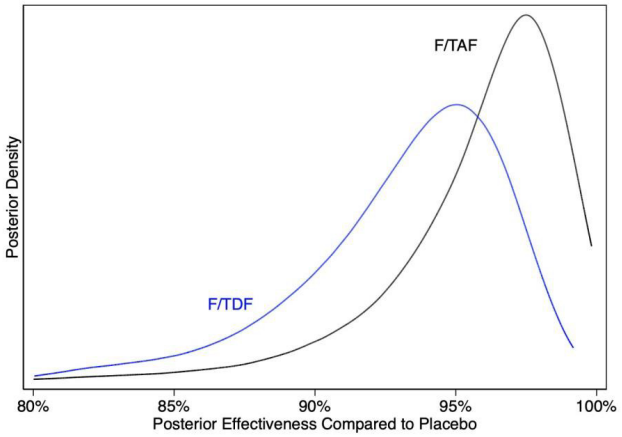
Results. There were 6 vs. 11 post-baseline HIV infections (0.14 v. 0.25 per 100 person-years [PY]) on F/TAF and F/TDF. Of the 11 on F/TDF, 10 had low, 0 had medium, and 1 had high TFV-DP levels; among HIV-negative controls, 5% of the person-time had low, 9% had medium, and 86% had high TFV-DP levels. A non-informative prior distribution for bHIV, combined with the prior for TFV-DP level-efficacy relationship, yielded a posterior bHIV incidence [0.80 Bayesian credible interval (CrI)] of 3.4/100 [1.9, 6.0/100] PY; which suggests a median F/TAF efficacy [0.95 CrI] of 96% [88%,99%] and 93% [87%,96%] for F/TDF compared to bHIV. If we chose a conservative prior distribution for bHIV of 1.0/100 PY, the model yields a median posterior bHIV [0.80 CrI] of 2.8/100 [1.7, 4.7/100] PY; which suggests a median efficacy [0.95 Cr] of 95% [86%, 99%] for F/TAF and 92% [86%, 67%] for F/TDF compared to bHIV with corresponding number of HIV infections averted of 117 and 114, respectively (Figure).

Figure.



Conclusion. The F/TDF adherence-efficacy relationship can be used to back-calculate bHIV incidence in MSM/TW PrEP trials and assess the efficacy of new PrEP agents compared to bHIV.

Disclosures. **David V. Glidden, MD**, **Gilead Sciences Inc.** (Other Financial or Material Support, Personal fees) **David T. Dunn, MD**, **Gilead Sciences Inc.** (Other Financial or Material Support, Personal fees)**Viiv Healthcare** (Other Financial or Material Support, Personal fees) **Moupali Das, MD**, **Gilead Sciences Inc.** (Employee, Shareholder) **Ramin Ebrahimi, MSc**, **Gilead Sciences Inc.** (Employee, Shareholder) **Lijie Zhong, PhD**, **Gilead Sciences Inc.** (Employee, Shareholder) **Oliver T. Stirrup, MD**, **Gilead Sciences Inc.** (Other Financial or Material Support, Personal fees) **Peter L. Anderson, PharmD**, **Gilead Sciences Inc.** (Other Financial or Material Support, Personal fees)

1000. HIV and the Treatment-Experienced Patient: The Positive Impact of Case-Based Education on Physicians' Competence and Confidence

Simi Thomas. Hurst, PhD[1]; Don Blatherwick, MBA[1]; [1]Medscape Education, Oxford, NJ

Session: P-47. HIV: Treatment

Background. Despite therapeutic advances, treatment-experienced HIV patients can present a clinical challenge, even to experienced care providers.

Table. Assessment of Educational Effectiveness

Area of Assessment	% relative improvement (% of ID specialists selecting the correct response at pre- vs post-assessment)	*P*-value for change	Cramer's V for the magnitude of the change
Timely modification of ART based on patients' declining renal function and presence of osteopenia	71% improvement (55% vs 94%)	*P*<.0001	V=.446 (Extensive)
Incorporating patient preferences and priorities into clinical decision-making	107% improvement (43% vs 89%)	*P*<.0001	V=.489 (Extensive)
Selection of ARVs with a high barrier of resistance for individuals who have a history of inconsistent engagement in care	8.3% improvement (84% vs 91%)	*P*=NS	V=NS

Methods. This study assessed the ability of digital education to improve HIV/ID specialists' ability to develop tailored strategies for treatment-experienced patients. A CME/ABIM MOC/CE-certified, case-based, educational program was developed. Modeled after the interactive grand rounds approach, a "test then teach" strategy with multiple choice questions was used to elicit cognitive dissonance. Evidence-based feedback was provided following each response. Educational effectiveness was assessed with a repeated-pairs pre-/post-assessment study design; each individual served as his/her own control. A chi-square test assessed changes pre- to post-assessment. *P* values < 0.05 are statistically significant. Effect sizes were evaluated using Cramer's V (< 0.05 modest; 0.06-0.15 noticeable effect; 0.16-0.26 considerable effect; > 0.26 extensive effect). The activity launched on a website dedicated to continuous professional development on 09/12/19. Data for this matched-learner analysis were collected through 11/06/19.

Results. To date, 14,181 HCPs (3128 physicians; 9518 nurses/NPs; 333 PAs; 172 pharmacists) have participated in the activity. Data from the subset of HIV/ID specialists (n=110) who answered all pre-/post-assessment questions during the initial study period were analyzed. Following activity participation, significant improvements were observed in the proportion of HIV/ID specialists who answered all assessment questions correctly (15% pre vs 81% post; $P < .0001$; V=.356). Improvements were also observed in several specific areas of assessment (Table). Additionally, 44% of HIV/ID specialists indicated they planned to modify their treatment approach for treatment experience patients because of participating in the education.Of note, this assessment also identified topics in which HIV/ID had a high degree of baseline knowledge.

Conclusion. Participation in this online, interactive, case-based, program significantly improved HIV/ID specialists' ability to develop individualized care strategies for patients who are treatment experienced.

Disclosures. **All Authors**: No reported disclosures

1001. HIV RNA monitoring after hospitalization for non-HIV-related illness in patients on combination antiretroviral therapy prior to admission

Paul O'Donnell, PharmD, BCCCP, BCPS, FCCM[1]; Milena M. Murray, PharmD, MSc, BCIDP, AAHIVP[2]; Sakhi Kauer, n/a[1]; Reem Motan, n/a[1]; [1]Midwestern University Chicago College of Pharmacy, Chicago, Illinois; [2]Midwestern University - Chicago College of Pharmacy, Downers Grove, Illinois

Session: P-47. HIV: Treatment

Background. Hospitalization presents risk for loss of virologic suppression (VS) in people living with HIV (PLWH) due to issues with combination antiretroviral therapy (cART). cART medication errors or drug-drug interactions with new maintenance medications may lead to loss of VS. Appropriate monitoring of HIV RNA post-discharge to ensure ongoing VS may not occur following non-HIV-related illnesses. The objective of this multi-center study was to describe HIV RNA monitoring and VS in PLWH following hospitalization for non-HIV-related illnesses.

Methods. PLWH at least 18 years old with a CD4 count >200 cells/mm^3 on cART prior to admission, hospitalized for 24 hours or more at either of two large, academic medical centers (where they also attended follow-up clinic visits) for a non-HIV-related illness, and that survived to hospital discharge between January 1st 2010 and December 31st 2015 were eligible for analysis. The primary outcome was the presence of an HIV RNA measurement as recommended by national guidelines within 6 months of hospital discharge. Secondary outcomes included the incidence of transient viremia and loss of VS after discharge.

Results. A total of 329 patients were included. The median age was 51 years (interquartile range [IQR] 44-58), 76.6% were male, and 48.3% were African American. The median CD4 count was 484 cells/mm^3 (IQR 357-629) and 85.4% (n=281) had an undetectable HIV RNA prior to admission. Among the 97.6% (n=321) of patients with an HIV RNA measurement after hospital discharge, the median time to HIV RNA measurement was 2.4 months (IQR=1.2-4.1) and 86.3% (n=284) had an HIV RNA measurement within 6 months. Among patients who were undetectable prior to admission, transient viremia after discharge occurred in 7.1% (n=20) within a median of 2.5 months (IQR 1.3-4.1) and 4 of these patients lost VS. Three of the four patients with loss of VS were admitted for a non-HIV-related infection and all were on protease inhibitor-based regimens.

Conclusion. HIV RNA monitoring appears to occur according to guideline recommendations in the majority of PLWH after hospitalization for a non-HIV-related illness. Despite the occurrence of transient viremia, loss of VS was rare. Future studies should focus on risk factors for loss of VS.

Disclosures. Milena M. Murray, PharmD, MSc, BCIDP, AAHIVP, Merck (Speaker's Bureau)

1002. A Daily Single Tablet Regimen (STR) of Bictegravir/Emtricitabine/Tenofovir Alafenamide (B/F/TAF) in Virologically-Suppressed Adults Living with HIV and End Stage Renal Disease on Chronic Hemodialysis

Joseph J. Eron, MD[1]; Aimee Wilkin, MD, MPH[2]; Moti Ramgopal, MD FACP FIDSA[3]; Olayemi Osiyemi, M.D[4]; Mehri McKellar, MD[5]; Mehri McKellar, MD[5]; Jihad Slim, MD[6]; David Asmuth, MD[7]; Edwin DeJesus, MD[8]; Polina German, PharmD[9]; Christiana Blair, MS[10]; Christoph C. Carter, MD[10]; Diana M. Brainard, MD[10]; Sean E. Collins, MD, MS[11]; Hal Martin, MD, MPH[10]; [1]University of North Carolina at Chapel Hill, Chapel Hill, North Carolina; [2]Wake Forest University, Winston-Salem, North Carolina; [3]Midway Research Center, Ft. Pierce, FL; [4]Triple O Research Institute PA, West Palm Beach, Florida; [5]Duke University Hospital, Durham, North Carolina [6]Saint Michael's Medical Center, Newark, New Jersey; [7]University of California Davis, Sacramento, California; [8]Orlando Immunology Center, University of Central Florida College of Medicine, Orlando, FL; [9]Gilead Sciences, Inc., Foster City, California; [10]Gilead Sciences Inc., Foster City, California; [11]Gilead Sciences, Foster CIty, California

Session: P-47. HIV: Treatment

Background. Treatment for people living with HIV (PLWH) and end stage renal disease (ESRD) on hemodialysis (HD) has previously required complex dose-adjusted regimens. We evaluated a daily regimen of elvitegravir/cobicistat/emtricitabine/tenofovir alafenamide (E/C/F/TAF) and established this treatment as effective and safe, showing that daily TAF resulted in lower plasma tenofovir exposure than a historical comparison of once weekly tenofovir disoproxil fumarate in patients with ESRD on