

eP589

ePoster Viewing

Malaria

## EVALUATION OF MALARIA SPECIES IN HAITI: DETECTION OF SUB CLINICAL INFECTION

T.M. Zervos<sup>1</sup>, T. Prentiss<sup>2</sup>, S. Arshad<sup>2</sup>, K. Prentiss<sup>3</sup>, J.M. Zervos<sup>4</sup>, K. Wilt<sup>1</sup>, S. Bruni<sup>1</sup>,

J. Sime<sup>2</sup>, M.A.B. Lucien<sup>5</sup>, M.J. Zervos<sup>2</sup>

<sup>1</sup>*School of Medicine, Wayne State University, Detroit Michigan, USA*

<sup>2</sup>*Division of Infectious Diseases, Henry Ford Health System, Detroit Michigan, USA*

<sup>3</sup>*Staff, International Medical Relief, Loveland Colorado, USA*

<sup>4</sup>*Public Health Sciences, Henry Ford Health System, Detroit Michigan, USA*

<sup>5</sup>*School of Medicine, Quisqueya University, Port-au-Prince, Haiti*

In this study, we evaluated malaria species in patients presenting to ten acute care medical and dental clinics in seven separate geographic locations in Haiti from January 2011 through February 2013. Malaria was detected in the clinics by the Paramax-3® rapid test, and dried blood spots were tested by polymerase chain reaction (PCR). Over the study period, 5775 patients were seen; 51 had acute febrile illness compatible with malaria. A total of 178 blood spot samples were collected on filter paper and tested for malaria by PCR using primer oligo (5'-3'): UNR (GACGGTATCTGATCGTCTTC), PLF (AGTGTGTATCCAATCGAGTTTC) and HUF (GAGCCGCCTGGATACCGC). In the second reaction, 1uL of the product of the first PCR product was amplified using PLF, OVR (GCATAAGGAATGCAAAGAACAG), FAR (AGTTCCCCTAGAATAGTTACA), MAR (GCCCTCCAATTGCCTTCTG) and VIR (AGGACTTCCAAGCCGAAGC) by finger prick from patients suspected to have malaria and the rest from secondary blood sources including: 115 tooth extraction and twelve finger prick glucose tests. Of the 51 suspected cases of malaria, eight were confirmed as *Plasmodium falciparum* by PCR. In samples from patients without clinical suspicion of malaria infection, PCR detected three *P. falciparum* infections. This study suggests detection of asymptomatic *P. falciparum*, which has important implications for detection, treatment and prevention strategies.