

Untreated HCV in HIV/HCV-Coinfected US Population Despite an Abundance of Curative Therapies

1. BACKGROUND AND OBJECTIVE

Per AASLD-IDS (www.hcvguidelines.org), treatment of hepatitis C should be prioritized in patients coinfecting with HIV and HCV. This recommendation is based on a higher rate of HCV disease progression in this population, along with reported treatment responses comparable to HCV mono-infected patients.

Despite the availability of highly effective, well tolerated anti-HCV therapies, payers have created barriers to access in the HCV mono-infected population (J Viral Hepat 2016 23:447). However, in the HCV-HIV coinfecting population, previous analyses suggest that payers do not influence access to DAAs, but rather lack of prescription accounts for most of the non-treated HCV (J Hep 2018 68: S261). Here we attempt to address the question of "How many patients remain untreated since the advent of curative DAAs?" by looking at coinfecting populations from 2014 to 2018.

2. METHODS

EMR data for 3896 patients were collected from 10 large HIV treating clinics in the US. HIV infection was defined as positive HIV antibody lab result, at least 2 HIV viral loads >200 or 1 HIV viral load >500, HIV drug prescription and/or dispense, or HIV diagnosis (ICD9 0.42.x-0.44.x or ICD10 B20.x-B22.x, B24.x) and HCV infection was defined as ID9 0.070.41, 070.44, 070.51, 070.54, 070.7, 070.71, 070.54, V02.62; ICD10 B17.1, B17.10, B17.11, B18.2, B18.20, B19.2, B19.20, B19.21), HCV viral load >50, or HCV prescription or dispense.

Populations were assessed each year and for the entire time period and classified into one of the following groups: Treated or Cured (DAA prescription, dispense, or 2+ HCV RNA undetectable or <20 IU/ml), Lost to Follow Up (LTFU, no evidence of treatment or cure, without evidence of being in care as of OCT 2018), or Not treated (no evidence of treatment or cure, patient in database with evidence of HCV coinfection as of OCT 2018). [FIGURE 1] Trends were assessed by Cochran-Armitage test for trend in proportions. Differences between groups were assessed using chi-square with subsequent assessment of column proportions by Z tests with Bonferroni correction. Population characteristics were limited for this dataset, which prevented analyses evaluating the impact of payer on treatment status.

3. RESULTS

By year, the percentage of patients with active HCV that received treatment increased from 17% in 2014 to 23% (p<0.001) in the last period [FIGURE 3]. At the end of the observation period, 882 (23%) patients remained untreated, 1,210 (31%) were LTFU, and 1,804 (46%) were treated. [FIGURE 4]

Age and gender were available for 74% (2895/3896) patients. [TABLE 1] A significantly higher fraction of treated patients and lower fraction of LTFU were observed for males compared to females (p<0.001). The patient age group 50-64 had a higher fraction of treated patients compared to the <50 age group (p=0.023), though all other age comparisons were not significant.

Median (IQR) follow up was 32.2 (10.1-52.2) months. Median (IQR) follow up for untreated patients was 40.9 (11.3-54.1) months. For patients classified as LTFU, median (IQR) time from index to date of last care was 10.2 (1.8-27.9) months with observation of 39.0 (23.5-54.2) months. For treated patients, median (IQR) time from index to treatment was 14.2 (3.9-28.5) months.

4. CONCLUSION

In this cohort of coinfecting patients, 23% remained untreated and 31% were lost to follow up. The data suggest that females and <50 year old patients had lower treatment rates. Median time to treatment was 4 months longer than median time of last care for patients lost to follow up, suggesting that more timely treatment and/or improved patient engagement are critical in care of the coinfecting population. Despite the availability of highly effective, well tolerated DAAs [FIGURE 2], treatment of HCV in this population of coinfecting patients was suboptimal.

FIGURE 1: PATIENT DISPOSITION FOR HCV TREATMENT

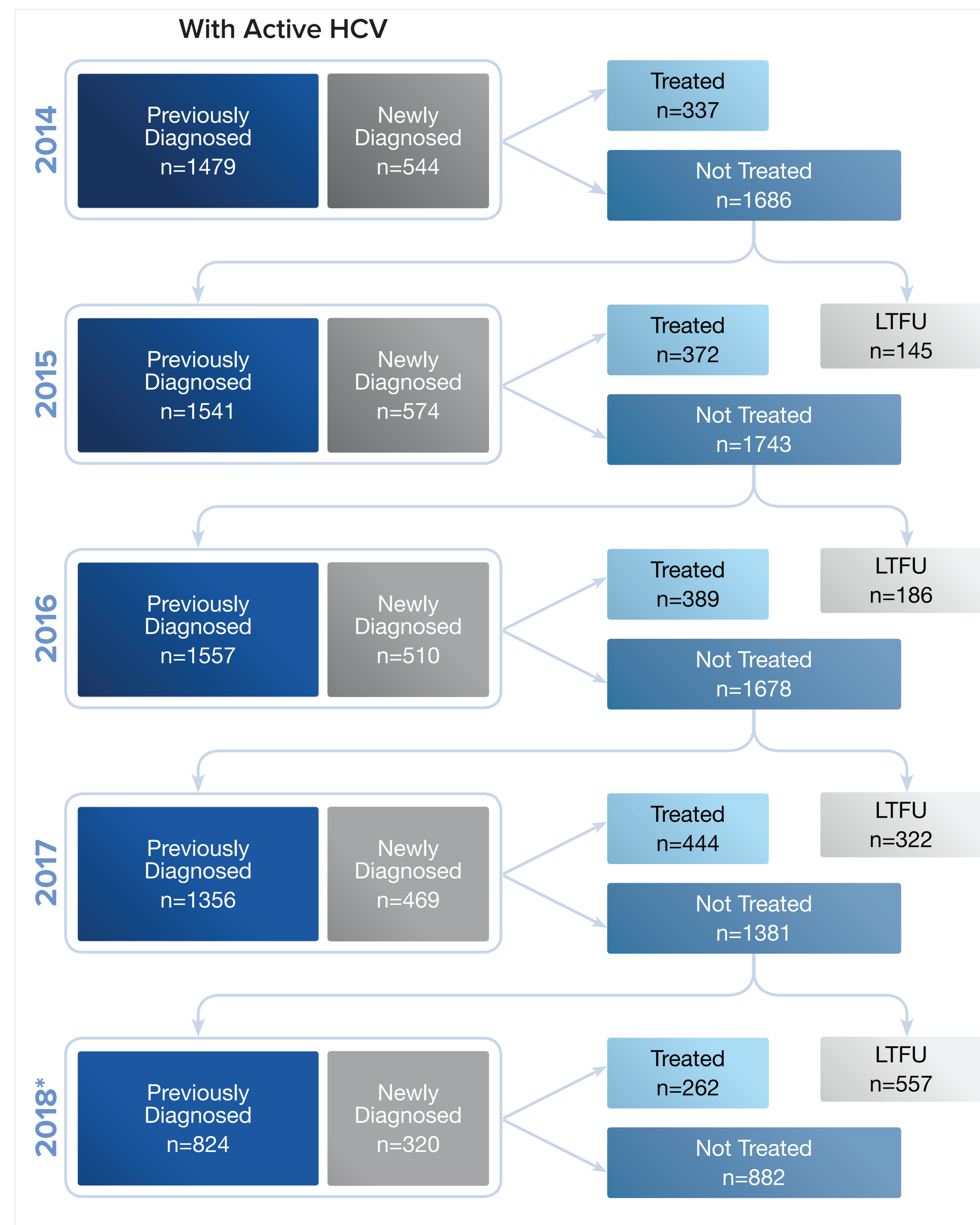


FIGURE 2: AVAILABILITY OF DIRECT-ACTING ANTIVIRALS

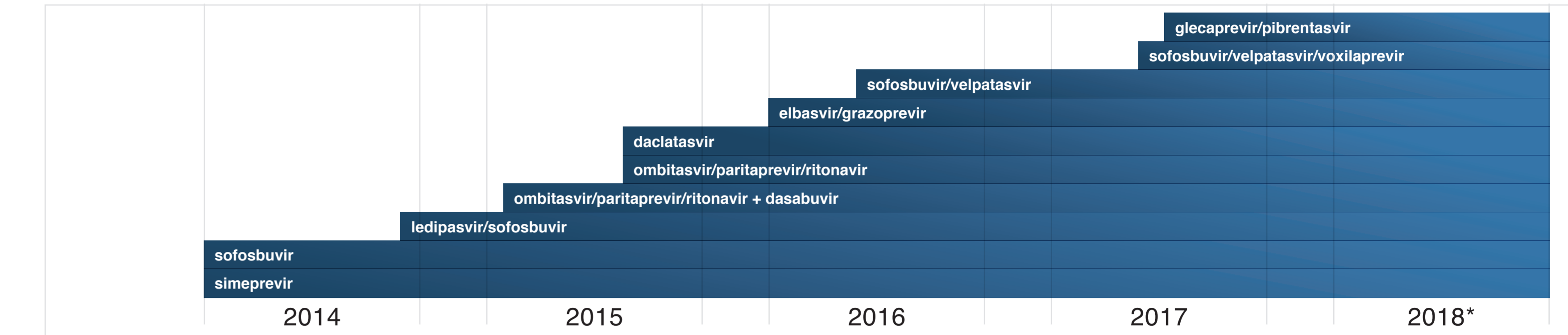


FIGURE 3: PATIENTS WITH ACTIVE HCV AND PERCENTAGE TREATED IN EACH PERIOD

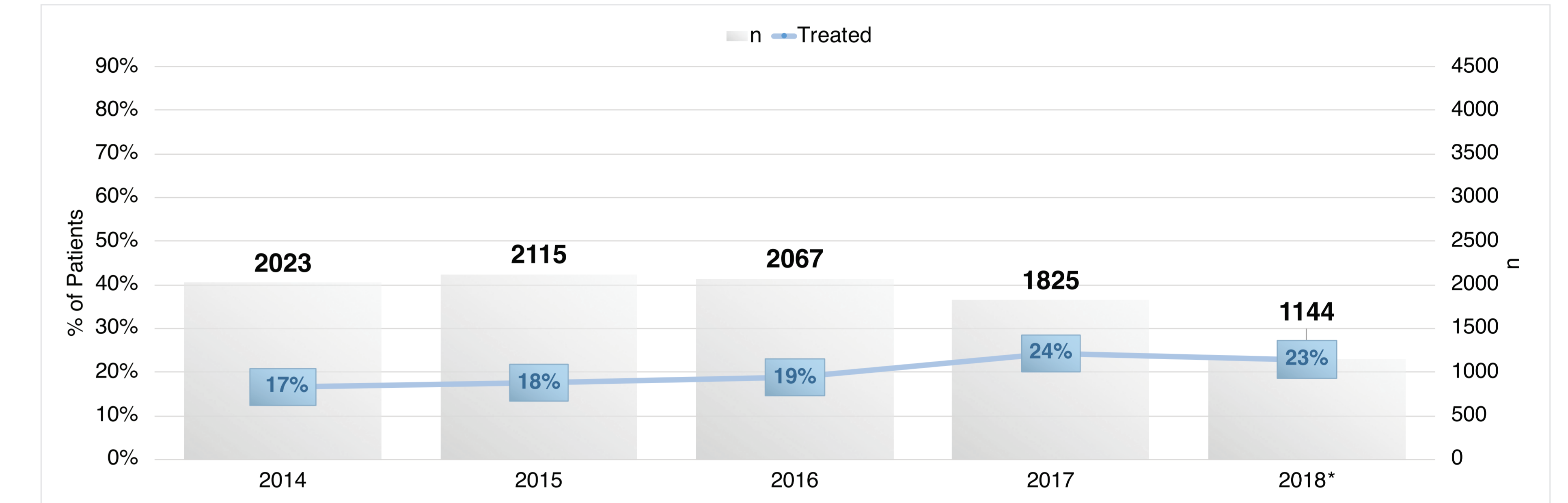


FIGURE 4: RUNNING TOTALS, HCV TREATMENT STATUS

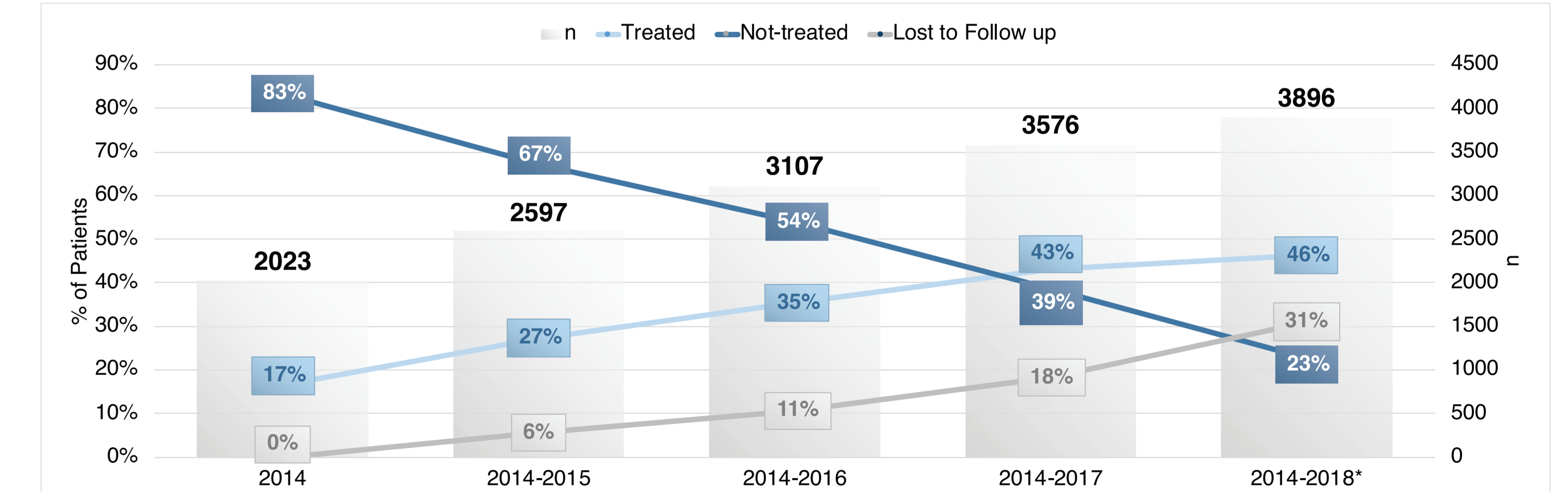


TABLE 1: DISTRIBUTION BY FINAL TREATMENT STATUS BY GENDER AND AGE GROUP

	FEMALE (n=753)	MALE (n=2142)	TOTAL (N=2895)	p	
LTFU	36% _a	28% _b	30%	p<0.001	
Treated	40% _a	50% _b	47%		
Untreated	24% _a	23% _a	23%		
Total	100%	100%	100%		
	18-49 YEARS (n=925)	50-64 YEARS (n=1572)	65+ YEARS (n=398)	TOTAL (n=2895)	p
LTFU	32% _a	29% _a	27% _a	30%	p=0.023
Treated	43% _a	49% _b	48% _{a,b}	47%	
Untreated	25% _a	22% _a	24% _a	23%	
Total	100%	100%	100%	100%	

Each subscript letter denotes a subset of classification categories whose column proportions do not differ significantly from each other at the .05 level.

*Through October 2018