

# Hepatitis C Update

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Hepatitis C is a chronic liver disease caused by the hepatitis C virus (HCV). About 1%-3% of populations of Bangladesh have Hepatitis-C infection.<sup>1</sup> According to recent WHO study, an estimated 71 million people around the world have been infected with HCV, of whom 399 000 die each year.<sup>2</sup>

The majority of people who contract HCV are asymptomatic in the acute stages of infection with only 25–30% of people noticing symptoms; the symptoms of acute HCV infection are nonspecific.<sup>3</sup>

Hepatitis C infection occurs through exposure to infected blood or body fluids. It is estimated that 20–25% of people infected with HCV clear the virus without medical intervention. Females, younger patients, and patients who develop symptoms, such as jaundice, are more likely to achieve spontaneous viral clearance.<sup>4</sup> Approximately three out of four people infected develop long-term HCV infection, placing them at increased risk of hepatic complications and making transmission of the virus more likely. Due to the slow disease process many people remain unaware of the infection. Liver function tests may be persistently normal in more than one-quarter of people with chronic HCV infection.<sup>5</sup> People who present with symptoms of liver disease may have acquired HCV at a younger age, and the source of infection may never be identified. In people with long-term HCV infection the risk of cirrhosis increases with the duration of infection; 20–30% of patients develop cirrhosis after 20–30 years with 2–4% of these people per year developing hepatocellular carcinoma.<sup>4,6</sup>

Diagnosing HCV infection typically involves two tests; some laboratories may perform these as

reflex tests: Screening test for HCV exposure and Confirmatory test for active HCV infection-HCV RNA assay.<sup>7</sup>

### **HCV genotyping is no longer required**

Previously, HCV genotyping was required to determine eligibility for treatment, as Viekira Pak regimens are only effective against HCV genotypes 1 and 4. Now genotype testing is no longer required as Sofosbuvir and Velpatasvir combination is indicated for the treatment of adult patients with chronic hepatitis C virus (HCV) genotype 1, 2, 3, 4, 5 or 6 infections without cirrhosis or with compensated cirrhosis with decompensated cirrhosis for use in combination with ribavirin.<sup>8,9</sup> A watch and wait approach is reasonable for patients during the acute phase of infection, with ongoing HCV RNA for viral clearance and monitoring of liver function. It is estimated that 20–25% of people infected with HCV clear the virus without medical intervention.<sup>1</sup> The majority of patients who clear the virus spontaneously do so within 12 weeks of infection.<sup>8</sup> In the first few months of infection, viral RNA levels can fluctuate. Testing should continue for six months or until spontaneous clearance is confirmed or deemed unlikely. Patients are regarded as having cleared an HCV infection if there are at least two HCV RNA below the level of detection, performed at least one month apart.<sup>1</sup>

### **Evaluating the success of treatment**

The effectiveness of treatment in eradicating HCV infection is determined by conducting an HCV RNA assay 12 weeks after treatment has finished/ completion of treatment. Liver function tests can be ordered at the same time in order to assess whether additional follow-up is required. A negative HCV RNA assay (undetectable HCV RNA levels) 12 weeks after

treatment has finished/ completion of treatment indicates cure. Over 97% of patients treated with Sofosbuvir and Velpatasvir combination can be expected to test negative 12 weeks after treatment.<sup>9-11</sup>

Test for cure with an HCV RNA assay is conducted 12 weeks after completion of treatment. At the same time liver function tests shall be advised. Patients need to be referred to a hepatologist if test results are positive 12 weeks after completion of treatment. Patients with cirrhosis require long-term monitoring for the development of hepatocellular carcinoma. No further follow-up for HCV complications is required for patients without cirrhosis and with normal liver function tests after treatment. If patients have ongoing abnormal liver function tests, other possible causes shall have to be considered. Annual HCV RNA assays are recommended for patients with ongoing risk factors, e.g. people who inject drugs. Previous infection does not confer immunity.

### References

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