

Optimizing the Hepatitis C Cascade of Care in the Direct-Acting Antiviral Era

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BACKGROUND

- Despite improved treatments for Hepatitis C Virus (HCV) infection, barriers remain in the HCV cascade of care (CoC), limiting the overall impact of direct acting antivirals.
- The Vanderbilt Infectious Diseases (ID) clinic provides multidisciplinary care involving a physician, clinical pharmacist, and nurse for patients with HCV infection.
- The objective of this study was to identify factors associated with movement through the HCV CoC after referral to a multidisciplinary ID clinic to sustained virologic response (SVR), including both general and historically difficult to treat populations.

Clinical Pharmacist Responsibilities

Access	Education	Monitoring
<ul style="list-style-type: none"> - Obtaining medication access through insurers - Procuring medication for uninsured - Ensuring cost-effectiveness for patients - Mitigating access barriers while on treatment 	<p>Prescribers:</p> <ul style="list-style-type: none"> - Treatment options to guide therapy decisions <p>Patients:</p> <ul style="list-style-type: none"> - Thorough medication overview and monitoring plan - Creating adherence action plan - Developing a follow-up plan 	<ul style="list-style-type: none"> - Appropriate and timely pretreatment work-up - Adherence, safety and efficacy monitoring by phone and in clinic - Lab monitoring and dose adjustment when applicable - Ensuring appointment adherence

METHODS

- Single-center, retrospective cohort study of patients receiving care at the VUMC ID Clinic between July 2015 and September 2016.
- Inclusion criteria: diagnosis of chronic HCV with an appointment in the VUMC ID clinic.
- Exclusion criteria: active carcinoma, cognitively impaired, life expectancy of ≤ 6 months.
- The following baseline characteristics were evaluated using a univariate analysis: HIV coinfection, patients with cirrhosis, people who use illicit substances (PWUIS), diagnosed psychiatric disorder, "Baby Boomer" (born between 1945-1965)

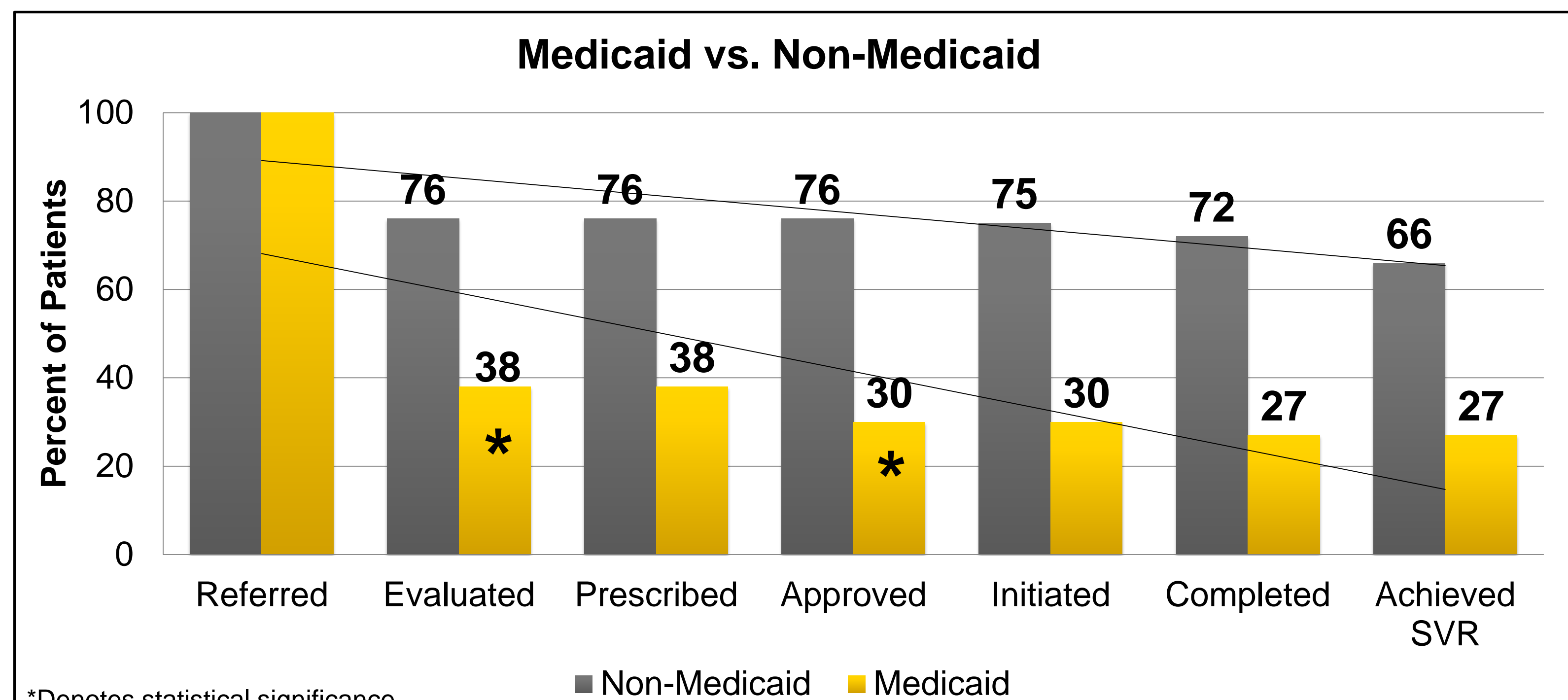
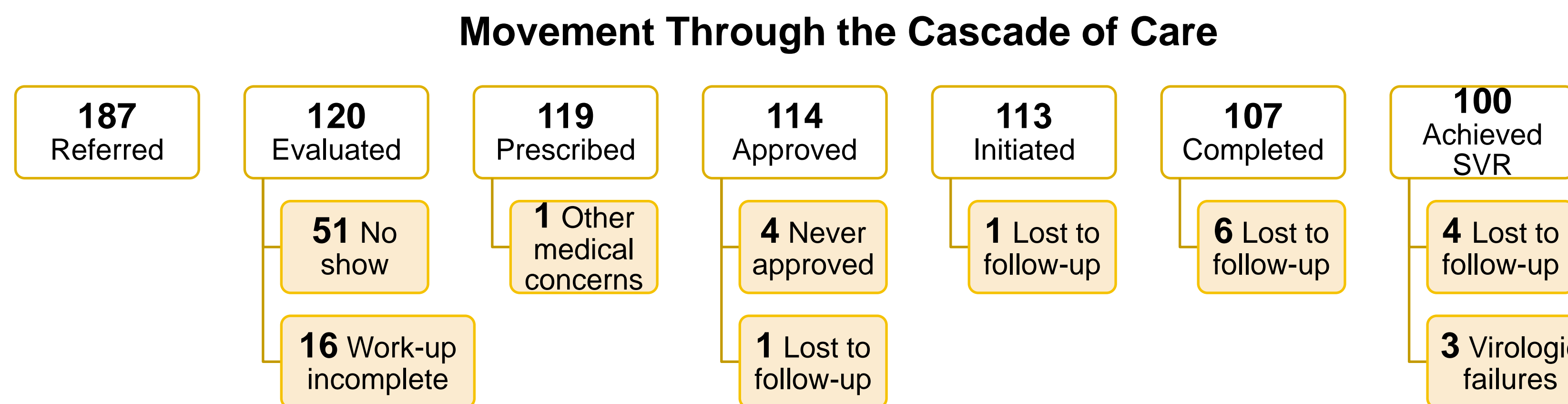
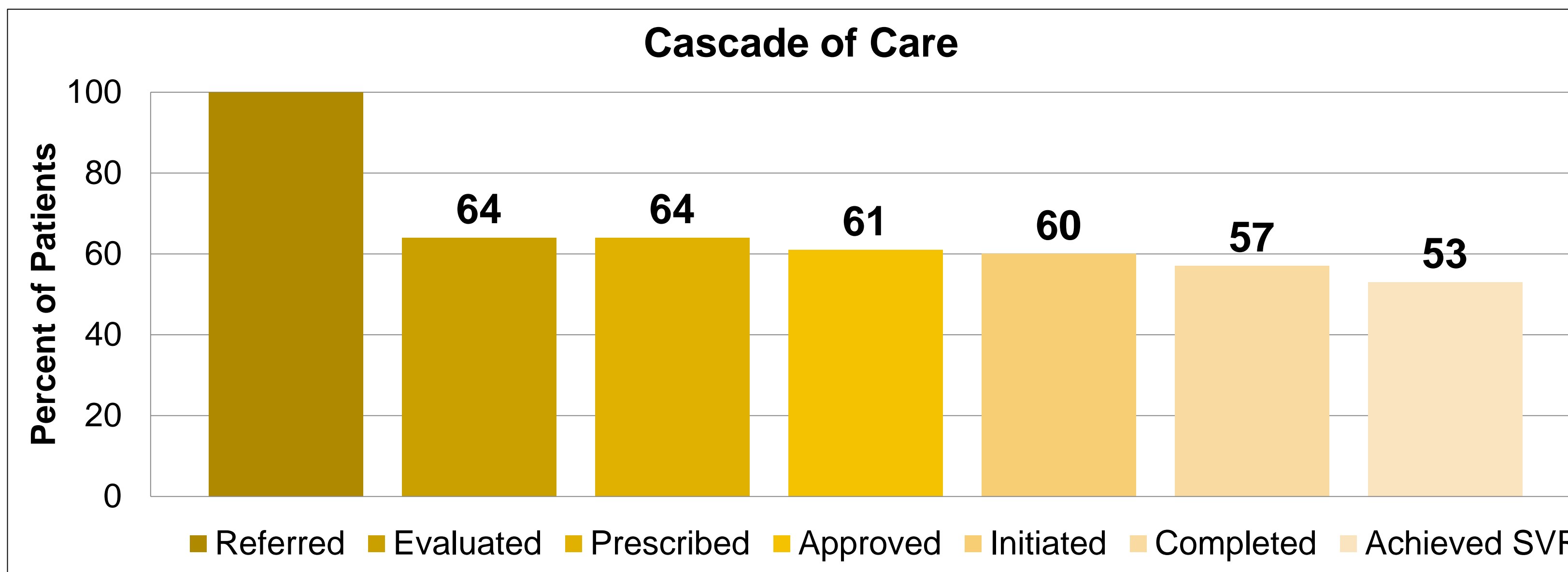
RESULTS

Baseline Characteristics	Referred (N = 187)	Evaluated (N=120)
Age (mean \pmSD)	48 \pm 13	47 \pm 14
Baby Boomer	79 (42%)	69 (58%)
Gender: p=0.0001[†]		
Male	115 (62%)	86 (72%)
Female	72 (39%)	34 (28%)
Ethnicity: p=0.011[†]		
White	132 (71%)	82 (68%)
African American	48 (26%)	34 (28%)
Other	3 (2%)	4 (3%)
Insurance Type: p=<0.0001[†]		
Medicare	21 (11%)	18 (15%)
Medicare/Medicaid	19 (10%)	15 (13%)
Medicaid	60 (32%)	23 (19%)
Private	72 (39%)	55 (46%)
Other	15 (8%)	9 (8%)

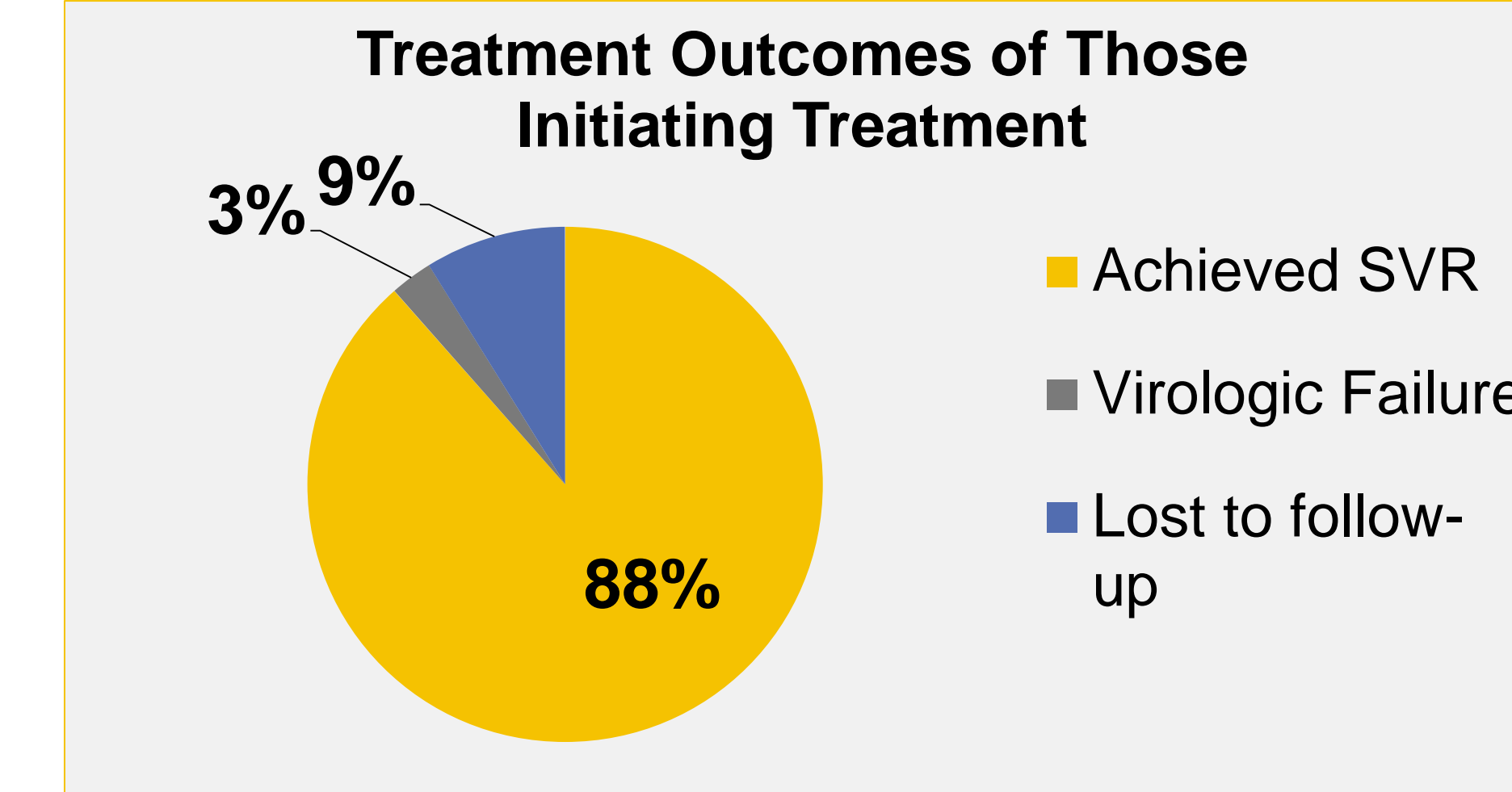
Differences between groups was assessed using Chi-Square[†] or Fisher's Exact[‡]

Baseline Characteristics of Patients Evaluated (N = 120)	
Genotype 1a	79 (66%)
Treatment naïve	108 (91%)
Cirrhosis	28 (24%)
HIV coinfection	51 (43%)
History of IVDU	62 (52%)
Ongoing IVDU*	2 (2%)
Ongoing alcohol use [‡]	10 (9%)
Ongoing illicit substance use*	15 (13%)
Psychiatric disorder	47 (40%)

*Denotes use within 3 months of evaluation
[‡]Denotes >5 drinks on most days of the week
 IVDU= Intravenous drug use



RESULTS



- SVR rate of 93.4% in patients who initiated and completed treatment, with only 3 virologic failures
- Of baseline characteristics compared, only having Medicaid insurance was associated with a lower rate of treatment approval.

DISCUSSION AND CONCLUSIONS

Recent real world reports of over 15,000 patients with HCV found that 37% of patients prescribed HCV treatment in 2016 did not actually initiate treatment.²

Conversely, within the ID clinic, 97% of patients prescribed treatment were initiated on treatment.

- Compared to previous reports of the HCV CoC, the ID clinic showed high rates of retention in care, treatment initiation, and SVR.
- Presence of baseline characteristics that have historically been identified as harder to treat were not significant predictors of lack of movement through the CoC.
- While not specifically evaluated by this study, we hypothesize that the high retention and completion rates observed was due to the integrated model of care delivery.

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