

# Acute Hepatitis C Virus Infection and Directly Acting Anti-Hepatitis C Virus Drugs

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The best of care of Acute hepatitis C (AHC) infections in the evolving era of all oral directly acting antiviral drugs (DDAs) needs revision. The inevitable chronic liver disease in 80% of AHC infections justifies the advent of DDAs that expectedly will guarantee high cure rates. Unlike interferons, the short and ultra-short all oral DDAs regimens had revolutionized treatment strategies with better adherence and fewer complications. However, the costly price of DDAs added to the average expertise is still contrarily active. Up-to-date, studies concerning DDAs treatment for AHC mono-infection are sparse; indeed this represents an unmet need in modern AHC management.

Acute hepatitis C; Antiviral drugs; Liver diseases

## Introduction

Extensive of many scientists had been undertaken for a decade till discovery and isolation of HCV [1,2]. Acute HCV infection is rarely fulminant and mostly asymptotically progresses to chronic liver disease, cirrhosis and the burden of associated morbidities [3].

Acute hepatitis C virus infection is a global infection with a varying incidence between countries and populations. In the United States, reporting new AHC cases has shown dramatic jump from 0.3 new infections per 100 individuals in 2010 reaching 0.7 new infections per 100 individuals by 2014 [4].

blow is attributed to a rise in injection drug use among young adults [5]. In addition, a surge of acute hepatitis C has been found in human virus (HIV)-infected men who have sex with other men (MSM) [6].

In developing countries, acute hepatitis C infections are mainly due to unsafe health care procedures; Egyptian mass antischistosomal treatment using inadequately sterilized syringes in the 1960s and 1970s is distinctive in this regard, while injection drug use takes the second position [7]. In Egypt, deterministic data concerning prevalence or incidence of AHC are lacking. Recent estimates of AHC have widely ranged from 3.4% to 78.7% of acute viral hepatitis cases, demographically predilecting the rural areas [8,9]. Either symptomatic or asymptomatic, AHC cohorts represent an open source of ongoing HCV infection.

generally asymptomatic nature of AHC and lacking laboratory diagnosis are contributing the sparsely estimates relevant to AHC. Mass screening for AHC among symptomatic acute viral hepatitis cases is an underestimate.

occupational risk of acquiring AHC is still disappointingly high all over the world. In a recent meta-analysis, the reported AHC estimates among health care workers (HCW) from 1989 to 2014 had exceeded 200% higher prevalence than the public [10]. Furthermore, the situation is more critical in developing countries e.g. Egypt, and Nigeria, which are cursed by the triad of poverty, illiteracy, and of course disease [10]. Needle stick injuries are as the most deleterious risk accidents among HCW with an average rate of HCV infection of 0.5% [10]. Unfortunately, the lack of adequate reporting and surveillance data are pivotally responsible for the erroneous AHC estimates.

## The Problem of Acute HCV Infection

six months immediately following the primary acquisition of HCV refers to acute infection, even in absence of clinical features of hepatitis [11]. gold standard for diagnosis of acute hepatitis C requires a positive test for HCV RNA; in some patients, the viraemia may drop to small values. Secondly, a documented antibodies seroconversion; together with serum alanine amino emaf um, o t " d d S saf ° l uo o Q b M

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antibodies and elevated transaminases can be jointly recognizable [16]. Additionally, the diagnosis can be overlooked by physicians and the patient with mild symptoms may not call for a medical consultation.

reporting of cases with documented AHC is another issue; ideally, the viral hepatitis case report form should be a beforehand paper in the all relevant clinics. All physicians, particularly, those in outreach clinics and hot areas, should participate in educational programs. Of note, monitoring for new cases and tuning up with the dominant pattern of viral transmission will assist to locate areas of potential epidemics and identify and follow groups at risk.

### **Surveillance for AHC**

Contrasting to HBV, HCV has no pre or post-exposure prophylaxis. Hence, surveillance for the acute infection in populations critically exposed to the infection, namely; men having sex with men, intravenous drug users and health personnel should seriously engage in HCV endemic areas [17].

Surveillance for AHC is considered one of the most deterministic reliable measures needed for augmenting national disease control strategies. In spite of the absence of the reliable marker of AHC diagnosis, prompt uncovering of these cases is considered an advantageous step in cutting the virus infectious cycle. Proper

for both health-care providers and population should be expanded and frontline the battle against HCV. fruitful outcomes of early DAAs studies on AHC might be challenged by many obstacles. undetermined natural history of AHC, the problematic diagnosis, the emergence of resistance-associated variants (RAVs), and the utmost viremia in HIV-positive patients are all potential barriers in this prospect. However, the decision of treating AHC cases should be instantly commenced.

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