based on these results, it is concluded that flavonoid compounds from the fraction of poguntano potential utility in preventing nephrotoxicity.

Keywords: Poguntano herb (Picria fel-terrae Lour.), Flavonoid, Doxorubicin, Creatinin, Urea

OP37: Assessment of butchers information regarding haemorrhagic fever in Mosul city, crosssectional study

Adel Yousif Ayed, Alaa Yousif Ayed Bilal Ahmed Hameed Barid Kaem Al-Rifaee Essa Mosul university

Background & Aim: Hemorrhagic fever is a severe zoonotic disease caused by viruses such as Arenaviridae, Filoviridae, Bunyaviridae, and Flaviviridae. It poses significant public health risks, especially to high-risk occupational groups like butchers who are frequently exposed to animal blood and tissues. This study aimed to assess butchers' knowledge of hemorrhagic fever in Mosul city, identify gaps in awareness.Objectives:

Assess butchers' knowledge levels regarding hemorrhagic fever transmission, symptoms, and prevention as well as Identify the primary sources of information about hemorrhagic fever among butchers.

Methods: A cross-sectional study was conducted from October 29, 2024, to April 15, 2025, using a convenience sample of 150 butchers from Mosul city. Data were collected through a structured questionnaire divided into three parts: sociodemographic characteristics, knowledge assessment, and sources of information. Descriptive statistics (frequencies and percentages) were used for data analysis.

Results: The study included 150 butchers, mostly aged 26–55 with low education levels. Only 13.3% had prior knowledge of hemorrhagic fever. While most showed good awareness of transmission risks and protective practices, some misconceptions remained. Social media was the main source of information (54%), followed by relatives and medical staff.

Conclusion: The study found that while butchers had basic knowledge about hemorrhagic fever and its prevention, misconceptions still exist—especially regarding mask use and PPE. Reliance on social media for information highlights a lack of formal health education. The researchers recommends targeted training, better use of official sources, and stronger collaboration between butchers and health authorities.

Keywords: Hemorrhagic fever, butchers, knowledge assessment, zoonotic diseases, public health, Mosul.

OP38: Chemical study of some phenolic compounds of the genus Trigonella at the Mosul Dam site using HIGH PERFORMANCE LIQUID CHROMATOGRAPHY (HPLC) Technique Talal Taha. Ali Al-Noor university

Background & Aim: Identified of some compounds from extract materials could be used to invent new and more potent antimicrobial drugs of natural origin also to identify some active compounds through the use of HPLC technology in diagnosing and identifying these compounds, which will certainly play an important role in discovering effective medications for many disease conditions. This work will be provided a solid foundation for future pharmacological research on these plants' extracts. also to know the active compounds and their activity for three trigonella species medicinal plants extracts.

Methods: This study was conducted in 2020 which include Investigate the medical active compounds in Three alcoholic extracts blong to Trigonella genus were used, representing three plant samples extracts by using the soxhlet devioce and then detecting the active compounds by using HPLC technique

Results: The results showed that there were many differences in the types of phenolic compounds between the diagnosed samples within the Trigonalla genus in the legume family, where seven types of phenolic compounds appeared. In the first type, Trigonella filipes, four of them were diagnosed, while the others remained unknown glycosides, and the identified compounds were (Quercetin, Resorcinol, (Salicylic acid)., The three species share two compounds: (Salicylic acid and Trigonelline).

Conclusion: It is hoped that this study would direct to the establishment of some compounds that could be used to invent new and more potent antimicrobial drugs of natural origin. The efforts of researchers to find plants (natural resources) that might possess antimicrobial potential and also act as an antioxidant are increasing day by day due to the prevalence of a large number of infectious diseases , also Evaluation of the antimicrobial potential of plant extracts and phytochemicals by using HPLC Technique.

Keywords: Pathogenic bacteria, Alcoholic extracts, Fabaceae family, HPLC, Medicinal plants

OP39: The level of health culture and its relationship to the use of stimulants and unhealthy nutritional supplements among players of the Iraqi Central Federation for Bodybuilding teams

Ahmed Saeed Rashid Hussein Al-Taei

Al-Nour University

The aim of the research is to: - Identify the level of health culture among players of the Iraqi Central Federation for Bodybuilding teams and identify the level of use of stimulants and unhealthy nutritional supplements among players of the Iraqi Central Federation for Bodybuilding teams and identify the relationship between the level of health culture and the level of use of stimulants and unhealthy nutritional supplements among players of the Iraqi Central Federation for Bodybuilding teams. The Iraqi Central Bodybuilding Federation The researcher used the descriptive approach using the correlational studies method for its suitability and the nature of the research. The original research community for the study is represented by the players of the Iraqi Central Bodybuilding Federation teams, numbering (171) players at a rate of (100%), and the study sample included (114) players at a rate of (66.66), distributed over (19) bodybuilding teams. They are the teams (Baghdad, Nineveh, Salah al-Din, Kirkuk, Anbar, Najaf, Muthanna, Dhi Qar, Basra, Maysan, Wasit, Diyala, Karbala, Babylon, Qadisiyah, Sulaymaniyah, Dohuk, Erbil, Halabja), and the sample was selected randomly. The researcher used the (Health Culture Level) scale prepared by (Al-Taie, 2023) and the (Level of Use of Stimulants and Unhealthy Food Supplements) scale prepared by (Al-Taie, 2023). By (Al-Taie, 2023), the researcher used the questionnaire as a means of collecting data, and statistics on the number of players were obtained from the Iraqi Central Federation for Bodybuilding.

The researcher used the descriptive approach using the correlation studies method.

The researcher reached the most important recommendations, which are: urging players of the Iraqi Central Federation teams and teams of other sports federations to organize lectures and educational courses on the concepts of health culture and the concept of stimulants and unhealthy food supplements, and to conduct more studies related to these concepts, and to prepare programs for players that would enhance the level of health culture .To reduce the impact of drugs on players, the researcher suggests the following: - Conducting studies related to the concept of mental health and the use of stimulants on other variables and other samples

Keywords: health culture, stimulants, nutritional supplements

OP41: The incidence of some intestinal protozoa :Entamoeba histolytica, Blastocystis hominis and Giardia lamblia among Iraqi individuals at Baghdad province

Amani Mohamed Jasim, Sawsan Mohmed Sorchee and Mohamed Qasim Al-Alybi Middle Technical University

Background & Aim: This study investigates incidence of Entamoeba histolytica, Blastocystis hominis and Giardia lamblia at Baghdad province during during the months of 2024.

Methods: Samples were collected from patients admitted Baghdad hospitals during a period of Janurary to the end of December 2024 and examine by Macroscopic Examination by direct wet mounts and Concentration using formalin-ethyl acetate sedimentation or zinc sulfate flotation to concentrate ova/cysts analyzed.

Results: The findings indicate that no significant differences among study groups individulas infected with Entamoeba histolytica out of 222 ,133 individulas infected with Entamoeba histolytica (59%) females most frequently infected than males (60,27%).Giardia lambilia according to gender of individuals , males most frequently infected than females (32.88,27.03%) age group of (22-47) was more frequently infected with Entamoeba histolytica (37.6%) follwed by Blastocystis hominis 48.8% and giardia lamblia 35.5%. the study also revealed November was more frequently month spreading with infection Entamoeba histolytica(11.26%) follwed by Blastocystis hominis (5.86%) and giardia lamblia (0.45%).

Conclusion: Entamoeba histolytica infection in females were most frequently infected than males ,Giardia lambilia according to gender of individuals , males most frequently infected than females and the age group of (22-47) was more frequently infected with Entamoeba histolytica followed by Blastocystis hominis and giardia lamblia 35.5%. November was more frequently month spreading with infection by Entamoeba histolyticafollowed by Blastocystis hominis (5.86%) and giardia lamblia, while January was the less month in infection.

Keywords: Amoebiasis, Giardia lamblia, Entamoeba histolytica Blastocystis spp, dysentery.

OP42: Importance of Molecular Detection of Human Papillomavirus (18) Causing Cervical Cancer in Iraqi Women Using Real-Time and Conventional PCR

Dawood Salim Edan – Mustansyriah University

Background & Aim:

Human papillomavirus (HPV), particularly type 18, is a major cause of cervical cancer and the most common sexually transmitted infection among women. This study aimed to evaluate the effectiveness of real-time PCR versus conventional PCR in detecting HPV-18 in cervico-vaginal samples collected from women undergoing cervical screening in Iraq.

Methods:

Vaginal swabs were collected from 111 women with suspected HPV infection. DNA was extracted using spin columns. Two types of PCR—real-time and conventional—were conducted using specific primers targeting the L1 gene of HPV-18. Cytological reports and HPV Ag-Ab cassette tests were used for comparison.

Results:

Real-time PCR detected HPV-18 in 27 out of 30 confirmed positive samples (90%), while conventional PCR detected 25 (83%). Both PCR methods showed good agreement with cytology, but real-time PCR demonstrated superior sensitivity. Melting curve analysis allowed for accurate detection, even in mixed samples with varying viral loads. Primer design based on genomic alignment maps proved effective in enhancing detection accuracy.

Conclusion:

Both PCR methods reliably detected HPV-18, but real-time PCR was more sensitive and robust than conventional PCR. Immunological and cytological methods were less effective in identifying positive cases. Optimizing primer systems and considering sample source and product size are essential for accurate clinical and epidemiological HPV detection.

Keywords: Real-time PCR, Cervical screening, Human papillomavirus type 18

OP43: Effect of temperature and sterilization on the isolation of fungi from pumpkin seeds in Duhok Province/Iraq Asia Saadullah

University of Duhok

Background:

Seed-borne fungal pathogens significantly threaten crop yield and seed quality, especially in the growing organic seed market. Fungal contamination can reduce germination, market value, and storage life. This study investigated the fungal species associated with peanut (Arachis hypogaea), pumpkin (Cucurbita pepo), and sunflower (Helianthus annuus) seeds, and examined how sterilization, temperature, and culture media affect fungal growth.

Methods:

Three hundred dried seed samples (100 per crop) were collected from different locations in Duhok province, Iraq, between December 2022 and April 2023. Samples were stored at 4°C and analyzed at the University of Duhok's mycology lab. Fungal growth was assessed on PDA, MEA, and CDE media at 25°C and 37°C under sterile and non-sterile conditions.

Results:

PDA supported the highest fungal growth, particularly at 25°C under non-sterile conditions. Aspergillus niger and A. flavus were the most common isolates across all seeds. In pumpkin seeds, A. niger and A. flavus predominated regardless of temperature. Sterilization altered the frequency of isolated fungi, with A. parasiticus more common under sterile conditions and A. ochraceus notable in both sterile and non-sterile samples. Temperature and media type influenced fungal diversity and growth rates.

Conclusion:

Fungi such as A. niger, A. flavus, and A. ochraceus dominate seed-associated mycoflora and impact seed viability and plant development. Seed sterilization, storage conditions, and choice of culture media play critical roles in detecting and understanding seed-borne fungal contamination.

Keywords: Temperature, Sterilization, Fungi, Pumpkin Seeds, Duhok

OP45: The Antimicrobial Effects of Clove and Ginger Extracts on Oral Pathogenic Bacteria: A Natural Alternative to Synthetic Antibiotics

Noor Raad Abdulghani Alnoor University

Background:

With rising antibiotic resistance, natural alternatives are gaining attention. This study evaluated the antimicrobial activity of clove (Syzygium aromaticum) and ginger (Zingiber officinale) extracts against oral pathogens Enterococcus faecalis and Escherichia coli, comparing their effects to conventional antibiotics.

Methods:

A total of 120 oral swabs were collected from patients in Mosul, Iraq. Bacterial isolation and identification were performed using biochemical tests, API, VITEK, and 16S rRNA PCR. Clove and ginger extracts were prepared using water, ethanol, and essential oil methods. Their chemical profiles were analyzed via HPLC. Antimicrobial efficacy was assessed using the well diffusion method on Mueller-Hinton agar.

Results:

E. faecalis and E. coli were successfully isolated and identified. HPLC revealed several bioactive compounds in the extracts. Clove essential oil showed the strongest antimicrobial activity, especially at full concentration. Ginger extracts were most effective in aqueous and ethanol forms.

Conclusion:

Clove and ginger extracts demonstrated promising antimicrobial effects, particularly clove essential oil. These findings support their potential as natural alternatives to synthetic antibiotics in dental care. Further clinical studies are recommended to explore their therapeutic applications.

Keywords: Antimicrobial Resistance, 16srRNA, HPLC, Clove, Ginger, Plant extracts

OP48: Upregulation of PD-L1 in Extracellular vesicles derived from Gefitinibresistant EGFR-mutant Lung cancer

Dian Jamel Salih, Solli.o Francesco, Teresa Santantonio

Department of Medical and Surgical Medicine, University of Foggia, Foggia, Italy.

Department of Anatomy, Biology and Histology, College of Medicine, University of Duhok, Iraq.

Background/Aim: Gefitinib, an EGFR tyrosine kinase inhibitor (TKI), is effective in treating EGFR-mutant non-small-cell lung cancer (NSCLC). However, acquired resistance inevitably develops, limiting its long-term efficacy. Programmed death-ligand 1 (PD-L1) expression is associated with immune evasion and has been implicated in drug resistance. Recent studies suggest that extracellular vesicles (EVs) secreted by cancer cells carry PD-L1, contributing to immune suppression. This study aims to investigate the upregulation of PD-L1 in EVs derived from gefitinib-resistant EGFR-mutant NSCLC cells and its potential as a biomarker for acquired resistance.

Methodology: PC9 cells (EGFR-mutant, gefitinib-sensitive) and PC9-GR cells (gefitinib-resistant subline) were cultured in EV-free media. EVs were isolated from the conditioned media using ultracentrifugation and characterized by nanoparticle tracking analysis (NTA), transmission electron microscopy (TEM), and Western blotting for EV markers (CD63, CD81). PD-L1 expression in cells and EVs was assessed by Western blot and enzyme-linked immunosorbent assay (ELISA). Statistical analysis compared PD-L1 levels in EVs from PC9 and PC9-GR cells.

Results: NTA, TEM and and Western blotting confirmed the isolation of EVs from both lung cancer cell lines. EV-associated PD-L1 levels were significantly higher in PC9-GR cells compared to parental PC9 cells. Western blot analysis confirmed increased PD-L1 expression in both cell lysates and EVs derived from PC9-GR cells. Quantitative ELISA showed a 3-fold increase in PD-L1 levels in EVs from PC9-GR cells compared to PC9 cells (p < 0.01).

Conclusion: These findings demonstrate that PD-L1 is upregulated in EVs from gefitinib-resistant EGFR-mutant NSCLC cells, suggesting its role in acquired resistance and immune modulation. EV-associated PD-L1 may serve as a potential non-invasive biomarker for monitoring resistance to EGFR-TKIs and optimizing combination therapies with immune checkpoint inhibitors. Further clinical validation is warranted.

Keywords: Lung Cancer, Extracellular vesicles, EGFR, PD-L1.
OP51: Bibliometric Evaluation of the Correlation between Medical Biotechnology and Machine Learning

Abdullah Waleed Khaleel, Safa M Salim, Muntaha G. Hassan, Israa A. Al_rawe Northern Technical University

Background & Aim: This bibliometric study examines medical biotechnology and machine learning (ML), showing how AI transforms healthcare innovation.

Results: Artificial intelligence has enabled the identification of genomic markers for personalized medicine, tailoring treatments to genetic profiles.

Conclusion: This report elucidates the research focal points and prospective trends of artificial intelligence in the context of medical biotechnology. Machine learning models possess significant promise in all facets of medical biotechnology and treatment; nevertheless, their efficacy and safety must be substantiated by extensive data collection over an extended duration. This study will assist pertinent scholars and government agencies in comprehending the advanced trends of machine learning in medical biotechnology and in effectively integrating deep learning into field practices in the future for the benefit of humanity and a sustainable environment.

Keywords: Artificial intelligence, medical biotechnology, Bibliometric analysis, VOSviewer



OP52: Physicians' perspective regarding the prevention of antibiotics resistance Nadia Hazem Saied, Wathah Zuhair Mohammed Siddiq University of Mosul/ College of Medicine

Background & Aim: Antibiotics' resistance is one of the global health problems. The misapplication and misuse of antibiotics ultimately result in antibiotic resistance. Antibiotic prescription is a complex process that affected by many factors; these factors are mutually reliant and related to physicians' knowledge, healthcare providers' participation, healthcare system itself, patients and the general public. To identify physicians' perspective concerning antibiotics resistance.

Methods: A cross-sectional study was used to find physicians' view about antibiotics resistance. The sample consist of 300 physicians who working in different governmental health institutions in Mosul City. Data was collected from study population by direct interview using a prefilled questionnaire after obtaining verbal consent. Data collection was extended over a period of three months. Data analysis attempted by using software program SPSS.

Results: More than half of participants (59.3%) was in the age group was between (25-<35) years. Male were forming 55.7% of study population. More than half (54%) were permanents, and 35% of study population had experience between (5-<10) years. Antibiotic intakes by patients, and antibiotic prescriptions by doctors was rated as the most sectors that to be targeted to slow down the development of antibiotic resistance by 68% and 52% of physicians subsequently. The availability of antibiotics and own experience the most rated factors affecting antibiotic prescription by 57% and 51% of participants subsequently. About two third (62.3%) of participating physicians anticipate that the use of antibiotic often results in development of antibiotic resistance.

Conclusion: According to physicians' point of view; the doctors, patients and health institutional facilities have a role in the prevention of antibiotic resistance. It is recommended to implement a national strategy for rational antibiotics' prescription.

Keywords: Antibiotics' resistance, physicians' perspective, antibiotic prescription, antibiotic contributions.



Contact Us

Website https://icmhs2025.alnoor.edu.iq/

Phone 6267

E-mail icmps2025@alnoor.edu.iq

O HQ address Iraq - Nineveh - Mosul city - Shalalt Road

