

**OBJECTIVES:** Current U.S. Department of Health and Human Services (DHHS) HIV treatment guidelines recommend that HIV patients initiate first-line antiretroviral therapy (ART) with one of four "preferred" regimens: efavirenz/tenofovir/emtricitabine (EFV/TDF/FTC), ritonavir-boosted atazanavir + tenofovir/emtricitabine (ATV/r+TDF/FTC), ritonavir-boosted darunavir + tenofovir/emtricitabine (DRV/r+TDF/FTC), or raltegravir + tenofovir/emtricitabine (RAL+TDF/FTC). Adherence is critical to the success of ART in suppressing viral load and avoiding virological failure and development of drug resistance. This study compared ART adherence between preferred ART regimens in a real-world setting. **METHODS:** Retrospective study using U.S. Medicaid administrative health care claims from 15 states. Subjects were HIV patients aged 18-64 years who were enrolled in Medicaid and initiated, between January 1, 2007 and September 30, 2011, a first-line ART regimen "preferred" under U.S. DHHS HIV treatment guidelines published in March 2012. Patients were classified by ART regimen and were required to be continuously enrolled for 6 months before and  $\geq 3$  months following ART initiation. Follow up lasted from ART initiation until a  $\geq 30$  day gap in initiated ART, introduction of a new ART medication, or disenrollment. Adherence, defined as the proportion of days covered by ART medication during follow up (dichotomized at  $\geq 80\%$ ), was evaluated using multivariable logistic regressions that adjusted for demographic and clinical factors. **RESULTS:** Sample included 1,979 patients initiating EFV/TDF/FTC (n=1,259), ATV/r+TDF/FTC (n=498), DRV/r+TDF/FTC (n=143), or RAL+TDF/FTC (n=79); mean age by regimen ranged from 40.1 to 42.1 years and proportion male from 44.1% to 55.4%. Compared with patients initiating EFV/TDF/FTC, odds of adherence  $\geq 80\%$  were significantly lower in DRV/r+TDF/FTC patients (odds ratio [OR]=0.56, p=0.045) and trended lower in RAL+TDF/FTC patients (OR=0.666, p=0.273) and ATV/r+TDF/FTC patients (OR=0.904, p=0.610). **CONCLUSIONS:** Among patients initiating a DHHS guideline-preferred first-line ART regimen, the odds of adherence were not the same for all regimens. Further research should explore the reasons for differences in adherence levels between "preferred" ART regimens.

## PIN84

## MEDICATION ADHERENCE AND CD4 RESPONSE IN PATIENTS RECEIVING ANTIRETROVIRAL THERAPY

Omonaiye O<sup>1</sup>, Sani T<sup>1</sup>, Agu KA<sup>1</sup>, Oqua D<sup>1</sup>, Isah MA<sup>2</sup>, Olayemi S<sup>3</sup>, King RC<sup>4</sup>, Wutob AK<sup>5</sup>  
<sup>1</sup>Howard University PACE Center, Abuja, Nigeria, <sup>2</sup>General Hospital Minna, Niger State, Nigeria, <sup>3</sup>Specialist Hospital, Sokoto, Nigeria, <sup>4</sup>Howard University PACE Center, Washington, DC, USA, <sup>5</sup>Howard University, Washington, DC, USA

**OBJECTIVES:** The study evaluated medication adherence and its association with CD4 cells response following interventions among patients receiving antiretroviral therapy (ART) in Specialist Hospital Sokoto, North Western Nigeria **METHODS:** This was cross-sectional study following adherence interventions that included training of health workers on cognitive and behavioural strategies for improving medication adherence; and a pre- and post-ART adherence counseling to patients. Out of 1300 patients on ART who were provided pre- and post-ART adherence counseling, announced pill counts were conducted in 365 randomly selected patients. The CD4 cell count (cells/mm<sup>3</sup>) at months 0, 6, 12, 18 and 24 were extracted from the patient's records. One-way Anova was used to test the association between groups of variables and p<0.05 indicated statistical significance. **RESULTS:** Out of 365 participants sampled, data from 297 (81.4%) of them were valid for analysis. The mean age of participants was 34.7 (95%CI, 33.6-35.8) years; 60.9% were females and 76.4% received an AZT/3TC/NVP regimen. The mean percent adherence was 83.4% (95%CI, 80.8-86.0); and 52.2% reported 100% adherence level. With this mean adherence level, the mean CD4-cell count (cells/mm<sup>3</sup>) at ART initiation increased from 198.9 (95%CI, 180.7-217.1) to 396.5 (95%CI, 368.3-424.7) at 6 months, 428.0 (95%CI, 400.4-455.6) at 12 months, 427.2 (95%CI, 405.6-448.8) at 18 months, and 501.4 (95%CI, 469.5-533.3) at 24 months. This increase was statistically significant (p<0.05). The participants' employment and educational status, age, sex and type of ART regimens received had no significant association with medication adherence (p>0.05). **CONCLUSIONS:** The study reported mean adherence level that is below the required >95% necessary to achieve the goals of ART. The increase in CD4 cells count over the observation period was statistically significant at the reported adherence level. Better immunologic outcomes may be achieved with higher adherence level.

## PIN85

## DISCRIMINATIVE ABILITY OF THE SF-12 IN KISWAHILI BY HIV STAGE IN PATIENTS IN KENYA

Patel A<sup>1</sup>, Lester R<sup>1</sup>, Ritvo P<sup>2</sup>, Marra C<sup>1</sup>, Lynd L<sup>1</sup>, Karanja S<sup>3</sup>, Van Der Kop M<sup>4</sup>  
<sup>1</sup>University of British Columbia, Vancouver, BC, Canada, <sup>2</sup>York University, North York, ON, Canada, <sup>3</sup>University of Nairobi, Nairobi, Kenya, <sup>4</sup>Karolinska Institutet, Solna, Sweden  
**OBJECTIVES:** To determine if the SF-12 survey (using the PCS and MCS) can discriminate between predefined HIV severity states (as defined by CD4 and viral load) in a Kenyan population. The discriminative ability of the SF-12 quality of life instrument has been tested in patients with HIV/AIDS. In a US study, patients were stratified by CD4 count and viral load as a threshold for severity of disease. Associations between severity and mental component score (MCS)/physical component score (PCS) were investigated. The study found an association between CD4 threshold and PCS score. Using similar methods, we tested the same hypotheses using a Swahili translation of the SF-12 in a Kenyan population of HIV positive patients. **METHODS:** This cross-sectional study was based on data from a randomized controlled trial conducted in Nairobi, Kenya involving HIV patients. CD4 count, viral load, and SF-12 survey results were collected on patients initiating anti-retroviral therapy at 3 clinics. Clinical variables were stratified as follows: CD4 $\geq 200$  cells/mm<sup>3</sup> compared to CD4<200 and viral load>55000 copies/mL compared to viral load  $\leq 55000$ . The PCS and MCS scores means were compared across these strata using a t test. **RESULTS:** CD4

counts were measured in 280 patients and viral load in 497 patients. All patients completed the SF-12 instrument. PCS scores showed significant discriminative ability in the CD4 comparison (p<0.01) with a mean(SD) of 41.3(11.42) for CD4<200 cells/mm<sup>3</sup> compared to 45.1(11.2) for CD4 $\geq 200$ . Comparison in viral load strata and MCS scores were not significant. Mean and standard deviation for both MCS and PCS in each severity state were similar in value to those reported in the earlier American trial. **CONCLUSIONS:** These findings suggest that a Swahili translation of the SF-12 is a useful instrument in discriminating across limited clinical variables of HIV disease progression and severity.

## PIN86

## PARENTS' EXPECTATION TO RECEIVE ANTIBIOTIC PRESCRIPTION FOR CHILDREN

Dwibedi N, Sansgiry SS  
 University of Houston, Houston, TX, USA

**OBJECTIVES:** Physician's perception regarding parents' expectation to receive antibiotic prescription for their children is a significant predictor of overprescribing antibiotics for young children in the United States. The objective was to evaluate whether parents' level of expectation would change after manipulating their 'perceived benefits of using antibiotics' and their 'perceived barriers to visit doctors without any expectation of antibiotic prescription'. **METHODS:** A prospective experimental study was conducted using a structured data-collection instrument to manipulate perceived barriers and perceived benefits using four scenarios and keep other factors of Health Belief Model constant. Each subject viewed four scenarios; expectation associated with each scenario was measured using visual-analog-scale. Data were collected at public places (Houston, TX) from subjects who had at least one child (age $\leq 5$  years) during the study and who could speak, read and write English. Psychometric properties of the instrument were tested; descriptive and repeated measures mixed method covariance adjusted analyses were performed using SAS<sup>9.3</sup> with 0.05 significance level. **RESULTS:** A total of 300 completed surveys were analyzed. Mean age of the sample was 30.3 $\pm$ 7 years. The mean general expectation score (before reading any scenario) to receive antibiotic prescription for children was 53.6 $\pm$ 25.7. The repeated measure mixed methods analyses indicated that there was 12-point reduction (p<0.0001) in expectation score after removing perceived barriers from the situational scenarios; 16-point decrease (p<0.0001) in expectation score was observed after removing perceived benefits and 18-point decrease (p<0.0001) in expectation score after removing both perceived barriers and perceived benefits. **CONCLUSIONS:** There was significant effect of perceived barriers and perceived benefits on expectation scores. When both perceived barriers and perceived benefits were removed from the scenarios there was the highest decrease in the expectation score indicating the successful manipulation of both variables. Policy makers and intervention programs should consider these factors to enhance successful reduction of antibiotic expectations.

## PIN87

## AWARENESS AND BELIEFS ABOUT PNEUMOCOCCAL AND INFLUENZA VACCINATION AMONG OLDER AFRICAN AMERICANS: RESULTS FROM A SURVEY OF COMMUNITY-DWELLING PARTICIPANTS AT AN URBAN SENIOR CENTER

Prioli KM<sup>1</sup>, Schafer J<sup>1</sup>, Fields Harris L<sup>2</sup>, McCoy M<sup>2</sup>, Barber E<sup>2</sup>, Marthol-Clark M<sup>2</sup>, Pizzi LT<sup>1</sup>  
<sup>1</sup>Thomas Jefferson University, Philadelphia, PA, USA, <sup>2</sup>Center in the Park, Philadelphia, PA, USA  
**OBJECTIVES:** Vaccination rates for influenza and pneumococcal disease do not meet established goals in older minority populations. This project assessed potential reasons for this through a survey of community-dwelling African American seniors. **METHODS:** A 23-question survey was developed and fielded to a group of participants at a Philadelphia community senior center. Survey content was informed by previously-tested instruments in the literature and consisted of 18 Likert-scale items assessing potential barriers to pneumonia vaccine (PV) and influenza vaccine (IV); yes/no questions assessing awareness of PV and IV; and open-ended questions gathering opinions supporting and opposing these vaccines. **RESULTS:** A total of participants completed the survey. Awareness of PV was slightly lower than IV (36/39 vs. 39/39; p=.077) but there were no differences in perceived importance of PV versus IV. Most (91.9%) agreed that both vaccines are important to their health, but more than half (52.6%) felt that these vaccines can cause illness. Only a third (34.3%) believed that vaccines protect against pneumonia and influenza. Many participants (65.6%) indicated fear as a barrier to vaccination, with most of these (35.1%) specifying fear of illness or adverse reaction, 16.2% fear of needles, and 16.2% reporting other fears. While most trusted pharmacists as an information source for vaccination (75.7%), less than half (44.4%) are comfortable getting vaccines from pharmacists. **CONCLUSIONS:** This is the first survey to identify PV and IV barriers among African Americans through a community senior center. Though awareness of both vaccines is high, fear of vaccination is common and represents a significant barrier, as does the notion that these vaccines cause illness. Pharmacists are a trusted information source regarding vaccines but are not yet established as trusted vaccine providers in this population. Results serve to inform outcomes researchers' efforts to design and evaluate vaccination programs targeted towards African American seniors.

## PIN88

## IMPACT OF PHARMACISTS LED INTERVENTION PROGRAMME TOWARDS KNOWLEDGE, ATTITUDE AND PRACTICE AMONG HEPATITIS-B PATIENTS IN PAKISTAN: A NON CLINICAL RANDOMIZED CONTROLLED TRIAL

Haq N<sup>1</sup>, Hassali MA<sup>1</sup>, Shafie AA<sup>1</sup>, Saleem F<sup>1</sup>, Aljadhey H<sup>2</sup>, Farooqui M<sup>3</sup>, Iqbal Q<sup>4</sup>  
<sup>1</sup>Universiti Sains Malaysia, Penang, Malaysia, <sup>2</sup>King Saud University, Riyadh, Riyadh, Saudi Arabia, <sup>3</sup>Universiti Teknologi MARA, Penang, Malaysia, <sup>4</sup>University of Balochistan, Quetta, Balochistan, Pakistan