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## Direct-acting antivirals: a new strategy in the treatment of hepatitis C virus infection in patients with cirrhosis

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## **Abstract**

Background: Hepatitis C virus (HCV) infection has a significant worldwide impact. Patients with hepatic cirrhosis with HCV have an annual risk of decompensation of 3-5%, a risk of developing hepatocellular carcinoma between 1.4-6.9% and a risk of mortality of 2% / year. Therefore, the treatment of chronic HCV infection is a priority for patients with severe hepatic fibrosis and cirrhosis. The emergence and approval of direct-acting antivirals (DAA) in recent years have revolutionized antiviral therapy, especially for patients with liver cirrhosis. Following numerous studies it has been found that, this treatment is well tolerated by these patients. The combination of DAA from different groups has a potent enhancing effect, and the sustained viral response (SVR) rate reaches up to 85-98% in patients with liver cirrhosis. In general, the chance of performing SVR with DAA in patients with compensated cirrhosis (Child-Pugh A) is comparable to non-cirrhotic patients. However, there is a risk for decompensation and acute liver failure during and after treatment. Patients with decompensated liver cirrhosis and advanced liver fibrosis may have greater benefit from antiviral therapy after liver transplantation.

Conclusions: The data obtained from the analyzed studies suggest that DAA antiviral therapy prevents the progressive evolution of the disease towards hepatocellular carcinoma or decompensation. At the same time, a correct therapeutic approach and a permanent monitoring of these patients can improve the quality of life, significantly prolonging the years of life.

Key words: direct-acting antivirals, cirrhosis, hepatocellular carcinoma, hepatitis C virus.