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# The effectiveness of Sofosbuvir in Hepatitis C patients in a tertiary teaching hospital in Qatar

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Hepatitis C virus (HCV) is a slowly progressive infection that affects the liver and can cause both chronic and acute hepatitis, hepatic cirrhosis, hepatocelluler carcinoma and liver transplant [1]. The estimated prevalence of HCV In 2014 was about 2.7 to 5.2 million patients in USA. Communicable Disease Center (CDC) stated that about 17000 patients are diagnosed with new HCV annually and 12000 patients died annually from hepatitis C related live disease [2]. HCV is distributed worldwide, mostly in central and east Asia and North Africa. There are many genotypes of the virus 1 – 6, they are distributed by region. The HCV genotype 1 was considered as the most prevalent genotype worldwide [3].

HVC infection greatly impacts the patients and society together. It decreases life expectancy of the affect patients by 8 – 12 year, decrease quality of life, causes potential disability and independency, considered as the main cause if liver transplant, in addition to the direct economic burden including hospitalization and medications expenses, furthermore decrease patient fitness of work or losing their income [4]. A study evaluated the future complication of chronic hepatitis in USA 2003, revealed that the expected increase in percentage of cirrhotic patients will rise up from 16 % to 32 % by 2020 in untreated patients [5], rising alert about doubled expected burden of the disease in the upcoming few years. Additionally according to WHO 2002 HCV has been attributed for 86000 death in Europe [1].

The goals of HCV therapy are achieving sustained virological response SVR which defined as reaching undetectable serum virus RNA for at least 12 weeks after therapy, to be monitored up to 6 months, in addition to decrease disease progression to liver cirrhosis, hepatocelluler carcinoma and decompensated liver disease, and minimizing the cases that require transplantation [6, 7]. Sofosbuvir is indicated for treatment of HCV genotypes 1, 2, 3 and 4. It is fixed dose once daily tablet of 400 mg to be administered with or without food, part of combination therapy either with ribavirin alone or ribavirin and pegintroferon alfa. The duration of therapy and usage of PEG depends on the viral genotype and the presence of PEG contraindications [8].

Hepatitis becomes a worldwide concern, widely prevalent of extensive direct and indirect burden, the conventional HCV treatments (ribavirin and pegylated interferon) have many limitations and complications limited its beneficial utilization. On the other hand new emerging direct antiviral drugs is very promising generation in management of HCV which is effective and well tolerated group of medications given as a single daily dosing.

Sofosbuvir is a new direct-acting antiviral (DAA) approved for the treatment of chronic HCV, in Hamad Medical Corporation in Aug 2014. Thus, this study was conducted to measure the effectiveness of treatment of chronic HCV as a part of the combination therapy in all genotypes in patients with or without cirrhosis.

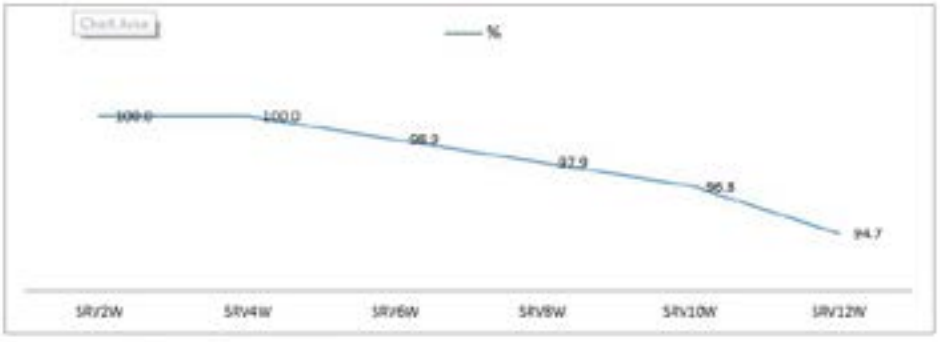


*Figure 1: Post treatment SVR*

**Recent Publications:**

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## Biography

Rana Moustafa is a clinical pharmacist at Hamad General Hospital (HGH) a member of Hamad Medical Corporation (HMC). She received her bachelor degree in pharmacy on 2007 from Egypt with a grade of V. Good with honor. In 2012 she completed her Master degree in clinical pharmacy from Queen's university of Belfast (UK). She joined the corporation on 2008 as a pharmacist, on 2012 she joined the clinical pharmacy team and covering the anticoagulation clinical service at HGH, to provide service in medical wards, engaged in many researches in the clinical field and providing continues education to patients, patient's family and medical staff.

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**Notes:**