

Introduction

- For the <2% of patients who fail current direct acting antiviral (DAA) treatment of chronic Hepatitis C Virus (HCV) infection there are limited treatment options.
- The American Association for the Study of Liver Diseases (AASLD) proposed algorithms for the treatment of such DAA treatment failures.
- When multiple DAA treatment lines have failed (Figure 1) there are two regimens that are recommended as well as their durations.
- There are no treatment options available for patient who fail these salvage regimens.
- We present a case of multiple DAA failure who ultimately achieved cure with an extended treatment regimen that included a prolonged period of viral negativity.

Figure 1

Recommended regimens listed by evidence level and alphabetically for:
Sofosbuvir/Velpatasvir/Voxilaprevir Treatment Failures, With or Without Compensated Cirrhosis^a ⓘ

RECOMMENDED	DURATION	RATING ⓘ
Daily fixed-dose combination of glecaprevir (300 mg)/pibrentasvir (120 mg) plus daily sofosbuvir (400 mg) and weight-based ribavirin	16 weeks ^b	Ia, B
Daily fixed-dose combination of sofosbuvir (400 mg)/velpatasvir (100 mg)/voxilaprevir (100 mg) plus weight-based ribavirin	24 weeks	Ia, B

^a For *decompensated cirrhosis*, please refer to the appropriate section.
^b Extension of treatment to 24 weeks should be considered in extremely difficult cases (eg, genotype 3 with cirrhosis) or failure following sofosbuvir plus glecaprevir/pibrentasvir.

Case Description

- A 71-year-old male with a history of multi-drug resistant HCV (genotype 1a) and cirrhosis.
- His prior treatment regimens included: PEG-IFN + ribavirin, sofosbuvir (SOF)/ledipasvir X 12 weeks, SOF/velpatasvir (VEL)/ribavirin X 24 weeks, SOF/Glecaprevir/Pibrentasvir (GLE-PIB)/ribavirin X 16 weeks, SOF/VEL/voxilaprevir (VOX) + ribavirin X 24 weeks.
- Complex resistant associated substitution (RAS) polymorphisms were present in both the NS3 and NS5A domains.
- This patient then received a 56-week regimen that variously included SOF/daclatasvir, pegylated interferon + ribavirin, SOF/GLE-PIB/ribavirin, and SOF/VEL.
- He remained HCV RNA negative throughout this regimen and 24 weeks following the completion of this regimen, thus representing sustained virologic response (SVR).

Discussion

- A small number of HCV patients still experience treatment failure even following the currently suggested “salvage” treatment regimens.
- For such difficult-to-treat HCV patients with multiple DAA resistant substitutions, a protracted course of DAA therapy may remain a viable treatment option.

References

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