

Implementation and Outcomes of a Kidney and Cardiovascular Screening Program

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INTRODUCTION

- Due to advancements made in ART, HIV has transitioned from a once fatal disease to a treatable, chronic disease, but is accompanied with elevated risk factors for cardiovascular¹ and kidney² related diseases
- Risk of cardiovascular disease is increased 1.5-2 fold by HIV infection³
- Viral damage to kidney cells, nephrotoxic agents, comorbidities and modifiable factors can increase risk for both acute and chronic kidney disease²
- HIV guidelines⁴ recommend close laboratory monitoring of basic chemistry every 6 months, with a urinalysis and lipid panel drawn every 12 months respectively
- Ryan White clinics should have a simple way to monitor and improve renal and cardiovascular disease monitoring

PURPOSE

- Develop and implement a program to monitor for early detection and intervention of cardiovascular and kidney related problems and improve outcomes in People Living with HIV (PLWH)

METHODS AND ACTIVITIES

- All active Ryan White Part C (RWPC) patients with an office visit in 2019 were identified; creatinine clearance and 10-year Atherosclerotic Cardiovascular Disease (ASCVD) risk was calculated for all patients
- Drug-drug interactions were checked
- Basic chemistry to evaluate kidney function and lipid panels were ordered every 3-6 months and annually respectively
- All patients with a 10-year ASCVD risk of 5% or greater were:
 - Evaluated for statin therapy need
 - Assessed for risk reduction interventions including smoking cessation, evaluation of substance abuse, drug toxicities and management of comorbidities
- Patients with impaired renal function, defined as <60 mL/min, were evaluated for medication adjustments and referred for a nephrology consult as indicated

METHODS AND ACTIVITIES (CONTINUED)

CrCl ≥60ml/min	CrCl <60ml/min
• No intervention required	• Assess for ART changes
• Continue current ART	• Referral to nephrology*

*Decisions for nephrology referral were based on patients with acute kidney injury (AKI) or chronic kidney disease (CKD) that was unexplained, accelerated decline in kidney function, new or advancing proteinuria, CKD ≥ Stage 3b²

ASCVD risk <5%	ASCVD risk ≥5%
• Obtain baseline LDL-c	• Obtain baseline LDL-c
• No statin indicated if no additional risk factors*	• Initiate statin therapy

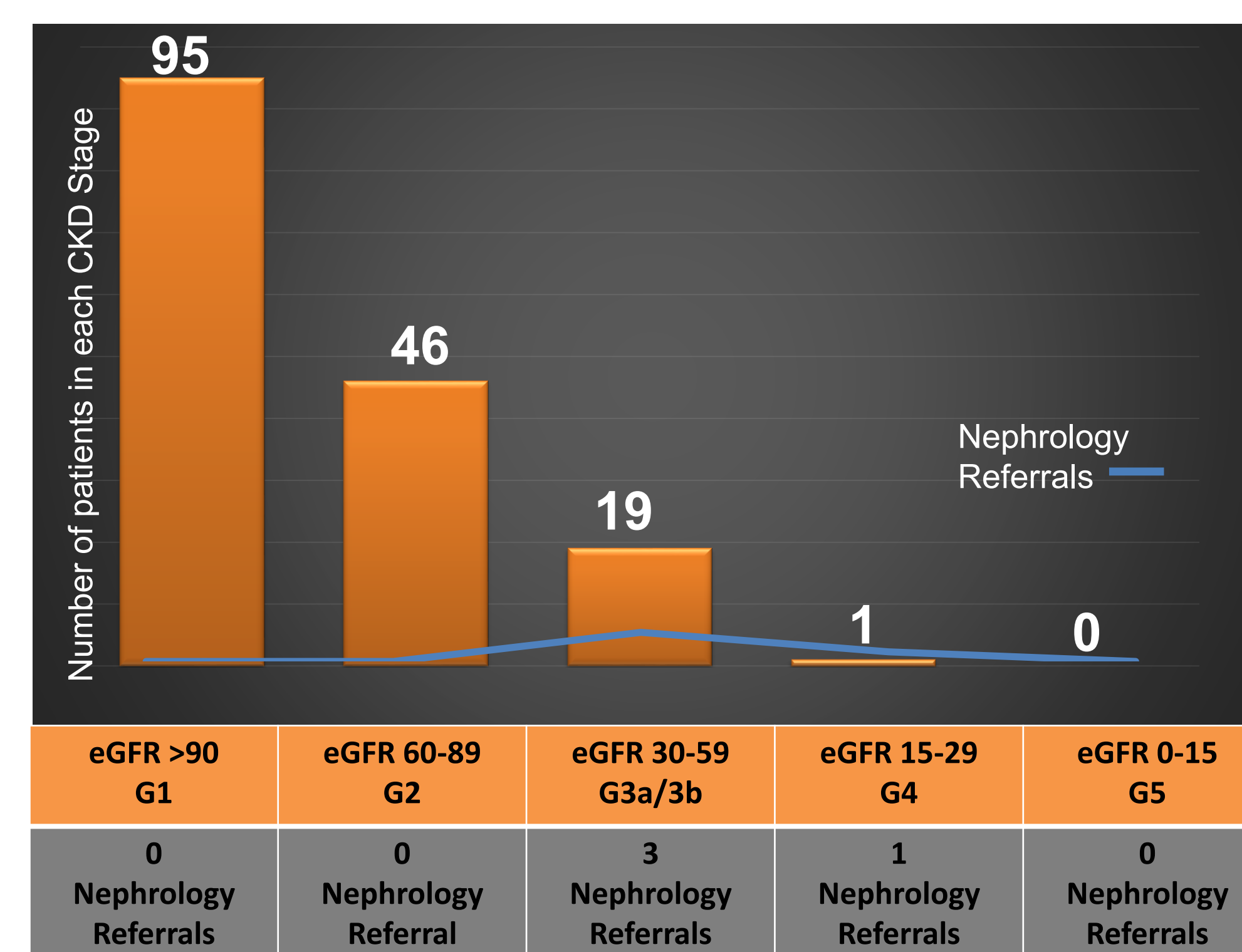
*Additional risk factors include extended history of viremia, interruption or delay in initiating antiretroviral therapy (ART), reduced CD4 count, HIV treatment failure, metabolic disorders and/or co-infection of Hepatitis-C¹

RESULTS

Demographics for CY 2019	
• Total patients	149
• Average age (range)	49 (11-79)
• Gender	• Male 83% • Female 17%
• Race	• Caucasian 78% • Hispanic 11% • African American 7% • Other 4%
• On Antiretroviral Therapy	• 98%
• Virally Suppressed	• 96%

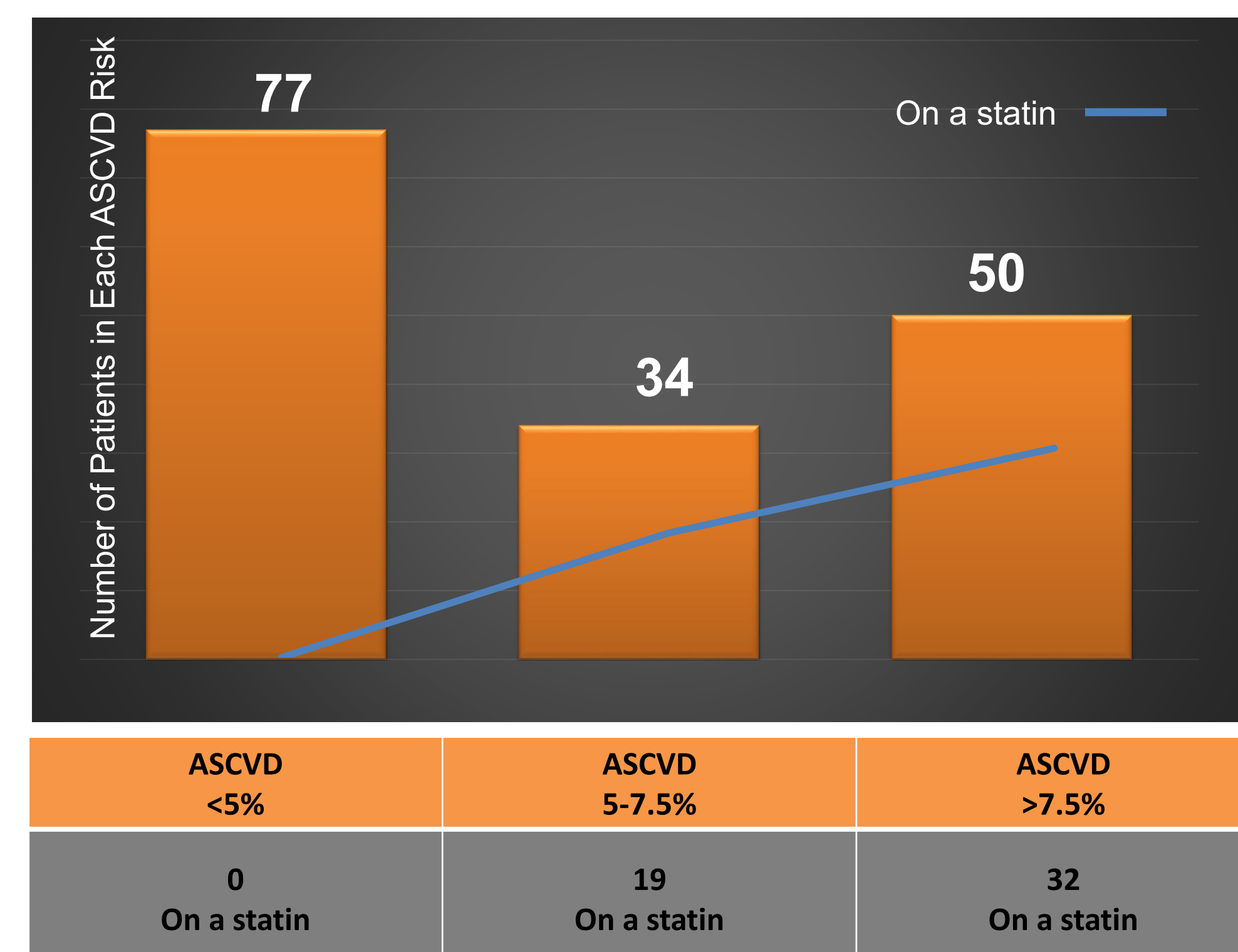
2019 Change in Screening Rate	
Pre-Intervention	Post-Intervention
Calculated estimated GFR	
0/149 (0%)	149/149 (100%)
Calculated ASCVD risk score	
0/149 (0%)	149/149 (100%)
Statin Indication	
Unknown	64/149 (43%)
Statin Prescribed	
32/64 (50%)	46/64 (72%)

Renal Outcomes and Interventions*



*Data Through 7/2020

ASCVD Outcomes and Interventions*



*Data Through 7/2020

LESSONS LEARNED

- Integration of primary care and HIV care is essential to maximize outcomes
- ASCVD risk scores and kidney function data is dynamic and important to reassess on a regular basis to ensure appropriate interventions are made when needed
- Having shared decision making about statin use helps frame conversations about risk reduction
- It is necessary to identify drug-drug interactions with ART, especially if statins are initiated
- Patient and provider education is critical and communication of interventions with outside providers may be essential
- It is important to check pharmacy refill history for adherence

CHALLENGES/LIMITATIONS

- Some labs were not completed on time or patients lost to follow up
- Referrals for additional care and procedures not followed through by patients
- Patient refusal for an intervention
- Patients have outside provider that may recommend different therapy
- Barriers to care due to cost
- Communication across providers may not be clear
- Rural setting poses challenges to regular patient engagement
- Provider barriers of identifying eligible patients for intervention

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