RMH AND MOD IN COLLABORATION WITH MOH ARE ORGANISING MALARIA ONE DAY SYMPOSIUM

THEME: MEANS AND WAYS TO ERADICATE COMPLETELY MALARIA

ABSTRACTS AND BIOS BOOK

Date 22nd / April/ 2015
Venue: Serena Hotel

Khoti Gausi, MA Econs, MPH

Presentation on MALARIA CASE MANAGEMENT & SUIVELLANCE: - Overview (abstract)

This presentation will focus on The WHO Global Malaria Programme's T3: Test. Treat. Track. initiative that supports malaria-endemic countries in their efforts to achieve universal coverage with diagnostic testing and antimalarial treatment, as well as in strengthening their malaria surveillance systems.

On World Malaria Day 2012, WHO launched a new initiative called T3: Test. Treat. Track, urging malaria-endemic countries, donors and the global malaria community to scale up diagnostic testing, treatment and surveillance for malaria. This global initiative was developed to provide a framework for endemic countries to strengthen these three fundamental pillars of malaria control and elimination. T3 was launched by Margaret Chan, WHO Director-General, at an event in Windhoek, Namibia, hosted by Richard Kamwi, Minister of Health of Namibia.

The initiative seeks to focus the attention of policy-makers and donors on the importance of adopting WHO's latest evidence-based recommendations on diagnostic testing, treatment and surveillance, and on updating existing malaria control and elimination strategies, as well as country-specific operational plans.

T3: Test. Treat. Track. anchors the key policy messages of WHO's recommendations on diagnostic testing, treatment and surveillance, i.e. that every suspected malaria case should be tested, every confirmed case should be treated with a quality-assured antimalarial medicine, and the disease should be tracked through a timely and accurate surveillance system. Accurate diagnosis will significantly improve the quality of care and ensure that antimalarial medicines are used rationally and correctly. The scale-up of quality-assured antimalarials in the public and private sectors will ensure that all malaria patients receive prompt treatment. Improved surveillance for malaria cases and deaths will help ministries of health to determine which areas or population groups are most affected and help target resources to where they are most needed.

T3 has been built on a foundation of the following core WHO documents:

- Universal access to malaria diagnostic testing: an operational manual (2011)
- Guidelines for the treatment of malaria, second edition (2010); Now replaced by the third edition (2015)
- Disease surveillance for malaria control, and disease surveillance for malaria elimination (2012)

Khoti Gausi, MA Econs, MPH
Monitorign and Evlauation Specialist, World Health Organization, Inter-country Support Team, East and Southern Africa, Harare, Zimbabwe

Khoti Gausi is a holder of Bachelors and Masters degrees in Economics from the University of Montpellier, France and also holds a Master in Public Health from the University of the Western Cape, South Africa. He has extensive experience in surveillance, monitoring and evaluation, operational and strategic planning and managing national and international health programmes. With a long career with eh United Nations Khoti Gausi started working for the World Food Programme where he coordinated food aid and its monitoring and evaluation component. He was in charge of logistics of the food aid programme and coordinated relationships between WFP and Ministry of Education, Ministry of Health and Population, Malawi Red Cross and other agencies.

He moved to UNICEF in 1996 where he was responsible for conducting research in various areas related to health. As part of this job he led evaluations of the UNICEF health programmes and use of this information for formulation of new plans.

From 1998 to 2003 he was Lecturer in Economics with the University of Malawi Polytechnic where he rose deputy head of department and tutored students in their studies. While there he participated in numerous research projects within and outside the faculty. He is also founding founding member of, the Institute for Policy Research and Analysis and Dialogue (IPRAD), an NGO specializing in policy research and analysis for use by Malawians. He is also founder member of and lecturer on the Master in Business Administration (MBA) introduced at The Polytechnic of the University of Malawi, Blantyre, Malawi.

During the same time he served at resident advisor and manager for Partners for Health Reform project providing assistance to the Ministry of Health and Population in the area of Hospital Autonomy and District Strengthening within the process of decentralization of Ministry of Health and Malawi Government. He was designed an integrated management approach for district implementation planning management and supervision and strengthened central level capacity for tracking progress with implementation, reporting, budget tracking, and submission of HMIS reports. He was a core member of the team that developed the Malawi Essential Health Care Package and provided technical support in the development of the Malawi Sector Wide Approach (SWAP) to deliver the EHP.

He is currently in charge of malaria planning, surveillance, monitoring and evaluation for the Inter-Country Support Team (IST) for East and Southern Africa covering 20 countries. In this capacity he has served as the co-chair of a global working group on malaria programme reviews and malaria strategic planning within the Harmonization Working Group of the Roll Back Malaria partnership. He is responsible for collecting data from countries for the compilation of the World Malaria Reports since 2005. He has supported countries in East and

Southern Africa in development of strategic plans and the corresponding monitoring and evaluation plans. He also pioneered conducting the new population based Malaria Indicator Survey (MIS) in East and Southern African countries. He also facilitated the resource mobilisation for malaria control through facilitating Global Fund proposal development since the creation of the fund and has been a member of the Global Fund Mock TRP sessions for more than since 2008.

His current interests are related to strengthening the programme monitoring components of health programmes as well as the use of information for programme decision making.

Malaria Control in Rwanda: updates, challenges and way forward

By Corine Karema
MD, MSc Epi, PhD student
Head of Malaria & Other Parasitic Diseases Division-RBC, Ministry of Health-Republic of Rwanda

Malaria remains a major public health problem in Rwanda. Initial evidence indicated that the combination of mass distribution of LLIN to all children < 5 years or all households and nationwide distribution of ACT in the public sector was associated with substantial declines of in-patient malaria cases and deaths in Rwanda. Using Rwanda health information system time trends analysis of in-patient malaria cases and deaths in children < 5 years old prior to (2001-2005/6) and after (2007) nationwide implementation of LLIN and ACT in-patient malaria cases and deaths in children < 5 years old in Rwanda fell by 55% and 67. Similar results were also found following a marked increase in ITN coverage and use of ACT in Rwanda. Comparison trends in post-intervention (2006-2010) with that of pre-intervention (2000-2005) period shown more than 50% decline in confirmed malaria cases, admissions and deaths reported at district hospitals in Rwanda since 2005. These successes have encouraged the country in 2013 to develop a national malaria pre-elimination strategic plan with the aim of achieving near zero malaria deaths by 2018. Recently, however, Rwanda has been grappling with an unprecedented rise in malaria cases that threaten these ambitions with malaria cases almost doubling between 2012 and 2015. This has occurred, despite significant progress in access to malaria control interventions. From recent data, household LLIN ownership was at 83% and usage among children under five was at 74%. In addition, IRS was successfully scaled up in targeted districts while mandatory diagnosis and prompt treatment with ACTs is required at all public health facilities. The scale up of iCCM through community health workers has now achieved national coverage resulting to 96% of children under five being treated within 24 hours of symptom onset. Review of malaria control progress have identified main determinants of malaria epidemiology in Rwanda which had led the GoR through the MoH to develop in collaboration of all stakeholders a malaria contingency plan with multisectorial strategies to contain current malaria upsurges and sustain achievements in Rwanda malaria control program.

Corine Karema is a MD, MSc Epidemiology who joined the National Malaria Control Program (NMCP) in 2001 as head of the epidemiological surveillance/operational research until 2006 when she became the NMCP Director. She has been trained in Malariology, Biosafety Laboratory, Good Clinical and Laboratory Practices, Clinical Trials, on planning and management of tropical diseases control programs control as well as Epidemiology. From 2009-2011, she was at the acting Director General of the Treatment and Research Center of HIV/AIDs, TB, Malaria and other epidemic infectious diseases (with NTDs control program). She has been involved in developing malaria control strategies and policies as well as all research studies, which has guided most of the evidence-based malaria control interventions in Rwanda. She has designed and led the impact evaluation of malaria control interventions which shown important reduction on malaria morbidity and mortality in Rwanda. Since 2011, she has been appointed the head of Malaria & Other Parasitic Diseases Division that also includes NTD Control program in the Rwanda Biomedical Center, an agency for the Ministry of Health in the Republic of Rwanda. Corine was the vice–chair of the East African RBM Network Coordination committee for 6 years and member of the Global Malaria Control and Elimination technical working group as well as of the Scientific Advisory Committee (SAC) for malaria policy and access of TDR/WHO Special Program. She is also a member of the WHO Drug Resistance and Containment Technical Expert Group and an observer of the WHO Malaria Policy Advisory Committee (MPAC). Corine was member of the WHO Steering committee of the Global Technical Strategy for Malaria control and elimination 2016-2025 and RBM GMAP II Task Force. She has published and co-authored many articles on malaria and health in Rwanda. She is also a graduate and faculty member of the Global Health Delivery Course in Rwanda. Corine is a PhD student at the Swiss Tropical and Public Health Institute (Swiss TPH), an associate institute of the University of Basel-SWITZERLAND.

Dr Sillah JACKSON

Presentation on WHO MALARIA GLOBAL POLICIES AND STRATEGIES - THE POST 2015 AGENDA

Overview (Abstract)

This presentation will focus on The Global Technical Strategy (GTS) for Malaria 2016–2030 which was adopted by the World Health Assembly in May 2015. It provides a comprehensive framework to guide countries in their efforts to accelerate progress towards malaria elimination. The strategy sets the target of reducing global malaria incidence and mortality rates by at least 90% by 2030.

It emphasizes the need for universal coverage of core malaria interventions for all populations at risk and highlights the importance of using high-quality surveillance data for decision-making. It also identifies areas where innovative solutions will be essential for attaining the goals, and summarizes the estimated global costs of implementation.

The GTS describes the global direction of malaria over the next decade and articulates a comprehensive plan that references pertinent WHO recommended strategies and guidance. Countries can increase coverage and targeting of interventions and reduce malaria burden, wherever they are along the spectrum from high burden to elimination, by following the guidance provided from the GTS and, in the process, contribute to achieving global goals for malaria.

The WHO strategy was developed in close alignment with the Roll Back Malaria Partnership's Action and Investment to defeat Malaria 2016-2030 – for a malaria-free world to ensure shared goals and complementarity.

It is recognized that the malaria landscape is continuously evolving and that new tools are certain to emerge within the next ten years. This document is designed to embrace anticipated innovations and it will address the importance of developing and incorporating new interventions and strategies based on emerging evidence and country needs. The WHO Global Technical Strategy for Malaria 2016–2030 is available in 7 languages

Bio sketch

Jackson SILLAH is a Medical doctor and trained clinical Epidemiologists with over 15 years of experience working in the area of Public health especially in communicable diseases prevention and control with special focus on Malaria and Tuberculosis prevention and control.

He is currently based in Ouagadougou, Burkina Faso with the WHO Inter-Country Team for West Africa. He is a technical officer for malaria and is the malaria case management focal person for the sub-region and also the WHO Rapid Access Expansion (RAcE) project for Integrated Community Case Management (iCCM) in West Africa.

Prior to joining WHO in 2002, he worked as a Research Clinician at the Medical Research Council (MRC) Laboratories in The Gambia on a multi-centre study on tuberculosis that involved three countries The Gambia, Guinea Bissau and Guinea Conakry with collaborators in Italy and the UK (London School of Hygiene and Tropical Medicine and Oxford University).

He is fluent in English and has a working knowledge in French.

Kaka Mudambo

The SADC Military Health Services Role in Malaria Elimination

Who are the SADC MHS: The SADC Military Health Services is a Work Group (Committee) made up of the 15 Member States Military Health Services (MHS) Chiefs. It was established in 1999 and the chairship rotates alphabetically, annually. Its main role is to deal with all health aspects of the SADC military during peace and war times/military operations. Its operations are guided by the SADC Protocol on Health, SADC MHS Constitution, the MHS Doctrine, SADC Military Minimum Standards for Malaria, TB and HIV . Technical Committees: Since 2003, the SADC MHS has established 10 Technical Committees which are under the coordination of the following countries: TB (Angola), Research and Publications (Botswana), Visibility and Branding (Lesotho), Pharmaceuticals (Malawi) Mental Health (Mozambique), NCDs (Namibia), HIV (South Africa), Disaster management (Tanzania), Military Health Intelligence/EDC (Zambia) and Malaria (Zimbabwe) and Strategy (co-chaired). Functions: Co-orperate and assist one another, designing strategies for protecting the military from diseases and conditions during peace and war times and in support of civil society/national directives, SADC, AU and UN Peace Support Operations (PSOs), Humanitarian missions and national disasters/disease outbreaks, promote regional harmonization, develop health strategy for the SADC Standby Force, support the ministries of health and related institutions including collaborating with non-military organizations, participate in SADC and World Malaria Day events and Members of regional Malaria Technical Committees, Boards and development of Global Fund and other proposals. Major achievements: Joint rapid response during Disasters (floods, Elnino), leading regional campaigns (Racing Against Malaria, Zambezi Malaria River Expedition), Development of Constitution, Strategic Frameworks, Minimum Standards for Malaria, TB and HIV, Military Malaria Pocket Booklet, coordinating the development of the SADC Malaria Strategic Plan and Malaria Elimination Strategy, cross-border initiatives, SADC Military Malaria Scorecard, the E8 and joint Ebola training

Kaka Mudambo Biography

Brigadier General (Dr) Kaka Mudambo is currently the Regional Coordinator of the SADC Member States Military Health Services (SADC MHS) and Regional Coordinator of the East African Regional Network (EARN) and Southern African Regional Network (SARN) – Roll Back Malaria (RBM) Partnership in East and Southern Africa (ESA) based in Gaborone, Botswana. He is an ex-combatant who fought in the liberation war for Zimbabwe and is a founder member of the SADC Military Health Services Work Group (WG). . Dr Mudambo's main role for the RBM is to convene, co-ordinate, and facilitate communications between national malaria control programmes (NMCPs) and partners within the ESA region and to support the implementation of one another's plans to control and eliminate malaria. General Mudambo is a Public Health specialist, a Military Malariologist with over 35 years experience in military health and military deployment/operational medicine. The General has also led several with the MHS several regional campaigns (Racing Against Malaria and Zambezi River Malaria Expedition). He has also supervised the development of the SADC Military Technical Committee's (Malaria, TB, HIV, NCD, Mental Health, Doctrine/Strategy, Research and Publication, Military Health Intelligence, Disasters/emergencies/outbreaks) and SADC Military Malaria, TB and HIV Minimum Standards and Military Malaria Pocket Booklet. Dr Mudambo has wide experience in the SADC Malaria control and elimination programs (E8), harmonization, regional integration of health systems, resource mobilization, Public-Private Partnerships, cross-border initiatives, development of Strategic Frameworks/guidelines and Global Fund Proposals. Dr Mudambo also lectures at the School of Health Sciences, University of Zimbabwe, has several publications and is a member of the Malaria Elimination Group (MEG). The General enjoys jogging, swimming, playing social soccer and writing.

Prof Premji is the Chair and Professor of pathology at The Aga Khan University Hospital, Nairobi. He obtained his Doctor of Medicine (MD) degree from the University of Dar es Salaam (Muhimbili) in 1985, MSc in Medical parasitology from the London School of Hygiene and Tropical Medicine in 1988, Diploma in Tropical Medicine from the College of Physicians in London and PhD in Infectious Diseases from Karolinska, Sweden in 1995.
He has authored more than 85 publications mostly on malaria, parasitic diseases, public health and measuring burden of disease in Africa. His current interests include clinical trials, antimalarial drug resistance and malaria case management.
His career highlights include a three year stint as Chief Medical laboratory Technician and more than 30 years in academia, rising up the rank at the School of public health, Muhimbili University of Health Sciences from tutorial assistant to a full professor. Administratively he has held a number of positions at the University and his last assignment was Director of Post Graduate Studies. Internationally Professor Premji has affiliations and memberships with a number of scientific groups and has been Editor of Acta Tropica advisor to National Malaria Control in Tanzania.

Abstract: As we strife to sustain gains in malaria control and perhaps go for the pre-elimination phase the diagnosis of malaria is very important. Every fever should be confirmed if caused by malaria and thus appropriate treatment is targeted. The presentation gives up dates on malaria diagnosis and the importance of malaria diagnosis in the current control efforts.
Zul

Anthere Murangwa

EFFICIENCY OF MALARIA DIAGNOSTIC TESTS USING LIGHT MICROSCOPY AND RAPID TESTS METHODS

Abstract

Background

In most resource-poor settings, malaria is usually diagnosed based on clinical signs and symptoms and not by detection of parasites in the blood using microscopy or rapid diagnostic tests (RDTs). In population-based malaria surveys, accurate diagnosis is important: microscopy serves as a gold standard while RDTs allow immediate findings and treatment. The concordance between RDTs and microscopy in low or unstable malaria transmission areas like Rwanda has not been evaluated.

Objectives

This study aims at investigating the agreement between microscopy and RDTs in terms of sensitivity and specificity and at estimating the prevalence of malaria among patients for whom malaria tests will be requested at Rwanda Military Hospital (RMH).

Methods

This will be a hospital-based prospective cross-sectional study. The sample size will be calculated based on similar studies conducted in other settings. Fingerpick blood samples from all participants will be used to prepare Giemsa-stained blood slides for light microscopy analysis and to perform RDTs.

Results

The sensitivity and specificity of RDTs will be measured and published according to the microscopy results, which are gold standard. The Statistical analysis of the prevalence will be calculated as a total number of positive samples/total number of samples examined ×100.

Conclusion

The results of both light microscopy and RDTs will determine whether it is necessary to use both light microscopy method and RDTs at the same time during the malaria detection

Bios

NAME Anthere Murangwa	POSITION TITLE
COMMONS USER NAME: murangwaanthere	RMH Laboratory Manager

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE	YEAR	FIELD OF STUDY
University of Nairobi, Kenya	MSc	2016	Medical Microbiology
University of Johannesburg, South Africa	Bachelor's degree	2011	Biomedical Technology
University of Rwanda former KHI, Rwanda	National Diploma/Advanced Diploma	2005	Laboratory Sciences

A. Personal Statement

I medical microbiologist deeply interested in laboratory testing in regard to deliver reliable results and in research career in order to assist my institution (RMH) and entire country to determine the best methods and improve the quality of results for good treatment to the patients.

I have 19 years of experience in the laboratory domain. I am current focal points in RMH pathology laboratory on two studies which are being conducted in RMH entitled **Optimal methods for cervical cancer prevention in HIV-infected women in low income settings** and **Men who have sex with men** .

C. Study conducted

Final work of my master's programme studies entitled; A study on cryptosporidiosis among HIV-positive patients presenting with diarrhoea from rural and urban areas in Rwanda

Malaria RDT: The Current and the Future

YunHee Kim

The proportion of suspected malaria cases receiving a malaria diagnostic test has increased steadily in the African Region since 2005; from 36% of suspected malaria cases in 2005 to 65% of suspected cases. In early 2010, WHO has recommended that all persons with suspected malaria in all settings should undergo malaria diagnostic testing, by either microscopy or rapid diagnostic test (RDT). Therefore, in 2013, for the first time ever, the total number of malaria RDTs exceeded the number of effective antimalarial therapies. The availability of high-quality Malaria RDTs has greatly improved and most of Malaria RDTs are used for passive case detection (PCD), whereby the patient seeks care at a health facility or from a community health worker for symptoms of malaria. Current Malaria RDT has lots of pros and good enough accuracy for PCD, but it is still needed some kind of improvement on Malaria RDT as being used for an essential tool to aid the global fight in malaria elimination.

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Ms. YunHee Kim

Position
Global Product Director– Vector Borne Diseases
Infectious Disease Business Unit
Alere

Education
1998. 03 ~ 2003.08 B.S degree in Genetic Engineering at KyoungHee University, Korea

Career
- Technical sales representative for Immuno-chromatographic assays for 3 years in SD
- Marketing manager in SD for 5 years
- Global Product Manager for Vector Borne Diseases in Alere since 2012
- Currently, Global Product Director for Vector Borne Diseases in Alere

Specialties
- Invited speaker for presenting about diagnosis of Malaria, Dengue and other vector borne diseases in numerous national infectious disease seminars in Indonesia, Philippine, Thailand, Myanmar, Colombia, Venezuela, Brazil and several African countries from 2009.
- Invited guests of Asia-Pacific dengue prevention board meeting by Dengue Vaccine Initiative

Symposium on malaria

Abstract: Clinical features of malaria in adults

Introduction

Malaria is a parasitic infection caused by one of the five species of plasmodium, falciparum, ovale, vivax, malariae and knowlesi. It is endemic throughout of the tropics especially in sub-Saharan Africa. Among 3 billion people living in 108 countries who are exposed 243 million of people will develop symptomatic malaria mainly caused by plasmodium falciparum. 863,000 deaths are caused by malaria each year, 80 percent of the deaths occur among children in sub-Saharan Africa.

There was an increase of malaria cases in Rwanda last year compared to the cases received previously. At the Rwanda Military Hospital (RMH) there were 43 cases in 2011 but last year in 2015, 453 cases of malaria were registered; only Dec accounted for 142 cases.

Immunity against malaria

People living in endemic areas develop total or partial immunity against malaria. The malaria immunity can be lost for people who move from endemic zones to non-endemic. People without it can easily develop severe malaria once exposed to plasmodium, especially falciparum which is the virulent type.

Clinical features for uncomplicated malaria

Initially the symptoms are non-specific but malaria should be suspected in any febrile illness following exposure from non-endemic region. Other symptoms include headache, tachypnea, tachycardia, fatigue, chills, malaise, diaphoresis, anorexia, nausea, vomiting, abdominal pain, diarrhea, arthralgias, and myalgias.

The physical findings are usually, mild anemia, splenomegaly, and mild jaundice.

Laboratory evaluation may demonstrate: parasitemia (usually <5000 parasites/microL of blood, <0.1 percent parasitized RBCs), anemia, thrombocytopenia, elevated transaminases, mild coagulopathy, and elevated BUN and creatinine.

Any plasmodium species can cause uncomplicated malaria.

Mechanism to cause severe malaria by plasmodium falciparum

Plasmodium falciparum invades red blood cells of all age whereas vivax and ovale invade only reticulocytes. It also causes cytoadherence of infected red blood cells to all human cells. This will cause sequestration of infected red blood cells. Uninfected red blood cells can stick to infected ones causing what is called rosettes and block microcirculation.

Clinical features of severe malaria.

Cerebral malaria which is encephalopathy with altered mental status and /or convulsions. Hypoglycemia, acidosis, renal impairment, liver dysfunction, hematologic abnormality with thrombocytopenia, non-cardiogenic pulmonary edema are also other features of severity.

Recrudescence and relapse

Malaria can have episode of recrudescence when not well treated especially for plasmodium falciparum or relapse which is release of hypnozoites from the liver especially when it is ovale or vivax. Plasmodium malariae can be dormant for years

Treatment of malaria.

Coartem is the treatment of choice for uncomplicated malaria whereas for complicated malaria artesunate is the recommended drug.

Prognosis of malaria is good when early treatment and appropriately treated.

Maj Dr SUGIRA Vincent
Physician
Rwanda Military Hospital

Biography

Maj Dr Sugira Vincent, currently physician at the Rwanda Military hospital in internal medicine.
I did my undergraduate training in the University of Rwanda where I graduated in 2008.
I joined the post graduate training in 2011, graduated in 2015 where I got a master's degree of medicine in internal medicine. During this training I did an external rotation for 2 months at Dartmouth medical center in New Hampshire , USA.
Working experience: Worked as medical officer at the Rwanda Military Hospital from 2008 up to 2011 where I was exposed to different medical conditions among them tropical diseases like malaria and others.
After post graduate studies I'm posted at the Rwanda Military hospital where I work as consultant in internal medicine.
Research Experience: Did a study on sepsis in the Kigali referral hospitals which was selected as poster presentation in the ID Week conference by the infectious diseases society of America (IDSA) in October 2015.

Lt Col Dr Jules KABAHIZI

ABSTRACT

Malaria continues to be an important cause of illness and death in children and in adults especially in countries in which it is endemic, including Rwanda. Sub-Saharan Africa carries a disproportionately high share of the global malaria burden. In 2015, the region was home to 88% of malaria cases and 90% of malaria deaths.

People predominantly die of infectious diseases: lower respiratory infections, HIV/AIDS, diarrhoeal diseases, malaria and tuberculosis collectively which account for almost one third of all deaths in these countries. Hence, malaria is one of top 10 killer diseases in world.

AKI occurs in <1% of pf malaria, but mortality up to 45%.Common in adults than children, recent trends- high incidence Diagnosed when sr. creat.>3mg/dl or urine output <400ml/24 hrs.

Renal involvement varies from mild proteinuria to severe azotemia. Malarial AKI is associated with CM, Jaundice, Anaemia, ARDS/Pulm. edema & Hypoglycaemia . One of the treatment modality for malarial acute kidney injuryis not available and not financially accessible for the vast majority of our population.

Lt Col Dr Jules KABAHIZI

Lt Col Dr Jules KABAHIZI is a chief consultant nephrologist at Rwanda Military Hospital (RMH).He did his undergraduate studies at National University of Rwanda and his post graduade Education at the University of The Witwatesrand in South Africa where he won the Solly Lopis price for the best written Mmed research report. He is a past fellow of International Society of Nephrology at the same University. Lt Col Dr Jules KABAHIZI is a graduate of the Senior Command and Staff Course at RDF Command and Staff College in Nyakinama-Musanze.

Lt Col Dr Jules KABAHIZI is the head of internal Medicine department at RMH and he is a lecturer at the National University of Rwanda. He does General Medicine, Hepatitis clinic and clinical Nephrology. His undergoing PhD topic is Pathogenesis of Proteinuria in HIV related Renal Diseases.

ABSTRACT

Title: **ABO-RH group and malaria severity**
Presenter: **Dr F. Ntaganda, Hemato-Pathologist RMH / KFH**

Malaria is fatal and serious disease especially in sub-Saharan Africa, Malaria is caused by 5 types of the plasmodium family, and in actual fact all cases of severe or fatal malaria come from the species known as Plasmodium falciparum.
However other factors like age, comorbidities, ABO- Rh blood group may explain malaria severity in some cases. In severe cases of the disease, the infected red blood cells adhere excessively in the microvasculature and block the blood flow, causing oxygen deficiency and tissue damage that can lead to coma, brain damage and, eventually death. The ABO- Rh group has been linked to disease since years, though the selection of and distribution geographic of ABO- Rh group remain uncertain. I will discuss the malaria severity and the ABO- Rh type. The DNA sequencing for blood group O shows that the geographical distribution of blood group O is consistent with survival to malaria. In Rwanda we don't have data relating malaria to Blood group but in other countries the severity of Malaria and blood group is well documented. Available data on the pathogenesis of P. falciparum infection help to understand and, suggest a biologic model to summarize the role of ABO- Rh blood groups in cytoadherence biology.
In summary, a broad range of available evidence and facts suggests that the origin, distribution, and relative proportion of ABO- Rh blood groups in humans may have been directly influenced by selective genetic pressure from P. falciparum infection. However, it is important to recognize that the distribution of ABO– Rh group has also been influenced by other events including the migration of peoples, population splitting from wars and famine, and other lethal pediatric diseases in which survival may be associated with a specific ABO antigen.

BIOSCKETCH

Dr Ntaganda Fabien Hemato-Pathologist MMED SA University of Durban since 2011. MBCHC NUR 2002. Fellowship in aphaeresis and blood exchange India, appollo 2015. Director of pathology services at Rwanda Military Hospital, Legal President of Rwanda Society of Pathologists, President founder of Rwanda Federation for haemophilia (in process). Coordinator of HIV / VCT outreach programme in Rwanda Defence Forces /Ministry of Defence. Member of American Society of Hematology, Member of European Hematology Association. Member of southern African Clinical HIV Society. Supervisor of academic research in Sweden university and Nairobi university.
I have a special interest in promoting the care of haematology patients in Africa.

Evaluation of two novel tablet formulations of artemether-lumefantrine (Coartem®) for bioequivalence in a randomized, open-label, two-period study

Gilbert Lefèvre, Prafulla Bhad, Jay Prakash Jain, Sampath Kalluri, Yi Cheng, Hardik Dave and Daniel S Stein

Presented by Dr Nathan Mulure, Novartis Pharma

Abstract

Background: Artemether-lumefantrine (Coartem®; AL) is a standard of care for malaria treatment as an oral six-dose regimen, given twice daily over three days with one to four tablets (20/120 mg) per dose, depending on patient body weight. In order to reduce the pill burden at each dose and potentially enhance compliance, two novel fixed-dose tablet formulations (80/480 mg and 60/360 mg) have been developed and tested in this study for bioequivalence with their respective number of standard tablets.

Methods: A randomized, open-label, two-period, single-dose, within formulation crossover bioequivalence study comparing artemether and lumefantrine exposure between the novel 80/480 mg tablet and four standard tablets, and the novel 60/360 mg tablet and three standard tablets, was conducted in 120 healthy subjects under fed conditions. Artemether, dihydroartemisinin, and lumefantrine were measured in plasma by HPLC/UPLC-MS/MS. Pharmacokinetic (PK) parameters were determined by non-compartmental analyses.

Results: Adjusted geometric mean AUClast for artemether were 345 and 364 ng•h/mL (geometric mean ratio (GMR)
0.95; 90% CI 0.89-1.01) and for lumefantrine were 219 and 218 μg•h/mL (GMR 1.00; 90% CI 0.93-1.08) for 80/480 mg tablet versus four standard tablets, respectively. Corresponding Cmax for artemether were 96.8 and 99.7 ng/mL (GMR 0.97; 90% CI 0.89-1.06) and for lumefantrine were 8.42 and 8.71 μg/mL (GMR 0.97; 90% CI 0.89-1.05). For the 60/360 mg tablet versus three standard tablets, adjusted geometric mean AUClast for artemether were 235 and 231 ng•h/mL (GMR 1.02; 90% CI 0.94-1.10), and for lumefantrine were 160 and 180 μg•h/mL (GMR 0.89; 90% CI 0.83-0.96), respectively. Corresponding Cmax for artemether were 75.5 and 71.5 ng/mL (GMR 1.06; 90% CI 0.95-1.18), and for lumefantrine were 6.64 and 7.61 μg/mL (GMR 0.87; 90% CI 0.81-0.94), respectively. GMR for Cmax and AUClast for artemether and lumefantrine for all primary comparisons were within the bioequivalence acceptance criteria (0.80-1.25). In addition, secondary PK parameters also met bioequivalence criterion.

Conclusion: Both of the novel artemether-lumefantrine tablet formulations evaluated are bioequivalent to their respective standard Coartem® tablet doses. These novel formulations are easy to administer and may improve adherence in the treatment of uncomplicated malaria caused by Plasmodium falciparum.
Trial registration: Clinical trial registration number: CTRI/2011/12/002256

Keywords: Artemether, Lumefantrine, Coartem, Novel fixed-dose formulation, Bioequivalence
http://www.malariajournal.com/content/12/1/312

Dr Nathan Mulure, Head of Operations and Capacity building has been with Novartis for the last 10 years. Nathan is a graduate of Nairobi University School of Medicine. He has a post graduate qualifications infectious diseases from Université Rennes Descartes in Paris, Biomedical research and clinical epidemiology from Université Claude Bernard, In Lyon France. He also completed a Master of Public Health and currently pursuing Master in Pharmaceutical medicine from Hibernia college, Scotland. He has over 15 years' experience in the pharmaceutical Industry, having worked with Sanofi-Aventis for 4 years before joining Novartis Pharmaceuticals.

Annet KWIZERA

The role of Chemicals and other pesticides on malaria control: Case of RMH
ABSTRACT

INTRODUCTION

Rwanda Military Hospital (RMH) was established in 1968 as a military hospital. It continued to provide health care services to the military and their immediate families until after the 1994 genocide against the Tutsi when doors were opened to the general population. RMH currently treats 80% civilians and 20% military patients.
The Government of Rwanda, through Ministry of Defense and Ministry of Health, is committed to offering quality health care services to the military and the general population through strengthening and refocusing RMH in terms of the infrastructure, human resources capacity building, equipment and management systems. Whereby RMH has the required capacities to deliver quality services as a referral and teaching hospital.
Through, RMH has the vision of preventing the population from all communicable diseases including malaria.
Malaria is a difficult disease to control largely due to the highly adaptable nature of the vector and parasites involved. While effective tools have been and will continue to be developed to combat malaria, inevitably, over time the parasites and mosquitoes will grow means to avoid those tools if used in isolation or used ineffectively. To achieve sustainable control over malaria, RMH environmental hygiene department has developed strategic guidelines.

PRESENT STRATEGY

Malaria is caused by protozoa of the genus Plasmodium that is found in tropical climates throughout the world with reports of malaria being the 4th deadliest infectious disease. Therefore, it is useful to find multiple ways to tackle this devastating issue. The current strategies at RMH related to countering malaria are divided into four categories below. However, the major form of prevention remains pesticides and bed nets treated with pesticides, which target mosquitoes rather than Plasmodium.

CURRENT MALARIA SITUATION AT RMH

Malaria situation at RMH from January to March 2016 is reducing whereby January was 129 Positive cases, Feb 61, and March 41.

RMH MARALIA ERADICATION STRATEGIES

1) Annual Indoor spraying
2) Removal of stagnant waters.
3) Clearing of bushes around RMH grounds.
4) Early diagnosis and treatment of malaria patients.

1. ANNUAL INDOOR SPRAYING

In the framework to prevent malaria outbreaks and control of it's transmission. Once a year there is a dedicated period of spraying all hospital buildings. This is done annually and when there is a malaria outbreak. The purpose of Indoor spraying is to eradicate mosquitoes in targeted areas. It's therefore, in this regard that we recently (Jan 2016) sprayed in all RMH buildings and outside. This was reported to have a positive impact on patients, caregivers and hospital staff (especially night staff). The chemical product used was Deltametrine 500mg in 20 litres of tap water spraying is done when all patients are out of the ward and all belongings covered after the spraying patients stay out for 2 hours and all wards closed before they go back in.

2.REMOVAL OF STAGNANT WATERS

We do not allow water to stay stagnant near the building and outside areas, as this serves as breeding sites of mosquitoes, therefore whenever it rains, the water drains are cleaned immediately thereby allowing those areas to remain free from mosquitoes.

3. CLEARING OF BUSHES AROUND RMH GROUNDS

At RMH grounds the grass is cut regularly and daily near the building, this is done by the cleaning crew under the supervision of Environmental Health Department. Weekly monitoring and evaluation is done to assess if this was achieved.

4. EARLY DIAGNOSIS AND TREATMENT OF THE MALARIA PATIENTS

If the preventative measures were not achieved due to various reasons such improper adherence to the above listed strategies, this leads to malaria outbreak (infestation).
Therefore, clinical personnel from RMH always carry out early diagnosis and treatment of the identified cases, but on environmental health department the emphasis is put on the improving preventive measures rather than diagnosis and treatment measures.

CONCLUSION

Malaria is a difficult disease to control. However, at RMH we continue to develop effective ways to control and combat malaria.
This included various strategies to tackle the source of malaria (mosquitoes) and providing treated mosquito nets to all RMH patients.

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BIOGRAPHY

Annet KWIZERA, Quality Assurance and Risk Management Division Manager
I manage Three (3) Directorates, which include Quality Management and Improvement, Safety Health, Environment and Risk Management and Customer Care Relations The division has 29 working staff.
I'm a qualified health care professional in nursing and bachelors Degree in public health, currently pursuing masters in Health Care quality
I have 13 years of experience in health care and five (5) in quality assurance.

Biography
John Bosco Bizimana

Business Owner: 1998-Present
Purpose Driven Business – Public Health and Environment Protection
Nationality: Rwandese - Canadian

Since childhood, my passion has always been in public health and environment protection. I am mainly famous for providing solutions to various environmental issues in Rwanda especially pertaining to Aerobic Wastewater Treatment systems.

Born in Rwanda, grew up in Uganda till I left for further studies in Egerton University in Kenya where I graduated in Animal Health and got employed as a research associate by Norwegian Agency for development (NORAD) in the Public health department specifically dealing with zoonotic diseases in Kenya.

Awarded Scholarship to University of Saskatchewan in Canada where I graduated in Applied Microbiology in Department of Agriculture. Was employed by CIBA-GEIGY where I was involved in pesticide research until I joined Pasteur Merieux – Vaccine Manufacturing Company based in Toronto, Canada where I held various positions (Research, Quality Assurance and Regulatory Affairs).
Accredited by Harvard School of Public Health in Biological Hazards Control and Management in the Department of Environmental Engineering.

Achievements:
Introduced Aerobic Wastewater Treatment in Rwanda, Solid Waste Management at Nyanza Landfill, Energy saving lights (CFL, LED), Quinoa growing to fight against malnutrition, and finally in the process of introducing the Natural Biological Enemy of Mosquitoes called Bacillus thuringiensis islaelensis (Bti) which is the most effective offensive method to control the Malaria vectors globally. To ensure success in National Malaria Eradication Program in

Rwanda, I teamed up with Vector Disease Control International (VDCI) based in USA, a company with numerous success stories in mosquitoes control using Bti which has been used for decades without any adverse effects to public health and the environment.

Abstract of Malaria Vaccine presentation
Varun Kumar, M.D.

While improved treatment protocols using artemisinin-combination therapies and improved preventative measures such as insecticidal bed nets have helped to reduce the morbidity and mortality burden of malaria, this disease is still estimated to have affected over 200 million people worldwide in 2015 and killing nearly half a million people, with 90% being in Sub-Saharan Africa. Thus malaria still represents a significant disease worldwide, needing other strategies to help decrease its burden. One of these strategies is the development of a vaccine which would aid greatly to malaria prevention efforts. While no current vaccine exists, several new vaccines are undergoing clinical trials to test efficacy and side effects. The most advanced of these vaccines is called RTS,S/AS01 and is a vaccine designed against Plasmodium falciparum, which is the malaria species responsible for most cases of severe malaria and malaria deaths. Recent Phase 3 trials of this vaccine done in 7 African countries showed that immunizing children aged 5-17 months resulted in a 55% reduction in the number of all malaria episodes during the first 12 months of follow-up, and a 47% reduction of severe, life-threatening malaria. However, further trials showed that the vaccine efficacy decreases over time so a booster dose 18 months after the last dose was trialed, which was shown to be helpful . With a dosing schedule of 0-1-2-20 months, the overall efficacy for severe malaria in 5-17 month old children was 32% and included reductions in severe anemia and malaria hospitalizations. While this represents only a modest effect, it could still help significantly in areas of high malaria burden. The WHO and its partners are currently evaluating further the efficacy and safety of this vaccine in order to decide whether to recommend this vaccine for licensing and distribution. If so, this would be the first vaccine against a parasite, as all current human vaccines are against bacteria or viruses, and could be a useful new tool in the fight against malaria.

Bio for Varun Kumar

Varun Kumar, M.D. is an American pediatrician who did medical school at Washington University in St. Louis and pediatrics residency at Brown University. He is currently working at Rwanda Military Hospital, through the HRH program.

Florent Rutagarama

Abstract

The global prevalence of malaria is high. From the past 15 years, malaria curve is tending downwards and related deaths have also decreased. Rwanda had similar trend as well with 75% reduction of malaria cases from year 2000 – year 2014. 88% of death worldwide occurs in Africa.

However, from year 2015, the trend in Rwanda reversed with 16% increase in 2015. Rwanda Military Hospital, one of the public referral hospitals also followed similar trend. From year 2015, 704 slides were found positive for malaria in children under 15 years old. Among them, 79 were admitted. 10.1% of those patients had cerebral malaria. The cerebral malaria, despite being the most common non traumatic encephalopathy, it shares same clinical features with other central nervous system infectious diseases; especially acute bacterial meningitis.

Adequate clinical assessment and appropriate investigations should be performed to confirm the diagnosis and initiate treatment early and appropriately.

Florent Rutagarama

Holds a MD, obtained at the University of Rwanda
MMed in Pediatrics, obtained at the University of Rwanda
Sub-specialty training in Pediatric Endocrinology from the Panafrican School of Pediatric Endocrinology, Nairobi Kenya.
Honorary Lecturer, University of Rwanda.
Domain of interest: diabetes, bone metabolism and disorders of sex development.

Jackson SILLAH

Presentation on the CURRENT WHO GUIDELINES FOR MALARIA TREATMENT– Overview (abstract)

This presentation will focus on the guidelines for the treatment of malaria (Third edition - April 2015). Malaria case management, which consists of prompt diagnosis and effective treatment, remains a vital component of malaria control and elimination strategies. This third edition of the WHO Guidelines for the treatment of malaria contains updated recommendations based on new evidence as well as a recommendation on the use of drugs to prevent malaria in high-risk groups.

The core principles underpinning this edition include: early diagnosis and prompt, effective treatment; rational use of antimalarial treatment to ensure that only confirmed malaria cases receive antimalarials; the use of combination therapy in preventing or delaying development of resistance; and appropriate weight-based dosing of antimalarials to ensure prolonged useful therapeutic life and an equal chance of being cured for all patients.

The Guidelines include recommendations on the diagnosis and treatment of uncomplicated and severe malaria by all species, including in special at-risk populations (such as young children, pregnant women, TB or HIV/AIDS patients and non-immune travellers) and situations (such as epidemics and humanitarian emergencies), and on the use of drugs to prevent malaria in groups at high risk. They aim:

- to assist policy-makers to design and refine effective national treatment policies on the basis of the best available evidence;
- to help hospital and clinical care providers to design and refine effective treatment protocols on the basis of the best available evidence;
- to promote the use of safe, effective malaria treatment; and
- to protect currently effective malaria treatment against the development of resistance.

Malaria is an entirely preventable and treatable disease. The primary objective of treatment is to ensure the rapid and complete elimination of the Plasmodium parasite from the patient's blood in order to prevent progression of uncomplicated malaria to severe disease or death, and to prevent chronic infection that leads to malaria-related anaemia.

From a public health perspective, the goal of treatment is to reduce transmission of the infection to others, by reducing the infectious reservoir, and to prevent the emergence and spread of resistance to antimalarial medicines.

Bio sketch

Jackson SILLAH is a Medical doctor and trained clinical Epidemiologists with over 15 years of experience working in the area of Public health especially in communicable diseases prevention and control with special focus on Malaria and Tuberculosis prevention and control.

He is currently based in Ouagadougou, Burkina Faso with the WHO Inter-Country Team for West Africa. He is a technical officer for malaria and is the malaria case management focal person for the sub-region and also the WHO Rapid Access Expansion (RAcE) project for Integrated Community Case Management (iCCM) in West Africa.

Prior to joining WHO in 2002, he worked as a Research Clinician at the Medical Research Council (MRC) Laboratories in The Gambia on a multi-centre study on tuberculosis that involved three countries The Gambia, Guinea Bissau and Guinea Conakry with collaborators in Italy and the UK (London School of Hygiene and Tropical Medicine and Oxford University).

He is fluent in English and has a working knowledge in French.

Tanya Rogo, MD, MPH&TM, FAAP

Malaria in Foreigners

Malaria is a common cause of fever in international travelers to endemic areas. In addition, visiting friends and relatives are at increased risk for malaria infection. In this presentation we will discuss the geographical distribution of malaria, how to perform a malaria risk assessment, how to choose drugs for chemoprophylaxis, and options for mosquito bite prevention.

Biography
Tanya Rogo, MD, MPH&TM, FAAP

Dr. Rogo was born in Kenya, and attended medical school at Tulane University. She completed her pediatric residency at Inova Fairfax Hospital for Children, and fellowship in pediatric infectious diseases at Brown University/Hasbro Children's Hospital. She is currently appointed in Rwanda as part of Human Resources for Health where she works in the department of pediatrics at the University Teaching Hospital of Kigali. She is board-certified by the American Board of Pediatrics in both general pediatrics and pediatric infectious diseases. Her research interests include HIV and antimicrobial resistance.

New innovative interventions and evidence towards malaria elimination in Rwanda: Experience from MEPR project in Ruhuha sector in Bugesera (2011-2016)

Leon Mutesa*, MD, PhD
***Associate Professor, College of Medicine and Health Sciences, University of Rwanda, Kigali, Rwanda**

Abstract

In 2011, the Netherlands Organization for Scientific Research/ WOTRO Science for Global Development provided competitive research funds for four years research project titled Malaria Elimination Program for Ruhuha (MEPR). The main objective of this project was to strengthen human capacity development within the Rwandan health sector.

The programme aimed at demonstrating the multifactorial conditions of malaria in a community, that community participation helps health systems towards malaria elimination and demonstrate that communities can develop sustainable health interventions in a self-learning environment.

The programme consisted of four interrelated PhD projects, referred to as the 'four pillars' addressing issues related to behavioral sciences – where the project facilitates the entire programme by looking at group dynamics, self organisation, ownership, commitment and intervention design and implementation. The second pillar of biomedical sciences studies malaria related epidemiology including disease burden, spatial distribution, immunological parameters and surveillance. The third pillar of entomology targets to improve integrated vector management and the integration of this approach in the context of the existing health systems. The last pillar of health economics focuses on studying economic and financial models for sustainable malaria elimination, such as willingness to pay and return on investments.

The targeted site of this project was Ruhuha sector located at about 42 km from Kigali, the Capital of Rwanda. It covers an area of about 56 square kilometers with a population estimated to be 19,606 people. The sector is divided into 5 cells and 35 villages with 5,661 households. It is drained by four main wetlands transformed into irrigated rice fields, while seasonal crops occupy the fifth wetland. Malaria was previously reported as high endemic and a serious problem. Due to the government interventions through the distribution of Long Lasting Insecticide treated nets (LLINs) with achievement of universal coverage (one LLINs for two persons) and Indoor Residual Spraying with more than 97,5 % coverage for each Indoor Residual Spray (IRS) round, as well as malaria case management, the burden of malaria was declined drastically (Rulisa et al 2013; Hakizimana et al. 2014; Kateera et al 2015). Despite use of these effective interventions the prevalence of malaria has not reached the phase of pre-elimination as stipulated in the National Malaria Control strategic Plan (2013-2018). Therefore, the next steps were to empower the local community to the identification of the true problem and to provide appropriate solutions. A bottom up participatory approach through an Open Space method was used as well as the creation of "Community Malaria Action Teams (CMATs) in the framework of Behavior Change and Communication (Ingabire CM et al 2014).

Regarding the major solutions emerging from the open space discussion meetings included: special malaria preventive strategies for vulnerable groups, community ownership of malaria control actions, environmental clearing by cutting bushes and removing mosquito breeding sites, full coverage by availability of mosquito nets for each sleeping space, and empowering community health workers for diagnosis and treatment of adults additionally to the children below the age of five years. These results served as a platform to share results and a community-based dissemination workshops organized to formulate sustained community actions for malaria elimination in the area and to orient further operational research. Among potential innovative actions taken for a detailed diagnosis of the problem and the appropriate solutions included the usage of a bottom up approach instead of the vertical approach deployed for other vector control interventions from the design, the planning and implantation of activities as well as the introduction of microbial larvicide named “Bacillus thuringiensis var. israelensis” (Bti) for larval source management. Other innovative interventions included tackling foci of malaria infection, evaluating and establishing immunological aspects of chronic parasitemia.

In conclusion, this bottom-up approach was found useful in engaging the local community, enabling them to explore issues related to malaria in the area and suggest innovative solutions for sustainable malaria elimination gains.

Leon Mutesa, MD, PhD
Associate Professor, College of Medicine and Health Sciences, University of Rwanda

Dr Leon Mutesa studied medicine at the University of Rwanda, obtaining an MBChB (Doctorate in General Medicine) in 2003. In 2003 he was awarded a PhD scholarship grant from French speaking Universities CIUF/CUD/Belgium Cooperation and joined the Center for Human Genetics at the University of Liege as a PhD student. He began researching on cystic fibrosis (CF) causing mutations in African population where the disease has been under-diagnosed for longtime. In 2009, he completed and published his original research project entitled "Genetic analysis of cystic fibrosis transmembrane conductance regulator (CFTR) and amiloride sensitive epithelial sodium channel (ENaC) gene in African patients with cystic fibrosis-like symptoms" in «CHEST» which is a high ranked peer reviewed journal and graduated with a PhD in Medical Sciences. His work was the first to show and identify the probable pathophysiological role in both CFTR and ENaC genes in black population with CF-like disease. During his PhD research program, he simultaneously managed to follow training in clinical genetics and in 2009 achieved a dual board certification in Clinical Genetics from Belgian High Council for Human Genetics after a background education as a geneticist.

In 2009, he joined the Faculty of Medicine at the National University of Rwanda as Senior Lecturer then Associate Professor of molecular biology and medical genetics and serves as Head of Center for Medical Genetics, where he is currently developing clinical practice, molecular and cytogenetic analyses. Since starting his genetic career, he specifically drove new developments and implementation of a reference center for medical genetics in Rwanda, which is the only one in the East African Region where he is developing several genetic analyses such as karyotype, DNA analysis, PCR and gene sequencing. He acquired and installed basic state-of-the-art molecular biology equipment with intention to develop Forensic DNA analysis activities. From 2009 to 2011 he also served as the Head of Department of Clinical Laboratory at Kigali University Teaching Hospital (CHUK) where he was mainly involved in laboratory analysis set up and lab accreditation process. In 2010 Dr Mutesa was awarded a two year-postdoctoral fellowship grant from CIUF/CUD-NUR03 Belgian Cooperation project and jointly conducts his current research in Rwanda and at the University of Liege/Belgium in the Department of Human Genetics with collaboration of the Institut fur Zellulare und Molekulare Physiologie at the Universitat of Erlangen-Numberg in Germany. In 2011, in recognition of his research achievements and project management, Dr Mutesa was appointed by the Government of Rwanda as Director of Medical Research Center in Rwanda Biomedical Centre under Ministry of Health where he coordinated research activities in all national medical institutions and generated several research grants. He published more than 70 articles in international peer-reviewed journals.

Currently, he is Principal Investigator of more than seven research grants including grants on the “Empowerment of the Community Towards Malaria Elimination” funded by the Netherlands’s organization WOTRO (€1,000,000) and a grant on “HIV/HPV Cancer Prevention, Treatment & Pathogenesis: Rwanda/Einstein Consortium” funded by National Institute of Health (NIH-RFA-CA-13-010 U54,$3,749,795).

ABSTRACT OF THE NURSING CARE PLAN APPROCH BASED MANAGEMENT OF MALARIA

Author: Aurelie Nkomeje, RN, CCN, MSN

Nurses have always been at the forefront and a constant when it comes to caring for patients suffering from malaria. Malaria is a complex disease that potentially evolves to other conditions as a result of its complications and ultimately to death if untreated or mismanaged.
The purpose of the topic is to help nurses come up with a well-suited organizational concept to mitigate the ever-changing conditions such as malaria. This model will try to illustrate an effective and efficient mechanism to deal with the complexity of individuals, family or community responses to actual and potential health problems or life processes in regards to malaria as a disease.
Nursing care needs to be a relatively systematic method that directs the nurse in planning patient care and also enables them to organize and deliver nursing care that is patient centered and outcome focused. Utilizing the nursing care plan will help nurses to differentiate the medical diagnosis from the nursing diagnosis, priorities as well as identify expected outcomes and communicate the plan of care.
This model if well embraced seems to be a platform for all the nurses countrywide to better understand and practice the holistic management of any malaria patient thus providing a good tool to keep track of malaria patients and nursing as a continuum of care.
KEY WARDS: NURSING CARE PLAN and MALARIA

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