

**Abstract**

**CDC0183 - Primary herpes simplex virus type 2 (HSV-2) infections in Lilongwe, Malawi**

S. Phiri<sup>1</sup>, I. Hoffman<sup>2</sup>, N. Nyirenda<sup>3</sup>, C. Mapanje<sup>3</sup>, H. Weiss<sup>4</sup>, W. Miller<sup>2</sup>, D. Maccormick<sup>3</sup>, C. Chen<sup>5</sup>, K.-H. Chi<sup>5</sup>, G. Joaki<sup>3</sup>, D. Chilongozi<sup>3</sup>, F. Martinson<sup>3</sup>, M. Cohen<sup>2</sup>, P. Mayaud<sup>4</sup>

*<sup>1</sup>Lighthouse at Kamuzu Central Hospital, Lilongwe, Malawi, <sup>2</sup>UNC, Chapel Hill, NC, United States, <sup>3</sup>UNC, Lilongwe, Malawi, <sup>4</sup>London School of Hygiene and Tropical Medicine, London, United Kingdom, <sup>5</sup>CDC, Atlanta, United States*

**Background:** Genital herpes treatment is not currently provided in the syndromic management (SM) of Genital Ulcer Disease (GUD) in Malawi. A randomised placebo-controlled trial evaluating the impact of episodic acyclovir (ACV) treatment on ulcer healing and HIV-1 genital shedding is underway among men and women in Lilongwe, Malawi. This abstract describes the prevalence and characteristics of possible primary genital HSV-2 (PGH) infections among study participants.

**Methods:** Consenting patients are interviewed. Genital and blood samples are collected prior to randomisation. GUD aetiology is determined by real-time multiplex PCR of a lesional swab for *H ducreyi*, *T pallidum* and HSV at day 0. Blood is tested for HSV-2 (HerpeSelect, Focus), syphilis and HIV serologies at day 0. Possible HSV-2 primary infection is defined as an HSV-2-seronegative patient at day 0 with an HSV positive ulcer by PCR. Follow up duration is 4 weeks post-treatment.

**Results:** As of Nov 2005, 250 patients had enrolled. Complete HSV data was available on 172 patients. 99/172 (58%) patients had HSV ulcers and 25 (25%) of these had no detectable HSV-2 antibodies (PGH cases), suggesting that these patients might have primary HSV-2 infections. PGH patients were more likely to have had a new partner within the last 3 months  $p \leq 0.02$  and less likely to be HIV-1 sero-positive (Antibody negative HSV-2: HIV 20/57 (35%) vs Established HSV-2: HIV 124/179 (69%) ( $p \leq 0.0001$ )).

**Conclusions:** There is growing evidence to add episodic acyclovir treatment to GUD syndromic guidelines in settings with high HIV prevalence, but more information is required to describe the effects of HSV-2 infection on HIV transmission. Prospective HSV-2 and HIV serology testing will be used at the 4 week visit to clarify the subject's infection status, and to determine whether these subjects demonstrate the expected immune response to HSV, and or acquire HIV.