

**Buprenorphine for management of opioid use disorder in an urban HIV primary care practice: a quality improvement review**

Scott Fabricant, Christine Martino, Amesika Nyaku MD, Michelle Dalla-Piazza MD

**Background:** Opioid use disorder (OUD) is a correlate of poorer HIV outcomes among people living with HIV (PLWH). Research has shown promising results for buprenorphine (BUP), a medication for OUD, integrated into HIV primary care. In this study, we explored the effect of BUP on HIV outcomes in a cohort of PLWH in an urban setting.

**Methods:** We performed a retrospective chart review of PLWH on BUP attending the Rutgers NJMS Infectious Diseases Practice (IDP) from January 2017 to June 2019. We collected data on demographics, medical/social history, clinic visits, lab results, and urine drug screening (UDS). We analyzed data using descriptive statistics and Chi-squared test of association.

**Results:** We collected data for 91 patients (median age 56, 59% male, 83% Black), with median follow-up of 1.5 years. At baseline, 40% had polysubstance use, 48% intravenous use, 40% alcohol use disorder; 59% psychiatric diagnosis, 48% chronic pain; 21% employment; 33% unstable housing. Baseline VLS was 63%, compared to 84% of all IDP patients. Among patients with >1 year of follow-up (n=82), 74% had  $\geq 1$  episode of VLS; 7% lost VLS and 19% remained unsuppressed; 34% of patients without baseline VLS were suppressed at 12 months. Engagement in care was high (median 10 visits over 12 months). An average of 11 UDS were available per patient; 55% of patients demonstrated >50% BUP adherence and 39% had decrease in opiate positivity. BUP adherence was associated with a decrease in opiate positivity (RR 26,  $p < 0.001$ ), and with sustained VLS (RR 1.9,  $p < 0.005$ ). Polysubstance use was significantly associated with lack of VLS (RR 0.68,  $p < 0.05$ ) and non-adherence to BUP (RR 0.52,  $p < 0.001$ ).

**Conclusion:** Among this medically-complicated urban cohort of PLWH with OUD, integration of BUP into HIV primary care led to a decrease in opioid use and improved outcomes in HIV care.