MalariaWorld Nr. 137 (5 November 2007)

▪▪▪ Publications ▪▪▪

Two Cases of Plasmodium vivax Malaria with the Clinical Picture Resembling Toxic Shock (Subscription)
Joon Young Song, Cheong Won Park, You Mee Jo, Jeong Yun Kim, Jeong Hyun Kim, Hyo Joong Yoon, Chi Hoon Kim, Chae Seung Lim, Hee Jin Cheong, and Woo Joo Kim
Am J Trop Med Hyg 2007;77 609-611
These cases emphasize the importance of considering the possibility of *P. vivax* malarial infection in patients with a clinical picture resembling toxic shock if they have a travel history to malaria-endemic areas.

Comparison of Different Artemisinin-based Combinations for the Treatment of Plasmodium falciparum Malaria in Children in Kigali, Rwanda, an Area of Resistance to Sulfadoxine-Pyrimethamine: Artesunate Plus Sulfadoxine/Pyrimethamine versus Artesunate Plus Sulfamethoxypyrazine/Pyrimethamine (Subscription)
Stephen Rulisa, Jean Philip Gatarayiha, Tharcisse Kabarisa, and Gill Ndayisaba
Am J Trop Med Hyg 2007;77 612-616
The absence of side effects and the low price of these drugs make them it worth to reconsider national therapies in favor of either of these two drug combinations.

Effects of Malaria Heme Products on Red Blood Cell Deformability (Subscription)
Forradee Nuchsongsin, Kesinee Chotivanich, Prakaykaew Charunwatthana, Omodeo-Sale Fausta, Donatella Taramelli, Nicholas P. Day, Nicholas J. White, and Arjen M. Dondorp
Am J Trop Med Hyg 2007;77 617-622
The findings suggest novel approaches to the treatment of potentially lethal malaria.

Relationship of Hepcidin with Parasitemia and Anemia among Patients with Uncomplicated Plasmodium falciparum Malaria in Ghana (Subscription)
Caitlin T. Howard, Uri S. McKakpo, Isabella A. Quakyi, Kwabena M. Bosompem, Ebenezer A. Addison, Kai Sun, David Sullivan, and Richard D. Semba
Am J Trop Med Hyg 2007;77 623-626
Urinary hepcidin is more strongly associated with parasitemia than hemoglobin or anemia among patients with acute *P. falciparum* malaria in Ghana.

Malaria Treatment Efficacy among People Living with HIV: The Role of Host and Parasite Factors (Subscription)
Miriam K. Laufer, Joep J. G. van Oosterhout, Phillip C. Thesing, Fraction K. Dzinjalamala, Teresa Hsi, Lorraine Beraho, Stephen M. Graham, Terrie E. Taylor, and Christopher V. Plowe
Am J Trop Med Hyg 2007;77 627-632
Among children, the risk of treatment failure increased with infection with SP-resistant parasites and anemia. Decreased CD4 cell count was not associated with impaired response to antimalarial therapy or diminished ability to clear SP-resistant parasites, suggesting that acquired immunity to malaria is retained in the face of HIV-associated immunosuppression.

Life-Table Analysis of Anopheles arabiensis in Western Kenya Highlands: Effects of Land Covers on Larval and Adult Survivorship (Subscription)

Yaw A. Afrane, Goufa Zhou, Bernard W. Lawson, Andrew K. Githeko, and Guiyun Yan
Am J Trop Med Hyg 2007;77 660-666
Therefore, the current ambient climate condition is less permissive to *An. arabiensis* than to *An. gambiae* in western Kenya highlands. However, environmental changes such as deforestation and global warming may facilitate the establishment of *An. arabiensis* populations in the highlands.

Genetic Influences on Mosquito Feeding Behavior and the Emergence of Zoonotic Pathogens (Subscription)
A. Marm Kilpatrick, Laura D. Kramer, Matthew J. Jones, Peter P. Marra, Peter Daszak, and Dina M. Fonseca
Am J Trop Med Hyg 2007;77 667-671
Data and modeling suggest that feeding preferences may be influenced by genetic ancestry and contribute to the emergence of vector-borne pathogens transmitted by introduced species, including malaria, and dengue, Chikungunya, yellow fever, and West Nile viruses.

Glucose-6-Phosphate Dehydrogenase Deficiency and Antimalarial Drug Development (Subscription)
Ernest Beutler, Stephan Duparc the G6PD Deficiency Working Group
Am J Trop Med Hyg 2007;77 779-789
This report discusses the potential strategies for assessing drug-induced G6PD deficiency-related hemolytic risk preclinically and in early clinical trials. Additionally, the issues important for conducting larger clinical trials in populations in which G6PD deficiency is prevalent are examined, with a particular focus on antimalarial drug development.

A Large Cluster of Imported Plasmodium falciparum Malaria among Nigerian Expatriate Students (Subscription)
Mei L. Kang, Liyang Hsu, and Asok Kurup
Am J Trop Med Hyg 2007;77 790-792
Although early diagnosis and treatment of patients averted local transmission of disease, our report illustrates the vulnerability of malaria-free countries to the introduction of malaria in this age of increasing globalization and ease of travel.

Structure-based discovery of a family of synthetic cyclophilin inhibitors showing a cyclosporin-A phenotype in Caenorhabditis elegans (Subscription)
Yuande Yang, Elizabeth Moir, George Kontopidis, Paul Taylor, Martin A. Wear, Kirk Malone, Colin J. Dunsmore, Antony P. Page, Nicholas J. Turner and Malcolm D. Walkinshaw
Biochemical and Biophysical Research Communications, Volume 363, Issue 4, 30 November 2007, Pages 1013-1019
These dimedone analogues provide a new scaffold for the synthesis of families of peptidomimetic molecules with potential activity against HIV, malaria, and helminth parasite infections.

Lead decreases parasitemia and enhances survival of Plasmodium berghei-infected mice (Subscription)
Saisudha Koka, Stephan M. Huber, Krishna M. Boini, Camelia Lang, Michael Föller and Florian Lang
Biochemical and Biophysical Research Communications, Volume 363, Issue 3, 23 November 2007, Pages 484-489
In conclusion, Pb(NO3)2 accelerates eryptosis and subsequent clearance of infected erythrocytes and thus favourably influences the course of malaria.

Localisation of a candidate anion transporter to the surface of the malaria parasite (Subscription)
Roselani I. Henry, Rowena E. Martin, Susan M. Howitt and Kiaran Kirk
Biochemical and Biophysical Research Communications, Volume 363, Issue 2, 16 November 2007, Pages 288-291

By transfecting the parasite with an epitope-tagged version of PfSulP, and detecting via western blot and indirect immunofluorescent assay microscopy, we show that PfSulP is localised to the surface of the intraerythrocytic parasite, where it is postulated to play a role in the flux of anions across the parasite plasma membrane.

Chemical transformation and biological studies of marine sesquiterpene (S)-(+)-curcuphenol and its analogs (Subscription)
Waseem Gul, Nicholas L. Hammond, Muhammad Yousaf, Jiangnan Peng, Andy Holley and Mark T. Hamann
Biochimica et Biophysica Acta (BBA) - General Subjects, Volume 1770, Issue 11, November 2007, Pages 1513-1519
A number of analogs showed significant activity against Mtb and Leishmania donovani, while showed good to moderate activities in antibacterial and antifungal assays as well as against Plasmodium falciparium (D6 clone) and (W2 clone).

Modifications of the chemical structure of terpenes in antiplasmodial and antifungal drug research (Subscription)
David Olagnier, Philippe Costes, Antoine Berry, Marie-Denise Linas, Martine Urrutigoity, Odile Dechy-Cabaret and Françoise Benoit-Vical
Bioorganic & Medicinal Chemistry Letters, Volume 17, Issue 22, 15 November 2007, Pages 6075-6078
Given the observed antiplasmodial activity of some of these modified monoterpenes, new monoterpene derivatives could be the basis for new antimalarial drugs to be researched.

Synthesis and evaluation of naphthyridine compounds as antimalarial agents (Subscription)
Shuren Zhu, Quan Zhang, Chandrashekar Gudise, Li Meng, Lai Wei, Erika Smith and Yuliang Kong
Bioorganic & Medicinal Chemistry Letters, *Volume 17, Issue 22*, *15 November 2007*, *Pages 6101-6106*
These compounds, as well as the underlying design rationale, may find usefulness in the discovery and development of new antimalarial drugs.

News: More effort is needed to tackle malaria in sub-Saharan Africa, says Unicef (Subscription)
John Zarocostas
BMJ 2007;335:848 (27 October)
Important advances have been made in recent years to reduce the malaria burden in sub-Saharan Africa through greater use of treated bed nets and better treatment, says a report by Unicef.

News: Candidate malaria vaccine looks safe and potentially effective (Subscription)
Shortcuts from other journals
BMJ 2007;335:851 (27 October),
International efforts to control malaria include developing and testing new vaccines directed against the pre-erythrocytic stage of Plasmodium falciparum. RTS,S/AS02D, a candidate manufactured by GlaxoSmithKline, has reached the stage of preliminary testing in humans, and early results look promising.

Reduced in-hospital mortality after improved management of children under 5 years admitted to hospital with malaria: randomised trial (Subscription)
Sidu Biai, Amabelia Rodrigues, Melba Gomes, Isabela Ribeiro, Morten Sodemann, Fernanda Alves, Peter Aaby
BMJ 2007;335:862 (27 October)
Supervising healthcare workers to adhere to a standardised treatment protocol was associated with greatly reduced in-hospital mortality. Financial incentives may be important for the dedication and compliance of staff members.

Ibuprofen does not affect levels of tumor necrosis factor-α and soluble tumor necrosis factor receptor types I and II in Gabonese children with uncomplicated Plasmodium falciparum malaria (Subscription)
Pierre-Blaise Matsiegui, Michel A Missinou, Saadou Issifou, Magdalena Necek, Elie Mavoungou
European Cytokine Network. Volume 18, Number 4, 23-7, December 2007
Our data suggest that TNF-α is involved in malarial fever, but soluble TNF receptors play no major role in fever modulation.

The Rise, Fall, Rise, and Imminent Fall of DDT (Open access)
Roger Bate
Health Policy Outlook no. 14, November 2007
The momentum to increase DDT use has stalled for lack of increased political and financial support.

Health of urban Ghanaian women as identified by the Women's Health Study of Accra (Subscription)
A.G. Hill, R. Darko, J. Seffah, R.M.K. Adanu, J.K. Anarfi and R.B. Duda
International Journal of Gynecology & Obstetrics, Volume 99, Issue 2, November 2007, Pages 150-156
The high prevalence of preventable illnesses in this expanding urban population indicates that the health care services are obligated to develop and provide screening, preventive strategies and treatment for both general health and gynecologic health conditions.

Production of erythropoietic cells in vitro for continuous culture of Plasmodium vivax (Subscription)
Tasanee Panichakul, Jetsumon Sattabongkot, Kesinee Chotivanich, Jeeraphat Sirichaisinthop, Liwang Cui and Rachanee Udomsangpetch
International Journal for Parasitology, Volume 37, Issue 14, December 2007, Pages 1551-1557
Our results demonstrate that gRBCs derived in vitro from HSCs can provide susceptible Duffy^{+} reticulocytes for continuous culture of *P. vivax*. Of particular interest, we discovered that parasites were able to invade nucleated erythroid cells or erythroblasts that are normally in the bone marrow. The possibility that *P. vivax* causes erythroblast destruction and hence inflammation in the bone marrow needs to be addressed.

Development of a pharmacodynamic model of murine malaria and antimalarial treatment with dihydroartemisinin (Subscription)
Peter L. Gibbons, Kevin T. Batty, P. Hugh R. Barrett, Timothy M.E. Davis and Kenneth F. Ilett
International Journal for Parasitology, Volume 37, Issue 14, December 2007, Pages 1569-1576
This study demonstrates that a murine malaria pharmacodynamic model is a valuable tool for understanding how single drugs and their dosing schedules alter the time course and level of infection.

Quantitative dissection of clone-specific growth rates in cultured malaria parasites (Subscription)
Heather B. Reilly, Hongjian Wang, John A. Steuter, Anastasia M. Marx and Michael T. Ferdig
International Journal for Parasitology, Volume 37, Issue 14, December 2007, Pages 1599-1607
These data illustrate differences in cycle duration, merozoite production, and invasion rate and efficiency that underpin Dd2's average 2-fold proliferation advantage over HB3 per erythrocytic cycle. The ability to refine growth phenotypes will inform the search for molecular determinants of differential parasite growth rates and broaden our understanding of killing mechanisms and cellular targets of antimalarial drugs.

Review: Are West African plants a source of future antimalarial drugs? (Subscription)
Patrice Njomnang Soh and Françoise Benoit-Vical
Journal of Ethnopharmacology, Volume 114, Issue 2, 1 November 2007, Pages 130-140
Indeed, some extracts seem to be promising in future research, but development of new isolation and characterization techniques, for designing new derivatives with improved properties need to be discussed.

Editorial: Is malaria eradication possible? (Subscription)
The Lancet
The Lancet, Volume 370, Issue 9597, 27 October 2007-2 November 2007, Page 1459
No abstract available

The effect of HIV on morbidity and mortality in children with severe malarial anaemia (Open access)
Samuel Malamba, Wolfgang Hladik, Arthur Reingold, Flora Banage, Willi McFarland, George Rutherford, Derrick Mimbe, Esau Nzaro, Robert Downing, Jonathan Mermin
Malaria Journal 2007, 6:143 (31 October 2007)
This study demonstrates that HIV-infected children were approximately three times more likely to die within seven days of a symptomatic malaria episode than HIV-uninfected children, and had more frequent re-admissions due to malaria within 28 days.

Monitoring the operational impact of insecticide usage for malaria control on Anopheles funestus from Mozambique (Open access)
Sonia LR Casimiro, Janet Hemingway, Brian L Sharp, Michael Coleman
Malaria Journal 2007, 6:142 (31 October 2007)
The development of insecticide resistance is a potential threat to any insecticide-based malaria vector control programme. The re-introduction of DDT into Mozambique's IRS programme in 2005 poses interesting questions. Is monitoring insecticide resistance feasible for a malaria control programme and what the impact of monitoring would this have on policy ?

Vβ profiles in African children with acute cerebral or uncomplicated malaria: very focused changes among a remarkable global stability (Subscription)
Séverine Loizon, Philippe Boeuf, John K.A. Tetteh, Bamenla Goka, George Obeng-Adjei, Jørgen A.L. Kurtzhals, Christophe Rogier, Bartholomew D. Akanmori, Odile Mercereau-Puijalon, Lars Hviid and Charlotte Behr
Microbes and Infection, Volume 9, Issue 11, September 2007, Pages 1252-1259
The remarkable stability of the Vβ repertoire observed in acute malaria either cerebral or uncomplicated argues against the idea that cerebral malaria would result from a T cell-mediated inflammatory shock syndrome driven by some dominant super-antigenic activity(ies). The significance of the reproducible increase of the CD4 + Vβ21.3T cell subset deserves further investigations.

Plant pathology: Deadly special deliveries (Subscription)
Nicholas J. Talbot
Nature 450, 41-43 (1 November 2007)
When attacking a plant, pathogens must deliver proteins into their victim's cells. The causal agent of potato late blight uses a system that is remarkably similar to that used by the malaria parasite in red blood cells.

A translocation signal for delivery of oomycete effector proteins into host plant cells (Subscription)
Stephen C. Whisson *et al.*
Nature 450, 115-118 (1 November 2007)
A conserved peptide motif, RXLR-EER present in effector proteins from the oomycete *Phytophthora infestans* (the cause of the Irish Potato famine) is required for movement

of effectors from specialized infection structures called haustoria into plant cells. This sequence has recently been reported to be required for the translocation of the malarial parasite *Plasmodium falciparum* into human erythrocytes.

This week: Type blood O confers resistance to malaria (Subscription)
Debora MacKenzie
The New Scientist, Volume 196, Issue 2627, 27 October 2007, Page 16
While the blood type prevents the malaria parasite from causing a severe form of the disease, it also comes at a cost.

Upfront: Malaria vaccine protects infants against infection (Subscription)
The New Scientist, Volume 196, Issue 2626, 20 October 2007, Page 6
Early trials of a vaccine against malaria suggest it could save hundreds of thousands of lives each year

Histories: How the world let malaria off the hook (Subscription)
Fred Pearce
The New Scientist, Volume 196, Issue 2624, 6 October 2007, Pages 58-59
DDT was the world's best weapon against malaria. It clearly harms the environment, but have bans on its use led to millions of avoidable deaths?

Plasmodium falciparum during pregnancy: a puzzling parasite tissue adhesion tropism (Subscription)
M. C. Nunes, A. Scherf
Parasitology, Volume 134, Issue 13, December 2007, pp 1863 - 1869
In this review we will discuss two hypothetical mechanisms by which CSA-binding parasites may arise during pregnancy. The first, a selection process by the placenta of a distinct sub-population of P. falciparum expressing a particular PfEMP1. The second, an induction mechanism that facilitates the expression of a particular PfEMP1 protein by specific host factor(s) present only during pregnancy.

VAR2CSA and protective immunity against pregnancy-associated Plasmodium falciparum malaria (Subscription)
L. Hviid, A. Salanti
Parasitology, Volume 134, Issue 13, December 2007, pp 1871 - 1876
In this review we summarize the research leading to the identification of the distinctly structured PfEMP1 variant VAR2CSA as the dominant PAM-type VSA and as the clinically most important target of the protective immune response to placental P. falciparum infection.

Plasmodium in the placenta: parasites, parity, protection, prevention and possibly preeclampsia (Subscription)
Patrick E. Duffy
Parasitology, Volume 134, Issue 13, December 2007, pp 1877 - 1881
The burden of disease due to pregnancy malaria, and the benefits of an effective vaccine, may be much greater than is currently appreciated.

New approaches to pathogenesis of malaria in pregnancy (Subscription)
S. J. Rogerson, P. Boeuf
Parasitology, Volume 134, Issue 13, December 2007, pp 1883 - 1893
In this review, we describe these gaps in our knowledge and also try to identify goals for future research into malaria in pregnancy.

A Randomised Controlled Trial to Assess the Efficacy of Dihydroartemisinin-Piperaquine for the Treatment of Uncomplicated Falciparum Malaria in Peru (Open access)

Tanilu Grande, Andrea Bernasconi, Annette Erhart, Dioni Gamboa, Martin Casapia, Christopher Delgado, Kathy Torres, Caterina Fanello, Alejandro Llanos-Cuentas, Umberto D'Alessandro
PLoS ONE 2(10): e1101
Dihydroartemisinin-piperaquine is as effective as mefloquine-artesunate in treating uncomplicated *P. falciparum* malaria but it is better tolerated and more affordable than mefloquine-artesunate (US$1.0 *versus* US$18.65 on the local market). Therefore, it should be considered as a potential candidate for the first line treatment of *P.falciparum* malaria in Peru.

C3d-defined complement receptor-binding peptide p28 conjugated to circumsporozoite protein provides protection against Plasmodium berghei (Subscription)
Elke S. Bergmann-Leitner, Elizabeth H. Duncan, Wolfgang W. Leitner, Albert Neutzner, Tatyana Savranskaya, Evelina Angov and George C. Tsokos
Vaccine, Volume 25, Issue 45, 7 November 2007, Pages 7732-7736
We conclude that use of the CR2-binding motif of C3d as molecular adjuvant to CSP results in anti-malaria protective immune response probably by targeting the chimeric protein to CR2.

▪▪▪ Events ▪▪▪

Lecture on Malaria and Human Rights
Vennue: The School of Oriental and African Studies, London
Date: 10th December 2007 at 6:45pm on Human Rights Day
The UN Special Rapporteur on the Right to Health, Professor Paul Hunt, will deliver the first Annual Lecture on Malaria and Human Rights on the theme "Poverty, Malaria and Right to Health: Exploring the Connections". The Lecture is organised by the Malaria Consortium, a member of the European Alliance Against Malaria, and the UK Coalition Against Malaria. To receive an e-invite, please email Delphine Valette, Malaria Consortium's International Advocacy Coordinator, at d.valette@malariaconsortium.org
More information

▪▪▪ Jobs ▪▪▪

Ingeborg van Schayk
27 okt '07, 11:39
Tekst toegevoegd

Master of Science degree, by coursework and research report, in Biology and Control of African Disease Vectors, The University of the Witwatersrand, Johannesburg, South Africa, in collaboration with the National Institute for Communicable Diseases (National Health Laboratory Service)
The curriculum offered here will provide training in the theory and principles of vector biology and control with special emphasis on practical training in specific techniques needed for the monitoring and surveillance of vector control programmes. The course will commence on 1 August each year, starting 2008, and will be completed by 30 June the following year. Eligible applicants will have a minimum entry requirement of BSc Honours (in entomology, zoology, molecular biology, genetics or allied subjects). For more information on this course contact: Ms Tania van Leeve, Faculty of Health Sciences Post-graduate Affairs, Tel: +27-11-717-2745, Fax: +27-11-643-4318 or email **Tania.VanLeeve@wits.ac.za**

Ingeborg van Schayk
27 okt '07, 11:40
Tekst toegevoegd

Ingeborg van Schayk
27 okt '07, 11:39
Tekst toegevoegd

▪▪▪ News ▪▪▪

September/October
Underestimated Parasite Prevalence Studied in Malaria Populations, Global Health Matters

Results suggest that parasite prevalence measured in semiimmunes may be underestimated to an even greater extent if they do indeed maintain very low-density infections.

2 November 2007, East African Standard
Kenya: Icipe Calls for Joint Efforts to Fight Malaria in Africa
The International Centre for Insect Physiology and Ecology (Icipe) has called for joint efforts to fight malaria.

1 November 2007, Focus Media
Rwanda: Is Icon Spraying Really Effective?
On August 13, the government started a program of spraying the insecticide Icon in people's homes, in the context of the fight against malaria. However, people whose houses have already been taken care of, are not entirely convinced that the product is working.

1 November 2007, Focus Media
Rwanda: Spraying Campaign is Having Its Impact
With more than 30 days into the indoor residual spraying intervention in Kigali the ministry of health has reported major successes with more than 90% of the programmed houses have treated, even if there have been some shortcomings.

31 October 2007, New Vision
Uganda: $5m Firm to Export First Artemisinin Batch to India
AFRO Alpine Pharma, a $4.5m (about sh8b) company, is to export its first batch of the Artemisinin malaria powder to India.

31 October 2007, The Monitor
Uganda: Acholi MPs Okay DDT Use
The leader of the Opposition in Parliament, Prof. Ogenga Latigo, has given support to the government to implement the spraying of Dichloro-Diphenyl-Trichloroethane (DDT) in order to stop the high malaria deaths in the country and northern Uganda.

31 October 2007, The Times of Zambia
Zambia: Country Makes Strides Towards This
In developed countries, the war against malaria was won nearly half a century ago, but in poor countries the disease still continues to afflict people virtually unabated.

30 October 2007, Allafrica.com
Uganda: Museveni and Bush Discuss Trade, HIV at Meeting
President George W. Bush on Tuesday welcomed Ugandan President Yoweri Museveni to the White House, where the two heads of state discussed a variety of issues, including trade, HIV/Aids and malaria.

30 October 2007, Shabait.com
Eritrea: Local and Djiboutian Health Experts Exchange Experience in Malaria Prevention
A 6-member group of Djiboutian health experts and Eritrean health professionals exchanged experience in malaria prevention.

29 October 2007, Press release Antwerp Institute of Tropical Medicine
ITM starts 4ABC trial to compare four new antimalarial treatments for African children
In collaboration with several African and European partner institutes, the Antwerp Institute of Tropical Medicine will coordinate a multicentre clinical trial to determine the safety and the efficacy of four new antimalarial treatments, so called Artemisinine-Based Combination Therapies (ACTs).

29 October 2007, ScienceDaily
Protein-Based Vaccine May Protect Against Malaria
By studying antibodies in the blood of Amazonian natives living in malaria endemic areas, researchers have discovered promising new targets for a malarial vaccine.

29 October 2007, UN Integrated Regional Information Networks
Congo-Brazzaville: Government to Provide Free Malaria Care for Under Fives
The Republic of Congo's president Denis Sassou Nguesso has pledged free malaria treatment for the country's young children and their mothers.

29 October 2007, FOROYAA Newspaper
Gambia: Scientists-Journalists Network On Malaria to Be Launched in November
The African Media and Malaria Research Network (AMMERN), a network of journalists and scientists working on malaria will be launched in The Gambia on November 13. Pa Modou Faal, AMMREN Country Coordinator for The Gambia Chapter, said the date of the launching is confirmed but the venue will be known to the public in the near future.

29 October 2007, FOROYAA Newspaper
Gambia: Journalists Urged Wider Coverage On Malaria
Journalists from both the electronic and print media have on Friday October 26 pledged to intensify their efforts in raising public awareness on malaria prevention and control.

28 October 2007, New Vision
Uganda: Expectant Mothers Get Free Nets
In an effort to combat malaria, pregnant mothers and children below five years in Makindye division have received free insecticide - treated mosquito nets.

25 October 2007, United States Department of State
Africa: Fight Against Malaria Making Progress
Less than a year after President Bush and first lady Laura Bush hosted the White House Summit on Malaria, the worldwide effort to halt the disease is making significant progress, according to Malaria and Children, a new report prepared by UNICEF on behalf of the Roll Back Malaria Partnership (RBM).

29 October 2007, Press release Antwerp Institute of Tropical Medicine
ITM starts 4ABC trial to compare four new antimalarial treatments for African children
In collaboration with several African and European partner institutes, the Antwerp Institute of Tropical Medicine will coordinate a multicentre clinical trial to determine the safety and the efficacy of four new antimalarial treatments, so called Artemisinine-Based Combination Therapies (ACTs).