

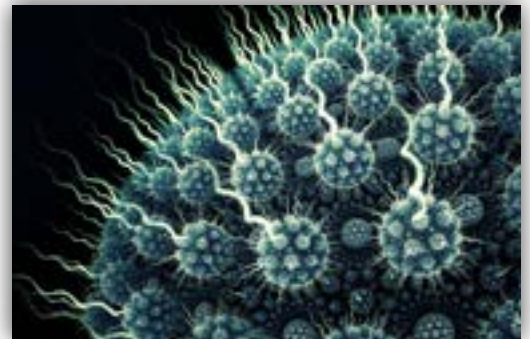
4th International Conference on

Tropical Medicine Infectious Diseases & Public Health

September 7-8, 2017 | Edinburgh, Scotland

Scientific Tracks & Abstracts Day 1

Tropical Medicine 2017



Major Sessions:

Thursday, September 7, 2017 | Day 1

Tropical Medicine and Hygiene | Parasitology | Chest Medicine | Renal Medicine

Session Chair

Shigeyuki Kano

National Center for Global Health and Medicine | Japan

Session Introduction

Title: Investigation on the familial aggregation and spatial aggregation of human leishmania infection in tanchang county, gansu province, china

Guan Yayi | National Institute Of Parasitic Diseases | China

Title: Attacking malaria transmission by isolating male and female gametocytes

Christopher Lloyd Peaty | Australian Army Malaria Institute | Australia

Title: Analysis of historical trends and recent elimination of malaria from sri lanka and its applicability for malaria control in other countries.

Ranjan Ramaswammy | IDFISH Technology | United States

Title: Seroprevalance of toxoplasmosis and risk factors of toxoplasma gondii infection among pregnant women in sri lanka

Sanura | University of Peradeniya | Sri Lanka

Title: The burden of visceral leishmaniasis infection in children of a new endemic area in brazil: Is it possible to stem the tide of the epidemic?

Luiz Euribel Prestes-Carneiro | Oeste Paulista University | Brazil

Title: Combination therapy of methanolic root extracts of *T. Avicennioides* and *T. Leiocarpus* and its effect on kidney and haematological parameters in mice

Matthew Akanbi | Adekunle Ajasin University | Nigeria

Title: An outbreak of diarrhea in mandera, kenya due to Escherichia coli serogroup o-untypable strain that had a coding gene for enteroaggregative E. coli heat-stable enterotoxin 1

Yoshio Ichinose | Kenya Medical Research Institute | Kenya

INVESTIGATION ON THE FAMILIAL AGGREGATION AND SPATIAL AGGREGATION OF HUMAN LEISHMANIA INFECTION IN TANCHANG COUNTY, GANSU PROVINCE, CHINA

Guan Ya-yi^a, Zhuyao-yu^a, Wu Wei-ping^a, Wang Li-ying^a, Han Shuai^a, Wang Ying^a and Bai Xue-fei^{a,b}

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^bSichuan Provincial Center for Disease Control and Prevention, China

Visceral Leishmaniasis, also known as kala-azar, is a vector-borne disease caused by the Leishmania species complex. In China, there have been a continuous popularity in hill-type kala-azar endemic areas, mainly in southern Gansu province and northern Sichuan province. The research aimed to investigate whether the distribution of human Leishmania infection showed the characteristics familial aggregation and spatial aggregation, and provides a reference for the further control of kala-azar. The binomial distribution goodness of fit test and SaTScan software were applied for analyzing family

GPS positioning information and laboratory test results of the family members. It was found that the distribution of human Leishmania infection corresponded to binomial distribution and did not conform to the family aggregation and spatial aggregation. In consideration of the local population and domestic animals were universally infected and widely distributed in different families and regions, their role as reservoir host during the spread of kala-azar should be emphasized. At the same time, it also implied vector control could be the key for kala-azar prevention and control in the hill-type endemic areas in Gansu province, China.

Biography

Guan Ya-yi obtained her doctoral degree in Chinese Center for Disease Control and Prevention (China CDC). Her research field is molecular epidemiology, health economics and global health. She obtained Bachelor and Master degree at Hunan Medical College (Changsha, Hunan province, P.R.China), Tongji Medical College (Wuhan, Hubei province, P.R.China), and Chulalongkorn University (Bangkok, Thailand). She has been working at the National Institute of Parasitic Diseases in Shanghai, China since 1989 and taken the role as principal investigators or key members of several projects on malaria, leishmaniasis and echinococcosis.

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 Notes:

ATTACKING MALARIA TRANSMISSION BY ISOLATING MALE AND FEMALE GAMETOCYTES

Christopher Lloyd Peaty^a, Dennis Shanks^a and Qin Cheng^a

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The transmission stages of *Plasmodium falciparum*-gametocytes were the first malaria parasites identified. In order to eradicate malaria it will be necessary to ensure that populations of gametocytes can be cleared from patients in endemic areas. Gametocytes are sexually dimorphic and both sexes are required to complete the mosquito cycle of the parasite. Only the male or the female gametocyte therefore, needs to be neutralised. Despite much research, there are still many unanswered questions about gametocytes and their biology. Here we report on new techniques that have allowed us to differentially sort male and female gametocytes to perform further research. These methods rely on some unique biological properties of gametocytes that can be exploited by the use of flow cytometry. Using specific dyes, pure samples of either male or female gametocytes can now be sorted using flow cytometry. These gametocytes can be treated with anti-

malarial drugs to determine if the drugs have gametocytocidal effects. Several different classes of anti-malarials were used and are reported. One of these drugs was once a common anti-malarial drug-methylene blue. We are also able to report on a new proposed mode of action for this drug. The treated gametocytes are able to be membrane fed to *Anopheles stephensi* mosquitoes to determine if they are still infective after drug treatment. These results will be important as we continue to move towards the eradication of malaria.

Biography

Christopher Lloyd Peaty completed his PhD in 2011 at the Queensland University in Australia. He is now working as a Scientific Officer for the Australian Army Malaria Institute. His work includes determining the causes of artemisinin induced dormancy, looking at signalling pathways behind the switch to gametogenesis in *Plasmodium falciparum* and also looking at causes for the loss of HRPII in malaria species globally. He has 13 publications with over 370 citations and his H index is 11. He has presented at several major international conferences including ASTMH and Woods Hole MPM. He spent 4 years serving on the Executive Board of the Australian Society for Parasitology.

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 Notes:

ANALYSIS OF HISTORICAL TRENDS AND RECENT ELIMINATION OF MALARIA FROM SRI LANKA AND ITS APPLICABILITY FOR MALARIA CONTROL IN OTHER COUNTRIES

Ranjan Ramasamy*

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Sri Lanka is a tropical island located South of India in the Indian Ocean. Malaria has been prevalent in the island for centuries but the country succeeded in eliminating the disease in 2012. Factors governing the past endemicity of malaria and its successful elimination from Sri Lanka in 2012 are analyzed. There is evidence that malaria might have been first introduced in the 13th century into a dry zone area with extensive irrigation works. Regular widespread epidemics of the disease have been documented in the 20th century. The island nature of Sri Lanka, generally low transmission rates, widespread and accessible government hospitals and clinics that provide free and readily available diagnosis and treatment for malaria, adequate financial support and commitment to the Anti-Malaria Campaign (AMC),

national and decentralized malaria control efforts sustained over a long period by dedicated and competent AMC staff, and the absence of zoonotic malaria are recognized as key factors responsible for eliminating malaria from Sri Lanka. These factors are analyzed in the context of their relevance to the present malaria elimination efforts in other countries with the overall aim of globally eradicating the disease.

Biography

Ranjan Ramasamy graduated from the University of Cambridge, UK and then obtained a PhD also from the University of Cambridge. He has since held academic appointments in the UK and abroad including Australia, Sri Lanka and the USA. He was the Chairman of the National Science Foundation of Sri Lanka, Professor of Life Sciences at the Institute of Fundamental Studies in Kandy in Sri Lanka, Professor of Biochemistry in the University of Jaffna in Jaffna Sri Lanka, Professor of Immunology in the University Brunei Darussalam Medical School and held institute/ university appointments at the Scripps Clinic and Research Foundation in La Jolla in the USA, University of Nairobi in Kenya, King Faisal University in Dammam in Saudi Arabia, the Queensland Institute of Medical Research in Australia, Anglia Ruskin University in England and the London School of Hygiene and Tropical Medicine in England. He has more than 200 publications in fields pertaining to Medical Sciences.

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 Notes:

SEROPREVALANCE OF TOXOPLASMOSIS AND RISK FACTORS OF TOXOPLASMA GONDII INFECTION AMONG PREGNANT WOMEN IN SRI LANKA

S M P Vithana^a, D Iddawela^a and C Ratnayake^a

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Toxoplasma gondii is an intracellular protozoan infecting humans and animals. Infection in adults commonly causes mild disease but greater importance lies in preventing transplacental transmission which may result in major foetal anomalies and is vital to identify infection in pregnancy. Research on this regard in Sri Lanka is scarce and would be beneficial in developing antenatal care strategies for improved foetal outcome. A random sample of 534 pregnant women attending antenatal care in Teaching Hospital Peradeniya from 2010 to 2013 was recruited for this study. Blood samples were tested for *Toxoplasma gondii* IgG and IgM antibodies from the participants by using a commercial ELISA kit with a cut-off OD value of >1 and a structured questionnaire was used to identify the exposure to risk. Among the participants 159 (29.8%) were positive for *T. gondii*

IgG antibodies and none were IgM positive. The seroprevalance in the first, second and third trimesters were 30.4%, 30.6% and 26.1% respectively. Of the risk factors studied, preparation and selling raw meat (p=0.05) and household gardening (p=0.01) were significant whereas the presence of domesticated cats and dogs, eating locally produced meat or dairy products did not show significant associations. Seroprevalance of *T. gondii* present among pregnant women attending antenatal care in Peradeniya was 29.8% indicating high level of transmission among the study population. However 70.2% of the study population were seronegative and were susceptible to primary acute infection during pregnancy and possible foetal anomalies. Therefore implementing health education especially on the aforementioned risk factors is recommended.

Biography

Dr. Sanura Vithana completed his primary and secondary education at the prestigious Trinity College Kandy and obtained his MBBS from the University of Peradeniya, Sri Lanka in 2017. He currently works in the Department of Parasitology in the same institution as a Temporary Lecturer. His academic interests are clinical medicine and surgery, tropical medicine and toxicology.

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 Notes:

THE BURDEN OF VISCERAL LEISHMANIASIS INFECTION IN CHILDREN OF A NEW ENDEMIC AREA IN BRAZIL: IS IT POSSIBLE TO STEM THE TIDE OF THE EPIDEMIC?

Luiz Euribel Prestes-Carneiro^a, Patricia Rodrigues Naufal Spir^a, Rodrigo Sal^a, Ferro^a, Lourdes Aparecid^a and Zampieri D'Andrea^b

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Visceral leishmaniasis (VL) ranks second among the neglected diseases with higher prevalence in both subtropical and tropical regions and in the Americas, being that in 2013 Brazil harbored 96% of the cases. Despite the measures adopted throughout São Paulo state, there are evidences that VL is spreading in a fast and alarming way in the western region. Since 2005, when the first case was reported until 2015, human VL was found in 18/45 municipalities of the Regional Healthcare. During this period, 416 human cases and 27 deaths were reported. Our aim was to analyze the clinical characteristics of VL infected children treated in a regional reference university hospital, located in the western region of São Paulo state, as well as the regional measures adopted to control the spreading of VL. Preliminary results showed that from January 2009 to December 2013, 97 children were treated. The onset of symptoms,

diagnosis and treatment occurred in 19.3±13.54-25.04 days and the hospitalization time was 13.5±11.73-15.22 days. Laboratory parameters showed: Hemoglobin: 9.3±8.98-9.67.g/dL; Haematocrit: 29.2±28.25-30.15%; Platelets:163±139-187. cells/mm³; Leukocytes: 5.1±4.63-5.58 cells/mm³; Albumin: 3.1±2.96-3.23g/L; Globulins: 3.2±3.09-3.48g/L; AST: 106.9 ±74.78-138.9 UI/L; ALT: 50.3±35.58-65.06UI/L; Prothrombin: 12.9±12.37-13.48s. Among the measures taken are: health care workers' continued education; early treatment of humans and infected dogs; construction of vector/zoonosis centers; and implementation of increased education programs. Thus, onset diagnosis and curative practices fueled by integrated actions for monitoring the disease may stem the tide of VL infection in the western region of Sao Paulo state.

Biography

Luiz Euribel Prestes-Carneiro has been graduated in Oeste Paulista University (UNOESTE), President Prudente, São Paulo State, Brazil as Medical Doctor with the specialties of Infectious Diseases in the Ipiranga Hospital, São Paulo. Later on he obtained his Master degree from the Maringa State University, Paraná State and his PhD in the São Paulo University, São Paulo. Then started working at UNOESTE/Regional Hospital and in the State Hospital Dr. Odilo Antunes de Siqueira, President Prudente, where he has continued his research. Presently he is the coordinator of the Health Sciences Master program in the Oeste Paulista University.

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 Notes:

COMBINATION THERAPY OF METHANOLIC ROOT EXTRACTS OF *T. AVICENNIoidES* AND *A. LEIOCARPUS* AND ITS EFFECT ON KIDNEY AND HAEMATOLOGICAL PARAMETERS IN MICE

Olusegun Matthew Akanbi*

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Introduction: The resistance of *Plasmodium* species to drugs has necessitated the search for more drugs. *Anogeissus leiocarpus* and *Terminalia avicennioides* have been considered traditionally for the treatment of malaria.

Aim: This study assessed the efficacy of combination therapy of methanolic bark extracts of *Anogeissus leiocarpus* and *Terminalia avicennioides* on malaria parasite and its effect on kidney and haematological parameters in mice infected with *Plasmodium berghei*.

Methods: Thirty-six mice were distributed into six groups. The first group was not infected with the parasite (normal control). The second group was infected but not treated (negative control). The third group was infected and treated with 5.0mg/kgbdwt of combisunate (positive control), while the third, fourth and fifth groups were infected and treated with 100, 200, and 400 mg/kgbdwt of combined methanolic bark extracts of *T. avicennioides* and *A. leiocarpus*. Treatments

were administered for four days. Blood was taken daily from the tail of mice for the assessment of parasitaemia. The animals were sacrificed on the fifth day and the kidney homogenates was collected into plain bottles, whole blood and serum were taken into EDTA and plain bottles respectively

Results: The results showed that the parasite clearance was highest in the group treated with 400mg/kgbdwt and lowest in the group treated with 100mg/kgbdwt. White blood cell, lymphocyte, haemoglobin, red blood cell and MCHC levels were significantly higher in normal control than in other groups. Haemoglobin was significantly reduced in negative control, and the groups treated with 100 and 400mg/kgbdwt when compared with positive control and the group treated with 200mg. The SGPT, SGOT, Potassium and creatinine levels were significantly lower in the normal control than in the other groups.

Conclusion: Though the antiplasmodia; activities of combination therapy of the bark extracts of *A. leiocarpus* and *T. avicennioides* was highest in the group treated with 400mg but that concentration had serious negative effect on haematology and kidney function of the animal.

Biography

Olusegun Matthew Akanbi is Currently working as a Associate Professor at Department of Environmental Biology and Fisheries, Adekunle Ajasin University.

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 Notes:

**AN OUTBREAK OF DIARRHEA IN
MANDERA, KENYA DUE TO ESCHERICHIA
COLI SEROGROUP O-UNTYPABLE
STRAIN THAT HAD A CODING GENE FOR
ENTEROAGGREGATIVE E. COLI HEAT-
STABLE ENTEROTOXIN 1**

Yoshio Ichinose^a, Erick Odoyo^a, Martin Bundi^a, Gabriel Miringu^a, Sora Guyo^a, Shah Mohammad^a, Sadayuki Ochi^b and Samuel Kariuki^c

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In an outbreak of gastroenteritis on 16 December 2009, in Mandera, Kenya, *Escherichia coli* O-untypable (OUT) strain was isolated from stool specimens of patients (18/24, 75%). The *E. coli* OUT organisms could not be assigned to any of the recognized diarrheagenic groups of *E. coli*. However, they possessed the EA_gEC heat-stable enterotoxin (EAST1) gene. The cell-free culture filtrate of EASTEC strain

isolated from the outbreak case induced a considerable amount of fluid accumulation (FA) in suckling mouse intestine, indicating production of an enterotoxin factor(s). These results identify EASTEC as the etiological agent of the diarrheal outbreak in Mandera. This is the first report, to our knowledge, demonstrating the diarrheagenicity of EASTEC by using an animal model. It is considered necessary to characterize the FA factor(s) and to study dissemination of the EASTEC strains producing the enterotoxin factor(s) to assess the public health significance of the strains distributed in the environment.

Biography

Yoshio Ichinose has been graduated with speciality including internal medicine and gynecology and obstetrician, and got a PhD degree, Postgraduate School of Medicine, Nagasaki University in 1985. He joined School of Medicine, University of the Ryukyus as an Assistant Professor afterwards served as a Lecturer at Institute of Tropical Medicine, Nagasaki University at 1994. In 2006 he started working as Professor at Institute of Tropical Medicine, Nagasaki University. Currently he is serving as Chief Representative of Kenya Research Station (NUITM-KEMRI Project).

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 Notes:

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Scientific Tracks & Abstracts Day 2

Tropical Medicine 2017



Major Sessions:

Friday, September 8, 2017 | Day 2

Infectious Diseases and Translational Medicine | Pathogenesis | Antibiotics | Nutrition | Neglected Tropical Diseases

Session Chair

Luiz Euribel Prestes-Carneiro
Oeste Paulista University | Brazil

Session Introduction

Title: Epidemiology of Severe fever with thrombocytopenia syndrome in Korea: SFTSV and migratory bird, person-to-person transmission of SFTSV, and coinfection of SFTSV and Orientia tsutsugamishi

Keun Hwa Lee | Jeju National University | South Korea

Title: Association And Management Of Influenza With Severe Pneumonia/Empyema In The Community, Hospital, And Healthcare-Associated Setting In Japan.

Masafumi Seki | Tohoku Medical and Pharmaceutical University Hospital | Japan

EPIDEMIOLOGY OF SEVERE FEVER WITH THROMBOCYTOPENIA SYNDROME IN KOREA: SFTSV AND MIGRATORY BIRD, PERSON-TO-PERSON TRANSMISSION OF SFTSV, AND COINFECTION OF SFTSV AND ORIENTIA TSUTSUGAMISHI

Keun Hwa Lee^a, Sang Taek Heo^a, Jeong Rae Yoo^a, Yeojun Yun^b and Yu Mi Wi^c

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Severe fever with thrombocytopenia syndrome (SFTS) is tick-borne viral disease such as Crimean-Congo hemorrhagic fever (CCHF) that was first suspected in China in 2009, the causative virus was reported in 2011, and SFTSV expanded from China to South Korea and Japan in 2012-2013. Most SFTSV infections occur through *Haemaphysalis longicornis*, which acts as a transmission host between animals and humans. However, it is not known if a genetic connection exists between the viruses in these regions and, if so, how SFTSV is transmitted across China, South Korea, and Japan. We hypothesize that the SFTSV in South Korea share common phylogenetic origins with samples from China and Japan. Further, we postulate that migratory birds, well-known carriers of the tick *H. longicornis*, are a potential

source of SFTSV transmission across countries. Most SFTSV infections occur through *H. longicornis*. However, SFTSV infection can also occur between family members, and nosocomial transmission of SFTSV is also possible through close contact with a patient. In this study, we first analyzed clinical, epidemiological, and laboratory data for SFTS patients and family members of an index patient in Korea and we suggest that person-to-person transmission of SFTSV among family members is possible in Korea. To determine prevalence of SFTS in South Korea, we examined serum samples from patients with fever and insect bite history in scrub typhus endemic areas. Prevalence of this syndrome among patients suspected of having scrub typhus was high (23.0%, 17/74), suggesting possible co-infection.

Biography

Keun Hwa Lee has been Graduated from Microbiology and Immunology Seoul National University College of Medicine, Seoul, South Korea as Ph.D. in 2003 and started working at Department of Microbiology and Immunology Jeju National University School of Medicine, Jeju, South Korea as a professor from 2004 to present. He worked at Channing Lab. BWH, Harvard Medical School, Boston, MA, USA between 2005 and 2006 as a research fellow, the Emerging Diseases Surveillance and Response (ESR) Western Pacific World Health Organization (WPRO) as Surveillance officer and International Health Regulation (IHR) duty officer (Volunteer, sabbatical year) in 2014, and US Army Medical Component-Armed Forces Research Institute of Medical Sciences (AFRIMS) in Bangkok, Thailand from 1st January to 6th July as a Visiting Scientist (sabbatical year).

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 Notes:

ASSOCIATION AND MANAGEMENT OF INFLUENZA WITH SEVERE PNEUMONIA/EMPYEMA IN THE COMMUNITY, HOSPITAL, AND HEALTHCARE-ASSOCIATED SETTING IN JAPAN

Masafumi SEKI*

*Tohoku Medical and Pharmaceutical University Hospital, Japan

We will present three cases of influenza-related severe pneumonia/empyema that occurred in one season.

Case 1. A 76-year-old diabetic man, developed empyema as a result of severe community-acquired pneumonia (CAP) secondary to *Haemophilus influenzae*, as confirmed on sputum culture.

Case 2. A 55-year-old man with suspected cerebral infarction and diabetes mellitus (DM) developed severe pneumonia/empyema as result of hospital-acquired pneumonia (HAP).

Case 3. A 76-year-old woman with heart failure and DM was followed-up on an outpatient basis and was under nursing home

care for four months. Subsequently, she developed pneumonia and was admitted to our hospital; influenza antigen was isolated from nasal swab. Healthcare-associated pneumonia (HCAP)/empyema were diagnosed. All three cases had DM, and treated by intravenous anti-influenza drug: peramivir. In Japan, we have five anti-influenza agents and can choose each agent dependent on influenza and pneumonia severity. Among them, peramivir can be administered by drip infusion, and used not only for the most severe patients, but also for the ambulatory outpatients who have some medical issues. The insurance system supports early administration of them with antibiotics, and as a results, we might be able to have very low influenza-related mortality. Today, our management style for influenza, including vaccination and infection control team activity, will be introduced.

Biography

Masafumi Seki has been graduated from Department of Medicine, Nagasaki University, as Medical Doctor, with the specialties including Internal Medicine, Infectious Diseases, and Infection Control. Later on he obtained his post-graduation, started working at Osaka University. Presently he has been working at the Tohoku Medical and Pharmaceutical University, Sendai City, Japan.

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 Notes:

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Young Resaerchers Forum

Tropical Medicine 2017



EVERYBODY IN NIGERIA IS A DOCTOR...?: A QUALITATIVE STUDY OF STAKEHOLDER PERSPECTIVES ON LAY-DIAGNOSIS OF MALARIA AND PNEUMONIA IN SOUTHERN NIGERIA

Kelly O Elimian^a, Puja R Myles^a, Revati K Phalkey^a, Catherine Pritchard^a and Ayebo Sadoh^b

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Background: Nigeria bears the highest and second highest burden of malaria and pneumonia respectively in the world. Lay-diagnosis is commonly used by parents for the home-management of common childhood illnesses in Nigeria and other countries.

Objectives: To explore stakeholder perspectives of lay-diagnosis of malaria and pneumonia and the acceptability and feasibility of training parents in the World Health Organisation Integrated Management of Childhood Illness (IMCI) guidelines.

Design: A qualitative study using individual face-to-face semi-structured interviews. Participants Mothers (n=13) with children under the age of five years presenting to primary healthcare centres (PHCs) for routine medical consultations or immunisation activities and health professionals (HPs) (n=17) involved with the management of primary healthcare system. Setting Benin City, capital of Edo State in southern Nigeria.

Results: Parents reported lay-diagnosis was widely practised by themselves and their communities but recognised its limitations.

Parents were more confident in managing malaria as compared to pneumonia due to the perceived severity of the latter. They expressed willingness to undertake IMCI training for better diagnosis of common childhood illnesses in their children. However, few parents were reluctant to apply the IMCI skills so acquired to other people's children concerned that they could be held responsible for an adverse outcome such as admission to critical care or death. In addition, some HPs were concerned that training parents in IMCI could exacerbate the extant problem of misuse of medications.

Conclusions: Lay-diagnosis is a widely practised diagnostic approach by parents. There was some evidence of the acceptability of training parents in IMCI for early diagnosis of malaria and pneumonia. This approach could partially address the dearth of healthcare capacity in Nigeria, as well as other developing countries. However, a rigorous evaluation would be required to address feasibility.

Biography

Kelly Elimian is a PhD student in the Division of Epidemiology and Public Health, University of Nottingham, UK. He completed his graduation from the Department of Microbiology, University of Benin, Nigeria in 2008. In 2010, he started working in the same department -Microbiology- as a Graduate Assistant, and in the same year started his Master's programme in Medical Microbiology, graduating in 2012. Between 2012 and 2013, following the completion of his Master's programme, he came to the University of Nottingham to study Applied Epidemiology. After a one year break, he returned to Nottingham for his PhD research. His current research focuses on estimating the burden and assessing the accuracy of different diagnostic approaches for malaria and pneumonia in children under the age of five years in Benin City, Nigeria.

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 Notes:

QUANTIFICATION OF COLISTIN PLASMA LEVELS IN CRITICAL PATIENTS FROM SABANA CENTRO, COLOMBIA POPULATION

Diana Gonzalez^a, Cuervo S^a and Bustos RHa Garcia JC^a

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Antimicrobial resistance to antibiotic treatment has significantly increased in recent years, causing this to become a public health problem. More than 70% of pathogenic bacteria are resistant to at least one of the currently used antibiotics. Recently, the use of Polymyxin E (Colistin) has been used as a "last line" therapy in treatment of gram-negative multiresistant bacteria. However, pharmacological knowledge about these molecules is very weak, because their use has been discontinued due to their high toxicity. In recent years, research has focused on the determination of the pharmacokinetic parameters of Colistimethate sodium, in order to find the optimal dose to

maintain an adequate benefit-risk balance. The aim of this study was to determine Colistin plasma levels in patients infected with multiresistant bacteria, from a Sabana Centro (Colombia) population, by means of the standardization and validation of a fast and simple methodology as high-performance liquid chromatography (HPLC). Our results were standardized by HPLC, and allowed to measure plasma levels in the study population. The above, allows to presently guide the dosage of Sodium Colistimethate, according to Colistin plasma levels.

Biography

Diana González is medical doctor interested in the evaluation of the relationship between serum levels and therapeutic efficacy in the use of antimicrobial drugs as well as the determination of antimicrobial resistance in the clinical setting related to use of these molecules. Currently she is working in the Research Group Therapeutic Evidence of the Faculty of Medicine of the University of La Sabana. In addition, they have participated in speeches and conferences regarding the safe and cost effective use of antimicrobial drugs in Colombia.

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 Notes:

NUTRITION ASSESSMENT, A QUALITY IMPROVEMENT APPROACH

Kibirige Nangonde Safina*

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Introduction: Nutrition assessment is a vital component in the general care of HIV infected people. With access to highly active antiretroviral therapy (HAART), HIV infection may become a chronic, manageable disease. Nutritional and metabolic complications associated with HIV infection like hypertriglyceridemia, low levels of high-density lipoprotein (HDL) cholesterol and weight loss usually occur. However abnormalities like regional alterations in body shape (fat re-distribution syndrome or HIV-associated lip dystrophy), increasing body weight, high levels of low-density lipoprotein (LDL) cholesterol, insulin resistance, and other metabolic derangements occur if clients are not screened. In addition, as patients are living longer, they may be susceptible to other age-related diseases such as diabetes, cardiovascular disease, and obesity. This quality improvement project aimed at making sure each HIV client receives nutrition assessment at each visit so as to reduce the burden of disease and promote an enhanced quality of life in HIV-infected individuals.

Method: Beginning June 2016 to June 2017 all clinicians at

Ndejje Health Centre IV was encouraged to carry out body mass index (BMI) to all clients who visit the clinic. Continued medical education was carried out every month, BMI charts were provided as well as weighing scales and height boards. Random sampling was used each month to retrieve client's files to find out how many had their BMI done.

Results: One in five PLHIVs was found to be under nourished. At the end of June 2017 there was an improvement of nutrition assessment for all clients living positively at Ndejje Health Centre IV from 30% to 89.2%.

Conclusion: Nutrition interventions should form an integral part of HIV care programs, understanding the presence of OI, decline in CD4 count, and advancing WHO clinical stages as risk factors can be helpful in preventing under nutrition and over nutrition.

Biography

Kibirige Nangonde Safina is a 30 year old Ugandan, a counselor at Mild may Uganda. She has a bachelor's degree in public health and has a working experience of 8 years with HIV and AIDS as a nurse counselor. She started writing abstracts in 2015 and in March 2017 she presented one of her abstracts (the game changer for realizing the 90 90 90 strategy) in the 11th Uganda counseling association conference at hotel African

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 Notes:

CHARACTERIZATION OF PATIENTS WITH CARBAPENEMASE-PRODUCING PSEUDOMONAS AERUGINOSA ISOLATES IN A MEDIUM LEVEL HOSPITAL IN CHÍA, COLOMBIA

Tatiana Pacheco^a, Julio C. García^a and Sara Arias^a

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Introduction: Carbapenemics have been used as one of the most important antimicrobials against severe infection by *Pseudomonas aeruginosa* strains. The resistance against these antimicrobials presents a complex epidemiology and despite continuous report of clinical and epidemiological updates in many countries in Latin America and specifically in Colombia, there are few studies.

Objective: To describe the clinical characteristics of patients with carbapenemase producing *Pseudomonas aeruginosa* isolates. Material and methods Between January 2015 and April 2017, a descriptive study has been performed. This study included patients from 18 to 82 years old with average age of 52 years. All of them with carbapenemase- producing *Pseudomonas aeruginosa*.

Results: It has been documented 37 infected patients; whose

93.1% had a history of antibiotic therapy, the main antibiotic used was Meropenem in 48.64% of the patients treated. Among the reported infections, the most frequent was the urinary tract infection in 29.73% of the patients, followed by soft tissue infection (24.32%), pneumonia and abdominal sepsis in 10.81% of patients, then device-associated infection, surgical site infection, and bacteremia (5.41% each). 72.97% of the patients presented hospitalization in an intensive care unit with an average stay of 19 days. 29.7% of patients received monotherapy, 27.02% had double therapy, in 24.32% of the cases a triple therapy was followed and in the remaining 10.81% there was a regimen of more than three antibiotics. Mortality was 24.32%. Molecular analysis was performed in 3 isolated samples with confirmation of *Pseudomonas aeruginosa* species and presence of carbapenemase type KPC and VIM in the three samples, suggesting the presence of a same clone in the institution.

Biography

Tatiana Pacheco was born in Convención, Colombia. She received the Medical Doctor degree from National University of Colombia in 2009, since then she has been working in several researches related to the impact of Infectious diseases in Colombian Population. Now she is attending her master degree in Clinical Pharmacology at University of La Sabana in Bogotá, Colombia where she works with the Therapeutic Evidence research group.

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