

## 11<sup>th</sup> International Virology Summit

&

## 7<sup>th</sup> World Congress on **Control and Prevention of HIV/AIDS, STDs & STIs**

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#### Antimicrobial resistance in HIV patients

According to the WHO, there is an estimated 36.7 million people living with the human immunodeficiency virus (HIV). While antiretroviral drug resistance is a common genetic trait of HIV which often results in treatment failure, there is a paucity of information of the development of antibiotic resistance in HIV patients. Along with the CD<sub>4</sub> cells, HIV targets other cells of the immune system resulting in immunodeficiency, and thus, such a weakened immune response increases opportunity for bacterial, fungal and other viral infections. Pathogens such as *Streptococcus pneumoniae*, *Salmonella*, *Hemophilus*, *Staph aureus*, *E. coli*, *Klebsiella* and *Pseudomonas* are the risk pathogens that are encountered in HIV patients. However, the frequency of bacterial infections which are especially common in the lower CD<sub>4</sub> counts, necessitate more administration of antibiotics either for prophylaxis or treatment purposes. One of the most clinically challenging threats is the production of extended-spectrum  $\beta$ -lactamases (ESBLs) that impedes the antimicrobial treatment of infections caused by *Enterobacteriaceae* in HIV patients and is a serious threat to the practice of modern medicine. Antimicrobial resistance in general, is a global health concern within the scientific community. Failure of recognizing antibiotic resistance in HIV/AIDS patients can further complicate the overall therapeutic strategy of the containment of HIV and can also lead to a more compromised quality of life in HIV patients. In summary, antibiotic resistance poses a threat to everyone, but people living with HIV/AIDS are at more significant risk.

#### Biography

Reza Nassiri is a former Associate Dean of Global Health at the Michigan State University. He also served as the MSU Director of Institute of International Health. He is currently Professor of Clinical Pharmacology and Toxicology, Professor of Family and Community Medicine and Lecturer in Global Health, Infectious Diseases and Tropical Medicine. He currently works on international public health issues relating to chronic diseases and has expertise in global health. He has made contributions in various fields of medical sciences including clinical investigation and health education. He had served as an Editorial Board Member for the journal of *HIV and AIDS Review*. He is currently on Editorial Board Member for *AIDS Patient Care and STDs*, *J of AIDS Clin Res.*, and *Int. J. of Global Health*. He is the Founder of Michigan State University Osteopathic and Primary Health Clinic in Merida, Yucatan, Mexico. His research interests include Clinical Pharmacology of HIV/AIDS, Viral Pathogenesis, Antibiotic Resistance, Prevention and Control of Infectious Diseases, Tropical Medicine, Global health and Community-based Public Health Interventions.

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