HIV care providers. These results have implications to engage more PLWH into care, particularly in states that have increased access to primary care through healthcare expansions.



Proportion of Patients by Referral Source to the UK BCC

Figure 1. Proportion of Patients by Referral Source for the Years 2010–2013 and 2014–2017.

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596. Case Study of Motivational Interviewing Intervention in Patients Non-Adherent to Antiretroviral Therapy

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Background. Motivational interviewing (MI) may have a positive impact on antiretroviral therapy (ART) adherence. However, few studies focus on non-adherent patients at high risk of viral transmission, as identified by unsuppressed viral load.

Methods. Patients on ART with detectable viral load (VL) were identified from a major academic HIV clinic and referred to the study by physicians. Inclusion criteria were patients with over two clinic visits in the year prior, with most recent VL over 200 copies/mL. An MI trained social worker recruited participants, obtained written consent and provided a small financial incentive, and conducted MI sessions. After initial session, patients chose whether to continue further follow-up sessions. Patient VLs were compared between those measured before and after the intervention. Statistical analysis was limited by small sample size.

Results. Of 700 active patients in May 2014, 62 patients met enrollment criteria by chart review. Of those, 29 were referred by physicians for enrollment. Nine declined participation and four were lost to follow-up before the first session. Three participants were excluded in this analysis due to missing VL measurements. Average sessions per participant were 3 (range 1–8). Average VLs measured after intervention were 8 (range 1–19), spanning an average of 25 months (range 2–36).

Of the 13 patients enrolled, 10 achieved VL suppression after the intervention. Six of these patients had a reemergence of VL >200 copies/mL, but five were able to lower their VL again below 200 copies/mL. Thus by the end of study dates, 9/13 (69%) had a viral load <200 copies/mL. Of the eight who had not had a recorded VL <200 copies/mL in the year prior to study dates, six achieved suppression at some point after the intervention. At the end of the study dates, of 13 initial participants, eight remain engaged with the social worker, two had discontinued sessions after agreeing their goals had been accomplished, and three were lost to follow-up. There was an average 52% decrease in the log 10 VL of patients after intervention as compared with before.

Conclusion. Although small and descriptive, this study shows potential impact of MI on a population of non-adherent patients at high risk of viral transmission.

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597. Pharmacist-Led Interventions for Inpatient HIV-Related Medication Errors Mary Joyce B. Wingler, PharmD¹; Kayla R. Stover, PharmD, BCPS^{1,2}; Katie E. Barber, PharmD² and Jamie L. Wagner, PharmD²; ¹University of Mississippi Medical Center, Jackson, Mississippi, ²University of Mississippi School of Pharmacy, Jackson, Mississippi

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Background. Inpatient HIV-related medication errors occur in up to 86% of patients. The purpose of this study was to evaluate the number of antiretroviral therapy (ART)- and opportunistic infection (OI)-related medication errors following the implementation of pharmacist-directed interventions.

Methods. This quasi-experiment assessed adult patients with HIV who received ART, OI prophylaxis, or both from December 1, 2014 *to* February 28, 2017 (pre-intervention) or December 1, 2017 *to* February 28, 2018 (post-intervention). Pre-intervention patients were assessed retrospectively, verbal and written education were provided, then

prospective audit and feedback was conducted for post-intervention patients. The primary outcome was rate of ART-related medication errors in the pre-vs. post-intervention groups. Secondary outcomes included time to resolution of ART- and OI-related medication errors, OI-related medication errors, types of errors, rate of acceptance of recommendations, in-hospital mortality, length of stay, and 30-day readmission.

Results. Sixty-seven patients were included in each group (pre- and post-intervention). ART errors occurred in 44.8% and 32.8% (P = 0.156), respectively. OI prophylaxis errors occurred in 11.9% vs. 9% (P = 0.572), respectively. No difference was found in types of errors between groups, except medication omission decreased significantly in the post-intervention group (31.3% vs. 11.9%; P = 0.006). The number of pharmacist-based interventions increased in the post-intervention group (6.3% vs. 52.9%; P = 0.001). No statistical difference was found in average time to error resolution (72 vs. 48 hours; P = 0.123), but errors resolved during admission significantly increased (50% vs. 86.8%; P < 0.001). No difference was found in rate of intervention acceptance, which was high in both groups.

Conclusion. In this quasi-experiment, ART and OI prophylaxis medication errors were numerically reduced in the pharmacist-led intervention period, and medication errors were resolved a day faster in the post-intervention period. Future interventions targeting prescribing errors upon admission include follow-up education and evaluation of medication reconciliation practices in HIV-infected patients.

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598. Choosing Wisely with CD4 Counts: When Less Is More

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Background. The HIVMA and Choosing Wisely campaign recommend using a simple lymphocyte panel for monitoring CD4 counts of patients with HIV. This panel shows CD4 absolute and percentage counts only. Complex lymphocyte panels, which are more comprehensive and expensive, often do not offer more clinically valuable information. Increasing the rate of simple panel utilization can significantly save costs for the healthcare system without compromising care.

Methods. A before-and-after study was conducted in two community-based teaching hospitals with total capacity of 418 inpatient beds, and an outpatient HIV/AIDS center. All panels ordered from March 2016 to March 2018 were included in the study. Intervention started in November 2017. Simple panel was shown as the default test when CD4 test was ordered in the electronic health record while complex panels were eventually phased out. Panels ordered before and after the intervention were counted, and proportions compared. Costs were computed based on 2017 Medicare reimbursement rates.

Results. A total of 1,701 panels were done in the study period. 1,401 were ordered pre-intervention (20 months) while 300 were post-intervention (5 months). Complex panels represented 99% (*n* = 1,398) of tests ordered pre-intervention. The average cost of each test was \$167.67. The healthcare system lost ~\$183,051 due to added expense of complex panels during this period. In the post-intervention period, proportion of complex panels fell by 85% (95% CI 80.57–88.5, *P* < 0.0001). Average cost per test post-intervention lowered to \$55.54. The mean difference was \$112.13 and was statistically significant (95% CI 107.78–116.47; *P* < 0.0001). The percentage of simple panels consistently increased month-per-month post-intervention. In the last month of the study period, 100% of orders were simple panels (Figure 1).





Conclusion. Use of complex panels for monitoring CD4 count caused unnecessary expenses and resulted in significant losses for the healthcare system. An efficient and effective intervention to increase the use of simple panels was to implement an opt-out policy. Simple panels were set as the default test unless the provider specified otherwise. The intervention is projected to save ~\$98,761 in 2018.

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599. Expanding HIV Training in Internal Medicine Residency Program: A Prospect to Meet the HIV Workforce Demand

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