

## **Together against Hepatitis C!**

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About 185 million person in the world are infected with hepatitis C virus (HCV), among them 150 million persons are suffering from chronic HCV infection, 15% of those who are suffering from chronic HCV live in high income countries while 72% live in middle income countries and 13% live in low income countries. HCV is related to many liver diseases that cause the death of 350,000 people every year [1,2].

Hepatitis C (HCV) is a global epidemic with different genotypes of the virus more prevalent in specific regions of the world [3].

2014 marks a major turning point in the history of HCV treatment: arrival of Direct-Acting Antiviral Medications for Chronic Hepatitis C Virus Infection (DAAs) is a source of hope for many of those who are infected by a chronic HCV [4]. These antivirals have many advantages comparing to their predecessors: multi-genotypic action, lower adverse effects and much better success rates [5].

Direct-acting oral antivirals from different families have been developed that reduce the duration of treatment and increase in sustained virological response rates to above 90% [6].

Sofosbuvir (SOF) is the first-in-class, potent nucleotide analogue polymerase inhibitor. The Federal Drug Authorities (FDA) and the European Medicine Agency (EMA) have approved sofosbuvir for pangenotypic HCV treatment in IFN-free combinations either with RBV or other DAAs [7]. Although the new treatments have many advantages, their price will make them not accessible for all people around the world.

Increased screening as well as increased access to treatment in highly endemic regions must be included in the worldwide programme to eradicate HCV [8].

In Egypt which has the highest rate of HCV in the world (around 6 - 8 million), the cost of SOF for all who are infected by chronic HCV was 5 times the public healthcare expenses in 2011 [9].

According to the deal, with the National Committee for the Control of Viral Hepatitis (NCCVH) in Egypt offered by Gilead Sciences, the company that developed Sovaldi, Egyptians can buy a one-month supply of the drug for \$300. Many Egyptian patients are likely to be left out because this price is still so high by Egyptian standards [10].

A scheme entitled "The Plan of Action for the Prevention, Care and Treatment of Viral Hepatitis 2014 - 2018" that promoted sofosbuvir (Sovaldi<sup>™</sup>, Gilead Sciences, San Francisco, USA) as its primary treatment [11] had been proposed by the Egyptian Ministry of Health to control the HCV epidemic in Egypt with a greater capital fund and with support from the WHO as well as other institutes. According to forecasts, hepatitis C could be eradicated by the end of 2020.

The Egyptian programme started to rely on a cheaper generic versions of hepatitis C treatments produced locally, with a three-month course of medication costing as little as \$80 [12]. Egyptian pharmaceutical company Pharco managed to develop a new sofosbuvir-based treatment which was tested and found to be safe and successful.

Pharco completed the largest Phase IIIb clinical trial on Genotype 4 HCV Egyptian patients, published in the annual conferences American Association for the Study of Liver Diseases (AASLD) Nov 2015, Conference on Retrovirus and Opportunistic Infections (CROI) February 2016 and the European Association for the Study of the Liver (EASL) April 2016 [13].

The success is such that Egypt has become a global destination for hepatitis C patients. The Egyptian company Tour n'Cure ("Visit and Heal" in English) has launched a campaign entitled "For a world without hepatitis". This campaign has had a worldwide impact since the company has used the services of the world football star, Lionel Messi, who stage the Ballon d'Or talking with the sphinx.

Tour N'Cure offers a week return to Egypt for 6,000 euros. The patient-tourist has the right to medical examinations, analyzes, a cure and the visit of the Egyptian monuments.

Other countries are taking note of the Egyptian experiment. "We have been helping doctors from Georgia and from Arab countries by exposing them to our experience," Ms al-Sayed heads a programme for prevention says. "The Georgians came and got trained on our model and developed a programme based on ours, and it is already up and running" [14].

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