

**Type: Poster Presentation**

Final Abstract Number: 53.038

Session: *Infectious Disease Surveillance II*

Date: Friday, April 4, 2014

Time: 12:45–14:15

Room: Ballroom

**In vitro susceptibility of *Plasmodium falciparum* to antimalarial drugs five years after the change for treatment policy of uncomplicated malaria in Burkina Faso**L.N. Bonkian<sup>1,\*</sup>, T. Halidou<sup>2</sup>, V. Innocent<sup>1</sup>, Z. Hato<sup>1</sup>, O. Jean Bosco<sup>2</sup>, G. Tinga Robert<sup>3</sup><sup>1</sup> centre Muraz, Bobo Dioulasso, Burkina Faso<sup>2</sup> IRSS/centre Muraz, Bobo Dioulasso, Burkina Faso<sup>3</sup> INSSA/centre Muraz, Bobo Dioulasso, Burkina Faso

**Background:** Resistance to commonly used antimalarial drugs represents the major drawback and obstacle for controlling malaria in endemic countries. Burkina Faso has changed in 2005 its antimalarial drug policy for the treatment of uncomplicated malaria from Chloroquine to Artemether-Lumefantrine and Amodiaquine + Artesunate. This study aims to compare the in vitro sensitivity of the different ACT components with the results obtained various components of ACTs used in Burkina Faso and current antimalarial drugs after the implementation of effective use of ACT.

**Methods & Materials:** The study was conducted in Bobo Dioulasso from July 2009 to February 2010. Blood samples were collected from patients with a parasitemia between 4000 and 200000 trophozoites/ $\mu$ l and cultured in presence of antimalarial drug and incubated in 5% CO<sub>2</sub> for 48 hours. These patients were treated at the inclusion.

**Results:** A total of 40 blood samples were collected. We obtained, 2.78% resistant isolates to quinine, 6.06% to monodesethyl amodiaquine and 52.94% to chloroquine. The geometric mean IC<sub>50</sub> of lumefantrine, dihydroartemisinin and piperazine were respectively 30.61 nM, 1.31 nM and 8.58 nM.

**Conclusion:** At the end of this study, we conclude that five (05) years after the adoption of policy for use of ACT in the treatment of uncomplicated malaria in Burkina Faso, there is a lower rate of in vitro resistance to quinine. Regarding dihydroartemisinin, there is no great change in the geometric mean IC<sub>50</sub> values. And finally, we have a good antiplasmodial activity for monodesethyl amodiaquine, lumefantrine and piperazine.

<http://dx.doi.org/10.1016/j.ijid.2014.03.997>**Type: Poster Presentation**

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**Common infections among disabled children admitted to hospital**A. Fahimzad<sup>1</sup>, D. Babaie<sup>2</sup>, J. Ghoroubi<sup>3</sup>, G. Zahed<sup>4</sup>, S.R. Tabatabaei<sup>5,\*</sup><sup>1</sup> Pediatric Infections Research Center, Shaheed Beheshti University of Medical Sciences, Tehran, Iran, Islamic Republic of<sup>2</sup> Department of Allergy and Clinical Immunology, Hazrate Rasool Hospital, Tehran University of Medical Sciences, Tehran, Iran, Islamic Republic of<sup>3</sup> Department of Surgery, Mofid Children Hospital, Shahid Beheshti University of Medical Sciences, Tehran, Iran, Islamic Republic of<sup>4</sup> Department of Child and Adolescence Psychiatry, Mofid Children Hospital, Shahid Beheshti University of Medical Sciences, Tehran, Iran, Islamic Republic of<sup>5</sup> Pediatric Infections Research Center, Shahid Beheshti University of Medical Sciences, Tehran, IRAN, Tehran, Iran, Islamic Republic of

**Background:** Department of Child and Adolescence Psychiatry, Mofid Children Hospital, Shahid Beheshti University of Medical Sciences We aimed to determine common infectious diseases resulting in admission of these children to our hospital.

**Methods & Materials:** Between September 2006 and September 2007, 60 disabled children aged between 4 months and 15 years were admitted to infectious ward of Mofid children hospital Tehran, Iran. A questionnaire was filled at the time of admission, containing particular details of their recent complaint. They were completely examined and the final diagnosis was established at the time of discharge.

**Results:** In this study 25 (42%) boys and 35 (58%) girls aged from 4 to 168 months were included. The patients were divided practically into three groups: 21 patients (35%) with physical or developmental disabilities, 8 (13%) patients with mental or behavioral disabilities, and 31 (52%) patients with both developmental and mental disabilities. The common diseases among these children were lower respiratory tract infections (LRTI) in 24 patients (40%), urinary tract infections (UTI) in 8 patients (13.3%), and nonspecific infections in 9 patients (15%). Dental caries and periodontal problems were significantly higher in children having both mental and developmental disabilities this correlation was similar between different types of disability and skeletal deformity (P=0.006). Children having both mental and developmental disabilities were admitted more than children with either of those disabilities (P=0.08).

**Conclusion:** Lower respiratory tract infections were the most common reasons for admission of these children in our study, but we found no significant correlation between the type of disability and one special infectious disease. We need more prospective studies to complete our findings.

<http://dx.doi.org/10.1016/j.ijid.2014.03.998>