# Direct Acting Antivirals in HCV mono-infection compared to HCV & HIV co-infection in Community Care.

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## BACKGROUND

- Clinical trials involving direct acting antivirals (DAAs) have already demonstrated an effective response in both HCV mono-infected and HCV&HIV co-infected patients, but there are few published studies in the real-world community settings in both groups.
- We evaluated the efficacy, safety, and tolerability of different regimens of DAA in both HCV mono-infected and HCV&HIV co-infected patients in such clinical practice setting.

## METHODS

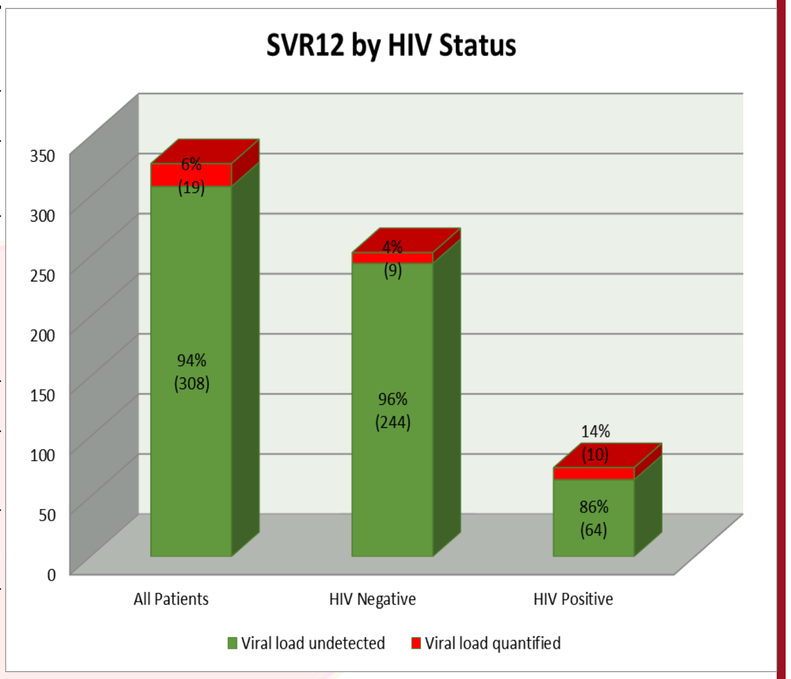
- All the HCV mono-infected and HCV & HIV co-infected patients treated with DAAs between January 2014 and October 2017 in our community clinic were retrospectively analyzed.
- Pretreatment baseline patient characteristics, treatment efficacy, factors affecting sustained virologic response at 12 weeks (SVR 12) after treatment, and adverse reactions were compared between the groups.

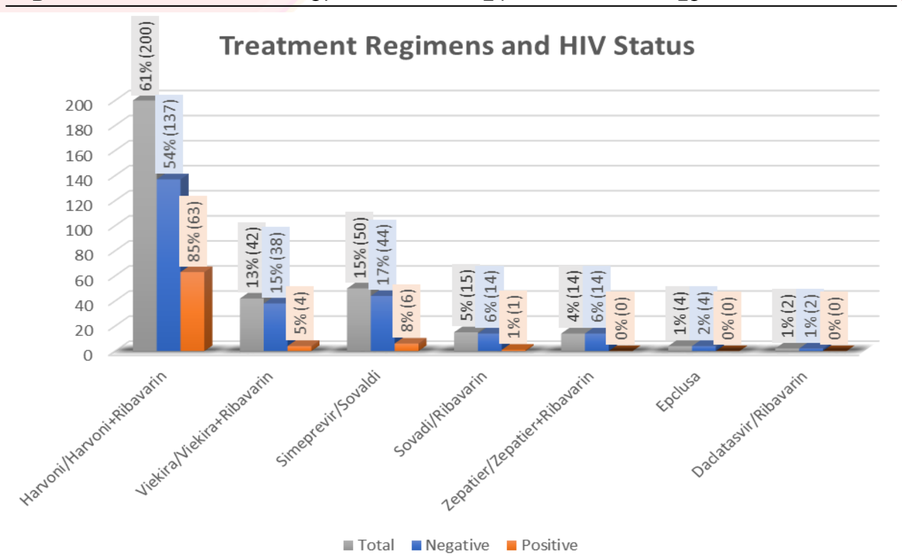
## RESULTS

- 327 patients were included in the study, of which 253(77%) were HCV mono-infected, and 74 (23%) were HCV& HIV co-infected.
- There was a statistically significant difference observed in SVR12 when comparing HCV mono-infection and HCV& HIV co-infection (94% and 84% respectively, P = 0.005). However, there were no significant factors identified as a predictor of lower response.

## RESULTS

| | Total (*N* = 327) | HIV Status: HIV Negative (*N* = 253) | HIV Status: HIV Positive (*N* = 74) | *p* Value |
|---|---|---|---|---|
| Age (Mean ± SD) | 60.05 ± 11.057 | 60.61 ± 11.461 | 58.11 ± 9.358 | 0.087 |
| Sex | | | | 0.587 |
| Male | 201 | 153 | 48 | |
| Female | 126 | 100 | 26 | |
| Race | | | | 0.272 |
| White | 49 | 42 | 7 | |
| Black | 211 | 162 | 49 | |
| Asian | 1 | 1 | 0 | |
| Hispanic | 21 | 13 | 8 | |
| Other | 45 | 35 | 10 | |
| BMI (mean ± SD) | 28.323 ± 5.5836 | 28.479 ± 5.5021 | 27.792 ± 5.8613 | 0.353 |
| BMI | | | | 0.217 |
| < 30 | 209 | 157 | 52 | |
| ≥ 30 | 118 | 96 | 22 | |
| Prior treatment | | | | 0.871 |
| TN | 259 | 201 | 58 | |
| TE | 68 | 52 | 16 | |
| Genotype | | | | 0.481 |
| 1a | 181 | 135 | 46 | |
| 1b | 80 | 64 | 16 | |
| 2 | 16 | 14 | 2 | |
| 3 | 12 | 11 | 1 | |
| 4 | 38 | 29 | 9 | |
| Initial HCV viral load (mean ± SD) | 4063655.90 ± 7306667.790 | 4171305.91 ± 7801895.875 | 3720970.03 ± 5480889.858 | 0.678 |
| Initial HIV viral load | | | 66.71 ± 252.888 | |
| Initial CD4 count | | | 589.25 ± 307.636 | |
| APRI Score | | | | 0.390 |
| < 1 | 227 | 179 | 48 | |
| ≥ 1 | 100 | 74 | 26 | |
| Cirrhosis | | | | 0.103 |
| No | 260 | 196 | 64 | |
| Yes | 67 | 57 | 10 | |
| MELD Score | | | | 0.007 |
| < 10 | 239 | 194 | 45 | |
| ≥ 10 | 87 | 58 | 29 | |
| CTP Class | | | | 0.062 |
| A | 289 | 228 | 61 | |
| B | 37 | 24 | 13 | |




- The most common adverse effect is fatigue (27%).
- No significant drug interaction observed between DAA and anti-retroviral therapy (ART).
- None of the patients discontinued the treatment due to adverse events.

## CONCLUSION

In the real-world community care setting, direct acting antiviral regimens have lower Sustained Viral Response (SVR) at 12wks in HCV & HIV co-infection than HCV mono-infection.

Further studies involving a higher number of HCV&HIV co-infected patients are needed to identify real predictors of lower response.

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