

Under the High Patronage of His Excellency
The President of the Lebanese Republic

General Michel Aoun

The Lebanese Order of Pharmacists
organizes its 26th Annual Congress under the theme

Teaming Up for Excellence in Patient Care
معا للتميّز في رعاية المريض



نقابة صيادلة لبنان
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ABSTRACT BOOK | Emirates Hall

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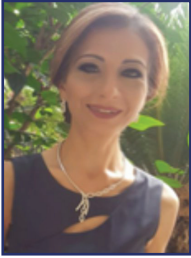
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Pharmacotherapy for Pediatric and Congenital Cardiovascular Diseases.



Anna-Maria Henaine, PharmD, MS, PhD

Biography: Anna Maria Henaine, PharmD, MB, PhD; Dr. of Pharmacy since 1993 (LU), with a Master Degree in Biochemistry since 2012 (USEK) and a PhD Degree in Pharmaco-Economics since 2015 (Claude Bernard University Lyon1/France).

Assistant Professor in the Lebanese University (School of Pharmacy) and in the Physiotherapist Department in the Lebanese German University (LGU).

From 1995 till present: Clinical and Community Pharmacist Preceptor at the Lebanese University, teaching in many Lebanese Hospitals with a high experience in Clinical Research, Pharmacology, and Clinical Trials. Since 2014, instructor in the University for 2nd, 3rd, 5th and 6th year students (PharmD and Master degree). Recently, Clinical Pharmacology Professor in the Lebanese German University in addition of being lecturer in many national and international congresses.

Owner of "Ste Emilie Pharmacy" (Jdeideth Ghazir-Kesrouan) since 1995.

Furthermore, Associate Member in the ANEPC, Member in the Lebanese Academy of Pharmacy and Scientific Committee of the Lebanese Order of Pharmacy in addition of being a Reviewer in many journals (LMJ, FWO) especially in the Oncology, Cardiology, Economics, Pharmacology and Cosmetology fields.

Abstract: Adult cardiac medicine has successfully built clinical decision support tools, established data registries and achieved data pooling because of the large distribution of patients across disease processes and common data standards. There are limited large-scale observational data used for evidence-based decisions and cardiac research or guidelines for the inpatient and outpatient care of children with congenital heart disease are generally lacking. Pediatric cardiologists are often "on their own" when trying to deliver the best quality of care to these children. Compounding this problem, there are often insufficient patients at any one heart center to accumulate sufficient evidence to define optimal patient care. Clinical outcome measures to determine the effect of patient care are evolving slowly, and there is no universal standardized clinical record to monitor a patient's course, long-term outcomes, and comorbidities or quality of-life indicators.

While the general principles of management are similar to those in adults, there is a lack of randomized clinical trials and international guidelines for the pharmacological treatment of cardiac disease in pediatric patients and the drug therapy has been guided too often by theory or extrapolation from practice with adults and by expert experience and good intentions rather than by evidence obtained through clinical trials. To this day, most pediatric pharmacotherapy is based on the "off-label" use of drugs.

The main objectives of this bibliographic review is to update the status of drugs that are no more used and important new information about drug safety and effectiveness in the most common congenital and acquired heart disease (Kawasaki, Pulmonary Arterial Hypertension; Isolated Patent Ductus Arteriosus, Heart Failure; Arrhythmias, Endocarditis and Bronchiolitis) with special focus on therapies recently being evaluated.



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Influenza: How to Keep the Big Elephant out of the Room. Sponsored by Sanofi Pasteur



Hassan Zaraket, PharmD, PhD

Biography: Dr. Hassan Zaraket is an Assistant Professor of Virology at the Faculty of Medicine and a member of the Center for Infectious Diseases Research (CIDR), the American University of Beirut. He received his PhD from Niigata University in Japan, in 2009, where he studied epidemiology and antiviral drug susceptibility of respiratory viruses. In 2009, he joined the World Health Organization Collaborating Center and Center of Excellence for Influenza Research and Surveillance at St Jude Children's Research Hospital, USA, where he studied the mechanisms underlying the emergence of novel influenza viruses including H5N1 and H7N9 viruses. His lab is currently studying virus-pathogen and virus-host interactions in addition to the epidemiology and burden of respiratory and gastro-enteric viruses in Lebanon and the region. A main area of research in his lab is monitoring influenza outbreaks in Lebanon, antiviral drug resistance, and studying issues related to influenza vaccination. Dr. Zaraket has served as a temporary advisor for the World Health Organization, EMRO, on topics related to influenza vaccination. He is an associate editor for BMC Infectious Diseases Journal, a board member of the International Society for Influenza and Other Respiratory Viruses (ISIRV), and a full member of the American Society of Virology. His laboratory is part of the Middle East and North Africa Influenza Surveillance Network. He is also a member of several international scientific societies and has published over 60 scientific articles and a book chapter.

Abstract: Influenza outbreaks pose a major threat to the public health worldwide. Annually, influenza results in significant morbidity and mortality. The World Health Organization estimates that influenza results in up to 650,000 deaths each year. Influenza viruses can also cause periodic pandemics that resulted in the past in over 50 million deaths and caused disruption of the global economy. Influenza symptoms are generally self-limiting but at the same time can be debilitating. Severe complications can occur particularly in high risk groups such as children, the elderly, pregnant women, and patients with chronic conditions. Influenza A (subtypes H1N1 and H3N2) and B (Yamagata and Victoria lineages) are the main viruses that cause human outbreaks. These viruses evolve rapidly requiring routine updates of the existing vaccines to maintain their efficacy. Only one class of antiviral drugs, neuraminidase inhibitors, is currently recommended for the prevention and management of influenza. However, the emergence of resistance to these antivirals is of concern and emphasizes on the importance of vaccination to mitigate the burden of influenza. This talk will cover the key aspects of influenza virus and disease in addition to management and prevention strategies including antiviral therapy and vaccines. The talk will also include research data on vaccination and influenza outbreaks in Lebanon.



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Chronic Lymphocytic Leukemia: Shifting Treatment Paradigm. Sponsored by AbbVie.



Marwan Ghosn, MD, Hematology & Oncology Specialist

Biography: Professor Marwan Ghosn acquired his medical degree and his post graduate expertise in Hematology and Oncology from Saint-Joseph University, Faculty of Medicine, in Beirut, Lebanon as well as from the University of Paris XI – Kremlin-Bicêtre and Institut Gustave Roussy Cancer Center in France.

He is Chairman of the Hematology & Oncology Department and former Chairman of the Public Health department at Saint-Joseph University, Faculty of Medicine in Beirut, Lebanon.

He acquired a Master in Hospital and Health Management from The Higher School of Business, ESA, in Beirut and a Master in the Quality Management of Units for Care Production (MUPS) from the University of Paris VII, Denis Diderot, France.

He is currently the Director of the Cancer Center at Clemenceau Medical Center, affiliated with Johns Hopkins International in Beirut.

Professor Marwan Ghosn has also served, for more than 15 years, as Chairman of the Hematology-Oncology Department at Hotel-Dieu de France University Hospital in Beirut, where he is also currently continuing his clinical, medical and research activities.

Abstract: The objective of this symposium, is to provide scientific updates on Chronic lymphocytic leukemia for pharmacists as key stakeholder in the multidisciplinary management of this disease. The role of the pharmacist in CLL is very crucial to optimize CLL patient care, and ensure new therapies safe patients onboarding. This symposium handles three main focuses: CLL disease state, CLL treatment landscape, and focus on venetoclax as novel therapy in relapsed refractory CLL.



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Obesity Disease: Pathophysiology, Consequences and Management Beyond Weight Loss. Sponsored by Novo Nordisk



Rita Medlej, MD

Biography: MD, Saint Joseph University, Beirut.

Diabetology, Hotel Dieu De Paris, France.

Endocrinology, Cochin Hospital Paris France.

DEA in Molecular Biology.

Member in American Diabetes Association and EDL.

Associate Professor at the Saint Joseph University Medical School.

Endocrinologist and Diabetologist Hotel Dieu De France, Beirut.

Abstract: In this session Dr Medlej will start by raising awareness about obesity as an established disease, by discussing the pathophysiology, epidemiology and definition of this disease. Dr Medlej will then address the treatment guidelines for obesity disease, the unmet pharmacological needs, and highlight the role of GLP-1 molecule in the regulation of appetite. Furthermore, Dr Medlej will discuss liraglutide 3mg which is a GLP-1 receptor agonist 97% homologous to natural GLP-1, and will detail the clinical efficacy and safety of liraglutide 3mg in people with obesity by presenting the Satiety and Clinical adiposity- Liraglutide Evidence clinical program.



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Managing Fear/Uncertainty



Elie Wakil, PharmD

Biography: Dr. Elie Wakil is an experienced trainer/facilitator and coach. He graduated from the French School of Pharmacy in Beirut and joined the Swiss pharmaceutical company, F. Hoffmann-La Roche Ltd. in 1982. He soon became a Training Manager and Human Resource Consultant for the Roche Pharma International division and his training activities encompassed numerous countries around the globe in which Roche Pharma International held offices.

Throughout his lengthy career Dr. Wakil attended and still attends various seminars in prestigious management schools such as Ash ridge in the United Kingdom, INSEAD in France and Management Centre Europe in Belgium & France as well as programs on psychometrics (16PF-Institute of Personality and Ability Testing) and the 360° feedback process. Consequently, he continues developing many executive workshops for managerial positions mainly in the fields of Communication and Leadership. As a qualified therapist for managing stress and a certified consultant for the 360° feedback process he primarily focuses on "Stress Management" and "Human Relations". His lectures are targeted to active business people with pressured jobs and a busy life-style. He is also a certified practitioner in behavioral style analysis related to the International Ensize Dynamic Centre, an approved expert in Interpersonal Communication by the ETF (European Training Foundation, an EU agency based in Torino) and an approved Trainer-facilitator by The Cyprus Chamber of Commerce.

Abstract: Fear is one of the most powerful emotions. It can create strong signals of response when we're in emergencies. It can also take effect when you're faced with non-dangerous events, like exams, public speaking, a new job. It's a natural response to a threat that can be either perceived or real. Some people become overwhelmed by fear and want to avoid situations that might make them frightened. You can learn to feel less fearful and to cope with fear. Lots of things make us feel afraid. Being afraid of some things can keep you safe.



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Motivational Interviewing: Helping Patients Change!



Mohamed Issa, PhD

Biography: Dr Issa is a graduate of the faculty of Pharmacy, Alexandria University 1996 (Distinction, Top 5%). Based on academic excellence, he was granted a PhD scholarship from the Ministry of Higher Education in Egypt. Dr Issa got his PhD from Uppsala University, Sweden, and his thesis focused on non-viral gene therapy. He has published several original research articles in high impact journals (more than 500 citations in Scopus 2018). In 2006, He was awarded the prize of best thesis research in the field of biotechnology at the AAPS conference in San Antonio, Texas, USA. In 2009, he was appointed as an assistant professor at the faculty of Pharmacy, Beirut Arab University (BAU), where he participated in teaching and developing under- and postgraduate courses at the department of Pharmaceutics. In 2012, in response to the CCAP accreditation requirements, Dr Issa cofounded with Dr Lama Soubra the pharmacy practice department at the faculty. During his academic career, Dr Issa has been actively involved in preparing and presenting lectures, workshops and courses specially designed for the enhancement of the communication skills and professional standards of pharmacists.

Abstract: Many serious health conditions, which most patients suffer from, have reasons to do with behaviors. Tobacco smoking, obesity, alcohol dependence are among the serious health issues that face our community. For these conditions, pharmacotherapy is not sufficient alone. Behavioral changes have to take place in order to support the therapeutic outcomes from drugs. Motivational interviewing is an interesting technique that allows patients take the lead in their life change. It simply depends on provoking change reasons within each patient with no pressure from the therapist (outside). It gives patients the opportunity to understand their own ambivalences and deal with it. Through motivational interviewing, patients can have a sustainable change in their lives. After attending this session, the attendees will be able to:

Understand the concept and importance of motivational interviewing.

Describe stages of change.

Identify barriers to change.

Recognize the main core components, principles and skills of motivational interviewing.



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The Roles of Community Pharmacy in Increasing Vaccination Coverage and Uptake



Gonçalo Sousa Pinto, PharmD, MS

Biography: Gonçalo Sousa Pinto (Porto, Portugal, 1975) graduated in pharmacy from the University of Porto in 2000. He is Professional Development and Advocacy Manager at the International Pharmaceutical Federation (FIP), where he has worked since 2002. At FIP, Gonçalo conducts research on issues related to pharmacy regulation, policy and practice in order to develop advocacy tools and provide support to member organizations. He recently authored for FIP the study "Pharmacy: A Global Overview–Workforce, Medicines Distribution, Practice, Regulation and Remuneration. 2015-2017".

Abstract: Vaccines work. They are safe and cost-effective. And yet, several countries still have low vaccination coverage for certain diseases and below those recommended by WHO.

The presentation will offer an international overview of the different roles that pharmacists play around the world to increase vaccination coverage and uptake, and to build trust in vaccines: from education, promotion and advocacy for vaccines, to facilitating vaccination by other professionals, to distributing vaccines (storage and supply chain management) and finally to administering vaccines and keeping vaccination records. An increasing number of countries has introduced vaccine administration by community pharmacists, but several barriers and limitations have been identified. What strategies and evidence is there to support pharmacists' roles in vaccination? And why should pharmacists embrace this new role? This presentation will discuss some possible answers to these questions.



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The Role of Community Pharmacists in Non-Communicable Diseases: It Is Time for Change



Luna El-Bizri, PharmD

Biography: Luna El Bizri has received her Pharm D from the Lebanese University and pursued her study with marketing degree from the AUST (American University of Sciences and Technology).

She progressed in stable steps in pharmaceutical companies to finally occupy in 2008 the post of Marketing Manager for dermatological Stiefel Pharmaceutical Company.

Since the end of 2009 and till now, she is the owner and manager of "Lunapharm" pharmacy.

As a community pharmacist, through her presentations and trainings, Luna strives to empower pharmacists and pharmacy students to thrive in their careers by applying guidelines and principles to shift pharmacists from dispensers to corner stone health care providers.

She is cooperating with the FIP (International Pharmaceutical Federation) since 2013; first as OPL-FIP coordinator and advisor then as active member in different FIP working groups; most recently the "Non-Communicable Diseases Working Group".

Luna has dedicated various presentations and publications to community pharmacists and continuing professional development.

Finally, Luna was an active member in the OPL scientific committee for more than 14 years, as well as different subcommittees like OTC drug review sub-committee and pharmacy students' training manual review sub-committee.

Abstract: Non-communicable diseases (NCDs) such as cardiovascular diseases, cancer, chronic respiratory diseases or diabetes are conditions of long duration and slow progression, having the most significant impact on deaths worldwide.

Pharmacists are an important part of the health care professional team reducing NCDs burden through early detection, health promotion and disease prevention services. Their role in sustained management of patients with NCDs is vital since they are the most accessible health care professionals, who often serve as the first point of contact with the patients.

In this presentation, we will discuss the impact of pharmacists' interventions in the prevention, screening, referral, therapy and disease management in NCDs. We will present also international successful case studies as well as Lebanese national case study.



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The Role of Pharmacists in Public Health



Rasha Hamra, PharmD, MPH, Dr. Health

Biography: Dr. Hamra is currently working at the Lebanese Ministry of Public Health as the Director of Public Relations and Health Education Departments. She received her BS and doctor of pharmacy from Lebanese American University. She is also a holder of MPH from the Faculty of Health and Sciences at American University in Beirut.

Since she started to work at the MOPH in 2007, as the director of health education department, she led all the national awareness campaigns over the past 10 years, one of which is the Breast Cancer Awareness Campaign. . In addition, she was involved in several national projects and development of national strategies (code of ethics, clinical trials registry, updating GMP guidelines, etc). She is a member of the global human resource committee on good governance in medicine (GGM) that was formed by WHO-Geneva and was asked to provide advice to many countries in the region on how to set up their GGM program as she was the focal point for GGM in Lebanon since 2007. Her work on governance on the public pharmaceutical sector was the reason to develop interest to improve the quality of the health system governance beyond the pharmaceutical sector and the motive to have her research on how to assess and promote good governance practices at the health policymaking level as part of the professional doctorate that she just finished at Bath University in the UK.

Abstract: Pharmacists' role in public health is not well recognized and underestimated for many reasons. They have a greater role beyond the traditional role of just dispensing and distributing medicines. Pharmacists can have an active role in public health; in health education, disease prevention, health promotion, public health advocacy, immunization, emergency preparedness, research and many other public health functions.

Pharmacists have unique training and expertise areas and are more accessible (24/7 and need no appointments) to patients than any other health care professional. In addition, they work in a variety of public settings: hospitals, community pharmacies, primary health care centers.

Thus, the public health role of pharmacists should be clearly defined and broadly recognized and promoted by all relevant stakeholders. Pharmacists, other professionals, policy-makers and public health specialists should be sensitized on the role that pharmacists could play that will help achieve optimal public health outcomes.

The objectives of this session will be:

- Increase awareness of pharmacists' contributions to public health
- Identify opportunities for pharmacists' involvement in future public health initiatives with examples on initiatives in Lebanon that are supported by the Ministry of Public Health
- Understanding the role of pharmacists in public health will result in excellence in patient care.



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Troubles du sommeil et de la fonction cognitive chez les patients cancéreux



Aline Hajj, PharmD, PhD

Biography: Dr Hajj is an Assistant Professor, Researcher and Lecturer, Saint-Joseph University, Beirut, Lebanon. She earned her PharmD degree from the Saint-Joseph University, Beirut in 2005 and her university Diploma in Clinical and Hospital Pharmacy in 2006. She completed her PhD in Pharmacology and got her degree from both Faculties of Pharmacy of Paris Descartes and USJ.

Dr Hajj is currently Assistant Professor and Researcher at Saint-Joseph University. She was nominated as a laureate of the Faculty of Pharmacy of Paris Descartes in 2009 and selected as a finalist of the "Franco-Lebanese Excellence Award" in 2015. In 2018, she was selected by the Erasmus+ International Credit Mobility UMove project, to give courses at the University of Minho, Braga, Portugal.

Her research interests include pharmacology and pharmacogenomics in neuropsychiatry, and clinical pharmacy aiming at providing the best pharmaceutical care to the patients in a concept of personalized medicine.

Dr Hajj is a member of several committees at the Order of Pharmacists of Lebanon and a member of the Research Committee at the Women Heart Health Center Yaduna Foundation, Lebanon. She has co-authored publications in many international peer-reviewed journals and presented several posters at international congresses and meetings.

Abstract: Le sommeil est normalement considéré comme un temps de repos et de récupération du stress de la vie quotidienne. Il joue également un rôle crucial dans le fonctionnement normal du système endocrinien et immunitaire. Par ailleurs, les fonctions cognitives représentent tous les processus cérébraux auxquels une personne aura recours, afin d'effectuer les actions intellectuelles ou manuelles du quotidien et donc être capable de recevoir l'information, la traiter, la comprendre, la manipuler, l'interpréter, la communiquer, et s'en servir pour agir. Elles regroupent la perception, l'attention, la mémoire, le langage oral, le langage écrit, les fonctions exécutives qui organisent et contrôlent les actes volontaires, le calcul, la représentation dans l'espace et le temps, le raisonnement, la capacité à se connaître, à interagir avec autrui, et aussi les émotions.

De nombreuses études ont montré que les patients en oncologie souffrent beaucoup plus d'insomnies et de troubles de la fonction cognitive que les autres patients et ceci est en relation avec leur pathologie (type de cancer), l'évolution de leur maladie (présence ou absence de métastase), de la douleur, des traitements associés (chimiothérapie, immunothérapie, radiothérapie et opiacés essentiellement). Ces troubles représentent à la fois une source d'handicap social et de souffrance psychologique, que ce soit pour les patients ou pour leur entourage avec une atteinte significative de leur qualité de vie.

Bien que la prévalence des troubles du sommeil et de la fonction cognitive soit élevée, les recherches concernant le sommeil/fonction cognitive chez les patients atteints de cancer sont sous-optimales et ces problèmes ne sont pas régulièrement évalués ou traités adéquatement tout au long de la période du cancer. L'identification des caractéristiques et de la fréquence de ces troubles ainsi que des facteurs prédisposants pourra constituer la base de nouvelles approches thérapeutiques et pharmacologiques pour les soins en oncologie.

L'objectif de cette présentation est de discuter les particularités de ces troubles, leurs étiologies ainsi que leur impact sur la qualité de vie des patients cancéreux et le moyen optimal de les prendre en charge dans un concept de médecine personnalisée. Quelques résultats préliminaires d'une étude pharmacogénétique visant à identifier et évaluer le rôle de facteurs cliniques et génétiques sur le sommeil et la fonction cognitive de patients cancéreux admis à l'Hôtel-Dieu de France seront également présentés.



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Pain Management from Traditional Drugs to New Ones



Souraya Domiati, PharmD, MSc, PhD

Biography: Dr. Souraya Domiati studied pharmacy at the Lebanese American University from where she got her PharmD degree. She earned also a PhD degree from Beirut Arab University after fulfilling her doctorate research entitled "Investigation of the Pharmacological Effects of Some Selected Agents on Pain and Inflammatory Processes in Experimental Animal Models". She worked as community pharmacy manager for fifteen years. She has eighteen years of teaching experience in clinical pharmacy. She supervised more than 50 PharmD thesis. She has several publications on pharmacology and clinical studies. She is a member of the central scientific committee at the Order of Pharmacist of Lebanon. She is also a member of the research and health promotion subcommittees. She is now an assistant professor of pharmacology and therapeutics as well as the PharmD coordinator at Beirut Arab University. Her research interest is in clinical research as well as preclinical animal studies on anti-inflammatory/analgesic agents.

Abstract: Pain induced by aggressive stimuli serves as a physiologic warning that is essential for body survival. Even though this is true, when the signal misrepresents the sensory stimuli, pain will be no longer beneficial to the organism and its treatment becomes warranted. The pharmacologic control of pain is based on the inhibition of the nociceptor sensitization by inhibiting cyclooxygenases such as in case of non-steroidal anti-inflammatory drugs or through suppressing ongoing pain signals by opioid drugs and nitric oxide (NO) donors. Although all these agents are proven to be beneficial, their side effects pose a burden to the patient health. For example, NSAIDs can cause hepatocellular injury by moderate to long term use. Morphine is known for its side effects that include hypotension, urinary retention, respiratory depression and tolerance. The medical indispensability of these agents which is accompanied by a myriad of side effects encourages continuous research to create novel agents with better safety profile. As an example, in recent years, there has been an escalating interest in developing cannabis-derived medications to treat severe pain. Moreover, zaprinast, sildenafil, vardenafil and tadalafil, used in the treatment of erectile dysfunction, have been proven to exert an antinociceptive effect in different pain models. Furthermore, in order to decrease the drawbacks of morphine side effects, several attempts were made to combine morphine to other agents as to decrease its dose. As an example, combining amitriptyline to morphine resulted in a synergistic interaction. Co-administration of zaprinast with morphine also showed a synergistic effect.



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Guided Prescription of Psychotropic Medications for Geriatric Population



Carmela Bou Malham, BS Pharm, MS, PhD Candidate

Biography: Carmela Bou Malham received a Bachelor's of Science degree in Pharmacy with honors from the Lebanese American University, and a Master's degree in "Clinical Pharmacy and Pharmaco-epidemiology". She currently serves as a clinical pharmacist working at Haroun Hospital. Her interests focus on geriatric populations. Current projects include the implementation of a complete medication review in order to optimize the choice of medication in patients with advanced age. She is certified in the management and optimization of geriatric prescriptions, and her certification is entitled "Optimisation de la prise en charge medicamenteuse du patient âgé".

Carmela is registered as a second year PhD candidate specializing in the science of aging in the graduate school of Biology, Health, and Biotechnology (BSB) at the University of Toulouse III-Paul Sabatier (UT3), France. Additionally, she is a member of the REIPO (Réseau d'enseignement et d'innovation pour la pharmacie d'officine) and the French National Institute of Health and Medical Research (INSERM) 1027-Equipe Alzheimer's disease research group. This is a unique research center on epidemiology and public health that aims to better understand and analyze the medical and social challenges in the areas of chronic diseases and physical disabilities at different ages. It maintains strong clinical research in various fields through the specific work of the six constituent teams. Team 1 UMR 1027, of which she is a member, specializes in gerontology and focuses on risk analysis of iatrogenic drug in the elderly population. Carmela has completed several trainings on this topic at Garonne Hospital, Pharmacy Paule De Viguiet-Centre Hospitalier Universitaire, nursing homes, and community pharmacies.

Abstract: Between 2010 and 2050, the number of older adults in less developed countries is supposed to increase by more than 250%, compared with a 71% increase in developed countries. In Lebanon, the percentage of the elderly population is increasing, and 10% of the population is currently over the age of 65. Poly-medication in elderly patients increases the risk of potentially inappropriate drug prescriptions, and the medical management of patients at risk of such inappropriate prescriptions has become a major public health concern.

Prescriptions for psychotropic medications are especially prevalent among older people and have been associated with falls, fall-related fractures, and an increased risk for mortality. The side effects of antipsychotic medications are particularly problematic in elderly patients, who experience many age-related changes like anticholinergic reactions, Parkinsonian events, and cognitive slowing.

Consequently, there are many proposed ways for optimizing prescriptions. It can be through following evidence-based recommendations proposed by French National Authority for Health (HAS) that include safer medication alternatives, using screening tools to assess potentially inappropriate medication (PIM) for elderly people such as the EU-7, and implementing tools to switch between psychotropic drugs of the same class such as the Psychiatrienet. In addition to that, certain evidence-based guidelines and their algorithms, proposed by the Canadian Bruyère Research Institute, are necessary to help patients and providers participate in deprescribing that help in decreasing the burden of chronic diseases and polypharmacy use.

Improving medication safety in elderly population requires a personalized approach that needs high level of commitment, multidisciplinary work and dedication. The potential benefit is an improvement in overall quality of life.



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Teaming Up for Excellence in Patient Care
معا للتميز في رعاية المريض

Knowledge, Attitude and Perception in COPD Among Community Pharmacists



Sylvia Saade, PharmD

Biography: Dr Saade holds a PharmD degree from the Lebanese American University. She has several certificates in nutrition, business, MTM and systematic reviews. She is a registered pharmacist in NSW, Australia as well as in Lebanon. As such, she complies with the continuing professional development as required by the Pharmacy Board of NSW, Australia. She is currently a Clinical Assistant Professor at the Lebanese International University School of Pharmacy, Lebanon.

Abstract: To assess community pharmacists' knowledge of COPD, medication counseling practices, and perceptions within Lebanese community pharmacies.

Methods: A cross-sectional survey was carried out between January and May 2018, using a proportionate random sample of community pharmacies in the five districts of Lebanon, using the list of pharmacies provided by the Lebanese Order of Pharmacists.

A first linear regression, taking the knowledge score as the dependent variable, showed that higher attitude (Beta=0.565) and perception scores (Beta=0.414) were associated with an increase in the knowledge score. Living in Bekaa (Beta=2.259) was also associated with increased knowledge, whereas living in South (Beta=-2.052) and North Lebanon (Beta=-4.425) and having a pharmacy in a rich sociodemographic area (Beta=-2.321) were associated with decreased knowledge.

A second linear regression, taking the perception score as the dependent variable, showed that increased knowledge (Beta=0.134) and attitude (Beta=0.195) scores were associated with increased perception. In addition, working more than 40 hours per week (Beta=0.679) and living in South Lebanon (Beta=0.998) were also associated with increased perception. On another hand, females (Beta=-0.941) and working 17-31 hours per week (Beta=-1.137) compared to less than 17 hours weekly were associated with decreased perception score. A third linear regression, taking the attitude score as the dependent variable, showed that increased knowledge (Beta=0.105) and perception (Beta=0.16) scores and females (Beta=0.604) were associated with increased attitude score.

Our study showed that community pharmacists perceived that they have an important role in counseling COPD patients and supporting their self-management of the disease. Pharmacists self-assessed that they have good knowledge about COPD and its treatment, and this was also evident concerning the basic facts of COPD and its treatment. However, some gaps were identified in the pharmacists' knowledge on the current care guideline and in the status of COPD as a national public health issue.



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Teaming Up for Excellence in Patient Care
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Thyroid Disorders: Patient Education on Hypothyroidism and Hyperthyroidism



Nisreen Mourad, PharmD

Biography: Dr. Nisreen Mourad is a clinical assistant professor at the Lebanese International University (LIU) where she earned her Bachelor of Science (B.S.) in Pharmacy and PharmD degree. In addition, she holds a Master in Pharmaceutical Biotechnology from the Lebanese University. Dr. Mourad has joined LIU from the year 2011 and still. Currently, she is appointed as the Experiential Education Coordinator; additionally, she teaches various courses among which are the Pharmaceutics, Pharmacokinetics, and Pharmacotherapeutics while supervising PharmD students. Dr. Mourad has presented in both local and international conferences in fields of pharmacoconomics, health and medicines information, community and academic pharmacy.

Abstract: The thyroid is a major endocrine gland where its hormones play a vital role for many body functions as growth, neuronal development, reproduction and regulation of energy metabolism. Abnormalities in thyroid function as in the case of hypothyroidism and hyperthyroidism can cause potentially devastating health consequences including heart problems, birth defects, mental health issues, and osteoporosis with the most severe complications being myxedema coma and thyroid storm.

As the prevalence of these disorders are increasing worldwide and due to the presence of many treatment modalities to manage such conditions; here comes the role of the pharmacist. The pharmacist plays a major role in educating patients on hypothyroidism and hyperthyroidism's signs and symptoms, nonpharmacological, and pharmacological management. With the presence of thyroid hormones for the management of hypothyroidism, while surgery, radioactive iodine and antithyroid drugs for hyperthyroidism; proper patient counseling concerning many aspects such as-the right dose, frequency and duration of administration (if any), possible side effects, drug interactions, monitoring guidelines- can improve the patient's adherence and treatment outcomes.

In conclusion, the pharmacist role in patient education concerning hypothyroidism and hyperthyroidism can improve the patient's quality of life and help ensure successful management of these disorders.



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Acute Stroke Management: Short-Term and Long-Term Outcomes Post-Stroke in Lebanon



Rachel Abdo, PharmD, MPH, PhD Candidate

Biography: Rachel Abdo is a pharmacist with a PharmD degree from the Lebanese University. She has a research Master in Public Health, Epidemiology and Biostatistics specialty, from the Lebanese University. She is currently pursuing a joint PhD at the Lebanese University, Lebanon and Paris Est University, France. Her current research work is on the medico-economic stroke management in Lebanon (cost of illness, mortality and quality of life).

Abstract: Stroke is the second most frequent cause of death and the major cause of disability worldwide. Despite Efforts to reduce stroke morality rates and disability level, the disease remains a leading cause of death and disability in Lebanon highlighting the importance of understanding risk factors. We examined morality rates during the first year after acute stroke and the major predictors of short-term (1 month) and long-term (1 year) morality and the long-term outcome of stroke patients in terms of impairment, disability, handicap, and quality of life

Data were collected prospectively on hospitalized stroke patients from eight hospitals in Beirut during a 1-year period. Patients were followed up for 1-year or until death. Morality rates were assessed at 1-month and at 1-year post-stroke and predictors of death were evaluated using the Cox proportional hazard model. Level of disability, dependency and quality of life were assessed at hospital discharge, 3-months, 6-months and 1-year.

A total of 203 stroke patients were included. Survival data were complete for over 97% of patients. Cumulative morality rates were 13.3% at 1-month and 21.2% at 1-year. Predictors of short-term and long-term morality in univariate analysis were low Socio-Economic Status (SES), intensive care unit admission, decreased level of consciousness, stroke severity and presence of complications. Marital status also predicted short-term morality, while age >64 years and surgery need were also long-term morality predictors. In multivariate analysis, stroke severity and presence of complications were predictors of death at 1-month and at 1-year. Low SES, dependency in Daily Living Activities (DLA), and the presence of co-morbidities were additional predictors of 1-year morality.



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Controlling the Silent Killer: New Hypertension Guidelines



Faraj Saade, PharmD, BCPS

Biography: Dr. Saade is a clinical associate professor at the school of pharmacy at LIU since 2005 where he teaches the Pharmacology courses. He is a board certified pharmacotherapy specialist and member of the American Society of Health System Pharmacists. He has a broad clinical experience in cardiology through a community pharmacy and a dispensary where he is on the front line to serve the patients of his community.

Abstract: Hypertension (HTN) is the leading risk factor for death worldwide and is now more common in low-income and middle-income countries than high-income ones.

The American Heart Association and the American College of Cardiology (AHA/ACC) has issued a new 2017 guideline for the prevention, detection, evaluation, and management of high blood pressure (BP) in adults.

This guideline represents a radical shift in the treatment of high BP, recommending a systolic BP of <130 mm Hg, rather than the previously recommended BP <140, as the target BP to achieve when using pharmacologic management. The recommendation is based on data from the SPRINT trial, whose results after 3.26 years of follow-up showed a significantly lower rate of the primary composite outcome (MI, other ACS, stroke, heart failure, or death from cardiovascular causes) in the intensive-treatment group than in the standard-treatment group (hazard ratio, 0.75; P<0.001). All-cause mortality was also significantly lower in the intensive-treatment group (hazard ratio, 0.73; P=0.003).

The guideline has highlighted the following:

- Prevalence of hypertension is estimated to be ~14% higher using the proposed SBP and DBP cut-points for the definition of hypertension compared to those recommended in the 2003 JNC 7 guideline (46% vs 32%).
- Nonpharmacological management is recommended for adults with BP 130-140 mm Hg/ 80-90 mm Hg who have a 10-year cardiovascular (CV) risk < 10%.
- Individuals with BP 130-140 mm Hg/ 80-90 mm Hg who have a 10-year CV risk >10% should begin pharmacological management in addition to nonpharmacological therapy.
- 4 drug classes are recommended as options for initial choice of antihypertensive drug therapy (thiazide diuretics, calcium channel blockers, angiotensin converting enzyme inhibitors, and angiotensin receptor blockers) in adults who do not have a compelling need for a specific BP lowering medication from another class to manage other illness.
- All patients with BP >140/90 mm Hg should receive pharmacological therapy.

Due to the fact that the pharmacists are the most accessible healthcare professionals to the patients in the Lebanese community, it is imperative to inform them about the new 2017 HTN guideline in order to guide them in their everyday practice with the patients.



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A Vitiligo Update for Pharmacists: Current Practices and Future Advances



Dalal Hammoudi, RPh, MSc, PhD

Biography: Dr. Dalal Hammoudi is a pharmacist and microbiologist, and got her PhD in pharmaceutical and biological sciences from the Faculty of Pharmacy, Saint-Joseph University in 2015. She is currently the chairperson of the pharmaceutical sciences department at the School of Pharmacy, Lebanese International University. She teaches Dermatology and Cosmetology to pharmacy students since the year 2012, and is involved in community pharmacy research in dermatology, as well as in interventional research on dermatology counseling. Besides her previous career for 7 years in community pharmacy and her experience in dermatology community cases, Dr. Hammoudi has previously contributed to Continuing Education sessions in dermatology for pharmacists. Dr. Hammoudi has many published articles and national as well as international conference participation in fields of dermatology, antibiotic resistance, drug awareness, and pharmacy education.

Abstract: Vitiligo is a common, idiopathic, acquired disorder of skin pigmentation that presents as progressive, circumscribed, depigmented macules and patches. It is associated with several comorbid, autoimmune conditions, and can significantly impact the quality of life. The exact cause of vitiligo is still unclear. Although its etiology is not fully elucidated, the main theory behind its pathologic mechanism is associated with destruction of melanocytes by autoimmune mechanisms, neural or oxidative damaging pathways, or intrinsic defects of melanocytes, as well as genetic factors. Initial vitiligo lesions occur most frequently on the hands, forearms, feet, and face, favoring a perioral and periocular distribution. However, vitiligo can assume several clinical variants, namely, segmental, nonsegmental, and generalized, and these have a useful impact on progression, prognosis, and treatment. Various classes of medications, including corticosteroids, calcineurin inhibitors, immunomodulators, psoralens, and vitamins, may be used in vitiligo treatment. Additionally, phototherapy, laser therapy, and surgical options exist. Vitiligo often represents a therapeutic challenge, with need for treatment individualization and patient counseling about associated risks and benefits. No single therapy for vitiligo produces predictably good results in all patients, and the response to therapy is highly variable.

The objectives of this educational session are to:

Make pharmacists aware of causes, types, clinical manifestations, prevalence and risk factors for vitiligo.

Elaborate available medications, with emphasis on proper use, dosing, duration of treatment, side effects, follow-up and precautions.

Highlight other therapeutic interventions including UV therapy, excimer laser therapy, and surgery.

Discuss efficacy of combination of pharmacologic and other therapies.

Outline new and emerging treatment approaches for vitiligo.

Prepare pharmacists to discuss with patients the advantages and limitations of vitiligo therapies, and to offer proper education about this disorder.



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Management of Drug Shortages on the Local, National and EU Level



Joan Peppard, BS Pharm, BA, MA

Biography: Joan Peppard is the Chief Pharmacist Midland Regional Hospital Tullamore Ireland. She is the Immediate Past President European Association of Hospital Pharmacists, and a Board Member Hospital Pharmacists Association Ireland

Joan has been active in hospital pharmacy advocacy for many years. She is passionate about the role of pharmacists in general and in particular about the potential to contribute to patient care in hospital as part of the multidisciplinary team. She was President of the Irish hospital pharmacists' association in 2004 -2006 and again in 2011-12. Joan was President of the European Association of Hospital Pharmacists (EAHP) from 06-2015 to 06-2018 and remains as a Board Advisor to EAHP.

Joan is recognised as expert speaker on hospital pharmacy practice and has been the keynote speaker at national and international conferences on hospital pharmacy topics, most recently in Romania, Czech Republic Bulgaria and Ireland as well as the EAHP Congress in 2017 on subjects ranging from pharmacy education, medicine shortages, standards in hospital pharmacy and interdisciplinary working. Joan has represented the profession in the European Parliament and at the European Commission and believes in the multidisciplinary team approach to patient care. She is acknowledged as a medicines expert by the European Medicines Agency (EMA) and is a member of the Healthcare Practitioner Working Party since 2014 and has presented on pharmacy related issues at EMA meetings.

Abstract: This presentation will focus on the definition and impact of drug shortage, the EAHP Position, the 2013 EAHP Investigation, the 2014 EAHP Medicines Shortages Survey, the European and national developments, and the 2018 EAHP Medicines Shortages Survey. At the end of the presentation, participants will:

- be made aware of the severity of the medicines shortage problem in Europe;
- be provided with information highlighting the importance of communication between the different actors of the supply chain; and,
- learn about national and European measures that aim at facilitating the management of medicines shortages.



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Barriers to Medication Adherence in the Patient with Heart Disease



Cynthia Jackevicius, PharmD, MSc, APH, BCPS-AQ, Cardiology, FCSHP, FAHA, FCCP, FCCS, FACC

Biography: Dr. Cynthia Jackevicius is an advanced practice pharmacist in cardiology and a health services researcher in cardiovascular outcomes research. She obtained her Bachelor of Pharmacy Degree at the University of Toronto, her PGY1 Residency at Toronto General Hospital, her Master's Degree in Clinical Epidemiology at the University of Toronto, and her Doctor of Pharmacy Degree from Shenandoah University. Dr. Jackevicius is a Board Certified Pharmacotherapy Specialist with Advanced Qualifications in Cardiology and is a fellow with the Canadian Society of Hospital Pharmacists, American Heart Association, American College of Clinical Pharmacy, Canadian Cardiovascular Society, and American College of Cardiology.

Dr. Jackevicius holds an academic appointment as a Professor of Pharmacy Practice at Western University of Health Sciences in California and an Associate Professor in the Faculty of Medicine at the University of Toronto. She practices in cardiology as an advanced practice pharmacist at the VA Greater Los Angeles Healthcare System. She is the Associate Director for the Heart Health Risk Reduction Clinic and the Heart Failure Post-Discharge Management Clinic.

Dr. Jackevicius is a Senior Adjunct Scientist within the cardiovascular program at the Institute for Clinical Evaluative Sciences. Her research focuses on cardiovascular outcomes research in patients with acute coronary syndromes, heart failure, dyslipidemia and atrial fibrillation. She has published many high-profile peer-reviewed articles, including landmark articles on medication adherence, and cardiac drug use and policy in the New England Journal of Medicine, JAMA, and Circulation. She serves as an Associate Editor for the journal Circulation: Cardiovascular Quality and Outcomes.

Dr. Jackevicius also serves as a co-Series Editor for the American College of Clinical Pharmacy Cardiology Self-Assessment Program, a program designed for pharmacists seeking recertification for the Board of Pharmacy Specialties Cardiology Pharmacy Specialty Certification Exam.

Abstract: Medication therapy is a mainstay of the treatment plan for most patients with heart disease, and are most often intended to be taken chronically. However, patients only benefit from chronic medications if they are actually taken on a regular basis. Medication non-adherence is a common problem in patients with various types of heart disease, with statistics finding that up to 50% of patients do not take their cardiac medications regularly. There are several phases of adhering to a medication and barriers to medication adherence exist at each phase. Potential solutions have been investigated through research studies in an attempt to improve adherence, and have demonstrated varying success. This presentation will examine different types of medication non-adherence, explore barriers to optimal adherence, as well as consider potential solutions that may be employed by pharmacists and the healthcare team.



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Les défis cliniques et diagnostiques du déficit en fer et de l'anémie ferriprive



Salam El-Samad, PharmD, Pharmacien Biologiste

Biography: Dr Samad est le chef du département du laboratoire et de la banque de sang au Centre Hospitalier du Nord. Elle détient un diplôme de Docteur d'Etat en Pharmacie de la faculté de pharmacie de l'Université de Picardie, Amiens-France, un diplôme interuniversitaire de spécialisation en Biologie médicale de l'Université René Descartes- à Paris, ainsi qu'un mastère management hôpital et santé de l'ESA Beyrouth. Liban. Elle a suivi plusieurs formations en immuno-hématologie.

Abstract: La carence martiale est, selon l'OMS, la carence la plus fréquente à l'échelle mondiale. Elle est la première cause d'anémie. Une forte prévalence est notée chez les enfants en âge de scolarité et les femmes en âge de procréation.

Les causes sont nombreuses pouvant être physiologiques ou pathologiques.

Les conséquences cliniques et sub-cliniques de l'anémie ferriprive et de la carence en fer affectent négativement les capacités physiques et intellectuelles ainsi que la santé et le bien-être de l'individu. Elle a par ailleurs des répercussions sociales et économiques très importantes. Devant ce problème de santé publique, l'exploration du statut martial ne cesse d'évoluer à la recherche de tests de laboratoire spécifiques et sensibles afin de poser le diagnostic et de surveiller l'efficacité du traitement ou de la mesure préventive entreprise.

Sur une numération formule sanguine, une anémie ferriprive est suspectée devant une anémie hypochrome microcytaire. Le bilan doit être complété par un dosage du fer, de la ferritine, du coefficient de saturation et de la capacité totale de fixation de la transferrine.

Nous allons passer en revue les nouveaux tests qui sont destinés à améliorer le diagnostic et la prise en charge thérapeutique de ce déficit.



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Insuffisance cardiaque: diagnostic et prise en charge



Marcel El Achcar, PharmD, Pharmacien Biologiste

Biography: Experienced Laboratory Director with a demonstrated history of working in the hospital & health care industry. Skilled in Clinical Laboratory Management, Transfusion Medicine, Medical Microbiology, Laboratory Automation, and Blood Bank. Strong research professional with a Laboratory Medicine focused in Laboratory Medicine Residency Program from University Victor Segalen – Bordeaux II. Expertise in Cardiology biomarkers related to IM, HF CAD.

Abstract: L'insuffisance cardiaque se développe généralement lentement après une lésion cardiaque dont l'origine peut être cause par une crise cardiaque, une fatigue excessive du Cœur après des années d'hypertension non traitée ou une valvulopathie.

L'insuffisance cardiaque est devenue en quelques années un problème majeur de sante publique dans les pays développés.

Le diagnostic de l'insuffisance cardiaque tel que présente dans l'agnostic intégrant l'électrocardiogramme (ECG), la radiographie du thorax, l'échocardiographie (ECGr) et le dosage des peptides natriurétiques. L'ECGr reste le gold standard pour affirmer la présence d'une insuffisance cardiaque en permettant d'objectiver les volumes de remplissage, la fraction

D'éjection, l'épaisseur ventriculaire et la fonction valvulaire. L'ECGr est la méthode d'imagerie préférée pour des raisons d'exactitude, de disponibilité, de sécurité et de couts. Cependant, l'ECGr nécessite une certaine expertise et n'est pas disponible en toutes circonstances.

Ainsi, le dosage des peptides natriurétiques a été proposé comme aide diagnostique et se trouve dans les recommandations de l'ECG depuis 2005.

La mise en place de nouveaux outils diagnostics et suivi de l'IC ainsi que l'arrivée de nouveau traitement ont révolutionne la prise en charge de cette maladie.

Les études montrent que ce nouveau traitement diminue de 20% le nombre d'hospitalisations et réduit de 20% le nombre de décès cardiovasculaires.



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Le microbiote: ami ou ennemi



Tarek ITANI, PhD, Pharmacie Biologiste

Biography: Dr Itani est pharmacien biologiste diplômé de l'Université Saint Joseph de Beyrouth. Titulaire d'un Doctorat en Microbiologie de l'Université Saint Joseph de Beyrouth, il est maître de conférences à la Faculté de Pharmacie et chercheur dans le laboratoire des agents pathogènes de l'Université Saint Joseph de Beyrouth.

Il est membre de l'Ordre des Pharmaciens et du Syndicat des Biologistes du Liban et membre de la Société Française de Microbiologie et de l'ANAEROBE Society of the Americas.

Abstract: L'organisme humain vit normalement en symbiose avec un environnement microscopique considérable, présent sur toutes les interfaces avec le milieu extérieur ; il héberge dix fois plus de microbes qu'il ne compte de cellules, représentant une diversité génique (microbiome) 100 à 150 fois plus élevé que celle du génome humain. Le microbiote est l'ensemble des micro-organismes (bactéries, virus, parasites, champignons non pathogènes) qui habitent et cohabitent avec l'homme à différents niveaux : la peau, les bronches, le vagin... Ces germes sont localisés pour l'essentiel dans l'intestin où ils représentent une masse d'environ un à deux kilos, soit plus que notre cerveau !

La primo-colonisation du tube digestif dépend de la voie d'accouchement, la flore bactérienne s'enrichissant ensuite en fonction de l'environnement, de l'alimentation, des conditions d'hygiène, des traitements médicamenteux. Le microbiote intestinal joue un rôle majeur dans la maturation du système immunitaire et dans différentes fonctions physiologiques : digestion des polysaccharides, des glycosaminoglycanes et des glycoprotéines, biosynthèse de vitamines, métabolisme des sels biliaires, de certains acides aminés et des xénobiotiques et des fonctions de barrière et des fonctions immunitaires assez importantes.

Des modifications quantitatives et qualitatives du microbiote sont observées dans un large éventail de pathologies : les maladies à médiation immunitaires (diabète de type 1 et allergie), les maladies métaboliques (obésité, diabète de type 2), certains cancers (cancer colorectal, hépatocarcinome), maladies inflammatoires de l'intestin. Des études récentes ont montré l'influence du microbiote intestinal sur les fonctions neurologiques et dans les troubles du spectre autistique. La pharmacobiote a pour objectif de modifier le microbiote intestinal dans un but thérapeutique et ceci par différents moyens : pré-biotiques, probiotiques, antibiotiques ou transplantations fécales. La flore intestinale joue également un rôle direct dans le métabolisme de certains médicaments et le microbiote doit être considéré comme un paramètre prédictif de réponse à certaines chimiothérapies.



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Medication Therapy Management: What Pharmacists Need to Know?



Lama Soubra, PharmD, PhD

Biography: Dr. Soubra received her Pharm.D degree from the Saint Joseph University (Beirut/Lebanon), faculty of pharmacy in 1997 and her PhD in toxicology and risk assessment from ABIES Doctoral School (Paris V/ France) in 2008. She has also completed a Post-PhD fellowship in cardiology at Rafic Hariri University Hospital /Beirut- Lebanon in 2010. She is currently an assistant professor at the pharmacy practice department of the faculty of pharmacy, BAU. Dr. Soubra is an active member of many national professional committees. She was awarded recognition certifications from the ACCP (2012) and from The OPL (2014) for her significant contributions to the advancement of the profession.

Dr. Soubra's research interests focus on clinical pharmacy practice and the optimization of pharmacotherapy for patients with chronic diseases through risk assessment.

Abstract: Medication therapy management (MTM) is a distinct service or group of services provided by pharmacists, to ensure the best therapeutic outcomes for patients. MTM is distinct from medication dispensing and focus on a patient-centered, rather than an individual product-centered, process of care. MTM services encompass the assessment and evaluation of the patient's complete medication therapy regimen, rather than focusing on an individual medication product. This lecture aims to describe core elements of MTM that could be delivered by pharmacists such as medication therapy review, a personal medication record, a medication-related action plan, intervention or referral, and documentation and follow-up.

The objectives of this lecture are to:

- Define Medication Therapy Management (MTM)
- Describe the essential components of MTM
- Explain the importance of implementing MTM in terms of preventing and resolving medication therapy related concerns.



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Clinical Trials in Pharmacy: An Opportunity for Professional Development



Rosemary Gray, PharmD, PhD

Biography: Rosemary Gray has been employed as a research pharmacist in various units since 2004. During that time, she filled the position of pharmacist of record in a number of clinical trials, including trials conducted under the aegis of the US National Institutes of Health (NIH) National Institute of Allergy and Infectious Diseases (NIAID) research networks, the Adults AIDS Clinical Trials Group (ACTG) and the International Maternal Pediatric Adolescent AIDS Clinical Trials (IMPAACT) network. The trials conducted have been in the area of HIV and tuberculosis (TB), in both adults and children. The unit I now work with conducts trials predominantly in the areas of prevention of mother-to-child transmission of HIV, pre-exposure prophylaxis (PrEP) and paediatric antiretroviral treatment (ART). The unit is preparing to conduct an HIV vaccine trial.

Abstract: South Africa faces a considerable burden of both HIV and tuberculosis (TB), which demand rigorous public health responses in regard to both prevention and treatment. In 2016, HIV prevalence in the 15-49 year age group was estimated to be 18.9%. In the whole South African population, it was 12.7%. South Africa has the world's largest antiretroviral treatment (ART) programme, with 3.7 million patients on treatment in 2016. That number now exceeds 4 million patients. However, over 6 million people are estimated to be living with HIV in South Africa, so a considerable treatment gap still exists. In addition, South Africa features in all three of the country lists that are being used by the World Health Organization (WHO) to track global progress in 2016–2020: the 30 high TB burden countries, the 30 high TB/HIV burden countries, and the 30 high multi-drug resistant (MDR-TB) burden countries. In 2015, the TB incidence in South Africa was 834 per 100 000 per annum, with 282 945 incident cases notified in the country, of 57% were HIV co-infected. There were 12 527 MDR-TB cases detected in the same year. Clinical trials are key to providing the robust evidence needed to guide international and national policies and practices. Pharmacists are key to the design and implementation of high-quality clinical trials, and take responsibility for maintaining detailed and meticulous accountability for all study drugs, as well as for compliance with strict regulatory and ethical standards. Involvement in clinical trials provides a unique opportunity for professional development for pharmacists.



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Healthy Eating Habits in Perspective: Benefits of Adherence vs. Cardiovascular Risks



Rony Zeenny, PharmD, MPH, BCPS-AQ ID

Biography: Dr. Rony Zeenny is the Director of the PGY1 Pharmacy Residency Program and Associate Pharmacy Director for Clinical Services at the American University of Beirut Medical Center. He received a Bachelor of Science degree in Pharmacy and a Doctor of Pharmacy degree from the Lebanese American University. He completed a Pharmacy Practice Residency at the University of Tennessee Medical Center, Knoxville, affiliated to the University of Tennessee College of Pharmacy, Memphis, Tennessee. Dr. Zeenny achieved and maintains his certification as board certified pharmacotherapy specialist with added qualifications in infectious diseases. He has a University Diploma in principles of clinical research, and earned a masters of public health in epidemiology and biostatistics.

Dr. Zeenny was a clinical assistant professor at the Lebanese American University – School of Pharmacy and served as the Director of Experiential Education at the School. He previously worked with the World Health Organization at the Lebanese Ministry of Public Health-Drug Dispensing Center.

Dr. Zeenny has given more than 30 posters and 20 podium presentations on a local, national and international level. He has written more than 18 articles in pharmacy practice and pharmacotherapy. Dr. Zeenny is an active member of local and international professional societies including Order of Pharmacists of Lebanon (OPL), American Society of Health-System Pharmacists (ASHP), American Clinical College of Pharmacy (ACCP), American Association of Colleges of Pharmacy (AACCP) and International Pharmaceutical Federation (FIP) and the Society of Infectious Diseases Pharmacists (SIDP). Dr. Zeenny is currently the president of the Middle East Chapter of the American College of Clinical Pharmacy.

Abstract: At the end of this presentation, the participants should be able to:

- Identify the elements of healthy eating habits
- List the benefits of adherence to a healthy diet
- Evaluate the association of risks, mainly cardiovascular, related to non-healthy eating habits
- Examine a list of healthy habits to consider when counseling a patient
- Review a list of medication that affect eating habits.



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Determinants of a Longer Duration of Exclusive and Mixed Breastfeeding and its Relationship with Infants' and Toddlers' Health



Carine Issa, MSc, PhD

Biography: Dr. Carine Issa has been teaching nutrition related subjects for the last 16 years of which 9 years at the Lebanese University. She's currently Head of the Nutrition and Dietetics Department and responsible of the Master program in Human Nutrition. Her research interests include the Mediterranean diet, obesity, the nutritional quality of Lebanese dishes and dietary behaviors of University students. (Having breastfed each of her kids for two years), her current research focuses on the determinants of breastfeeding duration, complementary feeding practices and the relationship with health in Lebanon.

Abstract: Breastfeeding rates continue to decrease dramatically in Lebanon. Current literature lacks studies addressing a possible relationship between the duration of breastfeeding and health outcomes in infants and toddlers in Lebanon a developing country, while strictly applying the WHO definition of exclusive breastfeeding. The aim of this study is to investigate the determinants of both exclusive and total breastfeeding durations and the relationship with health outcomes in infants and toddlers aged between 12 months and 36 months, recruited from daycares across Lebanon and to discuss potential intervention strategies. Methods: The following study has a retrospective and cross-sectional design. 1051 survey that was administered to mothers having a toddler attending daycare, aged between 12 and 36 months. The sample is nationwide and representative of toddlers aged between 12 and 36 months enrolled in daycares. Results: This representative survey of toddlers attending daycares all over Lebanon shows that the mean age of formula introduction was 2.03 (± 3.22) months, and half of the toddlers (51.6%) were exposed to formula milk the first day after birth. The median of exclusive breastfeeding duration was 0.5 months (15 days). Exclusive breastfeeding (BF) was initiated at a mean of 10.56 (± 27.12). Longer durations of exclusive and total breastfeeding were associated with several socio-demographic and behavioral factors of parents and to various birth-related conditions. The duration of exclusive breastfeeding was significantly associated with a lower frequency of pediatrician visits, antibiotic prescriptions, absence from daycare, a lower risk of otitis, colic and UTI occurrence. Similarly, the duration of total breastfeeding was significantly associated with less antibiotics prescriptions, a lower risk of otitis occurrence. Conclusions: Our study highlights simultaneously various health benefits of breastfeeding on toddlers attending daycares in Lebanon, a middle income country. To address low BF rates, there is an urgent need to act at a system level through the implementation and enforcement of policies and at a community level to raise awareness and create a supportive environment for breastfeeding, involving various stakeholders and of course mothers.



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Probiotics: Clinical Use of *Bacillus Clausii* and its Mode of Action. Sponsored by Sanofi



Cecilio Azar, MD

Biography: He is a Gastroenterologist, Head of Gastroenterology division in MEIH hospital, Clinical Associate Professor at AUBMC and attending at CMC and KMC.

He is a key opinion leader in internal medicine, gastroenterology and hepatology with more than 32 publications on his resume.

He is a member of the America Society of Gastrointestinal Endoscopy (ASGE).

His main interest is in IBD and hepatology, with lots of ongoing research on *Clostridium difficile* and *Helicobacter pylori* infections. Dr. Azar will be presenting the lecture targeting "Probiotics: Clinical Use of *Bacillus clausii* and its Mode of Action".

Abstract: Probiotics, from the Greeks as "for life", have been conceptually recognized for over 100 years and these agents are widely used in the community. With the emergence of observations linking the gastrointestinal microbiota to various states of health and disease, interest in the use of probiotics as medical interventions has increased. There is enough evidence now published in the literature on the benefits of the use of probiotics, so that the scientific world now believes that prebiotics and probiotics are important in gastrointestinal disease. Probiotics are defined as "live micro-organisms which, when administered in adequate amounts, confer a health benefit on the host". Unfortunately, it is often not clear how much health benefit is actually conferred. The objective of this presentation is to highlight the evidence for the use of probiotics in adults with conditions of interest to gastroenterologists and pharmacists, focusing on *Bacillus clausii*.



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Pediatric Infections: A Focus on the Upper Respiratory Tract System



Fouad Sakr, PharmD

Biography: I hold both a pharmacy BS (2009) and PharmD (2011) degrees from the Lebanese International University (LIU), Beirut, Lebanon. I am currently a full-time faculty member at LIU – School of Pharmacy. I am the chairman of PharmD program as of October 2017. As well, I was the chairman of the research committee between the academic years 2014 till 2018. I am also a member in the assessment and accreditation committees. I was LIU's Pharmacy Day coordinator during the academic years 2013-2014 and 2014-2015. I am a member in the American Society of Health System Pharmacists (ASHP). I have extensive clinical and community pharmacy practice experience acquired through the leading Lebanese medical institutes as the American University of Beirut Medical Center (AUBMC), Rafik Hariri University Hospital (RHUH), Makassed General University Hospital, Zahraa University Hospital, Trad Hospital and Medical Center, and others. During my career at LIU, I taught Pharmacotherapy of Infectious Diseases, Interpretations of Laboratory Data, Non-prescription Drugs, Physical Pharmacy, Pharmacy Seminar, Compounding Lab, and Introduction to Drug Information. As well as, being a clinical and community preceptor. Moreover, I was the Pharmacy Practice Experience III/IV (PPEIII/IV) coordinator during the academic years 2014-2015 and 2015-2016. I have worked in the Lighthouse Pharmacy in Beirut for two years as a chief pharmacist. I got detailed experience in the Lebanese, American, and European drug formulary, drug compounding, and counseling; as well as in para-pharmaceutical care. I am in active research in over the counter (OTC) products for self-care, and antimicrobial drug use. I also have special attention to pharmacotherapeutics of infectious diseases and utilization of medical laboratory analysis in pharmacy practice.

Abstract: Respiratory tract infections in pediatric patients are one of the most common reasons for parents consulting health professionals including pediatricians and pharmacists. Upper respiratory tract infections (URTIs) account almost for half of the system's infections, and usually precedes lower tract infections. Most URTIs are acquired through the fall to the early spring seasons and include acute otitis media, pharyngitis, and sinusitis. The purpose of this session is to provide basic information and updates to pharmacists about the most common pathogens that cause acute otitis media and pharyngitis, explain the pathophysiologic causes and risk factors, identify associated clinical signs and symptoms, list goals of therapy, differentiate between viral and bacterial infections, develop an appropriate antibiotics regimen for each infection based on patient-specific data if needed, recommend appropriate adjunctive therapy, and focus on the pharmacist role to create a follow-up plan for parents of pediatric patients being treated for each infection.



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Diagnosis and Treatment of Acute Uncomplicated Urinary Tract Infections: Cystitis and Pyelonephritis



Mira Hlayhel, PharmD, MS, PhD

Biography: Mira Hlayhel is a pharmacist and an Assistant Professor in the Faculty of Public Health of the Lebanese University. Broadly, her research focuses on infectious diseases including HIV, urinary tract infections, and on rational use of drugs. Her teaching experience covers epidemiology, biostatistics, research methodology and public health. Dr. Hlayhel received her Ph.D. in Clinical Epidemiology from Pierre et Marie Curie – Sorbonne University, a M.Sc. in health and environment research from Joseph Fourier University and a PharmD from the Faculty of Pharmacy of the Lebanese University.

Abstract: The aim of this communication is to give an overview of clinical presentation, diagnosis and management of acute uncomplicated cystitis and pyelonephritis.

Urinary tract infection (UTI) is a collective term that describes any infection involving any part of the urinary tract, namely the kidneys, ureters, bladder and urethra. E. coli is the predominant uropathogen isolated in acute uncomplicated UTIs in adults. The diagnosis of acute uncomplicated cystitis can be made based on a history of lower urinary tract symptoms (dysuria, frequency and urgency). Urine dipstick analysis but not urine cultures is recommended for acute uncomplicated cystitis diagnosis. The choice of management option for UTIs depends on whether it is simple or complicated. Choosing an antibiotic depends on the agent's effectiveness, risks of adverse effects, resistance rates, and propensity to cause collateral damage. Guidelines recommend two options for first-line treatment of acute uncomplicated cystitis: Fosfomycin and nitrofurantoin. Although fluoroquinolones are effective, they are considered second-line antimicrobials, because of collateral damage on composition and function of human microbiota. Therefore, they should be considered for patients with more serious infections than acute uncomplicated cystitis. Beta-lactam antibiotics, amoxicillin/clavulanate, second and third-generation cephalosporin are not recommended for initial treatment because of concerns about resistance. In patients suspected of having pyelonephritis, urine culture and susceptibility test should always be performed, and initial empirical therapy should be tailored appropriately on the basis of the infecting uropathogen. Recent studies on rational antibiotic use in UTIs in Lebanon showed that conformity to guidelines of prescriptions for UTI patients ranged between 20% and 35% with fluoroquinolones being the most frequently prescribed class.



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Fever, That Precious Ally



Krikor Sahakian, PharmD, PhD

Biography: Assistant Professor of Medicinal Chemistry and Homeopathy at the Faculty of Pharmacy of Saint-Joseph University since 1998

Coordinator of the Diploma in Homeopathy Medication at the Faculty of Pharmacy of Saint-Joseph University since 2005

Lecturer in OTC Medication at the Faculty of Pharmacy of the Lebanese University since 1999

Community Pharmacist - Hôtel-Dieu Pharmacy since 1998

Former member of the Board of the Order of Pharmacists (2012-2015)

Research in molecular modelling in collaboration with the « Centre d'Etudes et de Recherches sur le Médicament de Normandie » (Caen/ France)

Lectures, articles and publications.

Abstract: Fever is an abnormal rise in body temperature that occurs when the body thermostat (located in the hypothalamus) resets to a higher temperature, primarily in response to infection. Fever is not per se a pathology, but rather a defense strategy of the organism, which, through various combined processes, induces a mobilisation of the immune system, triggers the secretion of defensins, weakens microorganisms and considerably slows their proliferation.

Most fevers are self-limiting and harmless and do not cause brain damage even in convulsions. Nevertheless, despite clinical and experimental evidence, the current practice is to fight it with antipyretics, which ruins the body's defense efforts and delays the healing of benign pathologies while increasing mortality from severe pathologies. Therefore, the focus should be placed on the treatment of febrile conditions rather than fevers, the objective being to treat the patient, not to neutralize the warning signal.

Finally, people with impaired health status (especially those with autoimmune diseases and chronic inflammatory diseases) are unable to trigger a fever that can mobilize their defenses. A new and original approach is to use this capacity (or disability) as an indicator to set a scale for establishing the level of health of patients, and to carry out a prognostic assessment.



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Medicinal Cannabis - Shifting Sands



Andrew Gray, BPharm, MSc, FPS, FFIP

Biography: Andrew Gray is a senior lecturer in Pharmacology at the University of KwaZulu-Natal, Durban, South Africa. He has served on the Names and Scheduling Committee of the South African national medicines regulatory authority (previously the Medicines Control Council, now the South African Health Products Regulatory Authority) since 2000, and currently chairs that committee. He has also served as a member of the Legal Advisory Committee of SAHPRA since 2015, and as a member of its Cannabis Working Group. The Cannabis Working Group has been tasked with developing the necessary regulatory tools to allow for the licensing of growers of cannabis for medicinal purposes. He chaired the International Pharmaceutical Federation (FIP) Working Group on Harm Reduction, which developed an FIP Statement of Policy in this regard. Since 2007, he has been a member of the World Health Organization (WHO) Expert Panel on Drug Policies and Management. From 2009 to 2013 he was a member of the WHO Guidelines Review Committee. He is highly qualified to provide insight into the challenges of devising a rational cannabis policy at both national and international levels.

Abstract: Globally, societal opinion and official policy with regard to cannabis (marijuana) is shifting perceptibly. In some jurisdictions, laws have been amended to allow access to cannabis for recreational purposes, sometimes through so-called “right-to-try” laws, but sometimes through amendments to existing medicines and drug use laws. The evidence for the benefits of cannabis for medical purposes is highly variable. In many conditions there is little more than anecdotal evidence. In other indications, the evidence comes from older clinical trials that were poorly designed and executed and are therefore at higher risk of bias. In some conditions, moderate quality evidence exists for efficacy and safety. The role of pharmacists in providing access to quality-assured cannabis and cannabinoid-containing medicines is also evolving, as societal attitudes and legal systems adapt. The principle of harm reduction can be used to inform pharmacy’s position with regard to these wide-ranging changes, and to position pharmacy to best serve the health-related needs of the population.



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The Need for a Strong and Sustainable Pharmacovigilance National Program in Resource-Limited Communities



Anas Bahnassi, PhD, CDM, RPh

Biography: An industry leader in the pharmaceutical industry who serves as a continuing education provider, Dr. Anas Bahnassi has developed, coordinated and helped, moderate a series of workshops centered on pharmacovigilance and its role in assuring patient safety around the world.

Through a series of modules, pharmacists were able to develop their awareness and understanding of the monitoring and reporting of adverse drug reactions in the provision of safe and effective drug therapy.

Dr. Bahnassi is currently an ambassador with McKesson-Rexall working on incorporating a patient-focused policy in all pharmacy processes and operations.

Dr. Bahnassi is an assessor with the Ontario College of Pharmacists and serves as clinical preceptor with the University of Waterloo-School of Pharmacy. He also works closely with the college to spread the medication safety project all over Ontario.

Dr. Bahnassi teaches in many pharmacy schools and held leadership positions in pharmacy education.

Abstract: The importance of ensuring that medications benefit outweighs their risk within resource-limited communities has a huge impact on these communities. Adverse drug reactions (ADRs) that are unknown or not entirely understood have the potential to cause significant harm to patients and also produces challenges especially in communities where we are trying hard to build confidence in the health system.

The national pharmacovigilance program in these countries should not be limited to reporting of ADRs but to also integrate aspects of rational use of medications, research in health systems management, and have an understanding of risk perceptions and their influence on health policy. It should aim at improving the medical management of patients. It should aim to ensure that all medications are safe, effective and of good quality.

This talk discusses pharmacovigilance in terms of its broader scope of detecting, understanding, preventing or managing ADRs and drug-related problems, rather than simply focusing on surveillance methods for their detection. It presents ideas for pharmacovigilance strategies in these communities to be developed to ensure that investment in this area yields the greatest benefit.



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Patient-Centered Services: Pharmacists Advancing Healthcare



Wafa Y. Dahdal, PharmD

Biography: Dr. Wafa Y. Dahdal is Director of International Programs and Associate Director of Professional Development at the American College of Clinical Pharmacy (ACCP). Prior to joining ACCP, Dr. Dahdal was professor of pharmacy practice and board certified pharmacotherapy specialist. She has extensive experience in clinical pharmacy, initiating services and providing care to patients in the acute care (adult medicine and critical care) and ambulatory care settings across various specialty areas. As professor of pharmacy practice, Dahdal assumed leadership positions in curricular development, learning methodologies, and assessment as well as the professional development of practitioners and pharmacy practice faculty members.

Dr. Dahdal has published and presented internationally on issues related to cardiovascular medicine, clinical pharmacy services, curricular reform, abilities-based education, professional standards and pharmacy education, and clinical practitioner and pharmacy practice faculty development. Dahdal is the editor of ACCP International Clinical Pharmacist, a publication focused on current, future, and innovative developments in pharmacy education and practice worldwide.

Dr. Dahdal has assumed several professional leadership positions including President of the Gateway College of Clinical Pharmacy and President of the Illinois Chapter of the National Arab American Medical Association. She held key international positions including serving two terms as Secretary of the Academic Pharmacy Section and member of the Board of Pharmaceutical Practice of the International Pharmaceutical Federation (FIP), serving on FIP's Working Group on Defining Responsible Use of Medicines and as Co-chair of FIP's Working Group on Pharmacy Vision.

Abstract: Patient care services provided by pharmacists in various practice settings are expanding and are increasingly recognized worldwide. The provision of patients-centered care is a primary focus for the design and delivery of healthcare services across all practice settings. Pharmacists, being one of the most accessible health care professionals, afford a unique advantage in enhancing access to needed health care services and improving patient outcomes. The presentation will define patient-centered care, discuss the characteristics of people (patient)-centered health care, and highlight the core components of comprehensive medication management. As an example of patient care services provided by pharmacists in the community setting, the presentation will review recently published evidence on outcomes achieved by hypertension management services provided by pharmacists. Lessons learned from the implementation and delivery of such services will be discussed.