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THE 3rd LIBYAN CONFERENCE ON MEDICAL AND PHARMACEUTICAL SCIENCES 2019

Book of Abstracts

Complied by
Ahmed Atia and Nagib Elmarzugi

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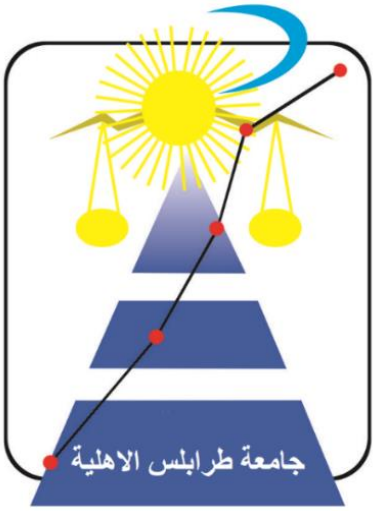

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الجريدة الصحية

LIBYAN NANOTECHNOLOGY

3rd LCMPS 2019 Tracks and schedule

Time	Event	Place
08:00 – 09:00	Registration	Hall No 1
09:00 – 09:05	Welcoming Speech & Quran recitation	Hall No 1
09:05 – 09:15	Welcoming Address by LCMPS2019 Chair	Hall No 1
9:15 – 9:35	Keynote speaker 1 "Dr. Nagib Elmarzugi" ***Nanotechnology: Wonders of A Small World***	Hall No 1
9:35 – 9:55	Keynote speaker 2 "Dr. Abdulaziz Zorgani" ***Approaches to Target Priority Gram Negative Bacteria***	Hall No 1
9:55 – 10:15	Keynote speaker 3 "Dr. Yusef Taher" ***The concept of Stress, Types and Its Management***	Hall No 1
10:15 – 10:35	Keynote speaker 3 "Prof. Badereddin Annajar" ***One Health Concept***	Hall No 1
10:35 – 11:10	**BREAKFAST**	
11:10 – 12:20	**Track 1**: Pharmaceutics, Pharmaceutical chemistry, and Biopharmaceutics ID01 – ID08	Hall No 1
11:10 – 12:20	**Track 2**: Health, epidemiology, and Life sciences ID09 – ID16	Hall No 2
11:10 – 12:20	**Track 3:** Agriculture and Veterinary Medicine ID17 – ID24	Hall No 3
12:20 – 01:20	**POSTER SESSION** ID63 – ID92	Hall No 1
01:20 – 03:20	**Track 4:** Pharmacognosy and Nature Products ID25 -ID37	Hall No 1
01:20 – 03:20	**Track 5**: Pharmacology and Clinical Pharmacy ID38 – ID49	Hall No 2
01:20 – 03:20	**Track 6:** Medicine, Medical sciences ID50 – ID63	Hall No.3
03:20 – 04:15	**LUNCH TIME**	
04:15 – 04:30	Closing ceremony/ Giving certificates	Hall No 1

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Presidential Address by Dr. Ahmed Atia
Founding President

Welcome to the Libyan Conference on Medical and Pharmaceutical Sciences (LCMPS) in its third run this year. We are grateful to our generous host, University of Tripoli Alahlia, for their wonderful hospitality. We are also grateful to all the organizations who have made the launching of a Libyan Conference possible.

We chose the theme "***Promoting Research in Medical and Pharmaceutical fields in Libya***" for this year with the hope of gathering scientific scholars from around the country, to share their knowledge and opinion about research. I want to take this opportunity to thank the Board, the Advisory members, the Group Chairs, and the steering committee members for generously offering their time and expertise.

Dear friends, this year we come with more confident as our university being recognized by Quality assurance center - Ministry of Higher education. We have expanded our cooperation with various scientific organizations, and professionals to share with us the most significant advances in our profession.

Our gathering is a microcosm of Libyan scientist world. The members of most local universities are present here, in Janzur. The conference participants hail from around 20 institutes.

Well, we hope that LCMPS is poised to become a reference conference and gold standard of Medical research in the country. Part of any gold standard is welcoming all participants with open arms and especially those whose voices have not always been able to reach a such gathering audience. May our joint efforts bring us closer together.

Thank you for your attention.

20th April 2019
Janzur – Libya

KEYNOTE SPEAKER 1

Nanotechnology: Wonders of a Small World

Prof. Nagib A Elmarzugi

Department of industrial pharmacy, Faculty of pharmacy, University of Tripoli. Head of National Nanosciences & Nanotechnology Project, Biotechnology Research Center, Authority of Natural Science Research and Technology.

Nanotechnology is finding its way into every aspect of our daily lives including our food, clothing and household goods; it is also pushing the frontiers of science with revolutionary new medicines, imaging technologies, electronics, robotics, industrial materials and synthetic biology. Nanotechnology is the science and technology at the level of such small material sizes at that of atoms and molecules. These sizes are 800000 times smaller as compared to the thickness of human hair or paper sheet. Nano-based materials are used in almost all types of industrial products to improve their quality and performance with large value additions. Objects and matter behave differently as they get smaller. For example, change in size, surface to volume ratio is an important aspect of nanotechnology. The current plenary talk is trying to highlight the concepts and nature at work at the nanoscale, it is important to look at some of the primary physical/biophysical characteristics of different size range at the nano scale.

KEYNOTE SPEAKER 2

The Effect of Molecular Rapid Diagnostic Testing on Clinical Outcomes in Gram negative bloodstream Infections

Prof. Abdulaziz Zorgani

Medical Microbiology and Immunology Department, Faculty of Medicine, University of Tripoli. National Centre for Disease Control, Tripoli-Libya

Gram negative blood stream infections (GN-BSI) are associated with significant morbidity and mortality risks and significantly increased length of stay. Delayed administration of effective antibiotics increases the mortality risk and therefore correct selection of an antibiotic regimen early in the treatment process is paramount. Delayed identification of the causative organism and culture susceptibilities may often be responsible for delays in optimal antimicrobial therapy. Molecular rapid diagnostic testing (mRDT), which includes tests such as polymerase chain reaction (PCR), matrix-assisted laser desorption/ionization-time of flight (MALDI-TOF) mass spectrometry, and peptide nucleic acid fluorescent in situ hybridization (PNA-FISH), has improved on conventional microbiologic methods, reducing time to organism identification, optimizing antimicrobial therapy, and subsequently improving clinical outcomes, including mortality rates. Antimicrobial resistance is estimated to cause 23 000 deaths annually 700000 worldwide. Gram negative bloodstream isolates are an important surveillance target for monitoring resistance using advanced techniques. Plasmid mediated transfer of resistance and nosocomial transmission of Gram-negative bacteria; particularly Enterobacteriaceae, Pseudomonas aeruginosa, and Acinetobacter baumannii have led to widespread dissemination, outbreaks, and untreatable infections. The objective of this presentation was to provide a comprehensive and up-to-date assessment of mRDT's effects on mortality risk, time to effective therapy, and long hospital stay, when compared with conventional microbiology methods in patients with BSIs.

KEYNOTE SPEAKER 3

The Concept of Stress, Types and Its Management

Assoc. Prof. Yousef Taher

Department of Pharmacology and Clinical Pharmacy, Faculty of Pharmacy, Tripoli University

Stress is considered as a normal part of everyday life and one of the major health challenges and so it is unavoidable. We have all experience it over a short (acute) or prolonged (chronic) period of time. Indeed, it acts as either negative or positive force. Worldwide, there are more than 450 million people are considered stressed persons and are believed suffering from stress interrelated psychological problems. Every effort done is only to reduce it since has been reported that reducing stress levels cannot only make person feel better but also it may protect person's health. The present lecture, therefore, tries to illuminate the most common causes, effects, types and management of stress. Thus, it might be helpful for those people who need to learn how to react to stress in more productive and active way.

KEYNOTE SPEAKER 4

One Health Concept

Prof. Badereddin Annajar

Director General, NCDC - Libya

The One Health concept recognizes that the health of people is connected to the health of animals and the environment. The National Centre for Disease Control (NCDC) in Libya uses one health approach by working with physicians, veterinarians, ecologists, and many others to monitor and control public health threats and to learn about how diseases spread among people, animals, and the environment. One Health is defined as a collaborative, multisectoral, and transdisciplinary approach — working at the local, regional, national, and global levels — with the goal of achieving optimal health outcomes recognizing the interconnection between people, animals, plants, and their shared environment. There are many examples that show how the health of people is related to the health of animals and the environment. More than half of all infections that people get are spread by animals. These diseases are known as zoonotic diseases. Examples include: Rabies, Salmonella infection, West Nile virus fever, and Avian Flu. Animals also share our susceptibility to some diseases and environmental hazards. Because of this, they can serve as early warning signs of potential human illness. For example, birds often die of West Nile virus and Avian Flu before people get sick with West Nile virus fever. One Health is not a new concept, but it has become more important in recent years. This is because many factors have changed interactions between people, animals, and our environment. These changes have led to the emergence and reemergence of many diseases. It is time to work together so we can accomplish more in improving global health than we can alone, and we have the responsibility to do so.

Oral

ID01: Determination of Methylparaben in Some Cosmetics and pharmaceutics using Liquid-Liquid Extraction and Spectrophotometric technique

Mariam F. Ambarak*, Fatima M. Ragab, Naziha K. Alkadeky

Department of Chemistry, Faculty of Science, University of Benghazi, Benghazi, Libya.

In this study, a simple and rapid method for determination of methyl paraben in cosmetics (Hand cream, body lotion, blusher, body cream, and bath foam) was described. The samples were dissolved with in a mixture of acetone and sodium chloride at 60°C and extracted with ethyl acetate. The concentration of methylparaben was determined using UV-Spectrophotometer at 282nm. Calibrations are linear (correlation coefficient r > 0.997) and the limit of detection was 2.358 µg/ml. The concentrations of methyl paraben in selected cosmetic samples were ranged from 0.077% to 0.451%. Parabens have been allowing as preserving in foods and the maximum daily consumption for human has been appraised as 4 to 6 mg/Kg. In cosmetics, parabens are allowed in concentration up to 1%.

Kay words: Parabens, Cosmetics, Liquid-Liquid Extraction

Oral

ID02: Cu(II) Peptide Complexes in Medicine as Anti-Inflammatory Drugs.

Ahmed Hammoud [1]*, Fatin Elmagbari[1,2], Graham Jackson[1]

[1]Department of Chemistry, University of Cape Town, Rondebosch 7700, South Africa. [2]Department of Chemistry, Faculty of Science, University of Benghazi, Benghazi Libya.

Rheumatoid Arthritis (RA) is a chronic inflammatory disease that leads to the destruction of joints. During the inflammatory stage of the disease, serum copper levels are significantly elevated and evidence in the literature suggests that there is a deficiency in the concentration of serum albumin copper associated with RA patients. Previously, we have shown that injected Cu(II) complexes are effective in reducing the inflammation associated with RA. However, dermal absorption is the preferred route for drug administration and recently Alcusal, a salicylate complex of copper, became available for over the counter, human use to alleviate arthritic pain. In this paper we have used glass electrode potentiometry to investigate the potential of different peptides and peptide mimetic to improve dermal absorption. NMR, ESR and UV/Vis spectroscopy has been used to investigate the solution structure of the different species. Partition coefficients and tissue permeability studies have been used to assess the bioavailability of the different complexes. These results will be presented, together with some preliminary dermal absorption results in mice. Interestingly the tissue distribution following intravenous injection was found to be different to that following dermal absorption.

Kay words: Rheumatoid, Arthritis, inflammatory disease.

Oral

ID03: Estimate the Chemical Structure of Some Marine Rock Samples of Al –Gabal Al –Akhder Coast (Libya) Regions by Using X –Ray Fluorescence (XRF) Microscope Scanning

Hamad Adress[1]* and El –Mabrouk Salama[2]

[1]Department of Chemistry, Faculty of Science, Omar El Mukhtar University, Libya. [2] Department of Chemistry, Faculty of Science, Benghazi University, Libya

The XRF (X Ray Fluorescence) technique was used to identification and estimate the composition of the marine rocks along Al –gabal al –akhder coast region, Libya. Several samples were collected from different locations at the investigated regions. The types and contents of the rock constituents were determined. The results stated that the marine rock samples containing the following compounds: some types of oxides including: (NaO, MgO, Al2O3, SiO2, SO3, CaO & CaCO3, Fe2O3, CuO, and ZnO) and their contents were fluctuated from station to station according to the presence of different percentage of the compounds. Generally, the results showed that the contents of metal oxides in the rock samples contain high levels for calcium carbonate (CaCO3). While the metal oxides of rocks samples recorded different contents of (NaO, MgO, Al2O3, SiO2, SO3, CaO, CuO, ZnO, and Fe2O3). Mostly the trend distribution of oxides at most locations is in order of: CaCO3 >> CaO >>MgO >Al2O3> SiO2 other oxides.

Kay words: Fluorescence, rock, metal oxides.

Oral

ID04: The Industrial Geology and Its Importance in Creating Job Opportunities for The Geologists and The Development of Economic Resources

Saad El Ebaidi

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Industrial Geology minerals or/and raw materials, which may be used in an industrial process directly or/and indirectly due to its chemical, mechanical, mineralogical and physical properties. Is essential for economic development Infrastructure improvement and growth of manufacturing sector requires a reliable supply of good quality of industrial mineral raw materials. The objectives of this study are; 1) to develop a basic understanding of the ways in which industrial raw materials are evaluated for specific commercial applications; 2) Invest in mineral resources discovered in Libya, which in turn will accelerate the development process; 3) Providing job opportunities to alleviate the problem of unemployment and poverty; 4) Diversifying the sources of national income and expanding the productive base and working to reduce dependence on the production and export of crude oil as a main source of national income. Industrial Geology is a comprehensive assessment of the raw material, for the possibility of exploitation in the fields of industry. The use of the treatment agent to re-improve of the physical, chemical and mineralogical properties of the raw materials for re-use. Mineral nano-composites improve polymer materials mechanical properties, durability and stability. They may work as superior adsorbents and catalysts for organics removal and colour species removal in water. Nano-silica is produced for semi-conductor wafers, optical fibres, and solar batteries, while nano-precipated calcium carbonate is used in applications including sealants for the underbodies of cars, and for mastics, inks, rubber parts such as door seals. Kaolin (or china clay), ball clay and bentonite are the dominant industrial clays and mined for a wide variety of uses.

Keywords: Industrial Geology, Calcium carbonate, Clay, Kaolin, Bentonite.

Oral

ID05: Computational Ligand-Based Drug Design for Clomiphene Citrate Modification.

Ahmad Ramadan, Khaled Aburas, Hana Alalwey, Salsabil Kazoz*

Department of Biotechnology & Genetic Engineering, Faculty of Medical Technology, Sabratha University

Background: Infertility is failure to achieve a live birth over a 12-month period of unprotected intercourse. Clomiphene citrate (CC) is the most used initial treatment for majority of anovulatory infertile women. However, use of CC increases risk of ovarian cancer. Virtual screening is one of bioinformatics tools in which computational models is used to select and prioritize compounds for experimental drug screening. Objectives: Our aim is to reduce the carcinogenic side effects of clomiphene citrate using computational ligand-based drug design. Material and methods: We used two softwares, ViCi to perform in-silico ligand-based drug design, and SiteComp to determine the affinity of this ligand with estrogen receptor. Results: Our work resulted in three ligands, Chemdiv F941-0027, Chemti M05399, Chemdiv E230-1521, with 48.7%, 22%, 89% affinity to estrogen receptor respectively. Conclusions: Computational LBDD is a very useful first step for modifying and discovering drugs. Our efforts to design a clomiphene with low carcinogenic effects resulted in a ligand with half the affinity, and a lower carcinogenicity due to decreased stimulation of estrogen hormone receptor and estrogen secreation. However, further chemical experiments are needed to explore its effects in vivo.

Keywords: clomiphene citrate, ligand-based drug design, carcinogenic.

Oral

ID06: Synthesis of Potential pH-sensitive Cationic Phosphonium AuNPs in Aqueous Medium and DMSO with their Antimicrobial Activities against Escherichia Coli and Staphylococcus Aureus Bacteria

Wanisa Abdussalam

Department of Chemistry, Faculty of Science, Sebha University, Libya.

Due to the unique optical, physical, chemical properties, and biocompatibility of AuNPs, they have been used in drug delivery, medical diagnosis, antibacterial agent and in cancer therapy. AuNPs exhibit novel properties as result to their small size and high surface area to volume ratio. Synthesis of novel cationic phosphonium AuNPs using phosphonioalkylthiosulfate zwitterions and phosphonioalkylthioacetate ligands as functionalized ligands dispersible in water and dimethyl sulfoxide (DMSO) for their potential use in biomedical applications is outlined in this work. UV-Visible spectroscopic, DLS and TEM studies have shown that the highly stable colloidal AuNPs are typically around 10 nm in diameter. Clear evidence of the reduction of Au (III) to Au (0) and formation of colloidal AuNPs were obtained, as maximum absorbance peaks around 520 nm were observed in the UV-Visible spectra. The functionalized AuNPs were investigated with their stability over time at a pH range of 3-11. The pH study suggested that the optimum pH range for the AuNP colloidal samples to remain fairly stable is between pH 9.2 and pH 5.1. Within this range the diameters recorded by the DLS were between 7.6 ± 1.4 nm ─ 10.8 ± 0.9 nm, with no clear evidence of aggregation. In contrast, aggregation was observed in the DLS analyses for AuNP samples at pH values higher than 9.2 ± 0.1 and lower than pH 3.3 ± 0.1. The aggregation of the AuNPs may be due to the electrostatic interaction between the cationic phosphonioalkyl ligands and the higher concentration of anions present in basic pH solutions. Moreover, also due to the attractive forces between these charge distributions of the different AuNPs, the repulsive forces within each particle are weakened, causing to a correspondingly lower resonance frequency. At pH lower than 4, it can be assumed that AuNP solution is fully protonated as the number of positive charges is significantly high. The increase in proton concentration results in ion exchange between protons and the thiolate groups; and therefore, in aggregation due to possible unprotected AuNPs. Different doses of these AuNPs including four concentrations for the 0.181 µg/ µL (low dose) solution, 0.363 µg/ µL, 0.68 µg/ µL, and 1.36 µg/ µL (high dose) AuNPs, were utilized to check the antibacterial mechanism against two non-pathogen bacteria. The stabilized AuNPs with high concentration exhibited excellent antibacterial sensitivity to both E. coli and S. aureus, which may be suitable choice of overcoming bacterial resistance.

Keywords: AuNPs, biocompatibility, antibacterial, phosphonium.

Oral

ID07: Adequacy of Information on Dispensed OTC Medications Delivered to Patients in Community Pharmacies: A Cross-Sectional Study in Tripoli, Libya

Ahmed Atia

Department of Anesthesia and Intensive Care, Faculty of Medical Technology, Tripoli University.

Good dispensing practices ensure that the medicine is delivered to the patient with clear and detailed instructions to avoid the occurrence of medication errors. However, there is considerable evidence of poor dispensing practices in developing and undeveloped countries. This survey aimed to determine the pattern and sufficiency of information on dispensed medications delivered to public by community pharmacists and non-pharmacists, and to compare this between the two categories of pharmacy personnel in the community pharmacies. Methods. Between February and May 2018, using trained simulated patients (SPs), a total of 179 community pharmacies in the city of Tripoli, Libya were visited. Data on medications dispensed upon presentation of hypothetical common cold symptoms we collected. The pattern and adequacy of information provided over the counter by the private sector pharmacy personnel were documented and assessed. Results. Our results demonstrated that there were no significant differences between pharmacists and non-pharmacists in providing information to the simulated patients for the dispensed medications, except for information how the medications should be taken in regard to food (84.5% compared with 51.8%; P = 0.001) and information on potential side effect (39.4% compared with 20.3%; P = 0.014). The majority of community pharmacy staffs provided the medication-related information in less than 1 min. Conclusion. Most of the community pharmacy personnel surveyed in this study visited by the simulated client delivered inadequate and inconsistent information on the dispensed medications. Consideration on patient safety and the risk of medication errors should be assumed. **Kay words**: Parabens, Cosmetics, Liquid-Liquid Extraction

Keywords: Community pharmacy – simulated client – dispensing.

Oral

ID08: Biological Study of Some First Series Transition Metal Complexes with Adenine Ligand

Hamad Hasan[1], Aaza Yahiya[1], Mabrouk Salama[2]*

[1]Department of Chemistry, University of Omar El-Mukhtar El-Bida Libya. [2]Department of Chemistry, University of Benghazi, Benghazi, Libya.

Adenine complexes were prepared with some of the first series transition metals in a stoichiometric ratio of 1: 2 (Mn+: L), where Mn+ = Mn2+, Fe3+, Co2+, Ni2+, Cu2+, Zn2+, and Cd2+ ions. The Complexes were characterized by the physicochemical and spectroscopic techniques as electric conductivity, metal contents, IR, UV–Visible, and molar conductance techniques. The stoichiometric ratios of the synthesized complexes were confirmed by using molar ratio method. The dissociation constant of adenine ligand was determined spectrophotometrically. Solvent effect on the electronic spectra of the adenine ligand was examined using solvents with different polarities. The biological activity of adenine ligand and its metal complexes were tested in vitro against some selected species of fungi and bacteria. The results showed a satisfactory spectrum against the tested organisms.

Keywords: Adenine, Complexes, Biological study, Solvent effect, Molar ratio method.

Oral

ID 09: Prevalence of High-Risk Human Papilloma Virus Types 16 And 18 Among Libyan Women in Tripoli Libya

Hani Alzaquzi, Lubna Maghour, Ahmed Eshagrouni, Omar Elhamer, Abdulla Bashein.

Libyan academia for higher studies, Janzur, Libya

Background: The association of HPV and cervical cancer is well established, with scarce in data about prevalence of the most common high-risk HPV types among Libyan women. Aim: To investigate the prevalence of high-risk HPV types 16 and 18 among Libyan women, compared to cervical normal cytology and cervical abnormalities in Tripoli, Libya. **Methods**: A total of 132 cervical samples were collected from women who sought medical attention at outpatient gynecology clinic of Tripoli Medical Center and other gynecology private clinics in Tripoli region. Cervical cytological status was classified according to Bethesda system 2004. Quantitative polymerase chain reaction (QPCR) was used to facilitate the specific detection of HPV types 16 and/or 18. **Results**: Cytological diagnosis showed that 92.4% of women had normal cervical cytology (n=122/132), 7.5% (n=10/132) of them had cervical lesions. The overall prevalence of the most common oncogenic HPV types was 4.5% that only 6 samples (n=6/132) were confirmed of harboring HPV-DNA. With respect to cytological status HPV-DNA was found as 0% of women with normal cervix, and as high as 60% among women with cervical lesions. The high-risk HPV 16 was the exclusive type among our positive samples, with no detection of HPV type 18 among all our recruited subjects. **Conclusion**: Even though our findings showed low overall prevalence of high-risk HPV types among Libyan women, the burden of HPV 16 among women with cervical lesions, highlights the need to raise attention towards expanding research about HPV, adopt measures to prevent cervical cancer by vaccination and national screening program. The introduction of HPV-DNA testing in cervical cancer management will be greatly benefit early stage HPV detection and help prevent cervical lesions progression to cancer.

Keywords: Human Papilloma virus (HPV), Libya, cervical cancer, Cytology, Quantitative PCR.

Oral

ID10: The Health Hazard Effect for Firefighters during Work

Samira Garboui, Hadir Gawili*, Aya Benhaloum, Zainab Eljamaliy

Department of Environmental Health, Faculty of public health, University of Benghazi, Libya

Firefighters are exposed to a number of different hazards in their workplace. These injuries are severe and fatal from the dangerous environment, such exposures can occur through a variety of methods. Most are exposed to irritants and carcinogenic substances in their working environment. The aim of the study is to explore the risks that firefighters are faced, investigate work claims, and health complaints for firefighters. The study was cross sectional descriptive study conducted among 50 Libyan professional male firefighters, from October 2017 to July 2018. The data were collected through questionnaires from two places in Benghazi (National safety Authority and Al-Jouf Company). The results of our study matched with other studies and confirm that many potential toxic compounds at different concentrations, also indicate that high blood pressure, cardiovascular and respiratory disease increased risk among firefighters in Benghazi, as well as hearing and back pain problems.

Keywords: Firefighters - Risk – Hazard - Personal protective equipment.

Oral

ID11: Infections in Childcare Facility in Benghazi Medical Centre.

Rima Ali*, Hajer Saad, Amna Almanea, Sondos Abdalsalam, Fatima Sati, Amna Elburki

Department of environmental health, Faculty of Public Health, University of Benghazi.

Nowadays, as a result of an increasing proportion of families in which parents are in funded jobs, there has been a steady increase in the demand for care of young children. The children care could be formal childcare such as; childcare centers and nurseries, or informal such as relatives and friends. The chance of infection increases, where the children are together. This issue is particularly true among infants and toddlers who would normally use their hands to wipe their noses or rub their eyes and then handle toys or touch other children. These children then touch their noses and rub their eyes, so the virus is passed on from the nose or eyes of one child by the way of hands or toys to the next child who then rubs his own eyes or nose. This reason among others is why children get sick a lot in the first few years of their childhood as their bodies are developing an immunity to infections. The present study investigated infections in childcare facility and determine the knowledge level of infection control policy among children's parents and staff working in the childcare center in Benghazi Medical Centre in 2017. The study was based on two parts questionnaire and swabs. The Open-Closed questionnaire that was distributed to 55 participants to evaluate the knowledge about infection control policy. The samples were taken by sterile cotton swabs from 39 different places, to know the different types of bacteria that could be exist in the nursery. The results indicated that, the majority of the participants have a good knowledge about infection control policy, but they do not follow it. In addition, the results revealed that, 6 different types of dangerous bacteria which are (*Staphylococcus aureus*, *Klebsiella pneumonia*, *pseudomonas Aeruginosa*, *streptococcus viridians*, *Corynebacterium*, *Diphtheria*, *bacillus*, *and Enterobacteriaceae Serratia*.). All of the isolate's bacteria were found resistant to at least two antibiotics. Thirteen antibiotics were used in the sensitivity test which are: Cefotaxime, Azithromycin, Tetracycline, *Vancomycin*, *Cefixime*, *ceftolozane-tazobactam* test Doxycycline, Septrin, Ciprofloxacin, Ampicillin, Cefotazime, *Amikacin*, *and* Oxacillin. According to this study, 34% of isolates bacteria was (*Staphylococcus aureus*) and the most common diseases were (Influenza and Diarrhea).

Keywords: child, day-care, infections, infectious diseases, prevention.

Oral

ID12: How Valid are IMS DA Summary Statistics of Children's Vaccination Status?

Aisha El-Turki

Division of Primary Care & Public Health, Brighton and Sussex Medical School, Mayfield House, Falmer, Brighton, BN1 9PH, United Kingdom

Accurate recording of immunization status is essential for the evaluation of any immunization program. In September 2006, 7 Valent Pneumococcal Conjugate Vaccination (PCV7) was introduced into the UK's routine childhood immunization programme. This study validated the PCV7 immunization status of children aged 2 years recorded in the IMS Disease Analyses database. **Methods**: The PCV7 vaccination uptake rate for children born in 2008 in the IMS DA database was calculated. A sample of 173 of the 2497 children not recorded as vaccinated was identified and a questionnaire was sent to each of their General Practitioners to ascertain the child's true PCV7 vaccination status. **Results**: In the IMS DA data of 15,237 children born in 2008, 12,740 (83.6%) had a vaccination record of PCV7. One hundred and eleven of the 167 questionnaires sent to the child's general practitioners were returned, giving an adjusted response rate of 111/167 (66.5%). Based on the general practitioners' responses, 71 (64%) of these children were fully vaccinated according to their General Practitioner's records making the correct vaccination rate for this cohort 94.1%. **Conclusion**: This validation study has shown that caution is needed if using historical IMS patient-level data to analyses the effectiveness of PCV7 as there is a potential under-recording of immunization leading to underrepresentation of vaccination rates by approximately ten per cent. This could be the same for other vaccination coverage of other vaccines.

Keywords: child, day-care, infections, infectious diseases, prevention.

Oral

ID13: Epidemiological Profile of Meningitis and Encephalitis in Adults Admitted to Benghazi Medical Centre in 2018: Case Series Study

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[1]Department of Epidemiology and Environmental health, Faculty of Public health, University of Benghazi, Libya. [2]Department of Family and Community Medicine, Faculty of Medicine, University of Benghazi, Libya. [3]Benghazi Medical Center, University of Benghazi Teaching Hospital, Libya.

Background: Meningitis and Encephalitis are infectious diseases of central nervous system caused mainly by bacteria and virus. There are a number of risk and prognostic factors depending on the pathogen causing the infection. The environmental factors play a curial role in epidemiology of such infections. Previous epidemiological studies reported seasonal variations in each type of infection in different countries. This study was carried out to determine epidemiological profile with respect to demographics and seasonal variations in occurrence of Meningitis, Encephalitis and Meningoencephalitis. **Methods**: A retrospective case series study design was conducted by reviewing medical records of meningitis and Encephalitis and Meningo-encephalitis cases from 1st January 2018 to 31st December 2018 from Medicine department at Benghazi Medical Center in Benghazi city, Libya. All patients meeting the case definition were included. Data were collected using questionnaire on demographics including, age, sex, Address, and date of admission and date of discharge, diagnosis. **Result**: From January to December 2018, 31 cases were identified, the mean age of all cases was (41.2) years. There were 20 (66.7%) of them males and 10 (33.3 %) were females. The proportion of diagnosis of meningitis, encephalitis, and encephalitis was (22.6 %), (25.8%), (51.6%) respectively. Differences were observed in the occurrence of each infection during the year seasons. **Conclusion**: Based on data obtained, most infections occurred in older age with gender differences in each type of infection. Seasonal variations noticed in all infections. This Descriptive case series study design was used as a screening tool to track cases and further larger epidemiological study is needed in order to plan effective preventive and surveillance measures.

Keywords: Meningitis, Encephalitis, seasonality.

Oral

ID14: Sero-Prevalence of H. Pylori in Acquired Immunodeficiency Syndrome

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The prevalence of H. pylori in patients with human immunodeficiency virus (HIV) referred to Benghazi Infection Diseases and Immunology Centre for follow up investigated with other factors that might affected their colonization infection. History of gastrointestinal symptoms evaluated based on serological finding of H. pylori IgG. The incidence of H. pylori in HIV positive and HIV negative was 26% and 50% respectively, IgM was not detected. All H. pylori subject were positive for cagA antigen. The prevalence of H. pylori infection in HIV positive patients with low CD4 T lymphocyte count was statistically less than that observed in patients with higher CD4 count. 38.1% of HIV positive patients were using proton pump inhibitors only 12.5%, were positive to H. pylori. Gastrointestinal complication like diarrheal, dyspepsia, abdominal pain, nausea and vomiting were statistically significant but non-specific to H. pylori in HIV positive patients. There is no relation between the prevalence of H. pylori and age, gender, antiretroviral therapy, CD8 T lymphocyte count, smoking and cytomegalovirus (CMV) infection.

Keywords: H. pylori prevalence, HIV, Risk factor, ELISA.

Oral

ID15: Study of The Nutritional Status of Patients with Renal Failure at Zliten Teaching Hospital

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This study aimed to evaluate the nutritional status of sample of dialysis patients at Zliten teaching hospital and its relation to some dietary habits and problems. A total of 69 questionnaire were distributed randomly to those patients and being filled by direct face to face interview during the year of 2017. Blood samples were also taken from the subjects for chemical analysis. The results of the study showed that (56.53 %) were males, whereas (43.47 %) were females, and also found (36.59 %) of the patients ranged in age from 50 to 64 years and (82.60 %) of the sample were married. Calculating the body mass index (BMI) showed that 34.44% of patients had normal BMI, and 31.25 % had excess BMI, whereas 24.9 % of patients are obese. It was found that most of the sample (82.54%) had no problem swallowing food and salivation, and also found 62.69% did not have any problem with appetite. Analyzing data on dietary habits has shown some good eating habits. Biochemical variables showed that the average hemoglobin was 9.18 mg / ml, which was below normal, while the mean blood sugar was above the normal range (145 mg / ml). The average creatinine was 10.85 mg / 100 ml and was very high than normal (<1.2 mg / 100 ml). On the other hands, the iron value was below the normal rate. While, the average values of cholesterol, sodium and potassium were found in the normal range. The results of the research indicate that there is a positive trend by the patients in the recognition of value, habits and dietary behaviors.

Keywords: Nutritional, Renal Failure, Body Mass Index, Zliten Hospital

Oral

ID16: Work-Life Balance and Performance among Nurses Working at Benghazi Medical Center 2018

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Work life balance acknowledged being essential for nurses because, they are playing crucial role in organizations performance and their family well-being. It is found to be a crucial factor with great impact on hospital performance. The purpose is to identify the relationship between work life balance and performance among nurses working at Benghazi Medical Center (BMC). Methodology: A descriptive research procedure has been used. Convenience sampling method has been used and questionnaires have been used for data collection, out of 200 distributed questionnaires 150 have been returned. The Data were analyzed through SPSS. Result: There is a positive relationship between work life balance and nurse's performance at significant level. Better work life balance leads to better performance.

Keywords: acknowledged, performance, life.

Oral

ID17: Prevalence of Poultry Coccidiosis in Tripoli Area, Libya

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Poultry coccidiosis is serious disease of domestic fowl, turkey, geese, ducks and probably many others, caused by different species of Eimeria, Wenyonella and Tyzzeria and characterized by diarrhea, emaciation, production losses and death. Coccidia of the genus Eimeria are very common in poultry flocks all over the world, but there is limited information on the occurrence of the different Eimeria species in our country, clinical signs of coccidiosis are not pathognomonic, the accurate identification of Eimeria species has important implications for diagnosis and disease control. The objective of this study was to investigate of poultry coccidiosis in Tripoli region. Hence, between January- March 2109, conducted on fifteen flocks (13 commercial broiler chickens and 2 backyard turkeys) raised in a deep litter house were examined. Of each herd, 6 droppings samples at ≥ 28 days old till slaughter day were collected. Using traditional morphological and pathological diagnostic methodologies that are assessed by the role of lesion score during a field trial, as well as the microscopic examinations are not time consuming, simple and not complex techniques, and important from the point of view of differential diagnosis. Of the 90 faecal specimens gathered, 28 (31.1%) were found with the presence of one or more Eimeria species. Evidently, coexisting of coccidial infection was detected in 4 (26.6%) investigated flocks (3 broilers, and 1 turkeys). Laboratory results confirmed coccidian schizonts and gametocytes from intestinal and caeca scrapings.

Keywords: Poultry Coccidiosis, Eimeria spp, Chickens, Turkey, Tripoli- Libya.

Oral

ID18: Coprohaematological Examinations of *Toxocara Cati* Among Cats in Tripoli, Libya

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Pets may carry zoonotic pathogens for which owners are at risk, *Toxocara cati* are one of the most common intestinal parasites of cats and the infection can occur in all ages, commonly seen in puppies and the heavy prenatal *T.canis* infections cause severe abdominal discomfort and death may result from rupture or obstruction of the intestine, Humans can become infected with *Toxocara spp*, through ingestion of infective eggs in the environment and cause larva migrans syndromes in children (visceral and ocular larval migration). The aim of this clinical study is to investigate *T. canis* which may affect dogs of different ages, gender, living conditions and origin in and around Tripoli. Faecal samples (n = 110) were collected and examined through direct smear and faecal sedimentation techniques. A total of 15 dogs (13.63%) were found positive to T. canis. Close physical contact between owners and their pets is common and poses an increased risk of transmission of T. canis. Education of owners by the vet, specifically about hygiene and potential risks is required.

Keywords: Coproscopy, Toxocara cati, cat, Tripoli- Libya.

Oral

ID19: Influence of Partial Ablation of Preen Gland on Production Performance of Spent Commercial Layer Chickens

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In the period between 12th March to 22nd April 2018, an experiment conducted on 60 spent commercial layer chickens of Lohmann Brown-Classic® strain, the partial uropygialectomy effects at 74 weeks ages on production performance was determined. The experiment comprised 3 treatments (20 birds/treatment). Experimental treatments consist of a control group T1, partial ablation of uropygial gland (uropygialecomy) were applied on T2, and T3 partial ablation of uropygial gland with cauterisation, respectively. Egg mass, egg production, feed intake and feed conversion ratio for the birds were recorded weekly. Variation ratio of production performance parameters for partial uropygialectomy treatments than control group was calculated to support the results. The findings revealed remarkable significant ($P<0.05$) enhancing for partial uropygialectomy with cauterisation treatment than partial uropygialectomy treatment and control group, respectively. Best results were indicated in T3 treatment when partial uropygialectomy and cauterisation performed at week 2 after the treatments. According to the results of the current study, it can be concluded that stop the function of uropygial gland by partial surgical removal could be leading to enhancement significantly in the production performance of spent commercial layer chickens of Hisex brown strain.

Keywords: Uropygial gland; Lohmann Brown-Classic® strain; commercial layer chickens; Sabha- Tripoli, Libya.

Oral

ID20: A Comparison Between of Timed-Count Transects and The MRR Data for Assessing Population Size of The Silver-Studded Blue Butterfly *Plebejus Argus L.*

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Population estimates in this study were obtained using three methods to determine the size of the population of the silver-studded blue butterfly Plebejus argus which included, the Pollard index, modified Pollard–Yates population index from butterflies transect count data and Petersen's method from MRR data. From transect count data, there was no statistically significant difference between plots. A comparison between of timed-count transects and the MRR data for assessing population size of the silver-studded blue butterfly. GO1 and GO2 in butterfly number (P-value = 0. 130). The total number of butterflies recorded in both plots (GO1 and GO2) were 2.251 butterflies, 70% of these were male and 30% were female. In contrast, the total of butterflies recorded in the plot (GO1) was 1.108. Whereas, in plot (GO2) the total of butterflies recorded were 1.143 in individual. from MRR data, 401 individual butterflies were captured and marked over the 4-week capture period in both sampling plots. Of those 251 were male, and 150 were female. In comparison, there is no difference between colonies in population size by Pollard index (was 22.51), modified Pollard–Yates population index (was 112.35), however, there is only a difference when Petersen's method is used from MRR data between sites (217.6).

Keywords: Transects; MRR data; silver-studded blue butterfly Plebejus argus.

Oral

ID21: Detection of Aflatoxin B1 and Its Pathological Effects on The Commercial Chickens in Tripoli Area, Libya

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Mycotoxins are produced in the metabolism of fungi and cause major problems in the animal production as well as economic losses, sanitary and commercial. They can be found in raw materials consumed by animals, in the animal products (meat, eggs and milk) and therefore be consumed by people, constituting in this way in a public health problem and animal health. The most important is aflatoxin, because it is absorbed in the intestine and causes hepatic, renal and immune system injuries. Aflatoxins cause a variety of disorders in poultry, especially affecting the edible tissues and eggs. Contaminated carcasses and eggs may become a health risk to consumers when expended in food markets. The purpose of the current study was to detect the presence of aflatoxin B1 (AFB1) in different feed types of the commercial chickens (broilers and layers) in Tripoli city, Libya. Hence, in the period between 3rd of January till 27thof March 2019, 15 commercial chicken diets types represent 8 numerous feed mill brands with various phases/ forms (pre- layer, laying, broilers starter, grower and finisher/ mash, crumbles and pellets), were examined. Data regarding the breed type, feed type/ form with manufacturing name, age, housing, number of birds, previous history of illness, morbidity, mortality and the sanitary measurements from all flocks during this study were documented. Further, the clinical signs and gross pathological lesions were recorded. A questionnaire developed for this study to express the field conditions. However, questionnaire reveal many flocks with a history of vaccination failure, low performance and suspect infection with many pathogens like; NDV, E. coli and Eimeria spp. At necropsy, liver and kidneys are enlarged and pale. One flock with lesions; hydropericardium; shrunken, firm, nodular liver; bile-distended gallbladder; and hemorrhages. AFB1 was detected by high performance liquid chromatography in six cases (40%) of the feed samples. Weakness of hygienic policies, limitation of funds for studies, deficient in standardization of techniques for lab analysis and sampling protocols, the sensitivity of the quantification methods used and the limited number of expert skilled specialists with a deepening profile influencing this matter. Depending on the time when you want to try to control the presence of toxins in raw materials, different methods are used for that purpose. Biological detoxification is the most used, since not only is the most effective way but also allows preserving the nutritional characteristics of the feed, then provides good food for consumers.

Keywords: Aflatoxin B1, Aflatoxicosis, Chickens, High Performance Liquid Chromatography, Tripoli-Libya.

Oral

ID22: Levels of Mite Infestation Varroa Destructor (*Acari: Varroidae*) Affect the Colonies of The Honey Bee (*Apis Mellifera L: Hymenoptera: Apidae*) In an Apiary of Tarhuna And Al-Khoms, Libya

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Beekeeping occupies a prominent place in Libya recognized for its quality of its honey. The characterization phytogeographic in coastal strip indicates a great richness and meliferous potential, allowing that in everything our country can develop apicultural production. The disease responsible for the one of greatest loss of hives is the varroosis produced by the mite Varroa destructor. The objective of the current study was to estimate levels of V. destructor infestation, in two cities in Libya; Al-Khoms (represent moist coastal area), and Tarhuna (represent dry inland area), and stratified by farm size beekeeping according to the number of beehives, establishing four strata. The study covered four periods (seasonal, i.e., 3 months), from January to March, April to June, July to September, and October to December 2014. Sampling performed on a regular basis monthly. Beekeepers surveyed widely recognized the presence of varroa, independent of the agroecological zone and the size of the farm, making these almost entirely varroa treatments. The Varroa infestation behavior on adult bees and worker bee breeding showed high increases in infestation levels in the spring to autumn period. Statistically significant differences were found between the two studied zones agroecological, where the levels of infestation of the dry area were smaller and statistically different to the coastal moist area. This essay raises the need to continue with regional and local studies. In this way they will obtain results that will allow to continue the "fight" against varroosis, which is the responsible, from the sanitary point of view, for the highest mortality of hives.

Keywords: Varroa destructor; honey bee; varroosis; Tarhuna, Al-Khoms, Libya.

Oral

ID23: Occurrence of Ochratoxin A and Its Toxic Implications on The Commercial Broilers in Tripoli, Libya

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Ochratoxin A (OA), a secondary metabolite of Aspergillus and Penicillium species, is a natural contaminant of poultry and livestock feeds throughout the world, and it poses a potential threat to poultry production. The main effect of OA contamination occurs at the renal level, although its toxic action on other organs is also important. The main alterations observed are hemorrhages, degeneration and enlargement of the kidneys and liver, as well as increases in mortality according to dose and time of ingestion. The chronic toxicity caused by OA is of great importance because it can go unnoticed and cause both a decline in the performance of birds and a deterioration of their health, which affects the overall economy of the farm. The objective of this study was to investigate the existing of the contamination of Ochratoxin A in 15 manufacturing rations with 8 different feed mill brands (assorted phases/ forms; starter, grower and finisher/ mash, crumbles and pellets) of commercial broiler flocks raised in the province of Tripoli, Libya. Therefore, from 3rd of January to 27thof March 2019, the data and specimens were gathered by personal visits to different chicken farms from across study area. The clinical manifestations were; reduced feed intake, lethargy, stunting, poor feed conversion and poor feathering with anemia. While the post mortem examination reveals acute nephrosis, pale, marked accumulation of urates (visceral gout), enlarged proventriculus with catarrhal enteritis. gizzard, and. Ochratoxin was determined by High Performance Liquid Chromatography in 4 (26.6%) feed samples. To establish a monitoring program to measure mycotoxicosis as a factor of interference in animal health, first of all it is necessary to know the effect of mycotoxins (immunological suppression, injuries, etc.) and on the other hand know when they are going to be present in the feed. However, the main alteration of human and animal health due to mycotoxin is related to chronic exposure (cancer induction, renal toxicity and immunosuppression).

Keywords: Broilers; Feed; Ochratoxin; High Performance Liquid Chromatography; Tripoli, Libya.

Oral

ID24: Effect of Body Weight Uniformity on The Productivity of Broiler Breeders

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The objective of the current study was to expand understanding of the uniformity of body weight. It focused on highlighting the importance of body weight uniformity and its impact on the productive performance of broiler breeder flocks especially for the local situation in Libya, where the economy is changing. Therefore, in the period from 5 January 2003 to 30 March 2005, measurements of hen-day, hen-housed egg production, fertility, hatchability, total hatching eggs, mortality and cracked eggs were conducted on 16 broiler grandparent flocks (Hubbard-MPK strain) at houses of the Broiler Breeders Centre- Tarhuna (BBCT). The strength of each flock (herd size) were 16000 (14400 females and 1600 males) birds. Uniformity was calculated by taking a random sample of 25% of the birds in each pen and weighting them on a weekly basis. The findings of this study are based on the effect of uniformity on the body weight on the productivity of broiler breeders. The following points can be drawn; The uniformity of the body weight during the breeding stage is one of the most significant factors affecting the productive performance of the broiler breeders during the production stage. In addition to the uniformity factor there are other environmental factors (management, water, nutrition, heat, ventilation, diseases and age, etc.), and heredity also contributes to the effect on broiler productivity. In the present study, uniformity did not have a significant effect on the productive performance of the broiler breeders. This is due to the uniformity of the flock within the limits recommended with other environmental factors. The present research reveals the significance of follow-up of body weight according to production manual, and the application of restricted feeding to accomplish ideal production and fertility in broiler breeder flocks. We recommend the following; the keenness of flocks attendants to carry out the process of instruction in the desired manner, the selection of the strain of breeders, which has the high genetic strength expression in the uniformity of body weight, can be used from the results obtained in this study and as a reference for researchers who want to conduct field scientific research on the impact Uniformity in body weight on the productivity of broiler breeders, especially in local breeding conditions.

Keywords: Uniformity, body weight, broiler breeders, Tarhuna - Libya.

Oral

ID25: Mosquito Larvicidal and *Pupicidal* Activity of Some Plant Methanolic Extracts Against Culex

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Mosquitoes can transmit more diseases than any other group of arthropods and affect millions of people throughout the world. They act as a vector for most of the life-threatening diseases like malaria, yellow fever and dengue fever. The major tool in mosquito control operation is the application of synthetic insecticides such as organochlorine and organophosphate compounds. Use of many of the former synthetic insecticides in mosquito control program has been limited due to high cost, environmental sustainability, harmful effect on human health, and other non-target populations, their non-biodegradable nature, higher rate of biological magnification through ecosystem, and increasing insecticide resistance on a global scale. One of the most effective alternative approaches under the biological control program is to explore the floral biodiversity and enter the field of using safer insecticides of botanical origin as a simple and sustainable method of mosquito control. This study aimed to evaluate larvicidal and *pupicidal* effect of five plant extracts (thyme, peppermint and citronella leaf extracts, clove buds extracts and lemon peels extract). Methanol extracts of thyme, peppermint and citronella leaf, clove buds and lemon peels were tested for their larvicidal and *pupicidal* activity. The standard WHO guideline for larvicides and *pupicides* evaluation was used. Three plant extract concentrations were prepared (25, 50 and 100 mg/ml) and tested on 20 larvae and 20 pupas (3rd and 4th instars) for each concentration on white enamel trays. Mortality percentage were calculated after 24 hrs. where larvae who doesn't show swimming movement considered dead. Adult mosquitoes were identified to genus level. Thyme showed the highest % of yield (56%) followed by clove, peppermint, lemon and citronella with 13, 13, 8 and 5 % of yield respectively. The highest mortality % of larvae were by clove with 100% for the three tested concentrations, followed by thyme, lemon and peppermint. Citronella gave no effect as larvicidal agent. In *pupicida* activity test, thyme showed the highest activity followed by clove. Lemon didn't show any *pupicidal* activity. Mosquito was identified as Culex. This result clearly reveals that buds extract of E. *caryophyllus* and leaf extracts of T. vulgaris and peels extract of C. limonoids could serve as a potential larvicidal agents against the Culex mosquito. The mode of action and larvicidal efficiency of these plant spp. extract should be scrutinized and determined. Besides, further investigation regarding the effect on non-target organism is extremely important and imperative in the near future.

Key words: Mosquito – larvae – pupa - culex.

Oral

ID26: In *Vitro* Antioxidant and Antibacterial Activity of Olive Leave Extract

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Antioxidants present in herbs and spices could be an effective tool to prevent the non-communicable diseases like cancer, diabetes and myocardial infarction as they have the capacity to stabilize the free radicals which are one of the causative factors of these diseases. In last decade, there is an increasing interest in researches for production of biologically active compounds from natural sources. Olea europaea L. is used in traditional medicine in the Mediterranean areas. The aim of the current study was to investigate the content of phenol compounds and flavonoids extracted from "Olea europaea" olive leaf followed by the assessment of in vitro antioxidant and antimicrobial activities, crude extracts from olive leaves were screened for its in vitro antibacterial activity by using well diffusion method against Gram-negative organisms Escherichia coli bacteria, neomycin (30) was used as a standard for the study of antibacterial activity. Phytochemical screening revealed the presence of some active substances phenolic and flavonoids, to express the desired activities. Total phenols and total flavonoids were measured using the Folin-Ciocalteu and aluminum chloride colorimetric methods, respectively. The antioxidant properties have been determined by Reducing power ability where tested by Fecl3, in this procedure the Fe3+ reduced to Fe2+ by donating an electron. The ethanolic and water extract of green leaves showed good antibacterial activity with zone of inhibition (15mm, 13mm), respectively. These results suggest that leaves of olive have interesting antibacterial activities due to Polyphenol-rich extracts.

Keyword: Olea European - antioxidant activity - antibacterial activity.

Oral

ID27: Prophylactic and curative effects of barley and its bran against hyperlipidemia in albino rats

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The aim of this study was to investigate the prophylactic and curative effects of barley and its bran against hyperlipidemia in albino rats. A total of 88 adult male albino rats "swiss strain" weighting between 80-100g were used in 2 main experiments. (1) The prophylactic effect of barley and bran against hyperlipidemia for 8 weeks and (2) The curative effect of barley and bran for 8 weeks after induction of hyperlipidemia (using cholesterol and cholic acid). Our results revealed that there were increase in the levels of serum total lipids, total cholesterol, triglycerides, ALT, AST, ALP and LDH. While HDL-cholesterol level was decreased after the induction of hyperlipidemia. These results suggested that barley and bran may evoke different lipidemic responses, in which barley bran has more favorable effect on blood lipids than whole barley. Results were compared with those of Atorvastatin, a standard orally effective hypolipemic agent.

Key word: hyperlipidemia – prophylactic – curative – barley – bran.

Oral

ID28: Curative Effect and Antioxidant Activity of *Ecballium Elaterium* "Fruit Juice" Against Acetaminophen-Induced Hepatotoxicity in Rats.

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The curative and antioxidant effects of *Ecballium elaterium* "fruit juice" evaluated against acetaminophen-induced hepatotoxicity at dose of 400 mg/kg body weight in male albino rats for 22 days. Level of liver marker enzymes "ALT, AST, ALP, G-GT and total bilirubin" increased, also MDA level increased, but the level of antioxidant enzymes "GR, GSPx, CAT, SOD" decreased in acetaminophen treated rats in addition to histopathological lesion. Post treatment with fruit juice showed a remarkable hepatoprotective and antioxidant activity against paracetamol induced hepatotoxicity as judged from the liver marker enzymes and antioxidant levels when compared with the acetaminophen treated group. The hepatocytes distortion was ameliorated where slowly recovering hepatocytes were being transformed to normal shape.

Kay words: *Ecballium*, Enzyme, Fruit juice.

Oral

ID29: Hypocholesterolimic and Antioxidant Activity of Methanolic Extract of *Arbutus Pavarii* Leaves in Rats.

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The study was designed to investigate the hypercholesterolemia and antioxidant activity of methanolic extract of *Arbutus pavarii* leaves (MEAPL). The hypercholesterolemia induced by cholesterol and cholic acid at 3:1 ratio. The effect of (MEAPL) against hypercholesterolemia in male rats carried out by various types of lipoproteins (LDL) and (HDL), (TC), (TG), in addition to liver marker enzymes and antioxidant enzymes (SOD, GR, GPx and CAT), with lipid peroxidation (MDA). Based on our results the hypercholesterolimic parameters decrease with MDA level and vice versa with antioxidant enzymes which increased with the level of HDL and liver marker enzymes. The results compared with Atorvastatin and vitamin C. The histopathological studies supported the effect of (MEAPL) as hyporcholesterolemia treatment.

Kay words: hypercholesterolemia, enzyme, antioxidant.

Oral

ID30: Effect of Black Tea Extract on Vitamin C Absorption in Albino Rat Ileum Using Everted Gut Sac Technique

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Vitamin C is a vital antioxidant molecule, it acts as a cofactor in several enzyme reactions, including catecholamine synthesis, collagen production; it plays a critical role in normal functioning of the body and optimum health. Black Tea is the most popular flavored and functional drink worldwide. The nutritional value of black tea is mostly from the tea polyphenols that are reported to possess broad spectrum of biological activities, including anti-oxidant properties, reduction of various cancers, inhibition of inflammation, and protective effects against diabetes, hyperlipidemia and obesity. Aim of the work is to study effect of black tea on the absorption vitamin C in albino rat using "Everted gut sac" method. Methodology: Everted gut sac technique is used. Ten adult male albino rats, weighing 300 350 g, were randomly divided into equal 2 groups; each group consists of 5 adult male albino rats. In group one, rats were starved for 24 hours, killed by cervical dislocation and the entire small intestine quickly excised and flushed for several times with physiological salt solution of tyrode (pH 7), at room temperature. Ileum was immediately placed in Petri dish containing tyrode solution with oxygen. 5 cm of the ileum was slid onto a glass rod (2.5 mm diameter); then the ileum gently everted over the rod and the everted ileum slid into fresh oxygenated tyrode solution. One end of the ileum fastened with silk suture, and the whole length of the ileum was filled with 2 ml fresh oxygenated tyrode physiological solution. The second end of the ileum was fastened with second silk suture (sac). Each sac was then placed in beaker containing 20 ml of tyrode solution with 20 mg Vitamin C (1 mg/ml). Then the beakers were placed in shaking water bath for homogeneity for (5, 15, 30 and 60 minutes). Sacs were removed, washed four times in tyrode and blotted dry. The sacs were cut open and the fluid content drained into small tubes. 0.1ml of each sac contents is taken into beaker of 20ml containing 9.9ml buffer (PH5.4), the solution then is thoroughly mixed and then the absorption of each vitamin C concentration is measured, using spectrophotometer. In the second group, take 1 ml of black tea extract (50 mg dried black tea/ml) is added to 19 ml tyrode solution contain 20 mg vitamin C. The final tyrode mixture contain 1 mg/ml vitamin C and 2.5 mg dried black tea/ ml tyrode. The experiment was carried out as the first group with vitamin C alone. Results and conclusion: Vitamin C absorption was increased by time, either alone or in presence of black tea extract. Black tea extract increases the absorption of vitamin C, compared to the absorption of vitamin C alone.

Keywords: Vitamin C, Black tea, Absorption.

Oral

ID31: Antibacterial Activity of *Punicagranatum L* and *Oregno.Vulgare L* Extranet Against Type of ESBL

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Antimicrobial activity of the crude ethanol extract of *punica granatum L* and Oregano. Vulgare L against multidrug resistant UTi isolates were investigated. Two strains of Escherichia coli and one Acinetobacter that showed resistance against maximum number of tested antibiotics were selected for an antibacterial plant extract assy. Double –disk synergy (DDS) test was used for detection of Extended Spectrum Beta-Lactamase (ESBLs) in the three studied UTi isolates. Antibacterial activity of the two plants extract was measured by well diffusion, CUF/ml, and turbidity (O.D595) methods before and after treatment. The result showed that *punica granatum L* peels extract have a significant antimicrobial activity against the three tested UTi isolates. Diameter of inhibition zone were 25mm, 23mm, cuf/ml 0.5 x 10-1 0.8 x 10-2, O.D595 0.163 and 0.202 for Escherichia coli and Acinetobacter sequentially compare with control. Antibacterial activity of ethanol extract was depended on plants extract concentration and bacterial type. This study showed that plant extracts have negative impact on the level of protein in treated bacterial isolates comparing to the control.

Keywords: *Punica granatum L*, Oregano. Vulgare L, plants extract, Escherichia coli.

Oral

ID32: Anti-Inflammatory Effect of *Euphorbia Dendroides L*

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Euphorbia dendroides L. (Euphoraceae) is a tree-like semi-succulent spurge growing as a wild plant in Libya. In the present study, the anti-inflammatory activity of ethanolic extracts of *Euphorbia dendroides L*. in a dose of 400 mg/kg p.o. was investigated in mice by means of carrageenan-induced paw edema method. The pedal edema was measured by means of a [1]micrometer; using 0.025 ml of 1% carrageenan solution was injected subcutaneously into one hind paw of each mouse, compared with aspirin in a dose of 100mg/kg orally to serve as a reference compound. The results showed that the ethanolic extract exhibited a highly significant inhibition in edema ($p < o.o1$) in the group treated with E. dendroides L. and the control. In order to confirm the anti-inflammatory effect of the plant extract, using aspirin as a reference compound. Percentage of inhibition of the oedema was 84% for *Euphorbia dendroides L*. and 86% for aspirin and this confirms that the expected mechanism of *Euphorbia dendroides L*. anti-inflammatory effect is probably through decreased in the prostaglandin's level.

Keywords: Ethanolic extract, *E. dendroides* L, Anti-inflammatory, Carrageenan test.

Oral

ID33: Antimicrobial Activity of *Centaurium erythraea*

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Centaurium erythraea subsp. turcicum is a flowering plant belongs to Gentianaceae family which consists of about 1600 species. The main objective of this study is to evaluate the antimicrobial activity of aqueous ethanol extract of *Centaurium erythraea subsp. turcicum* against fifteen microorganisms. These comprise Gram-negative and Gram-positive strains of bacteria and one fungus. Extract of all parts of the plant were tested for its antimicrobial activities against those microbes by using disk diffusion, minimal inhibitory concentrations (MIC) and Minimal Bactericidal/Fungicidal Concentration (MBC/MFC) methods. Antibiotic disks were used to compare the antimicrobial activities. The Plant extract exhibit antimicrobial activity against four species of bacteria, which are S. aureus, E. faecium, P. fluorescens, and K. pneumonia. Inhibition zones between 7 to 11 mm, MIC values between 25 to 50 µg/mL were found and MBC test have shown that all of these effects were bactericidal.

Keywords: *Centaurium erythraea subsp turcicum*, antimicrobial activity, disk diffusion method, minimal inhibitory concentration, minimal bactericidal/fungicidal concentration.

Oral

ID34: Antimicrobial Activity of *Punica Granatum* Flowers

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Punica granatum is a plant species belongs to *Punicaceae* family. It possesses simple spiral leaves and have floral organs that are made up of five to eight petals as well as five to eight sepals. The main objective of this study is to evaluate the antimicrobial activity of P. granatum extracts against fifteen different microorganisms. These include nine strains of Gram-negative (G–) bacteria, five strains of Gram-positive (G+) bacteria, and one fungus. Aqueous ethanol extracts of flower parts of the plant were used. Disk diffusion, minimal inhibitory concentrations (MIC) and Minimal Bactericidal/Fungicidal Concentration (MBC/MFC) methods were applied. Moreover, antibiotic disks were used as reference. Results have shown on that *P. granatum* extracts have antimicrobial activity against all tested microorganisms. The inhibition zones were between 9 to 27 mm, the MIC were between 1.56 to 0.195 µg/mL, and MBC/MFC tests showed bactericidal and Fungicidal effects.

Keywords: *Punica granatum*, antimicrobial activity, disk diffusion method, minimal inhibitory concentration, minimal bactericidal/fungicidal concentration.

Oral

ID35: Investigation of The Antimicrobial Activity to *Salix Acmophylla*

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Biotechnology Research Center, Tripoli/Libya

Two extracts of *Salix acmophylla* (male and female) were tested, in vitro, for their antimicrobial activities against fourteen strains of bacteria and one fungus (Candida albicans). The bacteria strains include, *Bacillus subtilis, Escherichia coli, Enterobacter aerogenes, Enterococcus faecalis, Enterococcus faecium, Klebsiella pneumonia, Pseudomonas aeruginosa, Pseudomonas fluorescens, Staphylococcus aureus, Salmonella enteritidis, Staphylococcus epidermidis, Salmonella infants, Salmonella kentucky and Salmonella typhimurium*. The antimicrobial activities were tested using disk diffusion and minimum inhibitory concentration (MIC) methods. Antibiotics were used as a reference. Both extracts have shown antimicrobial activities against six bacteria strains. The inhibition zones were between 7-11mm and MICs were between 50-100 mg/ml were obtained.

Keywords: Salix, Salicaceae, MIC, antimicrobial activity, Disk diffusion method.

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Oral

ID36: Measuring the Quality Dimensions from Perspective of Staff in Both (Benghazi Cardiac Center) and (Benghazi Kidney Center) in 2018 by using SERVPERF scale

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Background: This study aims to assess the quality of two health care centers in Benghazi city, from the point of view of health care workers (Managers, nurses, physicians and technician). **Methods**: The study population consisted of two specific health care centers. The researchers used descriptive method and SERVPERF scale to measure the quality of perceived and actual service. Questionnaire consisted of 28 items divided into 5 domains: the tangible physical evidence, reliability, strength of response, assurance and empathy. **Results**: From 300 questionnaire distributed, 245 of the questionnaires were received back. The percentage of availability of quality in Cardiac center was (73.5), but in kidney center was (46.5). In addition, tangible dimension was the lowest in both centers from other quality dimensions, which it was about 3.7 in cardiac center and about 3.3 in kidney center. In contrast, Assurance dimension was the highest in both centers, which it was 4.1 in cardiac center and 3.4 in kidney center. **Conclusions**: considering supporting workers in both centers by the modern technology.

Key words: Health service - establishment of quality - health care workers - dimensions of quality.

Oral

ID37: Antibiofilm Activity of Sub-Minimum Inhibitory Concentrations of Ethanolic *Matricaria Recutita* Extracts on *Streptococcus Mutans*

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Biofilm formation is the ubiquitous phenomena that characterize the virulent bacteria. The establishment of biofilm by *Streptococcus mutans* is the most common mode of growth in dental carries where it can be protected against antibacterial agents. *Matricaria recutita* widely recognized plant due to its antiseptic and anti-inflammatory properties. In this study, the minimum inhibitory concentration (MIC) of *Matricaria recutita* ethanolic extract against reference strains of *Streptococcus mutans* (ATCC25175) was determined; the values of MIC (22%w/v) and MBC (33%w/v) revealed bacteriostatic rather than bactericidal mode of action against *S. mutans* growth. antibiofilm activity was studied using crystal violet assay; the biofilm mass reduced significantly as the concentration of the extract increased. Sub-MIC (12.5%w/v) inhibited the *S. mutans* biofilm formation completely. These results indicate that *Matricaria recutita* capables to reduce biofilm formation and it can be promising anti-carries agent source.

Key words: Biofilm, *Streptococcus mutans*, *Matricaria recutita*, antibacterial activity, anti-carries activity.

Oral

ID 38: Effect of Celecoxib on Lithium carbonate behavior in swimming maze and plus maze using female albino mice

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Concomitant medications are common and may changes in drug exposure may increase toxicities or affect therapeutic responses. In some instances, it may lead to increased or decreased drug effect. Celecoxib is COX-2 selective nonsteroidal anti-inflammatory drug. Lithium Carbonate is an antimanic agent used to treat Manic-Depressive Disorder; also, it may also be used to prevent cluster headaches. Aim of the work is to investigate the effect of celecoxib on behavior action of lithium using plus maze and swimming maze in albino mice. Methods: Six groups of male mice were used. Subacute drug administration (i.p.) according to the following; group 1, control (1%T80), group 2, celecoxib (50mg/kg), group 3, LiCO3 (10mg/kg), group 4, LiCO3 (50mg/kg), group 5, coxib+LiCO3 (10mg/kg), group 6, coxib+LiCO3 (50mg/kg). Two standard groups, imipramine (10mg/kg) for swimming maze and diazepam (1mg/kg) for plus maze. Results: Celecoxib and lithium each alone produce significant antidepressant effect. The combined treatments of celecoxib and lithium have no antidepressant action. Lower dose of lithium showed antianxiety effect, this effect is abolished when lithium is administered with celecoxib. High dose of lithium did not show any effect different from control. Combined treatment of higher dose of lithium and celecoxib produce antianxiety effect. Lithium, celecoxib and the combination did not change the spontaneous motor activity. Conclusion: Combined treatment of lithium and celecoxib together antagonize each other in antidepressant action. Low dose of lithium has antianxiety effect which, is abolished when combined with celecoxib. High dose of lithium has antianxiety when combined with celecoxib. Lithium, celecoxib and the combination did not change the spontaneous motor activity.

Keywords: therapeutic, Celecoxib, COX-2.

Oral

ID39: Analgesic and Anti-inflammatory Effect of Celecoxib in Presence of Captopril by Applying Formalin Test Using Male Albino Mice

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Drug-drug interactions are an important subtype of adverse drug events. The incidence of adverse drug events and hospitalization rate related to drug-drug interactions is still high. Celecoxib (NSAID) is the first specific inhibitor of cyclo-oxygenase-2 (COX-2) approved to treat patients with rheumatism and osteoarthritis. Celecoxib exerts its anti-inflammatory and analgesic activities through blocking the synthesis of various inflammatory prostanoids (PG). Captopril used in the management of hypertension, heart failure. Aim of the work is to find out the analgesic and anti-inflammatory effects of celecoxib in presence of captopril, by applying formalin test, using albino mice. Method: Eight groups of male mice were used, each of 6 mice. Drug administration was as follow: Group 1, 1%T80 at a dose 5ml/kg; group 2, captopril (50mg/kg); group 3, celecoxib (80mg/kg); group 4, celecoxib (200mg/kg); group 5, celecoxib (500mg/kg). While group 6, combination of celecoxib (80mg/kg) and captopril; group 7, combination of celecoxib (200mg/kg) and captopril; group 8, combination of celecoxib (500mg /kg) and captopril. Standard groups were used, mice administered tramadol (5mg/kg, phase I); another group administered acetylsalicylic acid (200 mg/kg, phase II) for formalin test. Subacute i.p. administration applied in this study (24, 5, 1 hour before scoring). Results and conclusion: Celecoxib and captopril, each alone, have analgesic effect toward neuropathic pain and anti-inflammatory effect; when administered to gether, Captopril antagonize the analgesic and anti-inflammatory effect of celecoxib.

Keywords: adverse drug events, inflammatory, Celecoxib, analgesic.

Oral

ID40: Study the Effect of Antiepileptic Drug (Valproic Acid) on the Acinar and Islet Cells of Mice Pancreas

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Background: valproic acid is abroad spectrum anticonvulsant, used in treatment of epilepsy. This study aimed to investigate the changes that may occur in pancreas as a result of valproic acid treatment. Materials and methods: Thirty-five albino mice were used, they were divided into four groups, group (1) control, group (2) treatment and subdivided into (A, B, C and D subgroups), group (3) overdose, group (4) recovery. The animals were sacrificed at the end of each period and the pancreas was excised. Results: the drug induced cytological and histological changes in pancreas, included acidophilic foci, edematous changes, inflammatory cellular infiltration, acinar cell necrosis, hydropic degeneration, vacuolization, microvesicuolar changes, apoptosis, islet metaplasia and fibers deposition. Conclusions: valproic acid has multiple changes on pancreatic cells and the effect was time related. Sort of incomplete recovery was recorded after discontinuation of the drug.

Keywords: valproic acid – epilepsy – pancreas – acinar cells – islet cells.

Oral

ID41: Celecoxib Analgesic, Anti-Inflammatory Actions in Presence of Alprazolam Using Formalin Test in Female Albino Mice

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A change in a drug's effect on the body when the drug is taken together with a second drug. This can decrease or increase the action of either or both drugs or cause adverse effects. Alprazolam is a short-acting benzodiazepine. It is most commonly used in short term management of anxiety disorders, specifically panic disorder or generalized anxiety disorder; other uses include chemotherapy-induced nausea. Celecoxib is NSAID, specifically a COX-2 inhibitor, which relieves pain and inflammation. It is used to treat arthritis, acute pain, and menstrual pain and discomfort. Aim of the work is to investigate the effect of alprazolam on celecoxib analgesic, anti-inflammatory effect, using formaline test in female albino mice. Methods: Six groups of mice were used. Subacute administration of drugs (i.p.) was as follow: Group I, control (1%T80, 5mg/kg), group II, celecoxib (50mg/kg), group III, alprazolam (1mg/kg), group IV, alprazolam (2mg/kg), group V, combined treatment of celecoxib and alprazolam (1mg/kg), group VI, combined treatment of celecoxib and alprazolam (2mg/kg). Formaline test was applied, using group administered tramadol (5mg/kg) as standard for phase I, and another group administered aspirin (200mg/kg) as standard for phase II. Results: Celecoxib and alprazolam, each alone, produce significant analgesic effect towards neuropathic pain (phase I); also each alone, produce ant-inflammatory action (phase II). Combined treatment of celecoxib and alprazolam produce analgesic and anti-inflammatory effect similar to alprazolam alone. Conclusion: Alprazolam partially antagonize the analgesic and anti-inflammatory effect of celecoxib.

Kay words: Celecoxib, alprazolam, anti-inflammatory.

Oral

ID42: Biological Effect of some Antibiotics on Bacterial isolated from Contact Lenses

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The main function of contact lenses is to correct the vision. This is usually the case with eye conditions such as myopia (short sightedness), hyperopia (long sightedness) and astigmatism. A major factor that may be responsible for the development of keratitis among contact lens users is the microbial contamination of their lens care system. The objective of this study was to Detection of bacterial contaminant of contact lens. The antibiotic was determined by measuring the diameter of the zone of inhibition. Our experimental samples were 50 contact lenses. placing contact lenses membrane was swabbed and immediately put it down in appropriate broth media and incubated at 37C for 18 hours. After incubation period a loop-full of broth media was transferred to agar media and incubated at 37C for 48 hrs. The antibiotic was determined by measuring the diameter of the zone of inhibition. It is concluded Ciprofloxacin (CIP), Cftazidim (CAZ), Impenem (IMP), Augmentin (AMC), Ceftriaxon (CRO), Tobramycin (TOB), Cefuroxim (CXM), Gentamycin (CN), Cefotaxim (CTX), Amikacin (AK), Chloramphenicol (C). The results of this study revealed that 68% of the swabs of contact lense were contaminant with different types of bacteria, Pseudomonas aeruginosa is the most frequent bacterial, next are Staphylococcus epidermidis, Staphylococcus aureus. The zone of inhibition test was showed that Ciprofloxacin, Cefotaxim, Ceftriaxon, and Impenem had large zone inhibitory effects, while Gentamycin and Amikacin have medium effective on some species of microorganisms. Augmentin has low effect against all microorganisms. On the other hand, our results indicated that, Cloxacline, was considerably less effective and had no inhibitory effect on all microorganisms. We can recommend that necessary cleaning of Contact lenses before and after use and a review by the specialist necessary to avoid to numerous health damages.

Keywords: Contact Lenese - Microbial Contamination - Optimum Hygienic Conditions.

Oral

ID43: Phenotypic and Genotypic Investigation of OXA23 Carbapenems producing *Acinetobacter baumannii* in Tripoli Hospitals

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Acinetobacter baumannii is an opportunistic pathogen causing various nosocomial infections. The aim of this study was to characterize the molecular support of carbapenem-resistant *A. baumannii* clinical isolates recovered from four hospitals in Tripoli, Libya. Bacterial isolates were identified and antibiotic susceptibility testing was performed. Carbapenem resistance determinants were studied using E-test; chromogenic culture media. Polymerase chain reaction amplification was used to determine the presence of blaOXA23 gene among isolates. A total of 119 isolates were characterized, overall the resistance prevalence was extremely high for aminoglycosides, fluoroquinolones, cephalosporins and carbapenems, all isolates were sensitive to colistin. In addition, 97.5% of isolates were identified as multidrug resistance. Highest levels of carbapenems were detected using chromogenic media (76.5%) compared with E-test (45.4 %). The carbapenem resistance-encoding gene detected were blaOXA23 (83.1%). This study showed that the high prevalence of blaOXA23 contribute to antibiotic resistance in Libyan hospitals.

Keywords: blaOXA23, *A. baumannii*, Libya.

Oral

ID44: Extraction, Quantitation, and Evaluation of Genomic DNA from Two Rat Tissues

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Background: Genomic DNA extraction for genotyping of rat is a common procedure in animal facilities. A suitable method of obtaining this DNA must not cause undue distress to the animal. Tail tip appears to be the most common sampling method for DNA extraction, both in young and adult rats. The aim of this study was to compare the quantity and quality of DNA extracted from tail tip and blood samples obtained from rats. **Methods:** Samples were collected from the tail and blood from seven rats aged 3.5 months and weighting 150-200 gram. DNA was isolated using commercial kits and concentrations and purity were determined by NanoDrop Lite spectrophotometry. The integrity of DNA was evaluated by agarose-gel electrophoresis. **Results:** DNA in all samples was extracted successfully but the intensities of bands after electrophoresis were heterogeneous. In general, DNA obtained from tail tip was more than that obtained from blood, with differences being not statistically significant (55.5± 26.40 ng/µL for tail tips; 46.6± 21.74ng/µL for blood; P= 0.2). The DNA purity (OD260/OD280) of DNA obtained from blood samples was slightly better than that obtained from tail tips, with differences being not statistically significant (1.87±0.09 for blood; 1.81±0.05 for tail tip; P= 0.1). **Conclusions**: Adequate amount and high-quality of DNA were obtained from blood and tail tissue of rats. These results support the previous recommendations for collection of minimal lengths of tail tissue from rats, making this method more suitable for the extraction of DNA from rat.

Keywords: DNA extraction, Rat tail, Genomic DNA.

Oral

ID45: Efficacy of Drugs Used for Hepatitis C in Outpatients in Central Tripoli Hospital

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Background: The global epidemic of hepatitis C is a serious public-health problem. Hepatitis C is contagious liver disease caused by hepatitis C virus. In most infected people viremia persists, and is accompanied by variable degrees of hepatic inflammation and fibrosis. Aim of work: Screening for the drugs used for treatment of hepatitis C patients and their prognosis in infectious diseases department. Design of the work: Data collected from patients files from year 2015 to 2017. Descriptive statistics was applied using Excel. Results: In 2015, patients with hepatitis C account for 15.6%; in 2016, 84.6%; in 2017, 47.7% of the total number of OPD visit. 62% of the patient at the age 31_60 years old. 69% of the patients are males. 76% is new patients, while 16% is relasper patients. Genotype 1, is 47% of the patients followed by genotype 4 (31%). Drug responders was 78% of the cases. 87% of the patients suffer hepatitis C only, 10% of patients suffer HIV also. Harvoni is used for 46% and pegintron 19% of the cases. Conclusion: Currently, no available vaccines for HCV are licensed or in use. Treatment of chronic hepatitis C infection has two goals: First to achieve sustained virological response; second goal is to prevent progression to cirrhosis, or hepatocellular carcinoma. Medication that given to the patients in Tripoli center hospital (infectious diseases department) from 2015 to 2017 include: In 2017, there have been many changes in the treatment of hepatitis C infection with new and more effective (direct-acting antiviral agent), Harvoni that demonstrate superior sustained virological response rate. Also prescribed PEGylated interferon alfa, combination therapy with polyethylene glycosylated IFN-alpha2a or IFN-alpha2b and ribavirin is currently the standard therapy for chronic hepatitis C. This has made greet work in improve clinical outcome of patient with hepatitis C infection.

Keywords: hepatitis C, infection, liver, patient.

Oral

ID46: The Pattern of Antihypertensive Medications Uses and Blood Pressure Control in Patients with Diabetes Mellitus

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Background: High blood pressure is a dangerous disease that becomes even more problematic when coexist with diabetes. The aim of this study is to evaluate the pattern of antihypertensive medications and blood pressure control in hypertensive diabetics. **Patients and Method:** A clinical case-series study was conducted on a sample of type II diabetic and hypertensive patients attending diabetes clinics of Benghazi Medical Center. **Results**: 267 patients were investigated, their age range is 36-79 years (mean 62.7±8.8), 58% are > 60 years, females represent 65. 2%. Duration of diabetes and hypertension are close and range between 1-44years. ACEIs is the most frequent mono-therapy used by 39.3%, combination therapy used by 44.5%. SBP is controlled in 66.3 %, whereas DBP is controlled in 83.5%. HbA1C was elevated in 66%. Ischemic heart disease is the commonest comorbidity. Age of > sixty is associated with longer duration of hypertension (P=0.00), greater likelihood of combined antihypertensives (P=0.003). less chance of ACEIs use (P=0.001). **Conclusion**: Older age is associated with greater duration of hypertension, and more chance of combined antihypertensives.

Keywords: Diabetes mellitus, blood pressure control, antihypertensive drug.

Oral

ID47: The Role of Taking Medicine, Nutrition and Exercise to Reduce the Complications of Diabetes

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The aim of this study was to tracing the effects of diabetes on liver function, kidney function and the role of care, take medication, sport exercises and health nutrition for patients in reducing these effects. In: Health Center / Lab - Boshra Shifa Laboratory - Amal Laboratory in Al-Asabah area. The study was based on a personal interview of the patients; forty patients were interviewed and questions were asked: (How old are you, the date and duration of the disease, type of disease, attention to medications, etc). The study also included healthy people (10 people) for comparison. The results showed that there is a relationship between diabetes and other functions of the body through the analysis of kidney and liver functions. Most diabetics suffer from high levels of fat and cholesterol due to neglect of healthy nutrition which leads to disorders and high levels of fat and cholesterol. There was also a positive relationship between the age of patients and the level of sugar in the blood and deterioration of kidney and liver functions. It was also observed that when patients are interested in taking medications, follow diet and exercise, the results of their tests are good.

Keywords: Diabetes, Complications, Care, Health nutrition, Al-Asabah.

Oral

ID48: The Effects of Radiation on Hematological Parameters of Technicians in X Ray Department

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Background: X-ray is a type of ionized radiation. Long exposure leads to serious hazard to workers. This study aimed to evaluate the effects of radiation on the workers' blood and determine its relationship with age, gender, qualification levels and years of experience. **Methods**: a cross sectional study design was carried out in five different hospitals in Benghazi between February and May 2018. A total of 76 persons were included and divided into two groups; 50 exposed workers (group A) and 26 non-exposed (group B). Data were collected by using a multiple-choice questionnaire about demographic information of workers and taking blood samples to test complete blood counts (CBC). **Results**: There were significant differences between two groups in WBC, MCHC, and MCV. We found a decrease in NEU and HCT and increase in MCHC and LYM levels. Furthermore, it reported a disturbing in WBC, PLT and MCH. Additionally, there were a positive relationship between age and years of experience with MCHC counts. However, the level of workers education did not have any association with effects of x ray radiation on workers' blood. Conversely, there is association between workers' gender and MCT, PLT and MCH. **Conclusion**: exposure to x-ray causes hematological disturbances on technicians that leads to several health effects such as anemia and cancer.

Keywords: Radiation, Blood, Technicians, X ray.

Oral

ID49: The Accidental Acute Pesticides Poisoning Cases Admitted to the Children Hospital in Benghazi, Libya

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The use of pesticides is well organized and often dangerous; their easy availability makes them a popular way of hurting oneself. Studies on accidental chemical poisoning are very limited in Libya. The objective of this study was the assessment of acute poisoning rates in children from 2012 to the end of 2016, and determination of the significant factors affecting the rate trend in Children's Hospital, Benghazi, Libya. Medical records of patients that attended the hospital during the period from 2012 to 2016 were reviewed. Data were analyzed using the Statistical Program for Social Sciences (SPSS) version 19 to determine the presentation rates for pediatric poisoning by pesticides and the determinants of hospital admission. The records showed a total of 113 children's cases occurred during the last five-year period. The most vulnerable age group included children >5 years old (92.7%). Cases involving males (61.06%) outnumbered the females (38.9%). Almost all of the patients poisoned with organophosphorus and carbamates (83.1%) and fully recovered after the treatment.

Keywords: Children, acute pesticide poisoning, Hazard, hospital.

Oral

ID50: The Sphingosine 1-Phosphate Receptor 2 Is Shed in Exosomes from Breast Cancer Cells and Is N-Terminally Processed to A Short Constitutively Active Form That Promotes Extracellular Signal Regulated Kinase Activation and DNA Synthesis in Fibroblasts

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The work revealed for the first time the shedding of the GPCR, sphingosine 1-phosphate receptor 2 (S1P2) in hsp70+ and CD63+ containing exosomes released from MDA-MB-231 breast cancer cells. The S1P2 (40 kDa) receptor is taken up by fibroblasts, where it processed to a short (36kDa) constitutively active form, which is able to stimulate the extracellular signal regulated kinase-1/2 (ERK-1/2) pathway and DNA synthesis. An N-terminally construct of truncated S1P2 receptor congruent to the truncated form produced in fibroblasts was found to be constitutively active after overexpression in HEK293 cells. A postulation was made based on the existing crystal structure of the homologous S1P1 receptor, proposes that the N-terminus of S1P2 receptor in the inactive-state might constrain TM1, and thus, retain compressive action on TM7. This is in turn might favor and stabilize the closed basal state interface between TM7 and TM6. A relaxation of TM1 and separation of TM7 and TM6 was assumed to occur after N-terminus removal of S1P2 receptor. This configuration is important in G-protein engagement and opening of intercellular interface of the receptor for coupling and initiation of intercellular signaling. Thus, removal of the N-terminus of S1P2 receptor is likely to promote G-protein coupling.

Keywords: cancer, exosomes, fibroblasts, sphingosine 1-phosphate.

Oral

ID51: Study of the Relationship Between GGT Enzyme and Risk Factors for Cardiovascular Disease in Type 2 Diabetic Patients

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Background: Diabetes has many serious complications on health, including cardiovascular disease, so one of the most important goals of scientific researches in this area is to understand the mechanism of occurrence of these complications, their early prediction and prevent their occurrence. γ-glutamyltransferase (GGT), which maintains cellular concentrations of glutathione, may be a marker of cardiovascular disease in diabetics. This study aimed to determine the relationship between GGT and traditional or emerging cardiovascular disease risk factors. **Method**: serum samples were collected from 318 of diabetes patients and 100 normal healthy control. GGT activity, lipid profile, glucose and HbA1c analysis were done using kit methods. **Results**: The results showed significant differences between samples of diabetes patients and control in GGT activity, FBG, HbA1C, TG and BMI. **Conclusion**: GGT may be used as a marker for cardiovascular disease in diabetics.

Keywords: GGT- Diabetes- Cardiovascular disease- Risk factors.

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Oral

ID52: Prevalence and Risk factors of Diabetic Peripheral Neuropathy in Patients with Type 2 Diabetes Mellitus at Diabetes clinic in Benghazi Medical Center, Benghazi, Libya

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Background: Diabetic peripheral neuropathy (DPN) is common among people with diabetes and can result in foot ulceration and amputation. **Objective**: To estimate the prevalence and risk factors of diabetic peripheral neuropathy among patients with type 2 diabetes mellitus (DM) at diabetes clinic in Benghazi medical center (BMC), Benghazi, Libya. **Patients and methods**: Three hundred and sixty-seven patients with type 2 DM [127 (34.6%) males and 240 (65.4%) females] were included in this cross-sectional study. The subjects aged ≥18 years, they attended the outpatient diabetes clinics at BMC from May 2015 to October 2016, for routine follow-up. Patients with type 1 DM, gestational diabetes, and latent autoimmune diabetes in adults (LADA) were excluded. Data including gender, age, type of DM, duration of DM, history of smoking, history of hypertension, weight, height, glycosylated hemoglobin (HbA1c), total cholesterol, triglyceride, LDL, HDL, creatinine and urea were obtained by prepared proforma. Peripheral neuropathy was diagnosed in presence of numbness, paresthesia, 10-g monofilament examination, loss of vibration and joint position sensations. The association between DPN and its risk factors, in addition to independent predictors of DPN were determined using multiple stepwise logistic regression and presented as an odds ratio (OR) and 95% confidence interval (CI). Data was analyzed using IBM SPSS 23 statistical program. **Results**: The prevalence of the prevalence of DPN was (30.5%) in the studied group. A statistical significant association found between DPN and age (P=0.014), duration of DM (P<0.001), macrovascular complications of DM (P<0.001), diabetic retinopathy (P=0.001), diabetic nephropathy (P<0.001), poor glycemic control (high HbA1c) (P<0.001), hypertension (P=0.011), uncontrolled blood pressure (BP) (P=0.007), and insulin treatment (P<0.001). Multiple stepwise logistic regression analyses revealed two independent risk factors influencing DPN: Diabetic nephropathy (OR= 1.976, 95% CI: 1.289-3.027), (P=0.009); and insulin treatment (OR= 3.430, 95% CI: 2.021-5.821), (P<0.001) were significant independent predictors of DPN. **Conclusion**: The overall prevalence rate of DPN in this study was (30.5%) among patients with type 2 DM. It increases with presence of diabetic nephropathy and insulin treatment.

Keywords: Diabetic peripheral neuropathy, Diabetes mellitus, Prevalence, Risk factors.

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Oral

ID53: Knowledge of Libyans about Heart Disease: A Cross-Sectional Survey

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According to WHO data published in 2017, coronary heart disease deaths in Libya reached 25.12% of total deaths, placing Libya 27th worldwide; coronary heart disease being the No.1 cause of death in Libya. The study purpose was to determine the level of knowledge of lifestyle risk factors for cardiovascular disease among Libyan citizens, and accordingly aims to help identify high risk groups and target them. Although there have been studies conducted on cardiovascular disease and its related risk factors in Libya, unfortunately there have been little to no efforts to seek insight into the knowledge and awareness of the population, especially the youth and the identification of at-risk groups. The total number of participants was 107, aged 13-67 (mean: 31.4). Out of the 107, 45% were male and 55% were female. It was found that less than half of the participants almost never exercise (42.1%). There was no distinction between genders, age groups or educational level in regards to exercising habits. The participants were predominantly non-smokers (80.4%). Those aged less than 25 are more likely to have ceased smoking. Smoking habits did not differ by educational level. Respondents aged more than 45 were more likely to have their cholesterol and blood pressure checked within the last 18 months. The overall recognition of preventive measures was relatively low with the exception of getting enough exercise and quitting smoking which were selected by 78.5% and 55.1% respectively. On the whole, females had a greater knowledge of reduction of heart disease than males. Remarkably, education and age did not make a difference in the awareness of preventive measures. This is the first known study in Libya to demonstrate the knowledge of Libyan youth and adults on CVD risk factors and public awareness. The study participants show lack of knowledge on CVD risk factors which shed light on the necessity of health promotion and awareness campaigns and primary health care follow-up for the at-risk groups. Furthermore, prevention strategies should be employed decrease overall morbidity and mortality from CVD in the Libyan population.

Keywords: Cardiovascular disease, knowledge, Symptoms, Risk factors, Heart attack.

Oral

ID54: Age, Gender and Pathological Differentiation of Colorectal Carcinoma in Western Libya; A Report from 2002 until 2015 from Tripoli Pathology-Based Cancer Registry

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The aim is to provide a comprehensive overview of colorectal cancer statistics in Tripoli Medical Centre. Incidence rates and trends by age, sex and degree of differentiation for cases were calculated from 2002 to 2015. A descriptive, retrospective study was conducted on 1559 patients with colorectal adenocarcinoma admitted into the histo-pathological department in the TMC from 2002- 2015. The final analysis included 1241 patients; 52% of which were males and the remainder (48%) were females. Patients' ages ranged from 6-100 years old with a mean of 57.89 ±2.2. The males were predominantly older than the females when first diagnosed with CRC across the years (P=0.023). Overall, males had a higher incidence of CRC than females, particularly significant in 2005 and 2008 (p=0.043 and p=0.050 respectively). The incidence has remained fairly stable with no significant variation between the years. Almost half of the cases were well differentiated adenocarcinomas, 35.5% moderately and 16.2% poorly differentiated. Of significance among age groups; CRC is more likely to present as poorly differentiated in those aged less than 40 than any other age group and additionally less likely to present as moderately differentiated. Since 2012 there has been a significant dominance in the moderately differentiated type of CRC rather than the well differentiated.

Keywords: Colorectal Cancer, incidence, Tripoli Medical Center, Tripoli.

Oral

ID55: Cardiovascular Risk Assessment among End Stage Kidney Disease Patients on Dialysis

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It has been previously established that cardiovascular disease (CVD) is associated with worst survival rates in dialysis patients. Studies have found that the leading causes of end stage kidney disease in Libya were diabetic kidney disease, chronic glomerulonephritis, hypertensive nephropathy and congenital/hereditary diseases. Registry studies indicate that CVD as an independent risk factor account for approximately 50% of deaths in this patient population. Overall mortality rates in CVD dialysis patients reach up to 10-20 times higher than that of the general population; hypertension being the most prevalent comorbidity. All-cause mortality in CVD patients on renal dialysis was significantly higher than that of non-CVD patients on renal dialysis. This study aims to investigate cardiovascular risk on patients with end stage kidney disease on dialysis in Kortoba Medical Center for Renal Dialysis using the Framingham risk score (FRS) to assess the 10-year risk of cardiovascular events. After exclusion according to the set criteria of total of 124 subjects remained. The patient's ages ranged from 30-73 (with a mean of 49.4 ± 13.0) and the majority of the participants were found to be male (58%). Males, in comparison with females, had a significantly higher cardiovascular risk (P=0.039). Patients aged <60 had a much higher risk than the other age groups (P=0.001). Moreover, participants aged 30-40 were at a significantly lower risk of cardiovascular disease (P=0.000). The moderate risk group had considerably more patients suffering from borderline high triglyceride levels when compared with the low risk group (P=0.004). Additionally, those with high fasting blood sugar levels had a higher cardiovascular risk (P=0.002). It was also found that neither the duration on dialysis nor whether the participant was occupied or not affected the cardiovascular risk. A substantial amount (53.3%) of our study population is at moderate or high risk of developing cardio vascular disease. A male gender, increase in age, high blood pressure, elevated serum glucose levels and increases blood triglycerides all contribute to the increased risk. Although the previous mentioned are not all modifiable variables some can be modified or improved to decrease the risk.

Keywords: End Stage Kidney Disease, Renal Dialysis, Cardiovascular Risk, co-morbidity.

Oral

ID56: Effect of diabetes mellitus on prothrombin time and activated partial thromboplastin time

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Background: Diabetes is a chronic disease caused mainly by the inability of the pancreas to produce sufficient amount of insulin, or as a result of the body's fee to use insulin effectively in the body. High concentration of blood sugar may cause serious damage to certain organs of the body, especially in the blood vessels and nerves. This study was designed to investigate the effect of diabetes on the process of hemostasis using prothrombin time (PT) and activated partial thromboplastin time (APTT). **Methods**: A 100 blood samples were collected from patients with diabetes mellitus in Sugar clinic in Sabha, aged between 15-88 years. 48 sample were collected from patients who received oral hypoglycemic tablets, while 52 samples collected from people using insulin injection. 34 blood samples were served as control sample collected from healthy volunteer. A 5 mL of venous blood was collected, 2 ml from it placed in tubes containing sodium citrate anticoagulant to perform PT and APTT. The rest of the sample was placed in tubes containing sodium fluoride anticoagulant to perform fasting blood sugar test (FBS). Thereafter, tubes were placed in the centrifuge at 3000 RPM to get plasma. **Results**: The results showed mean of PT for patients was 19.437 ± 3.572 seconds, the mean of APTT was 35.96 ± 1.500 seconds and the mean of FBS was 229.72 ± 80.396 mg / dl. While, the mean of PT, APTT and FBS for control was (12.81 ± 1.590 sec), 25.356 ± 2.122 seconds, and 91.91 ± 12.510 mg / dl. The results also showed that there was significant prolonged time in PT and APTT in patients compared to healthy patients (P value = 0.000). Moreover, PT and FBS levels were higher in patients who use insulin injection with significant differences (P value=0.000), while no significant differences were found in APTT. **Conclusion**: From the present study it may concluded that diabetes mellitus had effects on PT and APTT.

Keywords: Diabetes mellitus, prothrombin time, activated partial thromboplastin time.

Oral

ID57: The Effect of Iron Deficiency Anemia on Glycated Hemoglobin in Non-Diabetic Reproductive Age Women

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Glycated hemoglobin (Hb A1C) percentage test has measured to reflect the degree of glucose concentration imbalance over two to three months ago and to monitoring of diabetes mellitus, addition to blood glucose Hb A1C values differ depends on turnover of erythrocytes, hemoglobinopathies, presence of anemia, iron deficiency and temperature. To determine the effect of iron deficiency anemia on Hb A1C in non-diabetic women at reproductive age. FBS, Hb A1C values, S iron and TIBC tests were performed on 42 women (18 had iron deficiency anemia and 24 were not anemic as control) aged 17- 45 years, at 1 April to 24 May 2017. Our results showed normal values of HbA1C (5.39%) and FBS (99.9mg/dl) of anemic compared with the control group (5.43%) and (97.20 mg/dl) respectively, and showed non- significant difference between them. Also, there was significant difference between IDA group and control group, with decreased concentration of S iron, Hb, MCH and MCV in anemic group. It can be concluded that there was no effect of iron deficiency anemia in non-diabetic reproductive age women on HbA1c percentage.

Keywords: glycated hemoglobin, Serum iron, iron deficiency anemia, anemia, hemoglobin.

Oral

ID58: Vaginal Infections Among Women Attending Gynaecological Clinics in Brack Al-Shati, Libya

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Background: Vaginitis which includes bacterial vaginosis, candidiasis and trichomoniasis is a major gynecological problem of reproductive age females. This study aimed to identify common causes of vaginitis among women attending gynecological clinics in Brack Al-Shati, Libya. **Methods**: High vaginal swabs were collected from 102 women. Isolation and identification of bacteria was done according to standard microbiological techniques. For Candida spp. and Trichomonas vaginalis detection, culture in Sabouraud agar plates and direct microscopy were used, respectively. **Results**: The results showed that 53.9 %, 15.7%, and 4.9 % of women had bacterial vaginosis, candidiasis and trichomoniasis respectively. Bacterial strains isolated from vaginal discharges included Staphylococcus epidermidis, Staphylococcus aureus, Escherichia coli, Streptococci, Neisseria gonorrhoeae, and Pseudomonas spp. **Conclusion**: The study showed bacteria and candida as the predominant pathogens identified from vaginal swabs. Proper laboratory diagnosis to identify causative organisms is vital for optimal therapeutic outcome.

Keywords: Vaginal infections, Vaginitis, Bacteria, Candida spp., Trichomonas

Oral

ID59: Sudden Infant Death Syndrome; A survey study

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Sudden Infant Death Syndrome (SIDS) is a well-known phenomenon of inexplicable and incomprehensible cause. It was reported since the end of last century, but number of cases had increased in recent years in some countries. This is due to, in part, effect of media on the subject to bring it to the surface. SID is the leading cause of death in infancy between the first week and first year of life. It is the most common cause of post-perinatal mortality. The adopted international definition of SIDS is "any sudden unexpected death of any infant (1 w-1 y of age) apparently healthy, Without any explained cause after postmortem examination and complementary investigations". The term and abbreviation of SIDS should be used only for such unexpected unexplained infant death, even though that was not the case nowadays in many institutes. In our study, about 60.6 % of SID cases were of unexplained group, of which % 60 were males and more than half were found in age group 0-3 months. Highest frequency was in autumn and Winter. In the majority of cases, past medical history was nil. During the course of autopsies and complementary investigations, apart from nonspecific signs of sudden death, there were no other specific findings. A complete standard autopsy followed by a series of complementary investigations should be performed in all cases with a suspicion of SIDS.

Keywords: Obscure death -Infant mortality - Sudden Infant Death (SID).

Oral

ID60: Congenital Malformations and its Relation with Consanguineous Marriages at Benghazi Libya

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Background: Congenital malformations are considered as main causes of disability and mortality among children in developing and developed countries. Consanguineous marriages one of the most important factor in occurrence of congenital malformations. High rates of consanguineous marriages were reported in the Arab countries, including Libya may reach to 30% of the population (WHO 2016). the objective of this study was to determine the incidence, types of abnormalities and outcome of congenital malformations among newborns admitted to El-Jamahiriya Hospital with consanguineous marriages. **Methods**: A cross-sectional study was done. All affected babies were examined within 72 hours after delivery. The congenital malformations were classified according to the International Classification Disease (ICD-10) system. **Results**: the total 16765 neonates were delivered alive through one-year period, 4431 were admitted to the neonatal intensive care unit (NICU) (22.11 per 1000 live births) due to different medical problems out of them 98 had congenital malformations (5.8 per 1000 live births). More than one quarter (27.8%) of those with congenital malformation was borne to consanguineous marriage. The most common malformations were due to chromosomal disorders, consanguinity, lack of antenatal care and chronic maternal diseases. **Conclusion**: from this study, we can conclude that Consanguinity is high among Libyan marriages and it plays an important role in the occurrence of congenital malformations. Infant morbidity, child disability and mortality.

Keywords: Congenital malformations, incidence, consanguinity, neonatal intensive care unit (NICU), International Classification Disease (ICD-10) system.

Oral

ID61: Pathogenicity Marker Detection of Helicobacter Pylori Infection Among Healthy Blood Donors. What Is the Benefit?

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Background: Helicobacter pylori (H. pylori) is common and still one of the most frequent bacterial gastric pathogens in developing countries. Virulence factors of H. pylori such as cag pathogenicity island (cagPAI) have been demonstrated to be predictors of gastric diseases. **Aims**: To determine the prevalence of the H. pylori and its pathogenicity marker (CagA). To correlate with the risk factors in voluntary healthy blood donors in Tripoli city. **Methods**: A blood sample of 175 adult healthy blood donors (50 Females, 125 Males mean age 35 years), anti-H. pylori IgG and anti-CagA IgG seroprevalence were determined with ELISA method (Biotech USA), questionnaire covering Sociodemographic variables were completed by interview. **Results**: The overall prevalence of H. pylori was 85.1% in the healthy Blood donors, there was a gradual increase with age, and no statistical difference between genders. However, cagA in H. pylori strains was 29% (44/153). **Conclusion**: In Tripoli region, H. pylori detection in those adult healthy blood donors was high of aged 25-40 years, which might be related to the socioeconomic status, domestic crowding and the source of drinking water as a major risk factors for H. pylori infection. The occurrence of cytotoxicity species of H. pylori (CagA+) was high also in such adult Blood donors. Also, we confirm that as a non- invasive method, the serologic test such as (ELISA) is a useful technique to detect H. pylori infection with CagA+ strains. However, larger studies in other regions of Libya should be conducted to confirm our study findings.

Keywords: H. pylori – cagA – serology – blood donors, asymptomatic

Oral

ID62: New Records for Increasing of Antimicrobial Resistance Among Acute Otitis Media (AOM) Patients in Tripoli City, Libya

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Background: This research investigation to address the incidence of different bacteria and their antibiotic resistance profile influence the treatment of acute otitis media (AOM) in clinical practice in Tripoli city, Libya. Methods: Discharge ear fluid of AOM patients' sample and nasal swab samples were collected from 246 patients during 6 months in 2017. Bacterial pathogens from AOM samples were also studied and the whole bacterium was characterized using modern VITIK 2 technologies. Bacterial culture and antibiotic sensitivity testing were performed for the 127 (51.6%) positive AOM patients. Results: Most of the patients from Tripoli 233 (94.7%) and female patients is the highest 141 (57.3%). Highest age group affected between 1 to 5 years 146 (59.3%). The most common pathogenic bacteria is Staphylococcus aureus, Streptococcus pneumoniae, Pseudomonas aeruginosa in 38 (29.9%), 26 (20.5%), 25 (19.7%) respectively. Most antibiotics sensitive are ciprofloxacin then amikacin in 115 (90.6), 79 (68.7%) respectively.

Keywords: Acute otitis media (AOM), VITIK 2, Tripoli, Staphylococcus aureus, Streptococcus pneumoniae.

Poster

ID63: Drug Utilization Review of Anticancer Drugs in Diagnosed Cases of Childhood Leukemia

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Background: Drug Utilization Reviews (DUR) is defined as an authorized, structured, ongoing review of healthcare provider prescribing, pharmacist dispensing, and patient use of medication. The objectives of this study were to review the utilization of anticancer drugs and other adjuvant drug therapy. **Methods**: An observational cross-sectional retrospective study was conducted in February 2018 over a period of 2 years at department of Oncology and Hematology, Pediatric Hospital Benghazi, Benghazi Libya. The candidate in the study aged <16 years and were receiving chemotherapy in wards. Patients diagnosed with leukemia and undergoing radiotherapy, surgery and bone marrow transplantation were excluded from the study. **Result**: On analyzing the data of 58 patients, there were (n=30, 51.7%) male and (n= 28, 49.3%) female with ratio 1.07:1. The demographic distribution of patients was (n=31, 53.4%) in rural area and (n=27, 47.6%) in urban area. The Mean±SD of patients age was 5.4±3.4 while most common type of leukemia was acute lymphoid leukemia ALL (n=47, 81%) followed by acute myeloid leukemia (n=10, 17.3%) and chronic myeloid leukemia (n=1, 1.7%). There were 14 anticancer drugs prescribed 114 time, Mercaptopurine was most frequently used anticancer drug (n=27, 23.6%) followed by Methotrexate (n= 22, 19.2%), antibiotic and antiemetic were most commonly used adjuvant drug therapy with percentage (n=107, 30.9%), (n=57, 24.9%), respectively. **Conclusion**: drug utilization review should be done in every healthcare facility to investigate medication duplication, irrational prescribing practice and attachment, detachment of prescriber to national and international guidelines.

Keywords: Drug, utilization, healthcare, anticancer.

Poster

ID64: Determination of Antibodies (IgG, IgM) Against of *Toxoplasma gondii* in Males and Females in Al-Bayda City-Libya

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Toxoplasmosis is a worldwide infection caused by the intracellular parasite *Toxoplasma gondii*. Laboratory diagnosis, i.e. ELISA and serologic assays, plays the main role in the diagnosis of infection. Aims of the study was to determine of antibodies (IgG, IgM) against of *Toxoplasma* were measurement by ELISA method in both genders their ages are between 16 days-49 years. Serum samples were collected from (326) specimen in Al-bayda between November 2016 and July 2017. These were screened with enzyme-linked immunoassays for the presence of anti-Toxoplasma IgG and anti-Toxoplasma IgM antibodies. 38 (33.6%) specimens were positive for anti-T. gondii IgG, while 30 (26.3%) specimens were positive for anti-T. gondii IgG and IgM antibodies and 8 (7.0%) specimens were positive for anti-T. gondii IgM antibodies. The toxoplasmosis is still a serious issue. Once a person has been exposed to Toxoplasma gondii, that person will have some measurable amount of IgG antibody in their blood for the rest of their life. Diagnostic methods such as capture ELISA could be useful to detect parasite antigens and DNA in a very short time after the infection. According to the prevalence of positive cases in these patients, it is necessary to examine the patients for toxoplasmosis before, during and after treatment.

Keywords: Toxoplasmosis, Toxoplasma gondii, ELISA, Avidity.

Poster

ID65: Identification and Characterization of Pathogenic Bacteria Isolated from Patients with Conjunctivitis and their antimicrobial susceptibility pattern in Ophthalmology Hospital in Benghazi city, Libya

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Background: Bacterial conjunctivitis has a worldwide distribution, affecting persons of all ages, races, social strata and both genders. The present study aimed to isolate and identify the bacteria causing conjunctivitis and their sensitivity to antibiotics. **Methods**: Eye swabs were collected from 200 patients of different age groups during the period from June to October, 2016. Samples were processed for culture, isolation and identification by Gram stain and potassium hydroxide 3%, morphological, API profiles. **Results**. Staphylococci species were identified to be the most common pathogen caused eye infection. 86.8% of all isolated bacteria were sensitive to gentamycin. Natural Propolis sensitivity tests were amounted to be 91.42%. **Conclusions**: Propolis has recorded highly growth inhibition effects against of S. aureus, more than gentamycin which amount to be 20 - 41 mm.

Keywords: Bacterial conjunctivitis, Propolis, Eye.

Poster

ID66: Localizing Autotransporter EspC during Secretion to Identify Potential Targets for Novel Antimicrobials

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Autotransporters (ATs) are the largest family of virulence factors secreted from Gram negative bacteria share a unique unifying structure, making them potential targets for novel antimicrobials. The serine protease ATs of Enterobacteriaceae (SPATEs) includes EspC which is secreted by enteropathogenic E. coli. The precise steps by which EspC is secreted are still unknown. By using both traditional and sophisticated optical microscopes s here we show that EspC tagged with two different fluorescent tags locates to a structure that resembles the spiral cytoskeleton actin homologue MreB of E. coli when it has its β-barrel domain attached. In contrast, a mutant version of EspC lacking the C-terminal β-barrel domain has a diffuse localisation. We also found that the production of another AT (AaaA, derived from P. aeruginosa) also generated spiral structures that resemble the ones observed with EspC. Moreover, perturbing the structure of MreB with A22 compound disrupted the localisation of EspC. Collectively, these results indicate that the spiral localisation of EspC is dependent upon its C-terminal β-barrel domain and MreB and importantly seems to be conserved among ATs. Furthermore, interfering with EspC secretion perturbs cell shape which could suggest has potential as a novel antimicrobial strategy. Fully defining the molecular mechanism of this spiral formation will definitely provide additional insight to identify new potential targets for the development of inhibitors to tackle the emergence of antibiotic resistance bacteria.

Key words: Autotransporter, MreB, bacterial cytoskeleton, protein secretion

Poster

ID67: Tracing Vitamin C Content in Some Medicines Marketed by Pharmacies in AL-Asabaa

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This study conducted during 2018, to estimate the vitamin C and tracing its content in some medicines from different companies (PPARACETAMOL & VITAMIN C, PURAFIT, VITAMYL, C- VIT DAILY, VITAMIN C 500 and VITAMIN C 500mg) marketed by pharmacies in AL-asabaa district. By comparing the results obtained in this study with the samples contained in the reports and the accompanying reports, the content of vitamin C in the first sample PARACETAMOL & VITAMIN C, the second PURAFIT and fifth VITAMIN C 500 matched, while the content of samples VITAMYL, IV C - VIT DAILY and the sixth VITAMIN C 500mg results were lower than in the sample packs and in the reports attached to them, but they are considered significant amounts and contribute to the daily intake of vitamin C. So, we need activate control and inspection of imported medicines.

Keywords: vitamin C, medicines, pharmacies, AL-asabaa.

Poster

ID68: Exploring the Ready Knowledge of Drug Prescribing Among Junior Doctors in Libya

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Background: Essential drug knowledge is a ready knowledge of commonly prescribed drugs acquired in order to prescribe rationally in a clinical setting. The present study aims to determine knowledge about commonly prescribed drugs that junior doctors should have for rational prescribing, and to identify the level of their ready knowledge. **Patients and Methods:** A questionnaire was distributed to 162 junior doctors employed at public health institutions in the city of Tripoli, Libya, and were asked to complete information about safe prescribing of 3 commonly prescribed drugs (Bisoprolol, pseudoephedrine, and co-amoxiclav). Nineteen items in the questioner for each drug which were extracted from the British National Formulary, making a list of fifty-seven items. All items were divided into six categories of core knowledge: drug class, indications, method of administration, contraindication, interaction, adverse effects. The level to which junior doctors replay these statements was examined with a face to face assessment. Data obtained was analyzed using simple descriptive statistics. **Results**: A number of 19 statements per drug were considered to be ready knowledge important to good prescribing. Overall, Knowledge about 'drug class' (74.5%) and 'Methods of administration (86.4%) comprise most of the essential ready knowledge. Items concerning 'interactions' (23.8%), and 'Contra-indication' (36.1%) were little acknowledged. **Conclusion**: Junior doctors' ready knowledge, in our population sample, seem to be insufficient to good prescribing. Our findings could be used in assessing the prescribing skills of future junior doctors in our country.

Keywords: Junior Doctors – Prescribing Skill - Rational Prescribing.

Poster

ID69: Prevalence and Clinical Impact of Bacteria Causing Urinary Tract Infection in Libyan Renal Transplant Recipients

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This study aimed to know the prevalence of UTI; to find out model revealed importance and significance of predictors of UTI; and to find out effects of immunotherapy received by RTRs. 117 RTRs (73 males and 44 females) were included to study the bacterial UTIs from January to June 2014 at Transplant center, Tripoli. Midstream urine specimens were obtained from patients and studied using microscopic analysis. Bacterial isolates were identified by conventional biochemical tests, analytical profile index. Further, and Phoenix system. Blood samples were collected and investigated using Cobas Integra to evaluate renal function and Sysmex to analyze complete blood cells. Data were analyzed by SPSS version 20 using t-test, Mann-Whitney, ANOVA, Chi- square, Pearson correlation and automatic linear regression. UTIs were diagnosed in 28.3% patients [12 males (5 asymptomatic bacteriuria and 7 symptomatic UTI) and 21 females (7 asymptomatic bacteriuria and 14 symptomatic UTI). The isolated bacteria were 76% Gram negatives and 24% Gram positives. Gram negatives isolates include K. pneumonia (43.8%), E. coli (18.8%), E. cloacae (12.5%), K. oxytoca (6.3%), E. hermanni (3.1%), S. fonticola (3.1%), B. cepacia (3.1%), P. aerogenes (3.1%), Y. pseudotuberculosis (3.1%), and E. aerogenes (3.1%) while Gram positives include S. aureus (30%), S. saprophyticus (20%), and S. porcinus (20%), S. kloosii (10%), S. agalactiae (10%), and E. faecalis (10%). The results showed that 28/42 isolates were resistant to most of tested antibiotics, so these multiple resistant bacteria can be accounted as the most cause of UTI in RTRs. The more effective antibiotics were etrapenem, imipenem, meropenem, cefoxitin, piperacillin/tazobactam, and levofloxacin against Gram negatives while nitrofurantoin and ciprofloxacin against Gram positives. The higher incidence of UTI in females. Female gender, serum urea, TWBC, and some antibiotics as amoxicillin/clavulanic acid and flucloxacillin were significantly decrease hemoglobin and considered as risk factors for UTI. UTI cause kidney dysfunction and leukocytosis after induce anemia in our study. Furthermore, S. aureus significantly increase serum creatinine and urea whereas K. pneumonia and S. fonticola decrease hemoglobin. Finally, the immunotherapy had no significant impact on UTI as well as serum creatinine and hemoglobin but had significant effect on TWBC and serum urea. Patients should be evaluated for UTIs during routine outpatient follow-up, particularly female patient and those with anemia.

Keywords: UTI, RTR, Bacterial isolates, Antibiotic resistance, Immunotherapy.

Poster

ID70: A Design of Insulin Manufacturing Plant: Initial Proposal

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Majority of biopharmaceutical product are now approved via genetic engineering based on DNA technology insulin product the first biopharmaceutical material made by rDNA in 1982. Statistic of diabetes mellitus from WHO, globally estimated 422 million adults were living in 2014, compared to 108 million in 1980. The global prevalence has nearly double since 1980 rising from 4.7% to 8.5% of adult population. In Libya, according (WHO) it is estimated that there were 88,000 diabetic patients in year 2000, the prevalence is estimated to reach 245,000 diabetics by 2030 in Libya according to local epidemiological studies the prevalence for known diabetic patient aged over 20 years was 3.8%. There are urgent need to build a insulin-plant according (cGMP) to overcoming deficiency demand. Such project will get in easily manner to patients and improve local economy by reduce cost. Construction of the plant is important scientifically lead to increase research and development activity for drug improvement according national specifications. The project expected to take into account all previous statistic and outlook for insulin requirements and conditions provided assumes an insulin factory idea is proposed based on advances in industrial biotechnology.

Keywords: biopharmaceutical – genetic – insulin – diabetes.

Poster

ID71: Bacterial Uropathogens in Urinary Tract Infection and Antibiotic Susceptibility Pattern in Tripoli, Libya

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Background: Urinary tract infections (UTIs) are one of the most common human bacterial infections encountered by clinicians in outpatients as well as in hospitalized patients, and can lead to high risk of mortality. The aim of this study is to determine the types of bacteria isolated from the urinary tract infections and their resistance patterns in patients referred to different polyclinics in the city of Tripoli, Libya. **Methods**: This retrospective study was carried out in the department of Medical laboratory in different polyclinics in the city of Tripoli, Libya. A total of 270 urine samples were collected during this study period. Urine was collected from suspected cases of UTI patients. Identification of bacterial isolates was performed by conventional methods. Antimicrobial susceptibility testing of culture positive bacterial isolates was done by disk diffusion method according to Clinical Laboratory Standard Institute guidelines (CLSI). **Results**: A total number of 270 urine samples were collected with significant bacterial growth. The commonest bacterium isolated from the positive culture urine sample was *Escherichia coli* (53.5%) followed by *Klebsiella* pneumonia (22.8%), *Staphylococcus aureus* (14.9%), *Pseudomonas* (4.38%), *Staph. Hemolytic* (1.75%). *Pseudomonas* was highly resistant (75%) then *Klebsiella* and *E. coli* (35.2% ,34.6%, respectively), *S. aureus* was less resistance (23.3%). Gentamycin were the most (14.2% resistance) powerful antibiotic agent, followed by ciprofloxacin (18.6 % resistance), cefoxitin (32.3%). On the contrary, gentamycin and ciprofloxacin were also highly sensitive. **Conclusion**: Antibiotics resistance among UTI causative pathogens is a remarkable health problem. Education of physician, pharmacists, and other healthcare workers on the health risks associated with this issue and on the usefulness of restrictive use of antibiotics will help in tackling such a problem. Furthermore, other surveillance studies on antimicrobial resistance will help to guide the clinical treatment of UTIs in Libya in the future.

Keywords: UTI – Bacteria – Infection.

Poster

ID72: The Prevalence of CTX-M-15 among Escherichia coli Isolates Associated with Urinary Tract Infection in Tripoli 2017

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Urinary tract infections (UTIs) are among the most common bacterial infections encountered in clinical practice and account for significant morbidity and high medical costs. Most UTIs are caused by of the family Enterobacteriaceae mainly Escherichia coli and Klebsiella spp. High resistance rates to antimicrobials used in the treatment of UTIs among E. coli and other uropathogens have been reported worldwide, particularly in developing countries including Libya. The problem worst by emergence of extended-spectrum β-lactamases (ESBLs) that mediate resistance to β-lactam drugs among E. coli organism in recent years. However, there is little information on the detection of ESBLs genes in E. coli from patients with UTIs in the Arab countries using polymerase chain reaction (PCR) and in Libya such information is lacking. This study aimed to determine the prevalence of ESBLs and to detect CTX-M-15 gene among E. coli clinical isolates obtained from Tripoli hospitals. A total of 346 (222 female, 124 male) clinical E. coli isolates collected during 12 months from January 2013 to December 2013 from urine clinical specimens obtained from five teaching hospitals in Tripoli: Tripoli Medical Centre TMC; Tripoli Paediatric Hospital (TPH): Khadra Hospital; Aljala Hospital and Tripoli Central Hospital (TCH). The distribution of ESBL-producing E. coli varied among the different hospitals with the highest proportion in TMC (67.6%) compared with other hospitals: TPH (9.9%), Khadra hospital (9.9%), Aljala hospital (8.4%) and TCH (4.2%). Females provided 51/71 (71.8%) of the isolates expressing ESBL compared with male patient 20/71 (28.2%). According to antimicrobial susceptibility tests for ESBL producing 71/346 (20.5%) strains and non ESBL producers 275/346 (79.5%) there was variable degree of resistance against commonly used antibiotics. Extremely high resistance rates were observed to ceftriaxone, cefepime, and ceftazidime (93%-100%) among ESBL producer compared to non-ESBL producer (2.2-4.7%). High rates of resistance were also demonstrated to ciprofloxacin (67.7%) and cephotaxim (64.8), and lower levels of resistance (2.8%) were exhibited to amikacin, meropenem and etrapenem. Overall MDR were detected in 22.2% of isolates. The majority of ESBL-positive E. coli was positive for CTX-M-15 gene by PCR (61/71) (85.9%). This study highlights the high prevalence of ESBL production among E. coli in clinical setting in Libya. There is an urgent need for surveillance studies on antimicrobial resistance and prevalence of ESBLs among uropathogens to guide the clinical treatment of UTIs in Libya in the future.

Keywords: uropathogens – β-lactamases – gene – Libya.

Poster

ID73: Hydroxyurea, a small molecule with great potentials; Synthesis, Isomerism, Identification, Derivatization and Molecular Modelling

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Hydroxyurea an expensive anti-neoplastic drug has been synthesized applying two methods of historical importance with a percentage yield of 42%, identified successfully in the lab using novel and literature based qualitative tests and characterized by infra-red spectroscopic method, where a UV spectroscopy-based approach was experimented to assay the drug. Two novel derivatives of hydroxyurea were synthesized and characterized by IR spectroscopy, a Schiff's base and a Mannich base with their biological activity being evaluated utilizing molecular and pharmacokinetic modelling. A series of Schiff's bases are to be synthesized using the same optimized procedure of the successfully obtained salicylaldehyde based hydroxyurea Schiff's base, zinc complexes are to be synthesized employing the successfully obtained Schiff's bases. A novel cholesterol-linked Hydroxyurea is to be prepared and evaluated for potential targeted drug delivery exploiting mice-based lipid metabolism as a model. Evaluation wielding in-vitro cancer cell line, in-vitro enzyme kit-based investigation and bio-assaying using cancer induction approach in mice is to be applied to all the synthesized derivatives of Hydroxyurea in the near future.

Keywords: Hydroxyurea, qualitative, spectroscopy, drug delivery.

Poster

ID74: Physiotherapy prospects for club foot: A case study

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Club foot is a deformity in which an infant's foot is turned inward, often so severely that the bottom of the foot faces sideways or even upward. It's one of the common congenital foot deformities. physiotherapy for patients with club foot starts immediately after birth, A comprehensive rehabilitation program is essential to decrease patient's complications and improve functional independence. In this experimental study, we present a case study from September 2017 to March 2019, at Bani Waleed social security center. The patient suffers from significant shortening rigid equinus with deep crease above the heel, sever plantar flexion of metatarsals with deep plantar crease across the full width of sole of feet, high cavus and hyperextended big toes. physiotherapy program focused on stretching exercises and applications maintain correction after surgery. Combination between surgical treatment and physiotherapy succeed treatment plan and minimize complications of clubfoot.

Keywords: clubfoot, goniometer, brace, medical shoes.

Poster

ID75: Are there Opportunities for a Specialist Menopause Pharmacist in Libya?

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Background: A menopause is the permanent cessation of menses following the loss of ovarian follicular activity. **Aims**: To evaluate the knowledge of Libyan pharmacists about menopause and use of Hormone Replacement Therapy (HRT). **Methods**: A face-to-face study was conducted between November 2017 and February 2018. A questionnaire was designed in English and administrated to 100 pharmacists selected randomly from 20 private pharmacies and two main hospital pharmacies situated in Tripoli city, Libya. **Results**: Although 60% of pharmacists were familiar with the physiological changes associated with menopause, 99 %of them had the basic knowledge about the benefits of HRT; only 48% counseled menopausal women about HRT interactions. **Conclusions**: Despite the high level of awareness of Libyan pharmacists about menopause and the use of HRT, their consultation skills were poor.

Keywords: Menopause, women, pharmacist, pharmacy, hormone replacement therapy

Poster

ID76: Assessment knowledge and Practice Regarding Biomedical Waste Risk Among Nursing Staff and Housekeeping Workers at Benghazi Medical Center

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Biomedical waste is a series problem in the world. Careless disposal of these waste can lead to environmental pollution and spread of diseases among healthcare provider's, patient's and general people. These hazards are associated with poor biomedical waste management. The aim of the study is to assess knowledge and practice among medical staff and sanitary housekeeping workers. This paper is a cross sectional study was conducted in Benghazi Medical Center, Benghazi, Libya. The data was collected and the questionnaire was distributed from December 2016 to July 2017 in Benghazi Medical Center through personal observation, interviewing nursing staff and department heads in Laboratories, Delivery labor room, Oncology department, and Emergency department. There was imbalance dealing with medical waste and the hospital environment was missing the suitable utilities, the knowledge, and accurate practice with continuous training program for appropriate disposal, which are the basic problems faced medical waste management.

Keywords: Medical waste, awareness, healthcare staff, management

Poster

ID77: Chromosomal Mediated Biodegradation Efficiency of *Klebsiella Pneumonia* Isolated from Oil Contaminated Soil Samples

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Petroleum hydrocarbon are considered to be the most common group of persistent organic contaminants and are known to be toxic to many organisms. Bacteria involve in degradation of oil during which the complex toxic substance were detoxifying by the production of biosurfactant. The ability of bacteria to degrade hydrocarbons and survive is attributing to devolvement resistance by mutation. Therefore, specific gene was responsible for production of biosurfactant and degradation process. In this study, 57 *Klebsiella* pneumonia isolates obtained from 64 oil contaminated soil samples from automobile workshop and petrol station. Growth profile of the isolates culture in carbon free media supplemented by different carbon source (crude oil, benzene, engine oil) confirm there their biodegradation activity and potential. *Klebsiella* pneumonia isolate selected on the highest degrade clear zone on ager well diffusion method was further more subjected to gravimetric analysis to determine the degrading capacity of tested hydrocarbon which was 43% of benzene, 78 % of crude oil, and75% of engine oil. Emulsification indexes (E24) were 68%, 86%, and 84 % for benzene, crude oil and engine oil respectively. Through curing experiment, the isolate showed genetically stable, chromosomal mediated biodegradative activity. Hence, this strain can clean oil-polluted sites.

Key word: Biosurfactant, Biodegradation hydrocarbon-utilizing bacteria, Chromosomal mediated, Klebsilla pneumonia.

Poster

ID78: Detection and Characterization of Metallo-Beta-Lactamases Producing *Pseudomonas Aeruginosa* Isolated from Tripoli Hospitals

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This study aimed to determine the antibiotic resistance pattern in *Pseudomonas aeruginosa* species isolated from Tripoli hospitals: Burn and Plastic Surgery Center (BPSC) and Tripoli Medical Center (TMC), and evaluate the prevalence of MBLs bla-VIM gene using polymerase chain reaction (PCR). A total of 134 (71 males, 63 females) non duplicate nonconsecutive clinical isolates of *P. aeruginosa* were collected from different pathological specimens over 12 months from April 2013 to March 2014. Isolated organisms were identified to the species level and tested for their susceptibility to a variety of antimicrobial agents by the BD Phoenix Automated System. Phenotypic characteristic was performed using EDTA and MBL E-test strip. Then, MBL producing P. aeruginosa isolates were screened for the bla-VIM gene using PCR. The results of antibiotic susceptibility testing revealed that the isolates were resistant to tested antibiotics with different degrees, but all isolates were sensitive to colistin. Phenotypic screening for MBL production found that 31.3% are MBL positive. Imipenem-resistant (MIC of >8 µg/ml) (71.2%) were MBL positive; the majority (70.8%) of these strains were isolated from burn patients. Overall the rate of MDR was 53% and mainly associated with ICU burn patients and significantly higher among VIM producers. VIM-positive isolates (20.1%) had significant higher rates of resistance to certain antibiotics such as carbapenems, aminoglycosides, fluoroquinolones, cefepime and piperacillin-tazobactam compared to VIM-negative isolates. It was observed that all isolates that simultaneously positive for MBL E-test and EDTA was found to exhibit blaVIM gene and proved to be MDR and was only detected from burn ICU. The high rate of antibiotic resistance among *P. aeruginosa* strains expressing blaVIM gene are very alarming and can be responsible for serious infections especially burn patients. Therefore, guidelines and appropriate infection control measures are needed to prevent such infections among patients.

Key word: *P. aeruginosa*, Burn, infections, patients.

Poster

ID79: Colorectal Cancer and Its Risk Factors Among Patients Attending A Central Hospital in Tripoli, Libya

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Background: Globally, colorectal cancer was the third most common form of cancer. CRC occurs when abnormal tissues grow on the inner walls of the colon or rectum. These abnormal tissues commonly present in the form of polyps. This study gives an overview of magnitude of CRC incidence in Libya and to identify the role of bad habits in developing CRC. **Methods**: This study included 50 CRC patients, who attended outpatient clinics at Tripoli central hospital last quarter of the year 2018. Data collected by questionnaire full-filled from patient which the including criteria are age, sex, family history, physical activity, red meat consumption, inflammatory bowel disease, smoking, Alcohol consumption and overweight. **Results**: According to sex in this study distribution of CRC in females were 40% and 60% were male, males were affected more than females. The most affected age by colorectal cancer was in males aged 58-67 years and in females aged 48-57 years. In this study most risk factor of CRC was consumption a lot of red meat. **Conclusion**: Should be Creating awareness about adopting a lifestyle that incorporates adequate physical activity alongside a healthy diet inclusive of fruits and fibers could be the way forward in reducing the risk of developing colorectal cancer.

Key word: colorectal cancer, incidence, tissues.

Poster

ID80: Formulation and Evaluation of Gastro Retentive Floating (GRF) Tablets of Aspirin; Using Acacia Gum and Carboxy Methyl Cellulose

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The aim of this study was to formulate, develop and evaluate gastric retentive floating and swellable tablets of aspirin; which release the drug in a sustained manner over a period of 24 hours. Acacia gum and carboxy methyl cellulose were used at different ratios to prepare tablets. Buoyancy of tablets was achieved by the addition of effervescent mixture consisting of sodium carbonate and citric acid. Tablets were prepared by wet granulation technique, and evaluated for friability, hardness, floating lag time, and swelling. Drug loaded tablets were prepared from optimized formulations; which have been re-evaluated and In-vitro drug release was determined. Tablets prepared by using Acacia–polymer blend at a ratio of (1:1) exhibited fast swelling with almost instantaneous buoyancy followed by prolonged release of drug from the swollen floating dosage form for more than 24 hours. From obtained results, it can be concluded that GRF tablets for aspirin were successfully formulated and evaluated.

Keywords: Gastro retentive, floating tablets, buoyancy, acacia gum.

Poster

ID81: Evaluation of Vitamin D Status in Healthy Libyan Pregnant Women in Tripoli, Libya

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Objective: The aim of this study; was to investigate vitamin D status in healthy Libyan pregnant women living in Tripoli, Libya. **Method**: Serum 25-hydroxyvitamin D (25(OH) D) level was used as a marker for whole body vitamin D status. A Cross sectional study of 190 serum samples from apparently healthy pregnant women was conducted to determine 25(OH) D level. The data collected from patient's files at obstetrics and gynecological department in Tripoli medical center starting from January 2017 to May 2018. **Results**: this study showed that the average serum 25(OH) D concentrations is 16.2ng/ml. The optimal levels of 25(OH) D (30-76ng/ml) were found in 4.7% of samples, insufficient amount or hypo-vitaminosis (20-30ng/ml) occurred in 20.5%, deficiency (less than 20ng/ml) in 67.8% and severely deficiency (less than 10ng/ml) in 6.8%. **Conclusions**: the prevalence of vitamin D deficiency is high among Libyan pregnant women; special attention should be addressed by the government to set the level of vitamin D supplementation during pregnancy.

Keywords: vitamin D, vitamin D insufficiency, pregnancy.

Poster

ID82: Birth Asphyxia in Libyan Hospitals; A Cool Cap Technology

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Perinatal hypoxic-ischemic encephalopathy (HIE) is an important cause of brain injury in the newborn and can result in long-term devastating consequences. Perinatal hypoxia is a vital cause of long-term neurologic complication varying from mild behavioral deficits to severe seizure, mental retardation, and/or cerebral palsy in the newborn. In the mammalian developing brain, ongoing research into pathophysiological mechanism of neuronal injury and therapeutic strategy after perinatal hypoxia is still limited. With the advent of promising therapy of hypothermia in HIE, this paper reviews the pathophysiology of HIE and the future potential neuroprotective strategies for clinical potential for hypoxia suffers. In recent multicenter clinical trials, hypothermia initiated within the first six postnatal hours has emerged as a therapy that reduces the risk of death or impairment among infants with hypoxic-ischemic encephalopathy. Prior to hypothermia, no therapies directly targeting neonatal encephalopathy secondary to hypoxic-ischemic injury had convincing evidence of efficacy. Hypothermia therapy is now becoming increasingly available at tertiary centers. Despite the deserved enthusiasm for hypothermia, addition all discoveries are needed to future improved outcome after HIE. In this article, we briefly present the epidemiology of neonatal encephalopathy due to hypoxic-ischemic injury, describe the rationale for the use of hypothermia therapy for hypoxic-ischemic encephalopathy.

Keywords: Perinatal, encephalopathy, hypoxia, hypothermia.

Poster

ID83: Tracing Autism Related Knowledge Among the Libyan Healthcare Providers

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Background: Autism is a neurodevelopment disorder that affects the children in early childhood. Some abnormal behaviors like impaired social skills, difficulty in communication, delayed or absent language, repetitive behaviors and learning difficulties may appear in such children and usually started before age of three years. Early intervention plays a major role in improving prognosis; it can decrease the severity of deficit and prevent the progress of symptoms. Healthcare workers' Knowledge of autism symptoms may facilitate early diagnosis and help accesses to rehabilitations services. Therefore, this study is conducted to estimate the level of autism knowledge among Healthcare providers. **Methods**: A Self-reported questionnaire contains autism related questions was used. A sample of healthcare providers in Tripoli and Gharian were tested. **Results**: about 45.5% of participants answered more than 50% of the questions correctly and considered to have adequate autism knowledge, while, only 34.4% of participants recognize more than 50% of the symptoms. **Conclusions**: Although, there is an accepted level of autism general knowledge among the healthcare providers, there is a poor awareness of healthcare providers toward autism symptoms.

Keywords: awareness, children, autism, diagnosis.

Poster

ID84: Assessment of the Quality and Shelf Life of Sterilized Milk Marketed in Tripoli

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A total of 700 milk samples locally produced as well as imported reconstituted sterilized whole milk samples were used, all samples were stored at room temperature (25±2°c) for period of 6 months, and subjected to physical, chemical, microbiological and sensory tests. Results indicated no detection of microbial growth in all samples. One the other hand, a gradual decline in PH accompanied with gradual increase in %acidity reached their lowest and highest values respectively during the 24th week of storage. Similar pattern of decline was also observed in specific gravity fat and protein content especially at later stages of the study. Some of the recorded PH values, % acidity, sp. Gravity and fat content were not coincided with the accepted limits set by Libyan standard no. 356. Such changes in physical and chemical UHT milk constituents during storage were coincided with a gradual decrease in the degree of acceptance of stored milk samples as shown by sensory scores recorded by the panelists.

Keywords: UHT milk, Shelf life, constituents.

Poster

ID85: Study of Split Tablets of Cardiovascular Medicines

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The aim of this work was to study tablet weight variability, deviation and loss after splitting with three commonly used methods. **Methods:** Four volunteers with no previous experience in splitting were asked to split five tablets each of lisinopril 10 mg, warfarin 5 mg and three brands of captopril 25 mg into halves and quarters using scissors, hands and tablet splitter device. Intact tablets, halves and quarters were individually weight on a precision mass balance and variation in weight was calculated using United States Pharmacopoeia (USP) criteria for tablets. Deviation in weight was calculated by subtracting the weight of each half and quarter from their theoretical weight. The weight loss was estimated by subtracting the weight of the two tablet halves or four quarters from the weight of intact tablet. Statistical analysis was performed using t-test at P value less than 0.05 as significant for the difference in weight between tablet halves and using ANOVA one way to compare the differences in weight among quarters. Ethics committee approval was not required. **Results:** The variation in the sample weight was high for halves and quarters as compared with the intact tablets for all the studied medicines. Relative standard deviation was less than 2% (1.5, 1.4 and 1.6) for intact tablets, more than 6% (21.2, 8.6 and 14.4) for halves and more than 15% (30.4, 17.2 and 21.2) for quarters using scissors, hands and tablet splitter device. The percents of tablet fragments deviated by more than 15% from the theoretical weight using scissors, hands and tablet splitter device were 53% (108/200), 8% (16/200) and 28% (56/200) for halves and 58% (232/400), 37% (147/400) and 44% (176/400) for quarters. The associated tablet weight loss ranges after halving were 1–4%, 0–2% and 1–3% using scissors, hands and tablet splitter device, doubled after splitting of tablets into quarters. Significant difference (P value of <0.05) in weight between tablet halves and among quarters was observed after splitting using the scissors and splitter device. However, no significant difference in the weight of tablet halves for two medicines and among quarters of one medicine was detected using the hands method. **Conclusion:** Tablet splitting procedures could result in fluctuations in the administered dose that can be clinically significant especially for medicines with narrow therapeutic indices.

Keywords: lisinopril, warfarin, captopril, splitting, weight loss.

Poster

ID86: String Processing Algorithms Problems in Bioinformatics

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DNA, RNA, and protein are represented as strings in bioinformatics for this reason string processing is the cornerstone in the field of bioinformatics and these problems take a variety of manifestations each of which has a specific meaning. This topic will shed some light on some traditional string problems such as: local sequence alignment problem, global sequence alignment problem, exact pattern matching problem, approximate pattern matching problem, finding all maximal palindromes problem, finding all tandem repeats problem, finding all tandem arrays problem, etc. There are quite rich researches for these problems. This paper, will propose the major algorithms in this respect which implemented in BioQt.

Keywords: Bioinformatics, Naive Algorithm, Boyer-Moore, Knuth-Morris-Pratt, Palindromes.

Poster

ID87: Modulation of Paraoxonase-1 (PON-1) by Diseases in Human and Animals

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Paraoxonase-1 (PON-1) is an esterase enzyme named for its ability to hydrolyze the toxic oxon metabolite of parathion (i.e. paraoxon) and the ability to attach to high-density lipoprotein (HDL). Paraoxonase-1 can hydrolyze a wide range of aromatic esters mainly organophosphates and lactones however the full physiological features is still debit. There have been several and persisting controversies about the activity of different PON enzymes (i.e. PON-1 Vs PON-2). However, PON-1 has gained most of the research attentions due to its demonstrated paraoxonase (POase) and arylesterae (AREase) activities. PON-1 is mainly synthesis by/in the liver and released into the blood stream and binds to HDL by association with apolipoprotein A1. The presence of PON-1 has been confirmed largely in humans but also in ruminants where the association of paraoxonase with lipoproteins was proved. PON-1 can play antioxidant and atheroprotective role (antiatherogenic) and effect in humans. It also can inhibit oxidation of low-density lipoprotein (LDL) in-vitro. In mammals, serum paraoxonase show an antioxidant activity and involvement in removal of oxidative damage. The PON-1 is varied among the geographical locations. Also, factors such as lifestyle, environment and exposure to toxic chemicals can affect health status. There are reported correlation between PON-1 activity and its polymorphisms in a number of populations around the world. Most of the literatures has reported and extensively discussed polymorphisms in PON-1 in humans however little information is available about the PON-1 activity as well as PON-1 polymorphism in mammals, especially in some animal species (particularly; bovine and ovine). This paper aims to highlight the previous detections and proofs robustly imply that PON-1 play important role in the deterrence of many medical disturbances (such as; cardiovascular diseases, atherosclerosis and cancers). Also, this review emphasizes the capability of PON-1 to detoxify organophosphate pesticides, as well on the ability of this enzyme to attenuate the oxidized lipids.

Keywords: Paraoxonase-1 (PON-1), Antioxidant, Cardiovascular Diseases, Cancer.

Poster

ID88: The Prevalence of Hashimoto's Thyroiditis among Libyan Patients; A Pilot Study

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Background: Hashimoto's is an autoimmune disease that attacks the thyroid gland, leading to chronic inflammation, destruction of the gland and hypothyroidism. The study was conducted to evaluate the occurrence of the autoimmune disease among patients with thyroid problems in Tripoli, Libya. **Methods**: Data was collected from Mediterranean medical services, Tripoli, Libya. The level of anti-thyroid peroxidase antibodies (ATPO) in the blood of 38 patients with thyroid diseases was determined. **Results**: 45% of the studied cases had elevated levels of ATPO suggesting that the cause of their thyroid dysfunction was due to an autoimmune disease "Hashimoto's". This indicates that Hashimoto disease is common among the thyroid patients, high ATPO levels were more common in females than males as 94% of the recorded ATPO cases were females. **Conclusions:** The occurrence of the autoimmune disease was clearly observed among thyroid patients. Females were highly more susceptible to the disease than males.

Keywords: Autoimmune disease, Hashimoto's disease, Thyroid, ATPO.

Poster

ID89: Risk Factors of Vitamin D Deficiency Among Females at Benghazi

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Background: The role of vitamin D (25(OH) D) in maintaining optimal health has been well documented and deficiency has been linked to a spectrum of conditions such as autoimmune disorders, cancer, osteoporosis, cardiovascular disease and obesity (1). Inadequate exposure to sunlight and low nutritional intake of vitamin D result in low serum concentrations of circulating 25(OH) D, a condition known as hypovitaminosis D [1,2]. An epidemic of low levels is reported from around the globe, regardless of sex and age (2−4). Aims of the study: To find out the characteristics and risk factors of vitamin D deficiency among females in Benghazi, Libya. **Subjects and Methods**: A cross section descriptive design study of vitamin D deficiency among females at Benghazi at three polyclinic and Benghazi medical center (BMC) during September 2018. Data was obtained from participants using interview questionnaires and serum vitamin D level were collected. The collected data was analyzed by using software package SPSS version 20. **Results**: 119 females were chosen from the clinics and hospitals at Benghazi. The Mean age was 34.2±10.9 years, 57% university and higher, 66.4 were married, 61.8 were pregnant and the mean vitamin D level was 11.5±8.0 the study reported a significant difference in the vit D level among breastfeeding mothers and sun exposure females where p=0.001. **Conclusion**: from the analysis the study found a reduction in the vitamin D serum levels at Benghazi even among educated females. Recommendations: improve the public awareness about the methods of prevention of vitamin D deficiency. Change the diet and sporting behavior of population. We recommend more advanced research to find out the real cause of vitamin D deficiency.

Keywords: vitamin D (25(OH) D), vitamin D deficiency, hypovitaminosis D, epidemic.

Poster

ID90: Microbiological Surveillance and Control in Cheese Manufacture

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The food industry, in general, seems to regard cheese as a single commodity and shows little understanding of the compositional and technological variations found amongst the different varieties of cheese. The numerous varieties of cheese produced around the world, ranging from the Parmesan and Cheddar types, to Brie, Camembert and Stilton, and to fresh cheeses, such as Cottage cheese and Mozzarella di Bufala, possess widely differing compositional attributes that have a major impact on the microbiology of the finished product. The microbiology of 'cheese' is, therefore, diverse, and its study usually requires a knowledge not only of the composition of the product but also of the conditions of production and maturation or storage specific to the individual dairy that produced it and, in some cases, even the time of year that cheesemaking occurred. Consequently, the aim of this paper is explain that review highlights knowledge gaps in the current literature on different levels of microbiological risk; in different types of cheese and pathogens are more likely to survive or grow in soft cheeses than in the harder varieties, but the relationship between the milk producer and the cheese maker is also important, especially for cheese made from unpasteurized milk, as the greater the control the latter has over the former, the less the risk of pathogen contamination of the cheesemaker's major raw material.

Keywords: Cheese, Pathogen, Microbiological risk, Control.

Poster

ID91: Microbiological Surveillance and Control in Cheese Manufacture

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Salmonellosis is the second most common food borne illness worldwide, even though many other pathogens have recently received considerable media attention. Salmonella can be found in virtually every part of the world and is carried by an extremely wide variety of hosts. Contaminated poultry products have been identified as the principal sources of Salmonella leading to food borne illness in humans, handling of raw poultry carcasses and products and consumption of undercooked poultry meat are the main causes of infection. Controlling Salmonella has thus become an important objective for the poultry industry from both a public health and economic perspectives. The 'farm-to-fork' production continuum has emerged as a paradigm for food safety, with emphasis on risk reduction at each stage of food production from the farmer to the consumer. However, the high level of consensus about the appropriateness of this model has to be matched by meaningful analysis of how to achieve overall risk reduction. The objective of this paper is to review the current literature on the epidemiology of Salmonella contamination of poultry products, current advances in the detection of Salmonella, and to discuss the various Salmonella control strategies to address those weaknesses and reduce human disease while enhancing poultry health and productivity.

Keywords: Salmonella, Food borne, Poultry products.

Poster

ID92: Solubility Study of Acetyl Salicylic Acid in Different Oils

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Aspirin (acetylsalicylic acid, ASA) is one of the most widely used therapeutic substances due to its analgesic, antipyretic and anti-inflammatory properties. Despite the proliferation in development of new non-steroidal anti-inflammatory drugs (NSAIDs), ASA remains one of the most effective 'over-the-counter' drugs in the treatment of rheumatic diseases. To measure the extent of solubility of the Acetyl salicylic acid in two oils in order to develop optimized nanoparticles. Higher solubility in oils lead to lower requirement of surfactant and co surfactants, which reduce its toxic effects. Reformulation and characterization is an important step in the rational formulation of an active pharmaceutical ingredient (API). Solubility assessment and screening of oils for Acetyl salicylic acid was done to enhance its solubility which in turn can enhance bioavailability. UV method was used to measure the dissolved quantity of Acetyl salicylic acid in each of the oils (coconuts oil and olive oil) at 37 °C and 45°C. Concentration of the drug was estimated using a single beam UV-visible spectrophotometer at 240 nm by the regression equation of standard curve developed. The oil showed high solubility for Acetyl salicylic acid were used.

Keywords: Acetyl salicylic acid, Olive oil, Solubility, Bioavailability.