

## WORLD CONFERENCE ON STDs, STIs & HIV/AIDS

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## Precision medicine in the HIV aging population

Increased availability of one pill-once daily antiretroviral therapy (ART) combinations with greater potency and tolerability has created a dynamic shift in prescribing patterns towards simplification to these newer therapies. In this presentation, we will identify common one pill-once daily ART combinations and most current recommendations for treatment of HIV. In an era of ART simplification encouraged by an armamentarium of better therapies, the HIV aging population is increasing. Given these trends, the prevalence of comorbidities is also increasing in the HIV aging population. One example includes the large HIV Dutch ATHENA cohort projecting a significantly increased prevalence in both the number of comorbidities (especially, cardiovascular disease) and concomitant medications used to treat these comorbidities by 2030. Consequences of polypharmacy include increased pill burden, costs, drug-drug interactions, and adverse effects. In this presentation we will briefly discuss current and future polypharmacy trends in an aging HIV population. Studies show that adherence to ART is improved if HIV patients are taking fewer medications on a daily basis. Although many strategies exist to reduce polypharmacy to ensure sustainable success on ART, one

excellent measure may include precision medicine. In this presentation, we will describe specific examples of how using this personalized healthcare approach can serve importantly in guiding choices in both ART and management of common comorbidities in the HIV aging population. Finally, we will conclude with factors affecting clinical uptake of pharmacogenetic testing and discuss future implications.

## **Speaker Biography**

Dr. Crutchley graduated from Duke University in 2001. He then received his doctorate of Pharmacy from the University of North Carolina at Chapel Hill. Dr. Crutchley continued his education further by completing his PGY-1 Pharmacy Practice Residency at the University of Texas at Tyler and his PGY-2 HIV Specialty Residency at the State University of New York at Buffalo. Since then, he has also completed a STAR Health Disparities Fellowship through the University at North Texas Health Science Center at Fort Worth. Dr. Crutchley is currently working as a Clinical Associate Professor at the University of Houston, College of Pharmacy. He works as a HIV clinical pharmacist at Therapeutic Concepts (private adult HIV clinic) and the Retrovirology Clinic at Texas Children's Hospital with HIV-infected children and adolescents. Dr. Crutchley established a new and innovative PGY-2 HIV Ambulatory Care/Clinical Pharmacogenetics Residency Program at the University of Houston. His research interests include complimentary alternative medicine and pharmacogenetic approaches used to improve the quality of life and lifespan of HIV-infected patients.

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