

### Question 23 – January 15

A 50 year old male with Hepatitis C virus (HCV) infection presents for evaluation for HCV treatment. He is listed for liver transplantation with Model for End-Stage Liver Disease (MELD) score of 15. Complications include hepatohydrothorax and ascites for which he underwent a successful TIPS procedure 6 months earlier. He developed mild hepatic encephalopathy post-TIPS that is now controlled with medications. There has been no further liver decompensation. Laboratory results are as follows:

WBC 4.5  
Hgb 11.9  
Platelets 120K  
Sodium 133  
Albumin 2.6  
Creatinine 1.5 (CrCl 45 ml/min)  
Total bilirubin 2.4  
AST 90  
ALT 70  
INR 1.5

He is infected with HCV genotype 1A, and HCV RNA is 4.8 million IU/mL. Which of the following Hepatitis C antiviral drug classes would be contraindicated in this patient?

- A. Protease inhibitors
- B. NS5B non-nucleoside inhibitors
- C. NS5A inhibitors
- D. Cyclophilin inhibitors
- E. NS5B nucleoside inhibitors

**Answer: A**

For patients with decompensated cirrhosis, use of protease inhibitors are contraindicated, as altered metabolism of the drugs increases the risk of hepatotoxicity. NS5B nucleoside and non-nucleoside inhibitors and NS5A inhibitors are safe; sofosbuvir-ledipasvir, sofosbuvir-velpatasvir, and sofosbuvir plus daclatasvir are examples of such combinations. NS5B nucleoside inhibitors are not recommended if CrCl is less than 30 mL/min. There are no approved cyclophilin inhibitors.

### Reference

AASLD and IDSA Recommendations for Testing, Managing, and Treating Hepatitis C (<http://www.hcvguidelines.org>). Accessed 12/17/16.