

Hepatitis C Eradication: It's Now or Never...Let's Get to Work

Einstein once said: "If you keep doing what you have been doing, you will keep on getting what you have been getting and so you are unlikely to solve problems with the same minds that created them." This saying applies very well to our current struggle with hepatitis C in Saudi Arabia.

The truth is this: Whatever the medical community has been doing to combat hepatitis C in Saudi Arabia has not been effective and is unlikely to result in a significant reduction in prevalence, morbidity, or mortality of this disease. This, in summary, is the essence of the important paper by Aljumah *et al.* in this issue of the Saudi Journal of Gastroenterology.^[1] In fact, according to this study, if we continue the same diagnosis and treatment rates we currently have, the disease burden is likely to increase. Hence, something different must be done, and this particular paper offers some interesting and relevant insights regarding this important national health challenge.

The authors of this study did a comprehensive effort and reviewed data sources including indexed and non-indexed publications, as well as unpublished data including hospital and national-level data, whenever available. The results were then discussed and reviewed with an expert advisory panel in direct meetings. Based on estimates from the above exercise, they applied standard statistical modeling to estimate hepatitis C disease burden and predicted future trends based on multiple scenarios.

The main findings of this study may be summarized as follows: In terms of prevalence of the disease, because there are no large community-based studies to date,^[2] a careful look at the available literature considered in this study led to the conclusion that the prevalence rate of antibodies to hepatitis C virus (anti-HCV) in all Saudi nationals was approximately 0.7% (1.08% in aged ≥ 15 years and 0.19% among children). A viremic rate of 70% was applied, resulting in a 0.5% viremic prevalence rate among all ages translating to approximately 100,000 (81,000–257,000) HCV-infected individuals in 2011. Although these are no more than estimates and is as good as the data it was derived from, it is believed that this is probably the best available evidence to date in the absence of a proper community-based prevalence study.

Another problem with this analysis is the estimated rate of diagnosed hepatitis C patients in Saudi Arabia. The expert panel estimated that only approximately 20% of viremic cases in 2013 were previously diagnosed and that 10% of those diagnosed had received their diagnosis in the

last year. Although it is unclear what these estimates have been based on, they seem to be consistent among expert opinions. Unfortunately, the authors do not offer any meaningful solutions or suggestions to improve the current situation in relation to the low diagnosis rate. Incidentally, and fortunately, in the same issue of the Journal, an update to the Saudi Association for the Study of Liver diseases and Transplantation (SASLT) guidance and recommendations on the management of hepatitis C in Saudi Arabia is also being published.^[3] Although the guidelines offer some important recommendations that, if applied effectively, will hopefully improve this very low diagnosis rate, what is clearly missing is an effective screening strategy that must be planned in parallel to the treatment approach. Without a screening strategy that identifies the vast bulk of unidentified cases, the treatment approach outlined within the guidelines will barely make a dent in the overall disease prevalence rates. As such, viable and feasible strategies must be devised as part of a national healthcare plan as part of a broader perspective to eradicate hepatitis C.^[3]

Finally, the authors estimated, based on some indirect evidence, that the rate of treatment in 2009 was as low as 1900 patients. This gives a treatment rate of a shameful 0.4%. This rate is extremely low and is the best proof yet of a lack of an effective management plan of this problem in Saudi Arabia.

Thus, this study tells us loud and clear that we have a problem, and a big one. And if we wish to take the advice of Einstein and think differently, what should we do then?

We could first look at the problem in a more comprehensive and encompassing way considering all aspects of the problem as well as all the involved parties. This is best translated into a national plan for the prevention and management of hepatitis C. This plan should include effective prevention plans, screening programs, referral systems, and management strategies that are cost effective. This should be complemented by a robust patient and practitioner education program, good data collection and management, and a structured quality control system that measures and assesses progress against established specific goals based on measurable key performance indicators.

But wait a minute, do we need all this when we now have effective therapy that can cure the majority of patients? Well, it is becoming clear worldwide that no health system in the world is able to provide free treatment to everyone

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infected in a timely manner due to the prohibitive financial burden. But, even more importantly, just switching to more effective treatment regimens alone will not result in a significant reduction in disease prevalence rates or its ensuing complications. As this study and others have shown, simply using more effective medications and improving the response rate will only reduce cases and complications by approximately 20% at best. On the other hand, with an aggressive treatment strategy as part of a comprehensive national program that involves using more effective medications and significantly increasing the detection and treatment rates, prevalence would decrease to 1700 cases in 2030, a more than 98% decrease compared to the base scenario according to the study in hand.^[1] Similarly, cases of hepatocellular carcinoma, decompensated cirrhosis, and death will all reduce by more than 95% compared to the first scenario.

So, how many do we need to treat to get these effective results? This paper estimates that by increasing the number treated to 5180 patients in 2017 and 9780 patients in 2020, a 98% reduction in prevalence and more than 95% reduction in advanced stages of hepatitis C, as compared to the base scenario in 2030, would be achieved.

Ok, so we get it. We need to change our strategy to find and treat more patients; but how urgently is this all needed? This study also answers this question. Delaying the implementation by 1 year would result in 68% more HCV infections in 2030 and 360 additional total deaths during 2014–2030.

Although this study is very well done and offers very useful insights concerning the matter at hand, it suffers from obvious limitations most of which have been pointed out by the authors themselves in the manuscript and are truly unavoidable. The main issue with this paper is that it falls short in outlining the specific actions that need to be taken by healthcare officials and clinicians. Not only does the paper fail to address how diagnosis can be enhanced but it also does not address the financial consequences of its recommended “eradication scenario.” Without practical actions, important knowledge such as the one in this paper will remain an academic exercise especially when it is based on modeling, like in this study, rather than actual community-based data.

Having said this, this paper has a very important message calling for immediate action. If we do not act soon, the prevalence is expected to stay the same in 2030 resulting in a predicted increase in the number of patients with end-stage liver disease complications and death with all its social and economic burden. While if we significantly increase our detection and treatment rate, as explained above and detailed in the study, we are expected to make a significant

dent in the burden of this disease by 2030, and will be well on our way towards eradicating the disease from the country.

So, is there hope? Sure there is. Reasonably good steps on this “less traveled” road have been taken recently by SASLT by issuing their first position statement on the management of patients with hepatitis C^[4] followed by the update in the guidelines on the management of hepatitis C.^[3] On the other hand, the Ministry of Health has also taken some important and ground-breaking steps in the right direction by creating a referral system and a treatment network that still needs a lot of optimization.

However, all these are still very early and small steps, and much more is ahead of us. Let us put our minds and hands together to achieve this worthy goal. Let us put the picture of a cirrhotic patient in front of us and creatively think how can we help him/her.

Its time to have a comprehensive plan and act based on it. And the time to act is now.

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