

Overlooking those at Intermediate Risk?

ASCVD Prevention Measures among People Living with HIV at an Urban Academic Medical Center



Mark Liotta, BE¹, Peter Cangialosi, BS¹, Jeanne Ho, MD¹, Diana Finkel, DO¹, Shobha Swaminathan, MD¹, Steven Keller, PhD¹

¹Rutgers New Jersey Medical School



Background

- The American College of Cardiology (ACC) recognizes HIV as a risk factor for atherosclerotic cardiovascular disease (ASCVD)
- This study examined rates of ACC guideline adherence for ASCVD prevention for people living with HIV
- Patients analyzed from an HIV registry of the University Hospital Infectious Disease Outpatient clinic in Newark, NJ
- The clinic's 2451 total patients are 40% female, 63% non-Hispanic black, 23% Hispanic, and 64% >45 years old

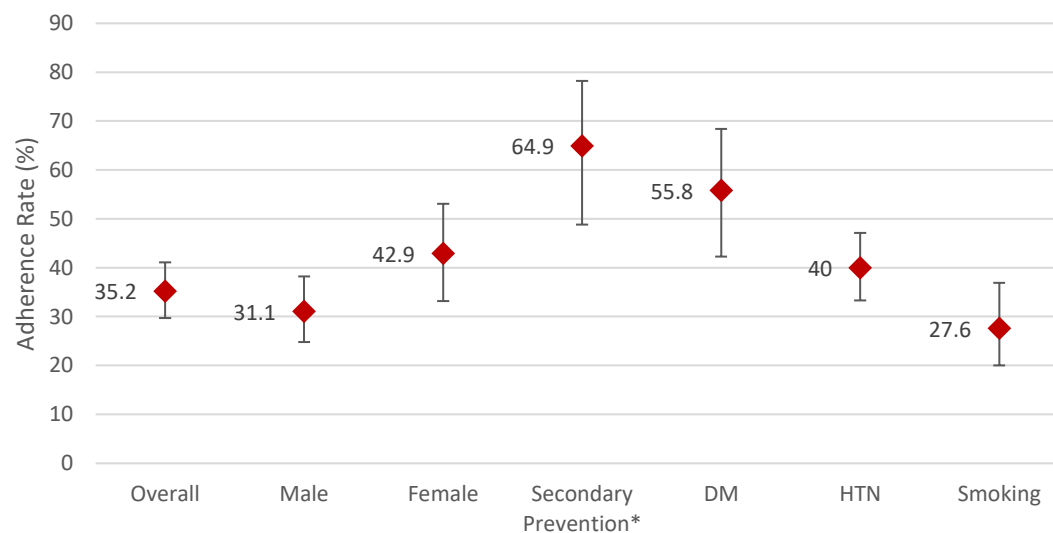
Methods

- Patients reviewed were 40-79 years old with a clinic visit from 2/1/2019 to 1/31/2020
- ASCVD risk scores were calculated using the Risk Estimator Plus for all patients when data was available and separated based on risk: low (<7.5%), intermediate ($\geq 7.5\%$ & <20%), and high-risk ($\geq 20\%$)
- Guideline adherence rate was defined as following 2019 ACC guidelines for appropriate statin therapy while considering medication interactions

Table 1: ASCVD Guideline Adherence Rate per Score Group

ASCVD Score Group	On Statin n (%)	Appropriate Clinical Guideline Therapy for HIV Patients n (%)	Adherence Rate % (95% CI)
ASCVD < 7.5, n=346	54 (15.6)	321 (92.8)	92.8 (90.0 – 95.1)
ASCVD ≥ 7.5 & <20, n=270	98 (36.3)	95 (35.2)	35.2 (29.7 – 41.1)
ASCVD ≥ 20 , n=128	80 (62.5)	67 (52.3)	52.3 (43.8 – 60.8)

Figure 1: ASCVD Guideline Adherence Rate for Intermediate Risk Scores (≥ 7.5 & <20) in People Living with HIV



*Secondary Prevention defined as a history of stroke, myocardial infarction, coronary artery disease, or peripheral arterial disease
Abbreviations: ASCVD = atherosclerotic cardiovascular disease; DM = diabetes mellitus; HTN = hypertension

Results

- Of the 1127 patients who met criteria, 744 ASCVD risk scores were calculated
- Guideline adherence rate for the intermediate-risk group was significantly less than the high-risk and low-risk groups ($P < 0.05$) (Table 1)
- Adherence rates within the intermediate-risk group for patients with hypertension (HTN) and smokers were significantly less than those with statin use for secondary prevention ($P < 0.05$) (Figure 1)

Conclusion

- Targeted care is needed for lower guideline adherence rates in the intermediate risk group, particularly those with a history of HTN and smoking.
- Interventions to increase adherence:
 - Provider education on the calculation and application of ASCVD risk scores
 - Increased awareness of the risk-enhancing nature of HIV infection in coexistence with the traditional risk factors such as CVD history, diabetes, HTN, and smoking

Acknowledgements and References

- Special thanks to Dr. Diana Finkel, Dr. Steven Keller, and Dr. Shobha Swaminathan for their guidance and support
- Arnett, Donna K., et al. "2019 ACC/AHA Guideline on the Primary Prevention of Cardiovascular Disease." *Journal of the American College of Cardiology*, vol. 74, no. 10, 10 Sept. 2019, doi:10.1016/j.jacc.2019.03.010.