

## Editorial

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## Hepatitis C Update

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The pace of Hepatitis C Virus (HCV) drug development in recent years has accelerated dramatically. But, for patients to benefit from these impressive advances, practitioners (i.e. “us”) need to know the most recent and accurate data on the diagnosis and treatment. In 2013, The American Association for Study of Liver Disease (AASLD) and the Infectious Disease Society of America (IDSA), put together web-based guidelines, which are frequently updated: [www.hcvguidelines.org](http://www.hcvguidelines.org) and [www.aasld.org/practice-guidelines](http://www.aasld.org/practice-guidelines).<sup>1</sup> The size of the problem: In the USA, the prevalence is 1.8% (4.1 million), 80% of them are viremic. It is the principal cause of death from liver disease. It is the leading indication for liver transplantation in the USA. Although, HCV is a curable disease, it is under-diagnosed and under-treated.<sup>2</sup> Three quarters of individuals with HCV are unaware they are infected. 66-87% of patients diagnosed with HCV have not received antiviral treatment. Screening and diagnosis: 65-69% of anti-HCV positive patients were born between 1945 and 1964. Persons born between 1945 and 1964 had a 4.6 times higher prevalence of HCV than persons born prior to 1945 or after 1964 (3.7% vs. 0.73%).<sup>3</sup> Treatment: Before treatment, you need to know: genotype and viral load, previous treatment, and presence of absence of cirrhosis.<sup>4</sup> Generally speaking, 4 regimens are currently available. Ledipasvir/sofosbuvir × 12 weeks (8 weeks at discretion of practitioner), Paritaprevir/ritonavir/ombitasvir+dasabuvir + RBV × 12 weeks, Daclatasvir/sofosbuvir × 12 weeks and Sofusbuvir +Simeprevir±RBV × 12 weeks.<sup>5</sup>

### HCV Genotype 1A

- Daily (400 mg) daclatasvir (60 mg) and sofosbuvir for 12 weeks (no cirrhosis) or 24 weeks with or without weight-based RBV (cirrhosis).
- Daily fixed-dose combination of ledipasvir (90 mg)/sofosbuvir (400 mg) for 12 weeks.
- Daily fixed-dose combination of paritaprevir (150 mg)/ritonavir (100 mg)/ombitasvir (25 mg) plus twice-daily dosed dasabuvir (250 mg) and weight-based RBV for 12 weeks (no cirrhosis) or 24 weeks (cirrhosis).
- Daily simeprevir (150 mg) and sofosbuvir (400 mg) for 12 weeks (no cirrhosis) or 24 weeks (cirrhosis without the Q80K polymorphism) with or without weight-based RBV.

### HCV Genotype 1B

- Daily (400 mg) daclatasvir (60 mg) and sofosbuvir for 12 weeks (no cirrhosis) or 24 weeks with or without weight-based RBV (cirrhosis).
- Daily fixed-dose combination of ledipasvir (90 mg)/sofosbuvir (400 mg) for 12 weeks.
- Daily fixed-dose combination of paritaprevir (150 mg)/ritonavir (100 mg)/ombitasvir (25 mg) plus twice-daily dosed dasabuvir (250 mg) and weight-based RBV for 12 weeks.
- Daily simeprevir (150 mg) and sofosbuvir (400 mg) for 12 weeks (no cirrhosis) or 24 weeks (cirrhosis) with or without weight-based RBV.

### HCV Genotype 2

- Daily sofosbuvir (400 mg) and weight-based RBV for 12 weeks.

**HCV Genotype 4**

- Daily fixed-dose combination of ledipasvir (90 mg)/sofosbuvir (400 mg) for 12 weeks.
- Daily fixed-dose combination of paritaprevir (150 mg)/ritonavir (100 mg)/ombitasvir (25 mg) and weight-based RBV for 12 weeks.
- Daily sofosbuvir (400 mg) and weight-based RBV for 24 weeks.

**HCV Genotype 5&6**

- Daily fixed-dose combination of ledipasvir (90 mg)/sofosbuvir (400 mg) for 12 weeks.

Whom to Initiate HCV Therapy? Treatment is recommended for all patients with chronic HCV infection, except those with short life expectancies owing to comorbid conditions. Immediate treatment is assigned the highest priority for those patients with advanced fibrosis (Metavir stage F3), those with compensated cirrhosis (Metavir stage F4), liver transplant recipients, and patients with severe extrahepatic hepatitis C.

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