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## INTRODUCTION

- Highly effective and safe direct-acting antivirals (DAAs) against hepatitis C virus (HCV) combined with U.S. Preventive Services Task Force recommendation to screen for HCV in individuals born between 1945 and 1965 (age cohort; 54-79 years of age in 2019) was expected to reduce the number of actively infected patients via identification and treatment.
- However, new infections with Hepatitis C Virus (HCV) continue to occur in the United States, with the CDC reporting 2.4 million Americans living with HCV in 2018.
- A study of predominantly African American (AA) patients in our university medical practice, during the interferon era (2002-2003) and prior to the introduction of DAAs (2012-2013), confirmed a population within the age cohort for our patients (Rutledge et al, 2017).

## OBJECTIVES

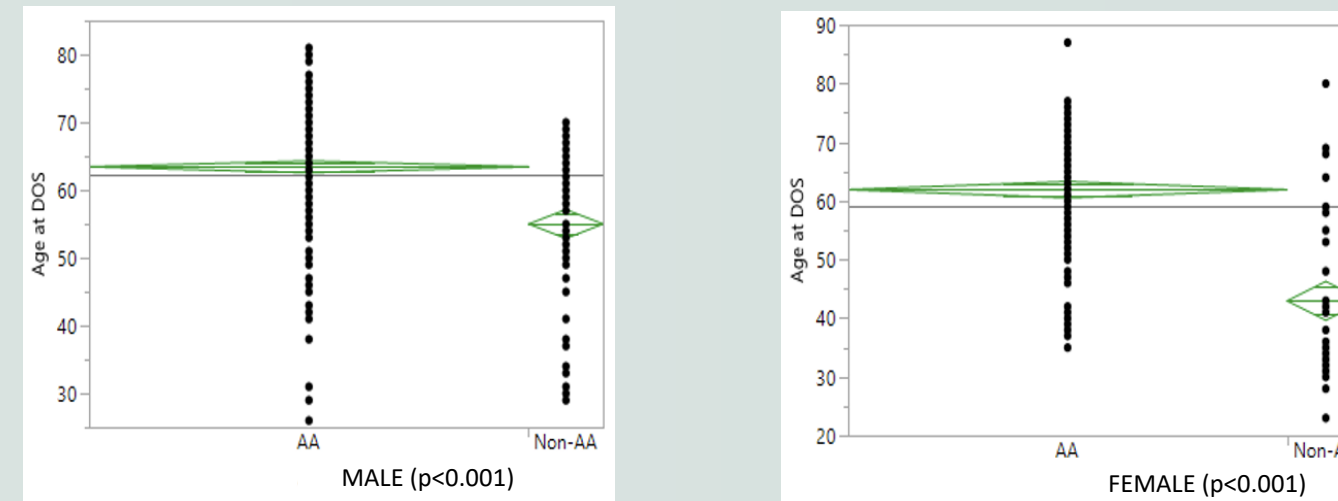
- Our aim was to characterize the 2019 patient population seen in the same practice to determine the impact of DAA therapy on patient profiles and to test the hypothesis of an increase in a younger HCV infected population

## METHODS & POPULATION

- Data was collected from 2019 HCV patient EMR charts including demographics, laboratory studies, Fibrosis assessment by FibroScan, and treatment history.
- AST Platelet Ratio Index (APRI= ((AST value /AST upper limit)/Platelet Count) x 100), FIB-4 (FIB-4= (Age(years) x AST)/(Platelet Count x Sqrt(ALT)), and FibroScan were used to determine the degree of liver fibrosis.
- 601 patients with HCV were seen in 2019 and the majority were African American (AA) (85%) and male (66%).

## RESULTS

### Age of HCV Patients in 2019 by Race and Gender



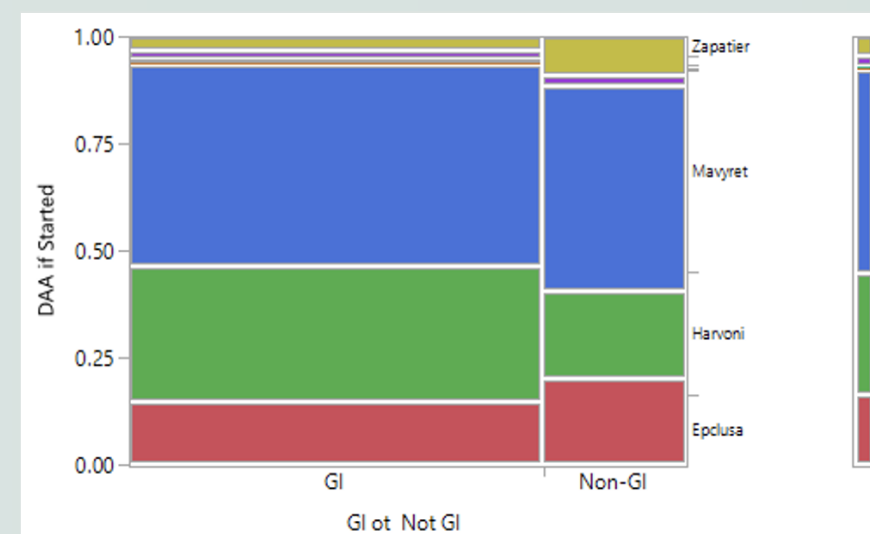
**Figure 1.** Age by gender was plotted as a function of race. Non-AA HCV patients were younger than AA patients regardless of gender. In contrast to AA patients, Non-AA females were younger than Non-AA males (p< 0.001).

### Treatment Profiles

There was no racial disparity among AA and Non-AA patients with respect to treatment status at time of the first 2019 visit, with 25% having achieved a sustained viral load response (SVR) prior to 2019 and 25% starting treatment in 2019 (Table 1).

Treatment Status	AA		Non-AA	
	Number	%	Number	%
SVR prior to 2019 visit	122	23%	19	22%
Treated but no SVR prior to 2019	4	1%	2	2%
Treatment in Progress at 2019 visit	14	3%	1	1%
Treatment started in 2019	124	24%	22	25%
Treatment not yet started	249	49%	44	50%
	513	100%	88	100%

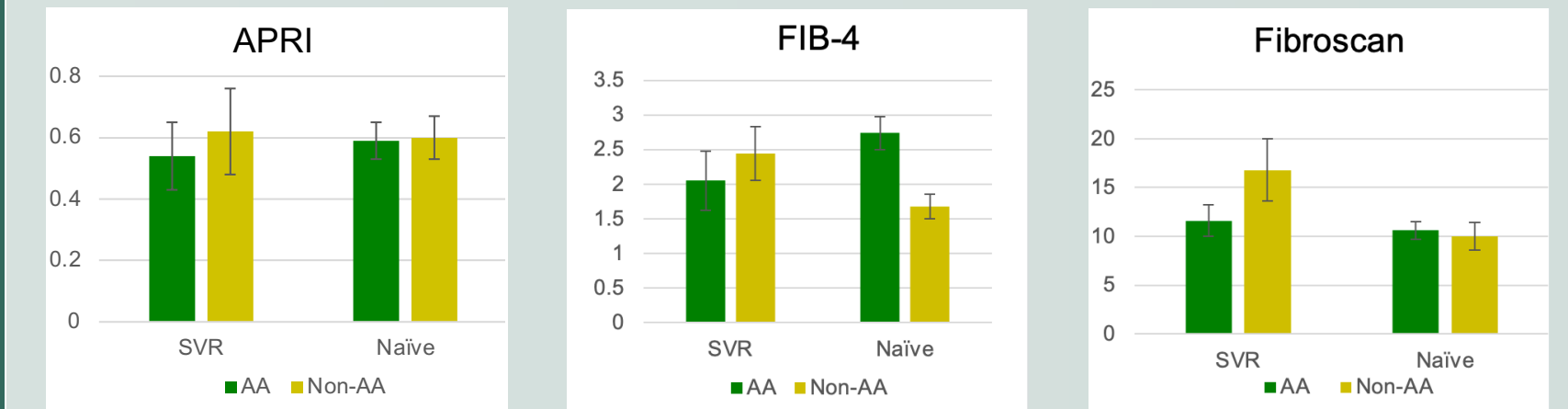
In contrast to the management of HCV patients in the interferon era exclusively by hepatologists, patients in 2019 were seen and treated by both gastroenterologist (73%) and infectious disease specialists (27%).



**Figure 2.** Patients were treated by both Gastroenterologists (GI) and Infectious Disease (Non-GI) physicians. Similar distribution of the anti-viral agent selection was observed. Response rates were greater than 95% and not different by race or gender.

## RESULTS (cont.)

### Fibrosis in 2019 Patients



**Figure 3.** Fibrosis was assessed in patients by race using three methods. APRI and FIB-4 are serum-based assays and FibroScan is a non-invasive ultrasound based transient elastography procedure. The two groups were patients who had achieved viral clearance (SVR) prior to assessment of fibrosis and patients who had not yet been treated for their HCV infections. There was no significant difference between the two groups, although the majority of SVR patients had not yet reached 2-3 years after successful treatment.

## CONCLUSIONS

- A shift in patient demographics toward younger, non-AA patients in the current DAA era was in contrast with the age stability of AA patients who are still within the screening age cohort.
- The emergence of younger patients has important implications for screening, patient outreach, and treatment plans.
- Half of the HCV infected patients were not started on any treatment in 2019. Further examination found that only 9 AA and 1 non-AA patients were subsequently treated through July of 2020. The extent to which the COVID-19 pandemic influenced these numbers remains to be evaluated.
- Given the younger population and the poor treatment rate, one time screening of all patients and continued follow-up after initial visit to close the linkage to care gap is recommended.